Attachment A

Initial Study/Mitigated Negative Declaration

INITIAL STUDY AND
PROPOSED MITIGATED NEGATIVE DECLARATION

ADOPTION AND IMPLEMENTATION OF
GENERAL WASTE DISCHARGE REQUIREMENTS AND WATER QUALITY CERTIFICATION
FOR THE CONSTRUCTION AND MAINTENANCE OF OVERWATER STRUCTURES

PREPARED BY:

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February 14, 2018

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INITIAL STUDY AND DRAFT MITIGATED NEGATIVE DECLARATION
FOR ADOPTION AND IMPLEMENTATION OF GENERAL WASTE DISCHARGE REQUIREMETNS AND WATER QUALITY CERTIFICATION FOR CONSTRUCTION AND MAINTENANCE OF OVERWATER STRUCTURES IN SAN FRANCISCO BAY

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SUMMARY

This summary provides a synopsis of the Initial Study and proposed Mitigated Negative Declaration (IS/MND), which have been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA) and State CEQA Guidelines. The Lead Agency for the project, as defined by CEQA, is the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board).

Project Description

The proposed project consists of the Regional Water Board adopting and implementing General Waste Discharge Requirements and Water Quality Certification (General WDRs/Certification) for the construction and maintenance of overwater structures in San Francisco Bay. The General WDRs/Certification are intended to regulate a variety of construction and maintenance activities associated with overwater structures in San Francisco Bay. The Regional Water Board issues about 20 Clean Water Act (CWA) section 401 water quality certification annually for the construction and maintenance of overwater structures. The General WDRs/Certification would streamline the application and approval process for these projects.

The General WDRs/Certification includes new requirements for construction and maintenance projects involving a variety of overwater structures that are below certain size thresholds and do not involve dredging or extensive excavation. This Initial Study examines the environmental effects of the following: the construction, including upgrade, expansion, retrofit, or demolition, and maintenance of piers and docks with less than 10,000 square feet of overwater coverage; wharves and marinas with less than 50,000 square feet of overwater coverage; bank stabilization associated with the construction, demolition, or maintenance of an overwater structures, and associated with such construction and maintenance of an overwater structure; and installation of temporary and permanent mooring, float, and buoy placement.

Project Objectives

General WDRs/Certification for the construction and maintenance of overwater structures in San Francisco Bay are expected to:

- Create a streamlined, fair, and consistent mechanism for regulating small, relatively non-invasive overwater structure projects;
- Improve and protect water quality by requiring adherence to Best Management Practices; and
- Ensure protection of biological resources, including fish, wildlife, and rare and endangered species by requiring avoidance of eelgrass beds and other subtidal vegetation, requiring the implementation of a mitigation and monitoring plan, prescribing the methods for pile removal and installation, limiting activities to environmental work windows, and avoiding Ridgway's Rail (formerly California Clapper Rail) or California Black Rail habitat.

Agency Determination

The construction and maintenance of overwater structures may have a significant effect on the environment. However, potential effects will be minimized or avoided by the project eligibility criteria, discharge prohibitions, waste discharge specifications, monitoring and reporting requirements, and best management practices required by the General WDRs/Certification. Potential effects from the General WDRs/Certification will be reduced to less than significant levels by implementation of the mitigation measures specified in this IS/MND and required in the General WDRs/Certification.

Public Participation and Review

The 30-day public comment period for the Initial Study/Proposed Mitigated Negative Declaration begins on Wednesday November 8, 2017. Comment letters must be received by 5:00 p.m. on Friday December 8, 2017. The proposed General WDRs will be available online for review subsequently at: http://www.waterboards.ca.gov/sanfranciscobay/public_notices/.

INITIAL STUDY / DRAFT MITIGATED NEGATIVE DECLARATION
Pursuant to Public Resources Code section 21080(c)

A. PROJECT DESCRIPTION

1. Project title:	Adoption and Implementation of General Waste Discharge Requirements and Water Quality Certification for the construction and maintenance of overwater structures in San Francisco Bay
2. Lead agency name & address:	California Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612
3. Contact persons & phone numbers:	Fred Hetzel, Environmental Scientist (510) 622-2357 fred.hetzel@waterboards.ca.gov Xavier Fernandez, Senior Environmental Scientist (510) 622-5685 xavier.fernandez@waterboards.ca.gov
4. Project location:	San Francisco Bay Region
5. Project sponsor's name & address:	California Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612
6. General plan designation:	Not Applicable
7. Zoning:	Not Applicable

8. Description of project:

The proposed project consists of the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) establishing General Waste Discharge Requirements and Water Quality Certification (General WDRs/Certification) for the construction and maintenance of overwater structures in San Francisco Bay.

The General WDRs/Certification address the following activities:

a) Construction, including upgrade, expansion, retrofit, and demolition, and maintenance of piers and docks, including associated ramps and floating docks, with less than 10,000 square feet (sq. ft.) of overwater coverage. This includes pile removal, replacement, and installation;

b) Construction, including upgrade, expansion, retrofit, and demolition, and maintenance of

wharves and marinas with less than 50,000 sq. ft. of overwater coverage. This includes pile removal, replacement, and installation;

c) Bank stabilization associated with the construction or demolition of an overwater structure. Bank stabilization activities covered by the General WDRs are limited to 500 linear feet for repair of existing structures, 200 linear feet for new structures, and 1,000 sq. ft. in area for both new and existing structures; and

d) Temporary and permanent mooring, float, and buoy placement.

We anticipate that the General WDRs/Certification will cover about 20 projects each year. Those seeking to construct, maintain, or demolish an overwater structure (Applicants) must comply with the following conditions to be eligible for General WDRs/Certification coverage:

a) Applicants must submit to the Regional Water Board a project plan along with a Report of Waste Discharge (ROWD), indicating the intent to discharge in compliance with the terms and conditions of the General WDRs;

b) For construction and maintenance of overwater structures within 45 meters of mapped eelgrass beds, Applicants must perform pre-construction eelgrass surveys of the project area during the active growth period for eelgrass in San Francisco Bay;

c) Construction and maintenance activities must incorporate effective best management practices (BMPs) to ensure that construction-related materials or wastes do not enter waters of the State;

d) All staging must occur on adjacent access roads or previously-disturbed areas;

e) Construction and maintenance activities cannot occur within tidal marshes;

f) Construction and maintenance activities must not occur within 50 feet of suitable Ridgway's rail (formerly California Clapper Rail) or California black rail habitat during extreme high tide events or when adjacent tidal marsh is flooded. Extreme high tide events are defined as a tide forecast of 6.5 feet or higher measured at the Golden Gate Bridge and adjusted to the timing of local high tides;

g) Construction and maintenance activities within 700 feet of tidal marsh or suitable Ridgway's rail or California black rail habitat must not occur during Ridgway or black rail breeding season (January 15 – August 31 for Ridgway rails, February 1 – August 31 for black rails) each year;

h) The discharge of any hazardous, designated or non-hazardous waste as defined in Title 27 California Code of Regulations, Division 2, Subdivision 1, Chapter 2 must be conducted in accordance with applicable State and federal regulations; and

i) The Applicant must clean up, remove, and relocate any wastes discharged in violation of the General WDRs/Certification.

