
Draft Initial Study / Proposed Mitigated Negative
Declaration
for the
Encinal Dune Restoration and Shoreline Stabilization
Project

CITY OF ALAMEDA, CALIFORNIA

East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, CA 94605



April, 2017



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LIST OF APPENDICES

(Under separate cover)

- Appendix 1 Site Plans**
- Appendix 2 Biological Resources Assessment**
- Appendix 3 Wetland Delineation**
- Appendix 4 Cultural Resources Data (Not Included for Public Review)**
- Appendix 5 Shoreline Improvements Report**

1.0 INTRODUCTION AND PURPOSE

This Initial Study conforms to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the East Bay Regional Park District (EBRPD). This Initial Study evaluates the potential environmental impacts which might reasonably be anticipated to result from implementation of the Encinal Dune Restoration and Shoreline Stabilization Project (proposed project).

The East Bay Regional Park District is the Lead Agency under CEQA and has prepared this Initial Study to address the impacts of implementing the proposed project. The purpose of the project is to restore native dune habitat and enhance Encinal Beach through shoreline improvements.

2.0 PROJECT INFORMATION

2.1 Project Title

Encinal Dune Restoration and Shoreline Stabilization Project

2.2 Lead Agency Name and Address

East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, California 94605

2.3 Contact Person and Phone Number

Joe Sullivan, Fisheries Program Manager, Stewardship
East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, CA 94605
510-544-2329
jsullivan@ebparks.org

2.4 Project Location

The project site is located in the East Bay region of the San Francisco Bay area, within the City and County of Alameda. The project site is at the southeastern corner of the Alameda Point shoreline. The Assessor's Parcel Number is 74-890-4, and there is no physical address for the parcel. The larger Study Area extends beyond portions of the project site and includes areas of protected open water within the tidal influence of the San Francisco Bay (Figure 1).

The irregularly shaped project site is nearly two acres and serves as a public shoreline park and popular spot for marine anglers, kayakers and beachgoers in the City of Alameda (Figure 2). The East Bay Regional Park District (EBRPD) manages most of the park area including the Alameda Point Trail. The site is sheltered by a rock jetty that extends around the Seaplane Lagoon, part of the former Naval Air Station Alameda to the west. The Alameda Center Community Sailing Center is also located west of the project site. To the east is Encinal High School, and the Encinal Boat Ramp, which is managed by the City of Alameda. Parking for the project site and Encinal

Boat Ramp is located to the north of the site. Access to the site is from Central Avenue via an unnamed road that parallels the eastern edge of Alameda Point.

The small site juts into San Francisco Bay and approximately half the area is overrun with non-native ice plant. A rusty barge rests against the shore and serves to stabilize the bank; a deteriorating chain link fence, and large wooden pier debris have washed up on the beach.

2.5 General Plan Designation and Zoning District

City of Alameda General Plan

Parks and Public Open Space

Zoning Designation

Alameda Point - Open Space (AP-OS)

2.6 Surrounding Land Uses and Setting

Encinal Beach Park is on the southwestern bayshore of Alameda Island and is leased to EBRPD by the City of Alameda. Encinal Beach is a proposed put-in/take-out destination for the San Francisco Bay Water Trail and the proposed project would construct regional water trail facilities. The two-acre project site includes a short portion of the Alameda Point Trail, a small landscaped area, and a triangular peninsula connecting to a jetty that projects out into San Francisco Bay. Northwest of the project site is the Alameda Community Sailing Center and beyond that are old Naval Air Station warehouses, awaiting future redevelopment. To the northeast is Encinal High School. Directly east is the Encinal Boat Ramp, including adjacent parking directly north, which are owned and managed by the City of Alameda.

3.0 PROJECT DESCRIPTION

3.1 Project Background

The East Bay Regional Park District (EBRPD) proposes the Encinal Dune Restoration and Shoreline Stabilization Project (proposed project) within the existing Encinal Beach Park area. The site offers excellent opportunities to restore the beach and adjacent dunes to a more natural condition while improving both recreation and habitat values. Currently the invasive ice plant over much of the site degrades the dune habitat. The rusty barge provides shoreline support, but has been degrading within the shoreline bank for decades. Removal of the barge and installation of more sustainable shoreline protection would stabilize the area. Water access and egress would be improved while linking with the existing Alameda Point Trail, the Encinal Boat Ramp, as well as parking area and jetty facilities.

The primary goals of this project are to restore native dune habitat and enhance Encinal Beach through shoreline improvements. These improvements would include:

- Removal of scattered debris along the shoreline;
- Removal of the barge structure;
- Shoreline stabilization;
- Grading and beach nourishment;
- Native dune restoration; and
- Public access improvements.

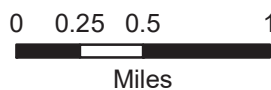


Figure 1. Study Area Location Map

Encinal Dune Restoration
and Shoreline Stabilization Project
East Bay Regional Park District



ENVIRONMENTAL CONSULTANTS



Map Prepared Date: 1/27/2017
Map Prepared By: fhourigan
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA



Figure 2. Project Vicinity Map

Encinal Dune Restoration
and Shoreline Stabilization Project
East Bay Regional Park District



Map Prepared Date: 1/27/2017
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, USGS, CSLC

3.2 Proposed Project

The dune and beach restoration and shoreline improvements would be accomplished by removing the barge structure and other beach debris. The restoration concept includes grading to reduce erosion on steep slopes and stabilize the shoreline; restoring native dunes, and; providing public access improvements as shown in Figure 3. Demolition and schematic layout and grading are shown in Figures 4 and 5. Photographs of the site are in Figures 6a and 6b.

Shoreline Debris and Barge Removal

The proposed project would include demolition and removal of approximately 0.14 acres (6,000 square feet) of site debris, including a chain link fence, wooden logs, and any general debris along the shoreline with a diameter of six inches or greater. Debris would be removed to a depth of three feet below existing grade, and would otherwise be left buried in place and covered with engineered backfill.

Debris removal near the existing dune habitat would include removal of creosote-treated wooden timber piles along the existing, eroding escarpment and miscellaneous debris up to one foot below existing grade and at a distance of eight feet bayward from the existing toe of the dune. All debris removal activities would occur at low tide. Creosote treated timber piles and any surrounding contaminated soils would be disposed of at an appropriate facility permitted to handle hazardous waste.

The existing derelict barge occupies approximately 0.06 acres (2,600 square feet) of the shoreline, and demolition would occur in place to the extent practicable and demolished pieces would be removed. At a minimum, the barge would be removed below the proposed 3:1 subgrade in the cobble-transition area that would allow for the placement of cobble three to four inches thick between the toe of the slope up to elevations of approximately 13-feet, where the cobble would meet the existing upland grades (Figure 5, Section B).

As part of the site improvement effort, the ice plant (*Carpobrotus sp.*) would be eradicated prior to implementation of overall restoration design. Ice plant would be removed by hand or by other non-chemical, mechanical methods.

Shoreline Stabilization, Grading and Beach Nourishment

Slope stabilization in the debris removal area would include regrading of the beach escarpment. To the west, the escarpment would be graded to a 2:1 slope to blend with the adjacent embankment. Nine-inch diameter stone armor would be placed over a four-inch underlayment from the top of the bank, at elevation 13-feet, down to the base at three-feet in elevation. Moving east, the cobble transition area would be graded to a 3:1 slope. Where the beach turns to the south, the Water Access Area would be graded to a lesser 4:1 slope and stabilized with pea gravel (Figure 5, Sections A, B, C).