9. Setting and surrounding land uses:

The proposed adoption and implementation of the General WDRs/Certification for the construction and maintenance of overwater structures would affect near shore environments located throughout the San Francisco Bay. San Francisco Bay Area land uses include a mix of residential, commercial, industrial, municipal, and open space, with the majority of the shoreline heavily developed or otherwise impacted by human activity. The environmental checklist that follows potential environmental impacts from the construction or maintenance of overwater structures in San Francisco Bay.

10. Other public agencies whose approval is required:

No other public agency approvals are required. However individual projects would still need to apply for and obtain authorization/permits from local, State, or federal agencies.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

[ ]	Aesthetics	[ ]	Agriculture and Forest Resources	[X]	Air Quality
[X]	Biological Resources	[ ]	Cultural Resources	[X]	Geology/Soils
[ ]	Greenhouse Gas Emissions	[ ]	Hazards/Hazardous Materials	[X]	Hydrology/Water Quality
[X]	Land Use/Planning	[ ]	Mineral Resources	[X]	Noise
[ ]	Population/Housing	[ ]	Public Services	[X]	Recreation
[ ]	Transportation/Traffic	[ ]	Utilities/Service Systems	[X]	Mandatory Findings of Significance

C. LEAD AGENCY DETERMINATION

On the basis of this initial evaluation, I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** has been prepared.

Bruce Wolfe Digitally signed by Bruce H. Wolfe
Date: 2018.02.23 17:03:55 -08'00'

Signature
Bruce H. Wolfe
Executive Officer

February 14, 2018
Date

D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G), which focus on various individual concerns within 18 different broad environmental categories, such as air quality, cultural resources, land use, and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. Each question in the Checklist requires one of four possible answers regarding the significance of potential environmental impacts of a certain type and explanatory information and/or discussion supporting the chosen answer. The four possible answers in the Checklist table are: "Potentially significant impact," for significant impacts that cannot be mitigated; "Less than significant with mitigation," for impacts that can be lessened with implementation of mitigation measures; "Less than significant" for impacts that are not expected to be significant even without mitigation, and "No impact" for effects that the project is not expected to have. Threshold(s) of significance used and project effects than required for a simple "no" reply. Each possible answer to the questions in the Checklist, and the different type of discussion required is discussed below:

Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g., the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

ENVIRONMENTAL CHECKLIST:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Discussion of Impacts:

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

Less than Significant Impact: *Background:*

The Project is not expected to have a significant impact on scenic vistas or other scenic resources. The activities authorized by the General WDRs/Certification are only permitted to take place along the San Francisco Bay waterfront, where overwater structures are already common features. The overwater structures permitted to be constructed and maintained by the General WDRs/Certification will be located in residential, commercial and industrial areas and will be of a similar size, scale, and nature as other overwater structures along the San Francisco Bay shoreline. Further, many of the projects authorized by the General WDRs/Certification would be for maintenance of existing structures, and as such, would not alter the character of the scenic vista. Therefore, impacts to scenic vistas would be less than significant.

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

Less than Significant Impact: Although the 49-mile Scenic Drive, a historic tourist route in San Francisco, does pass along parts of the San Francisco waterfront, the waterfront, as described in Section I.a, is already developed and already contains many overwater structures. Accordingly, the activities authorized by the WDRs will not have a significant impact on scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings

Less than Significant Impact: As described in Section I.a.

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

No Impact: New overwater structures are not expected to be sources of substantial light or glare. Although some buoys and floats could have small navigational lights on them, the glare from these lights will not be substantial, nor would it interfere with nighttime views of the Bay.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526?				X
d) Resulting in the loss of forest land or conversion of forest land to non-forest use?				X
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.				X

Discussion of Impacts:

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: No agricultural uses or activities will be adversely affected by the construction or maintenance of overwater structures permitted by the General WDRs/Certification, as these projects would not occur on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and any land under agricultural uses within San Francisco Bay. The existing uses of expected project sites include residential, commercial, or light industrial, and the sites would continue to be used as such after project completion.

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

No Impact: The land covered by the General WDRs/Certification is not zoned agricultural. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not affect existing agricultural zoning or any aspect of a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?

No Impact: The land covered by the General WDRs/Certification does not include forests or timberland. Therefore, construction and maintenance of overwater structures permitted by the General WDRs/Certification would not cause rezoning of forest land or timberland.

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

No Impact: As described in paragraph II.c above, the land covered by the Project is not

forested. Therefore, construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in any direct loss of forest land.

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.

No Impact: As described above, the submerged lands and waterfront areas where the WDRs/Certification would apply are not zoned for or used as agricultural lands. Therefore, Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in conversion of farmland to non-agricultural use.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?				X

Discussion of Impacts:

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

Less than Significant Impact: Construction and maintenance of overwater structures

permitted by the General WDRs/Certification would not conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan, issued by the Bay Area Air Quality Management District (BAAQMD). The Project would be consistent with local growth assumptions because it does not propose new housing or industry and it would not result in population growth. The construction and maintenance activities permitted by the General WDRs/Certification will be small in scale and temporal in nature. Accordingly, the projected construction or maintenance of about 20 overwater structures annually would have, at most, a minor, temporary impact on traffic during construction.

The Project does not include excavating contaminated soil with over 50 parts per million (ppm) of organic compounds, and therefore is not subject to BAAQMD Regulation 8 Rule 40 (Aeration of Contaminated Soil and Removal of Underground Storage Tanks).

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Less than Significant Impact: Construction-related activities generate criteria air pollutants including carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10}, and $PM_{2.5}$), ozone precursor emissions such as reactive organic gases (ROG) and oxides of nitrogen (NO_x); and greenhouse gases (GHGs), and fugitive dust. Sources of these emissions include delivery trucks, worker motor vehicles, and barges. Sources of fugitive dust emissions could include construction-related activities, such as bank reinforcement, installation and removal of piles, and movement of construction vehicles around the construction site. However, the limited duration, size and scope of construction and maintenance activities authorized by the General WDRs/Water Quality Certification will be smaller than many construction projects in the Bay Area. Further, these activities are not expected to lead to any long-term increase in emissions, such as an increase in vehicle trips from a new development. Based on this evaluation, the Project is not expected to have a significant impact on any air quality standard or contribute substantially to an existing or projected air quality violation. This would be a less-than-significant impact.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Less than Significant Impact: In accordance with BAAQMD CEQA Air Quality Guidelines, for any project that does not individually have significant operational air quality impacts, the determination of significant cumulative impact is based on an evaluation of the project's consistency with the local general plan. The local general plan must also be consistent with the regional air quality plan. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in, nor authorize, new land uses, and would therefore be consistent with the 2017 Bay Area Clean Air Plan. Therefore, construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in a cumulatively considerable net increase of any criteria pollutant. This would be a less-than-significant impact.

d) Expose sensitive receptors to substantial pollutant concentrations.

Less than Significant impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification will be located on the waterfront, and generally away from schools, hospitals, residences and other sensitive land uses. In addition, the limited duration, size and scope of construction and maintenance activities authorized by the General WDRs/Water Quality Certification will be smaller than many construction projects in the Bay Area thereby further limiting exposure of sensitive receptors to pollutants. This would be a less than-significant impact.

e) Create objectionable odors affecting a substantial number of people.

No impact: The BAAQMD defines public exposure to offensive odors as a potentially significant impact. In general, the types of land uses that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in public exposure to offensive odors.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
IV. BIOLOGICAL RESOURCES -- Would the project:				
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?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	

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

Background

Construction and maintenance of overwater structures permitted by the General WDRs/Certification may occur in important wildlife habitats, particularly for special status species and eelgrass beds found along the margins of San Francisco Bay. Accordingly, construction and maintenance activities permitted by the General WDRs/Certification would have potentially significant adverse effects on biological resources and mitigation is required as described below.

Federal and State Endangered Species Acts

The Federal Endangered Species Act (ESA) is administered by National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS). Generally, NMFS manages marine and anadromous species, while USFWS manages land and freshwater species. The California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and CEQA afford protection to State-listed and rare species included on State-maintained lists. The California Department of Fish and Wildlife (CDFW) has statutory responsibility for the protection of State-listed species.

Federal and State endangered species acts provide protection for listed species and prohibit unauthorized ‘take’ of listed species. "Take" is defined at the federal level as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a federally listed, endangered species of wildlife, or to attempt to engage in any such conduct." Accordingly, the federal definition of take includes significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR Section 17.3). Take not specifically authorized under Section 7 (interagency consultation) or Section 10(a)(incidental take permit) of the ESA is subject to enforcement through civil or criminal proceedings under Section 9 of the ESA. Either Section 7 (interagency consultation) or Section 10(a) of the ESA allows NMFS and/or USFWS to authorize incidental take of an endangered or threatened species as long as the incidental take will not jeopardize the continued existence of the species. Section 2081 of CESA similarly allows CDFW to authorize incidental take of a State-listed species.

Species federally- and/or State-listed as threatened or endangered with the potential to be adversely effected by the project include Central Valley steelhead trout (*Oncorhynchus mykiss*), green sturgeon (*Acipenser medirostris*), Sacramento Valley winter-run and Central Valley spring-run chinook (*Oncorhynchus tshawytscha*), long-fin smelt (*Spirinchus thaleichthys*), Ridgway's Rail (formerly California Clapper Rail) (*Rallus longirostris obsoletus*), and California Black Rail (*Laterallus jamaicensis coturniculus*).

Steelhead and Chinook

Central Valley spring-run, Sacramento River winter-run chinook, and Central Valley Steelhead are listed species under the ESA, and Critical Habitat for all three species has been designated in San Francisco Bay. Steelhead usually migrate upstream to spawning areas in late fall or early winter, when flows are sufficient to allow them to reach suitable habitat in far upstream areas. This species typically uses open water, not the near-shore areas where overwater structures are constructed, within the Bay during migration (winter and spring) and would only be present in the Bay during these in and out migrations. Similarly, Chinook salmon spend one to three years in the ocean and return to perennial freshwater streams during the spring to spawn, passing through open water in the Bay. Chinook salmon migrate through the San Francisco Bay between the Golden Gate and the Sacramento-San Joaquin River systems, in the spring, fall, and winter. Winter-run migrate November to April, and spring-run migrate April to July. Juvenile chinook may spend some time in tidal marsh habitats to gain size and strength before swimming to the ocean. However, the residence time in the shallow margin areas are limited and these species are rarely seen in the shallow near–shore subtidal areas.

Sturgeon

Green sturgeon is listed as threatened under the ESA and Critical Habitat for this species has been designated in San Francisco Bay. Critical habitat has been designated for this species and includes the Sacramento River, the Sacramento-San Joaquin Delta and Suisun, San Pablo, and San Francisco bays. This species migrates between the Pacific Ocean and through San Francisco Bay into the Sacramento-San Joaquin Delta system in the spring. However, the residence time in the shallow margin areas are limited and these species usually reside in the deeper subtidal areas.

Longfin Smelt

Longfin smelt are listed as threatened under the California ESA and are a candidate for listing under the federal ESA. They are primarily present in Central San Francisco Bay during the late summer months before migrating upstream in fall and winter. During winter months, when fish are moving upstream to spawn, high outflows may push many back into San Francisco Bay.

Predicted effects on Listed Fishes

Pile driving generates intense underwater sound pressure waves that may adversely affect the ecology of aquatic species. These pressure waves have been shown to injure and kill fish. Sound pressure levels (SPL) 100 decibels (dB) above the threshold for hearing are thought to be sufficient to damage the auditory system in many fishes. Short-term exposure to peak SPL above 190 dB are thought to injure fish. However, 155 dB may be sufficient to temporarily stun small fish. The reported fish kills associated with pile driving, have usually occurred during use of an impact hammer on hollow steel piles. Accordingly, implementation of Mitigation

Measure BIO-1, which requires use of a vibratory hammer, which minimizes impacts from SPL, except when infeasible, and limits work windows to times when fish are not migrating through the Bay, will be required.

Treated wood used in the construction of many overwater structures has been found to have adverse effects on aquatic species and marine ecosystems as a whole. In treated wood products, the main active ingredients of concern affecting fishery resources are copper, in metal treated wood products, and polycyclic aromatic hydrocarbons (PAHs), in creosote treated wood. As such, in-water construction activities have the potential to adversely affect special species aquatic species. This potentially significant impact would be mitigated to less than significant through implementation of Mitigation Measure BIO-1, which prohibits use of creosote treated wood piles, and limits the use of wood treated piles to those treated with metals wrapped with an inert material, as described below**.**

Rails

The Ridgway's Rail is federally- and State-listed as endangered. Critical habitat has not been designated for the Ridgway's Rail, but a revised Recovery Plan was published for the species in 2013 (USFWS, 2013). Ridgway's Rails are restricted almost entirely to the marshes of the San Francisco Bay estuary, where the only known breeding populations occur. Throughout their distribution, Ridgway's Rails occur within a range of salt and brackish marshes.

The California Black Rail was listed as threatened by the State in June 1971. The California Black Rail occurs most commonly in tidal emergent wetlands dominated by pickleweed or in brackish marshes supporting bulrushes in association with pickleweed.

The construction and maintenance of overwater structures permitted by the General WDRs/Certification would not occur directly in Ridgway's Rail or California Black Rail habitat. Nonetheless, noise from construction and maintenance of overwater structures in the vicinity of Ridgway's Rail or California Black Rail habitat could have the potential to adversely affect these species. This potentially significant impact would be mitigated to less than significant through implementation of Mitigation Measure BIO-3 below**.**

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) protects all marine mammals found within the waters of the United States. Under the MMPA of 1972 (as amended in 2007), it is unlawful to take or import marine mammals and marine mammal products. The MMPA defines "take" as to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." (16 U.S.C. Section 1362(13).) The MMPA defines harassment as "any act of pursuit, torment or annoyance which has the potential to either: (i) injure a marine mammal or marine mammal stock in the wild, or (ii) disturb a marine mammal or marine mammal stock by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering." Levels of harassment are further defined: "Level A harassment" means harassment which has the potential to injure, and "Level B harassment" means harassment which has the potential to disturb a marine mammal or marine mammal stock in the wild. (16 U.S.C. Section 1362(18).)

Under Section 101(a)(5)(D) of the MMPA, an Incidental Harassment Authorization Permit

(IHA) may be issued for activities other than commercial fishing that may impact small numbers of marine mammals. An IHA covers activities that extend for periods of no more than one year and that will have a negligible impact on the impacted species. If the potential for serious injury and/or mortalities exists, and there are no measures that could be taken to prevent this form of "take" from occurring, a Letter of Authorization must be obtained.

Species of Special Concern

CDFW has designated certain animal species as "Species of Special Concern" due to concerns about declining population levels, limited ranges, and continuing threats that have made these species vulnerable to extinction. The goal of this designation is to bring attention to these species in the hope that their population decline will be halted through mitigation or project redesign to avoid impact.

California Native Plant Society

The California Native Plant Society (CNPS) has developed a ranking system for the state's rare, threatened, and endangered plants. Plants ranked by CNPS may also be protected by State and federal endangered species laws if they are listed under the State or federal endangered species acts.

Magnuson-Steven Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act provides for the conservation and management of the nation's fishery resources through the preparation and implementation of fishery management plans (FMPs). The MSA calls for NMFS to work with regional Fishery Management Councils to develop FMPs for each fishery under their jurisdiction. One of the required provisions of FMPs specifies that Essential Fish Habitat (EFH) be identified and described for the fishery, adverse fishing impacts on EFH be minimized to the extent practicable, and other actions to conserve and enhance EFH be identified. The FMPs applicable within the project area are the *Pacific Groundfish FMP*, the *Coastal Pelagic FMP*, and the *Pacific Coast Salmon FMP*.

Eelgrass is designated EFH under the MSA because it is is a spawning ground for Pacific herring and is important habitat for other aquatic wildlife. In addition, California law protects eelgrass beds, providing that they may not be cut or disturbed in California (14 CCR 30.10).

The MSA mandates that NMFS coordinate with and provide information to federal agencies to further the conservation and enhancement of EFH. On October 11, 2011, NMFS issued an EFH/ESA Consultation (NMFS Consultation) for the construction and maintenance of overwater structures in San Francisco Bay in a manner that minimize impacts to Bay species. In October 2014, NMFS issued the California Eelgrass Mitigation Policy and Implementation Guidelines (Eelgrass Guidelines). The purpose of the Eelgrass Guidelines is to implement the no net loss of eelgrass habitat function in California.

Because eelgrass beds could be located at and in the vicinity of where construction and maintenance of overwater structures would take place, the potential exists for adverse effects on this sensitive natural community. For example, shoreline structures built over the water can prevent eelgrass from getting enough light for growth. This impact is potentially significant, and mitigation is required, as listed below (see Mitigation Measure BIO-2).

Construction impacts could include water quality effects from disruption of bottom sediments during pile and debris removal and pile driving activities. Sediment suspension could cause increases in turbidity and resettling of fine sediments that could smother and interfere with feeding or respiration of less mobile organisms in the project areas. As such, in-water construction activities have the potential to adversely affect eelgrass. This potentially significant impact would be mitigated to less than significant through implementation of Mitigation Measures BIO-1 and BIO-2 below**.**

Nesting Birds

Nesting birds, including raptors, are protected by the California Fish and Game Code Section 3503, which reads, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Raptors, passerines and non-passerine land birds and waterfowl are further protected under the Federal Migratory Bird Treaty Act. As such, the CDFW typically recommends preconstruction surveys for potentially suitable nesting habitat that will be directly (actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by construction-related activities. It is expected that implementation of BIO-3, which restricts construction to non Ridgway and Black rail nesting season, will also protect other nesting birds, which typically nest at similar times.

Regulated Waters

Impacts to stream channels (bed and bank) are regulated by the CDFW Code Section 1600 et seq., and may require a Streambed Alteration Agreement. Impacts to wetlands and waters of the United States fall under the jurisdiction of the Clean Water Act (CWA) section 404 permit process and the California Water Code. The Army Corps regulates proposed dredge and fill into wetlands and waters of the United States under CWA section 404. "Waters of the U.S." include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3).

Mitigation Measure BIO·1: Incorporate into Project Plans and Specifications the Requirements from NMFS Consultations for the San Francisco Overwater Structures. To mitigate for potentially significant adverse effects on candidate, sensitive, or special status species and EFH from construction and maintenance of overwater structures, the General WDRs/Certification incorporate the requirements identified in the LTMS and NMFS Consultation. These requirements include the following:

a) Light-transmitting materials (a minimum 40 percent transparency) must be used in any part of the structure that may shade submerged aquatic vegetation;

b) Pile driving must be conducted with the use of a vibratory hammer to avoid acoustic impacts to marine species. If the use of a vibratory hammer is not feasible, all impact pile driving within San Francisco Bay must use sound attenuation measures, such as a wood cushion and/or air bubble curtains. Impact pile driving must conform to CDFW's Interim Criteria Thresholds for Injury to Fish, which states that sound pressure levels should not exceed 206 decibels (dB) peak and 183 dB accumulated sound exposure level at ten meters from the source of impact;

c) Existing piles and other wooden structures requiring replacement may not be replaced with creosote-treated material. Replacement wood piles treated with preservative (AZCA) must be wrapped with polyvinyl chloride (PVC), polyethylene, or other inert material; and

d) In-water construction periods will be restricted to environmental work windows protective of aquatic species (July 1 – October 31).

Time of Implementation: During Authorization of Coverage under the general WDRs/Certification
Responsible Party: San Francisco Bay Regional Water Quality Control Board
Reporting/Project Compliance: Report of Waste Discharge/Project Application Submittal

Implementation of Mitigation Measure BIO-1 would reduce the impact of the General WDRs/Certification on aquatic species and EFH to a less-than-significant level because projects authorized by the General WDRs/Certification would take place only during the periods and using methods recommended by NMFS and CDFW.

Mitigation Measure BIO·2: Implement CDFW-Recommended Measures to Avoid Disturbance of Eelgrass Beds. To mitigate the potential for disturbance of eelgrass beds from projects proposed in areas potentially within 45 meters (150 feet) of eelgrass beds, the General WDRs, Certification require implementation of the following measures recommended by CDFW:

a) Conduct a preconstruction survey. The Applicant must conduct a survey of the entire project area prior to the beginning of construction. The survey requirements are as follows:

- The survey must be conducted by a qualified biologist with previous experience conducting such surveys.
- The survey must be conducted during the active eelgrass growth season from April to October. The survey will be valid for 60 days.
- The survey must comply with all survey recommendations of Section II.B, "Surveying Eelgrass," of the California Eelgrass Mitigation Policy prepared by NMFS Southwest Region, dated October 2014.
- The survey results must be provided to the Regional Water Board upon completion for review.

b) If the results of the pre-construction survey indicate that the proposed project is located within an eelgrass bed, the applicant must modify the project to avoid placing any portion of the overwater structure in or over eelgrass unless the Applicant submits an assessment of alternatives that demonstrates that it is infeasible to avoid placing the structure in or over eelgrass.

c) If it is infeasible to avoid placing the structure in or over eelgrass, the Applicant must design the project to minimize impacts to eelgrass beds to the maximum extent feasible. At a minimum, decking materials above eelgrass must be comprised of slotted materials or spaced to provide a minimum 40 percent transparency thereby minimizing impacts from

shading of eelgrass by allowing light penetration below the structure.

d) To compensate for any remaining unavoidable impacts to eelgrass beds, the Applicant must prepare a mitigation and monitoring plan as follows:

- A mitigation and monitoring plan must be prepared by a qualified biologist with experience in surveying, monitoring, and implementing eelgrass mitigation plans.
- A post-construction eelgrass survey and assessment of impacts must be completed in the same month as the preconstruction survey during the next growing season immediately following the completion of the project, or within the first 30 days of completion of construction if within the active growth period. The post-construction survey must document adverse impacts to eelgrass and any changes in density and extent of vegetative cover. The post-construction survey and impact assessment must be conducted in compliance with all recommendations of Section II.D., "Assessing Impacts to Eelgrass Habitat," of the *California Eelgrass Mitigation Policy and Implementing Guidelines* prepared by NMFS West Coast Region, dated October 2014.
- The affected area must be monitored for a period of no less than 2 years following construction.
- Eelgrass beds must reach a minimum recovery of 100 percent aerial coverage and 85 percent density compared to preconstruction levels.
- If the affected eelgrass mitigation areas have not met the recovery criteria described above at the end of the 2-year monitoring period, additional mitigation will be required at a minimum mitigation ratio of 1:1.

Time of Implementation: During Authorization of Coverage under the general WDRs/Certification
Responsible Party: San Francisco Bay Regional Water Quality Control Board
Reporting/Project Compliance: San Francisco Bay Regional Water Quality Control Board

Implementation of Mitigation Measure BIO-2 would reduce the impact of the General WDRs/Certification on eelgrass beds to a less-than-significant level by requiring eelgrass beds to be avoided to the maximum extent feasible and requiring implementation of compensatory mitigation for unavoidable impacts.

Mitigation Measure BIO·3: Implement CDFW-Recommended Measures to Avoid Impacts to Ridgway's Rail and California Black Rail. To mitigate for potential impacts to Ridgway's Rail and California Black Rail, the General WDRs/Certification will implement the following measures recommended by CDFW:

a) Maintenance and construction activities within 700 feet of tidal marsh or suitable Ridgway's Rail and California Black Rail habitat will be prohibited during rail breeding season (January 15 – August 31 for Ridgway's Rail, February 1 – August 31 for California Black Rail).

b) Maintenance and construction activities within 50 feet of tidal marsh or suitable Ridgway's Rail and California Black Rail habitat will be prohibited during extreme high tide events or when adjacent tidal marsh is flooded. Extreme high tides events are defined as a tide

forecast of 6.5 feet or higher measured at the Golden Gate Bridge and adjusted to the timing of local high tides.

Time of Implementation: During Authorization of Coverage under the general WDRs/Certification
Responsible Party: San Francisco Bay Regional Water Quality Control Board
Reporting/Project Compliance: San Francisco Bay Regional Water Quality Control Board

Implementation of Mitigation Measure BIO-3 would reduce potentially significant impacts of the project on CCR and CBR to a less-than-significant level because construction and maintenance activities would only take place at locations and times that would avoid disturbing CCR and CBR.

Discussion of Impacts:

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 Wildlife or U.S. Fish and Wildlife Service?

Less than significant impact with mitigation: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could cause both short-term impacts and longer-term changes in habitat to aquatic species, due primarily to underwater sound pressure levels and ambient construction noise. However, the General WDRs/Certification is not expected to significantly modify the habitat of any special status species, as authorized overwater structures will be constructed in an already developed waterfront area. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce any potential impacts to less than significant.

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 US Fish and Wildlife.

Less than significant impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could cause both short-term impacts and longer-term changes to riparian habitats and sensitive riparian and intertidal communities. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would reduce these impacts to less than significant.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Less than Significant Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could potentially result in the addition of small amounts of fill to waters of the United States and State. For the most part, such fill will be minimal and will involve only the addition or replacement of piles and will take place in waters that are already significantly altered from their natural state. Compliance with the conditions of the Water Quality Certification will minimize such impacts would

ensure that such impacts are mitigated by the implementation of mitigation measures required by the General WDRs/Certification.

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 with mitigation: For the most part, listed fish species, such as steelhead, chinook, and Delta smelt, frequent open water habitats beyond the physical scope of the overwater structures. However, as described above, noise impacts from construction could still harm these species, so Implementation of Mitigation Measures BIO-1 and BIO-2 is required to mitigate these impacts to less than significant.

As for species that spend part of their life cycle close to shore, such as longfin smelt and Pacific herring, impacts will be mitigated to less than significant by the implementation of BIO-1, restricting work to defined environmental work windows.

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

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would be located in submerged portions of the waterfront, and therefore not conflict with local tree preservation ordinances. No known ordinances relating to biological resources apply along the San Francisco Bay shoreline.

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.

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification will not conflict with an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved habitat conservation plan.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				X
c) Directly or indirectly destroy a unique				X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
paleontological resource or site or unique geologic feature?				
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

Background:

Construction and maintenance of overwater structures permitted by the General WDRs/Certification are associated with localized soil disturbance, rather than extensive, large scale, soil disturbance. If cultural resources were discovered during project construction, the property owner/project sponsor would be required to follow state law regarding disturbance of any existing and previously undiscovered cultural resource, including that the project must be stopped until a cultural resources evaluation is conducted, and the requirements or recommendations set forth within the evaluation are met.

Discussion of Impacts:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No impact: Construction or maintenance of overwater structures will take place in a highly developed area and is not expected to affect historical buildings or other known historical resources. If historical artifacts or resources are discovered during project construction, the property owner/project sponsor would be required to follow state law regarding disturbance of any existing and previously undiscovered cultural resource, including that the project must be stopped until a cultural resources evaluation is conducted, and the requirements or recommendations set forth within the evaluation are met.

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

No Impact: Construction or maintenance of overwater structures will take place in a highly developed area and is not expected to affect known archaeological resources. If archaeological resources are discovered during construction, the property owner/project sponsor would be required to follow state law regarding the disturbance of any existing and previously undiscovered archaeological resource, including that the project must be stopped until a cultural resources evaluation is conducted, and the requirements or recommendations set forth within the evaluation are met.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No Impact: Construction or maintenance of overwater structures will take place in a highly developed area and is not expected to affect known paleontological resources or unique geological features. If such resources or features are discovered during construction, the property owner/project sponsor would be required to follow state law regarding the disturbance of any existing and previously undiscovered paleontological or geological resource, including that the project must be stopped until a cultural resources evaluation is conducted, and the requirements or recommendations set forth within the evaluation are met.

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

No Impact: Overwater structures would not be constructed or maintained at or in areas of human remains as defined by section 15064.5 of the CEQA Guidelines.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. Tribal Cultural Resources Would the project:				
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				X
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

Discussion of Impacts:

i)

(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register o historical resources, as defined in Public Resources Code section 5020.1(k), or

(b) 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 Resources Code sectin 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

ii)

(a) Although multiple buildings along the San Francisco Bay shoreline have historic value and are or may be eligible for listing on a register of historical resources, the general WDRs authorize only limited construction, reconstruction, and maintenance of overwater structures and would not require changes to historic buildings or sites. Therefore, the WDRs are not expected to have any adverse impacts on historic resources.

(b) Projects authorized by the WDRs would entail limited-scale construction and maintenance activities along a highly urbanized shoreline in previously disturbed areas not known or believed to contain resources of cultural value or significance to Native American tribes. Efforts to consult with tribes having connections to the area were not successful. Accordingly, we do not expect the Project to have any impacts to tribal cultural resources. However, in the event that artifacts or other objects of important tribal cultural value are discovered in the course of the limited excavation and bank stabilization authorized by the WDRs. If any tribal or prehistoric cultural artifacts are encountered during site disturbance, all ground disturbance within 100 feet of the find shall be halted until the San Francisco Bay Regional Water Quality Control Board (Water Board) and the applicable local government are notified, and a qualified archaeologist can identify and evaluate the resource(s) and, if necessary, recommend mitigation measures to document and prevent any significant adverse effects on the resource(s). Indicators of tribal cultural or historic resources could include chipped chert and obsidian tools and tool manufacture waste flakes; grinding and hammering implements, or shell middens.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Discussion of Impacts:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) 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.
ii) Strong seismic shaking?
iii) Seismic-related ground failure?
iv) Landslides?

Less than significant impact:

The San Francisco Bay Area is crossed by as many as eight major active fault lines that run through or adjacent to all nine Bay Area counties. The U.S. Geological Survey estimates a 72 percent probability that at least one earthquake of magnitude 6.7 or greater will occur on a known or unknown San Francisco Bay region fault before 2043. After a century of study by geologists, many faults have been mapped in the region, but not all faults are apparent at the surface, with some quakes occurring on previously unknown faults.

Overwater structures would be located in submerged portions of the waterfront, and are assumed to have geotechnical and soil characteristics similar to the shoreline. Prior to issuance of a building permit, the project design must be found by the local Building Department to conform to the current standards for earthquake-resistant construction and other potential hazards, including the California Building Code, for seismic safety. Conformance with the California Building Code would avoid or minimize any potential impacts from seismic events, unstable, soils, and other hazards to a less-than-significant level.

Furthermore, because the General WDRs/Certification does not permit the construction of new habitable structures, or commercial or industrial facilities where large numbers of people are expected to congregate, the overall risk to human safety due to seismic activity is expected to be low.

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

Less than significant impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would generally be located in submerged portions of the waterfront, would generally be small in scale, and would result in minimal soil disturbance. Bank stabilization activities associated with construction and maintenance of overwater structures are limited in scale and are designed to reduce or prevent erosion. Accordingly, the activities authorized by the General WDRs/Certification are expected to have a less-than-significant effect on soil erosion and 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?

Less than significant impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would generally be located in submerged portions of the waterfront, at sea level, and therefore result in less than significant risk from potential landslide, lateral spreading, subsidence, liquefaction or collapse. Because the overwater structures will be located in low lying areas, tsunamis due to offshore seismic activity are a risk. As mentioned above, compliance with the California Building Code will minimize such risk to the extent possible. Furthermore, these WDRs and Water Quality Certification will not authorize a significant expansion in the number or size of overwater structures along the Bay, but will instead be used primarily to repair or construct limited expansions of existing overwater structures. Accordingly, the cumulative impacts of the General WDRs/Certification is expected to have less-than-significant impacts on unstable soils.

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

No impact. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not involve construction of new buildings (as defined in the Uniform Building Code) or any new habitable structures on expansive soils as defined in the Uniform Building Code.

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

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not involve construction or operation of any septic tanks, or alternative water disposal systems.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Background:

In 2006, California passed the California Global Warming Solutions Act of 2006, which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas (GHG) emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions).

State law requires local agencies to analyze the environmental impact of GHG emissions under CEQA. The Natural Resources Agency adopted the CEQA Guidelines Amendments in 2017. The BAAQMD adopted CEQA thresholds for GHG emissions in the Bay Area in 2010. BAAQMD evaluates GHG through qualified climate actions plans.

Discussion of Impacts:

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

Less than significant: Project-related emissions would be small, temporary in nature, and would not be concentrated in one location, and their total contribution to county-wide greenhouse gas emissions would be less than significant. BAAQMD has not established greenhouse gas thresholds for construction activities but recommends best management practices to reduce potential impacts. Contractors are required to comply with all local greenhouse gas reduction strategies, including ordinances related to Clean Construction and recycling or reuse of construction waste.

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

No Impact. Projects would not conflict with any State, BAAQMD, or local plan, policy or regulation adopted for the purpose of reducing the emissions of GHG and no impact would occur. Compliance with these WDRs/Certification would not impact compliance with relevant greenhouse gas reduction ordinances, plans, policies, or strategies.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
IX. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
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?				X
c) Emit hazardous emissions or handle			X	

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
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 for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Discussion of Impacts:

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

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not involve the use or transportation of hazardous materials other than fuels and oils, nor create a significant public safety or environmental hazard beyond any hazards currently in existence. The WDRs/Certification do not authorize construction or maintenance of overwater structures at sites currently on the list compiled pursuant to Government Code Section 65962.5 **(**Cortese list), including those subject to cleanup and abatement orders issued by the Regional Water Board. Projects would not interfere with any emergency response plans or emergency evacuation plans and would not affect the potential

for wild-land fires. Projects would be required to properly handle and dispose of hazardous substances, such as creosote treated wood.

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?

No Impact: Refer to response to Item VIII.a, above.

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

Less than Significant: Refer to response to Item VIII.a, above. Furthermore, projects would not be allowed to install hazardous materials as part of the Project, and any hazardous materials being removed would be handled and disposed of in a safe manner.

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: Refer to response to Item VIII.a, above.

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 for people residing or working in the project area?

No Impact: Refer to response to Item VIII.a, above.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact: Refer to response to Item VIII.a, above.

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

No Impact: Refer to response to Item VIII.a, above.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact: Refer to response to Item VIII.a, above. The General WDRs/Certification authorize relatively minor maintenance and construction along the highly urbanized waterfront, where the risk of wildfires is low and the ability to fight them is good, due to proximity of water. Accordingly, there is no impact to exposure to risks from wildland fires.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) 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?				X
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Inundation by seiche, tsunami, or mudflow?			X	

Discussion of Impacts:

a) Violate any water quality standards or waste discharge requirements?

Less than significant impact: The Project includes the adoption of the General WDRs/Certification, which would regulate the minor discharges caused by construction, demolition, or maintenance of overwater structures. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include new stormwater or wastewater discharges to San Francisco Bay.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include new groundwater pumping or recharge and therefore not impact groundwater.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

No impact: Overwater structures would be located in submerged portions of the waterfront, and therefore not impact existing drainage patterns because the structures would be located above the water line and are designed to allow water to flow through, under or around the structures. Associated bank stabilization activities are not expected to alter the course of any streams or rivers.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No impact: See answer to IX.c, above. Overwater structures would be located in submerged portions of the waterfront, and therefore not impact drainage of existing streams, rivers, or surface run-off.

e) 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?

No impact: See responses to questions IX.c and d, above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include new stormwater discharges, and therefore not impact existing stormwater drainage systems, nor provide substantial sources of polluted runoff.

f) Otherwise substantially degrade water quality?

Less than significant impact as mitigated: Overwater structures would be located in submerged portions of the waterfront, not include new discharges to San Francisco Bay and therefore are not expected to degrade water quality. Existing creosote piles in the project area will be removed or cut/broken at least three feet below the mud-line, and disposed at appropriate upland disposal sites. No new creosote piles will be installed. Any chemically-treated wood material (e.g., pilings, decking) must comply with Mitigation Measure BIO-1.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include new housing, so this action would not place housing in a flood hazard area.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

Less than significant impact: See responses to questions IX.c, d, and e, above. Construction and maintenance of overwater structures are not expected to impede or redirect flood flows. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would comply with the California Building Code in order to withstand and account for potential inundation, as well as storm waves and other water action.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than significant impact: The General WDRs/Certification would not authorize constructions of dams or levees, nor are the authorized maintenance and construction activities expected to increase or otherwise interfere with runoff or other discharges such as would heighten flooding risks. See also answers to IX.c, d, e, and h, above.

j) Inundation by seiche, tsunami, or mudflow?

Less than significant impact: Refer to response to IX.g, above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would comply with the California Building Code in order to withstand and account for potential inundation, as well as storm waves and other water action. As discussed in Section VI, Geology and Soils, prior to issuance of a building permit, the project must demonstrate that it has been designed to meet the seismic standards of the California Building Code. Therefore, potential impacts from inundation, flooding, seiche, tsunamis, or mudflows would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		

Background:

Construction and maintenance of overwater structures permitted by the General WDRs/Certification would require compliance with all local municipal ordinances, as well as local architectural and environmental design review regulations. In addition, projects would require approvals by other agencies, including the Army Corps and BCDC. Receipt of project approval from these agencies would ensure that the project would not conflict with state and federal water quality, hazards, and biological resources policies and plans.

As discussed in Section IV, Biological Resources, Mitigation Measure BIO-1 requires that project construction, including pile driving and installation of structures, conforms to the guidelines outlined in the programmatic consultation (known as the "Not Likely to Adversely Affect") issued by the Army Corps, NMFS, and USFWS that cover small activities, including the installation of pilings, in San Francisco Bay. Implementation of Mitigation Measures BI0-1

and BIO-2, as a standard project requirement, necessary for project approval would ensure that the project would have a less-than-significant impact on land use planning.

Discussion of Impacts:

a) Physically divide an established community?

No impact. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would be located in submerged portions of the waterfront and therefore would not divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not affect land use designations or uses, and therefore would not conflict with any local zoning ordinances or coastal program.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than significant with mitigation: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could cause both short-term impacts and longer-term changes in aquatic species habitat. Implementation of Mitigation Measures BIO-1 and BIO-2 would result in mitigation these impacts to less than significant.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
XII. MINERAL RESOURCES -- Would the project:				
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?				X
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?				X

Discussion of Impacts:

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 Surface Mining and Reclamation Act of 1975 (SMARA) required identification of mineral resources in California. SMARA maps identify and classify mineral resources as to their relative value for extraction. There are no known mineral resources in the near-shore environments where overwater structures would be constructed and maintained, and therefore, the General WDRs/Certification would have no impact on mineral resources.

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?

Less than Significant with Mitigation: Refer to response to Item XI. a), above.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
XIII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
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 expose people residing or working in the project area to excessive noise levels?			X	

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X	

Background:

Construction and maintenance of overwater structures permitted by the General WDRs/Certification would be subject to standard local conditions of approval limiting hours of construction and noise generation. Application of these standard limitations on hours of construction would ensure that any temporary and/or periodic increase in noise from project construction activities would be limited to less noise-sensitive times of day. In addition, the construction and maintenance overwater structures is required to conform with noise standards, including maximum noise levels, in the local municipal code that prohibit the conduct of any loud, unnecessary, or unusual noises.

However, project construction would still create a temporary and/or periodic increase in ambient noise levels in the project vicinity above levels existing without the project during pile driving activities. Such noise is not absorbed by open stretches of water, allowing it to affect the larger community. In order to address the potential for temporary noise and ground-borne vibration impacts, the project sponsor/property owner must incorporate the noise mitigation measures required by the local municipal regulations, as well as those required by mitigation measure BIO-1. To mitigate underwater noise and vibration, pile driving must be performed in accordance with mitigation measure BIO-1.

Therefore, operation of the proposed project would have a less-than-significant impact related to noise with mitigation.

Discussion of Impacts:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact with Mitigation: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would generally be small in scale, but could temporarily generate noise. Any facility operating under the General WDRs/Certification would have to be consistent with local agency noise standards.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact with Mitigation: See response to XII.,a above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would generally be small in scale, and in coastal areas where the potential for exposure of

persons to or generation of excessive groundborne vibration or groundborne noise levels is less than significant. Any proposed project would be required to comply with their respective local municipal standards to keep noise levels to less than significant levels, as well as Mitigation Measure BIO-1. Therefore, compliance actions or daily activities driven by the General WDRs/Certification ware not expected to result in substantial noise, and its impacts would be less than significant with mitigation.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not cause any permanent increase in ambient noise levels, as it would only result in temporal activities associated with a local overwater structure, many of whom already exist. Any noise would be short-term in nature, as the overwater structures once constructed will not generate regular activities.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact with Mitigation: See responses to XII.,a and b above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would generally be small in scale, but could generate temporary noise. As described above, noise generating activities must comply with local noise ordinances and a noise management plan created pursuant to local regulations. Accordingly, the noise impacts of the project would be less than significant as mitigated.

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 expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not cause permanent increase in ambient noise levels, and would not expose people living within an area subject to an airport land use plan or near an airport to excessive noise. The project would not directly or indirectly contribute to an increase in aircraft noise impacts as no new residential construction would be created, and any temporal use of overwater structure near an airport would result in less than significant impacts from airport use.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact: See response to section (e), above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not cause any permanent increase in ambient noise levels, including aircraft noise. Therefore, it would not expose people living in the vicinity of a private strip to excessive noise and thus, no impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial 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)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Discussion of Impacts

a) Induce substantial 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: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not affect population growth in the Region. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include new homes or businesses; therefore, the project would have no impact on population or housing.

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

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not displace existing housing or require construction of replacement housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact: See response to (b) above. Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not displace any people or require construction of replacement housing.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
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:				
i) Fire protection?				X
ii) Police protection?				X
iii) Schools?				X
iv) Parks?				X
v) Other public facilities				X

Discussion of Impacts:

a) 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 following public services:

i) Fire protection
ii) Police protection
iii) Schools
iv) Parks
v) Other public services

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in adverse impact on fire protection or police services, or on schools and parks, since these projects are not growth-inducing, nor do they involve the construction of substantial new government facilities or physically-altered government facilities. The project would not affect service ratios, response times, or other performance objectives for any public services.

Similarly, construction and maintenance of overwater structures permitted by the General WDRs/Certification will not alter or expand the project site uses. Therefore, projects will

not require increased fire protection, police protection, schools, parks, or other public facilities. Therefore, projects would have no impact on public services.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. RECREATION --				
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?				X
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?		X		

Discussion of Impacts:

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: The California Department of Parks and Recreation, local park and/open space districts, municipalities, and other private parties own and operation numerous park and recreational facilities in the counties neighboring San Francisco Bay. These facilities provide a variety of outdoor recreational, educational, and sporting opportunities for local residents, Bay Area residents, and visitors from around the world. Projects permitted by the General WDRs/Certification are not expected result in increased use of these facilities.

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?

Less than Significant with Mitigation: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could create significant impacts resulting from the construction and use of such facilities. Impacts related to construction will be mitigated by implementation of Mitigation Measures BIO-1. Potential impacts resulting from the use of the overwater structures will not be significant as limited new structures will be constructed, as discussed in the Mandatory Minimum Findings of Significance, and the use of these structures is infrequent.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Background:

Construction and maintenance of overwater structures permitted by the General

WDRs/Certification would be located in submerged portions of the waterfront and would not result in alteration of project site uses. Projects would not bear influence upon a congestion management program or air traffic patterns. Projects would not generate any conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Projects that conform to the conditions of the General WDRs/Certification would not obstruct use of the water by other watercraft. Any activity necessary for project construction would be in compliance with local municipal codes. Projects would have a less-than-significant impact on transportation and traffic.

Discussion of Impacts:

a) Exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could cause temporary increases in traffic due to the use of heavy equipment and trucks to haul materials and transport workers. However, such increases would be limited to local areas in the vicinity of individual projects and are not expected to interfere with existing traffic patterns (including by causing road closures) or to exceed the capacity of the circulation systems.

b) Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?

No Impact: See response to Item XVI a), above. Levels of service would be unchanged.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not result in increased air travel or otherwise affect air travel.

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

No impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include construction of new roads or design features on roads. Use of off-road construction equipment would be used at the project sites, but is not expected to substantially increase hazards on the roadways themselves.

e) Result in inadequate emergency access?

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not impede or reduce emergency access.

f) Result in inadequate parking capacity?

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not alter the project site uses and would not increase or decrease the amount of parking currently available.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No impact: Because the project would not generate or permanently increase motor vehicle trips, it would not conflict with adopted policies, plans, or programs supporting alternative transportation.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) 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?				X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

Discussion of Impacts:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not alter the current project site uses and would not result in new sources of wastewater to be treated.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact: See response to Item XVII (a), above. Construction and maintenance of overwater structures would not result in construction of new or expanded water or wastewater treatment facilities.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not include construction of new or expanded stormwater drainage facilities and no impacts would occur.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact: Construction and maintenance of overwater structures permitted by the General WDRs/Certification would not require additional water supplies and no impacts would occur.

e) 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: See response to Item XVII (a), above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. Construction and maintenance of overwater structures permitted by the General WDRs/Certification are not expected to substantially affect municipal solid waste generation or landfill capacities, and no impacts would occur. While the activities authorized by the General WDRs/Certification would generate construction waste, such waste would be required to be managed in accordance with applicable local ordinances and recycling requirements. Existing creosote piles in the project area are required to be completely removed or cut/broken at least three feet below the mud-line, and disposed at appropriate upland disposal sites. No new creosote piles will be installed. Any chemically-treated wood material (e.g., pilings, decking) must comply with Mitigation Measure BIO-1.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. See response to Item XVII (f), above. The General WDRs/Certification require compliance with State, federal, and local laws for proper disposal of solid waste.

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
XIX. MANDATORY FINDINGS OF SIGNIFICANCE --				
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?		X		
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)?		X		

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

Background:

Individually and collectively, construction and maintenance of overwater structures permitted by the General WDRs/Certification, with proposed mitigation measures, would not cause substantial adverse effects on human beings, 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. For the reasons discussed above in this document, and incorporated in this discussion section, the proposed project, as mitigated, would not generate any significant direct, indirect, or cumulatively considerable impacts on human beings or the environment. The scope and significance of potential cumulative effects are analyzed below.

Based on spatial analysis, NMFS calculated the total area of San Francisco Bay to be about 285,000 acres. NMFS estimated the total area of existing overwater structures to be 770 acres. Because the acreage of the Bay includes large expanses of open water not likely to support overwater structures, NMFS calculated the area of shallow water habitat, less than 4 meters deep, to be approximately 180,000 acres, or 63 percent of the total acreage. This analysis estimated that 460 acres of shallow water habitat is currently shaded by existing overwater structures.

In addition to the spatial analysis, NMFS evaluated records of EFH consultations on overwater structure projects permitted by the Army Corps during a 4-year authorization period (2007-2010) and the area associated with each of these projects. During this 4-year period, NMFS consulted on 37 projects with an overwater structure component, 21 of which were for new structures or for replacements with an expanded footprint. For these 21 projects, the average increase in project footprint was 3,195 sq. ft. The maximum project footprint consulted on was 37,480 sq. ft.; however, only 2 of the 21 projects had footprints that exceeded 10,000 sq. ft. NMFS anticipates that a similar number of permits will be issued over the next 5 years with reasonably similar project footprints. As such, cumulative impacts resulting from the construction and maintenance of overwater structures permitted by the General WDRs/Certification will be less than significant.

Even though the area of aquatic habitat directly impacted by an individual overwater structure may seem relatively small, and the number of projects is expected to be low, the cumulative impacts resulting from all of the overwater structures throughout San Francisco Bay could still be significant without mitigation. For instance, the direct impact of shading in the footprint of overwater structures in an area could contribute to the overall fragmentation of the aquatic habitat of San Francisco Bay. Fragmentation of eelgrass beds, in particular, could destabilize this habitat, making it more susceptible to other stressors or disturbances, such as eutrophication, disease or severe storms. Reductions in eelgrass beds may further compromise the physical integrity of the aquatic habitat by decreasing the attenuation of wave energy and

sediment stabilization, leaving shaded, unvegetated, or sparsely vegetated areas more susceptible to further habitat loss by erosion. The cumulative impacts of overwater structures would be dependent upon the duration, frequency, use, and distribution of these structures

As discussed in this document, pile installation and removal activities related to construction of overwater structures may affect aquatic species. Projects could cause increases in turbidity and resettling of fine sediments, which could smother and interfere with feeding or respiration of less mobile organisms in the project areas. As such, the General WDRs require implementation of Mitigation Measures BIO-1 and BIO-2, which require an eelgrass survey before construction in eelgrass beds, and BMPs to minimize turbidity and sediment disturbances.

Construction and maintenance of overwater structures could also impact the environment due to noise and vibration during construction. Implementation of Mitigation Measures BIO-1 and BIO-3 would mitigate these potential impacts to less than significant levels.

With mitigation in place, it is unlikely that the construction or maintenance of overwater structures allowed under the General WDRs/Certification would significantly impact the aquatic habitat of San Francisco Bay.

Discussion of Impacts:

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: Construction and maintenance of overwater structures permitted by the General WDRs/Certification could cause both short-term impacts and longer-term changes in aquatic habitat and habitat for Ridgway's and black rails. Implementation of Mitigation Measures BIO-1, BIO-2 and BIO-3 would mitigate these impacts to less than significant levels. Construction and maintenance of overwater structures would not threaten the existence of any wildlife populations, substantially reduce a particular animal or plant habitat, or cause a reduction in the range of a rare or endangered plant or animal.

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: Refer to response to background section above.

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

   No impacts: Construction and maintenance of overwater structures permitted by the

General WDRs/Certification would not cause any substantial adverse effects to human beings, either directly or indirectly. The General WDRs/Certification are intended to benefit human beings by facilitating the regular maintenance of existing overwater structures and ensuring that new structures are safely built in a way that minimizes impacts to the environment.

E. REFERENCES, PERSONS CONTACTED, AND REPORT PREPARERS

Association of Bay Area Governments. 2005. *Bay Area 2005 Ozone Strategy*.

Bay Area Air Quality Management District (BAAQMD). 2017. *Final 2017 Clean Air Plan*.

BAAQMD. 2017. *California Environmental Quality Act Air Quality Guidelines*.

California Regional Water Quality Control Board, San Francisco Bay Region. 2017. *San Francisco Bay Basin Water Quality Control Plan*.

CEQA Section 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources.

National Marine Fisheries Service (NMFS). 2011. *Magnuson-Stevens Fishery and Conservation Management Act - Essential Fish Habitat Consultation, Construction of new and Replacement of Overwater Structures in the San Francisco Bay Area*.

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

San Francisco Bay Development and Conservation Commission. 2001. LTMS Management Plan. Available at: http://www.bcdc.ca.gov/LTMS/ltms_mgemnt.html.

State of California, California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387, *California Environmental Quality Act (CEQA) Guidelines*, 2017.

State of California, Public Resources Code 21000–21189.5, *California Environmental Quali*ty Act, 2017.

U.S. Geological Survey. 2016. *Earthquake Outlook for the San Francisco Bay Region 2014-2043*.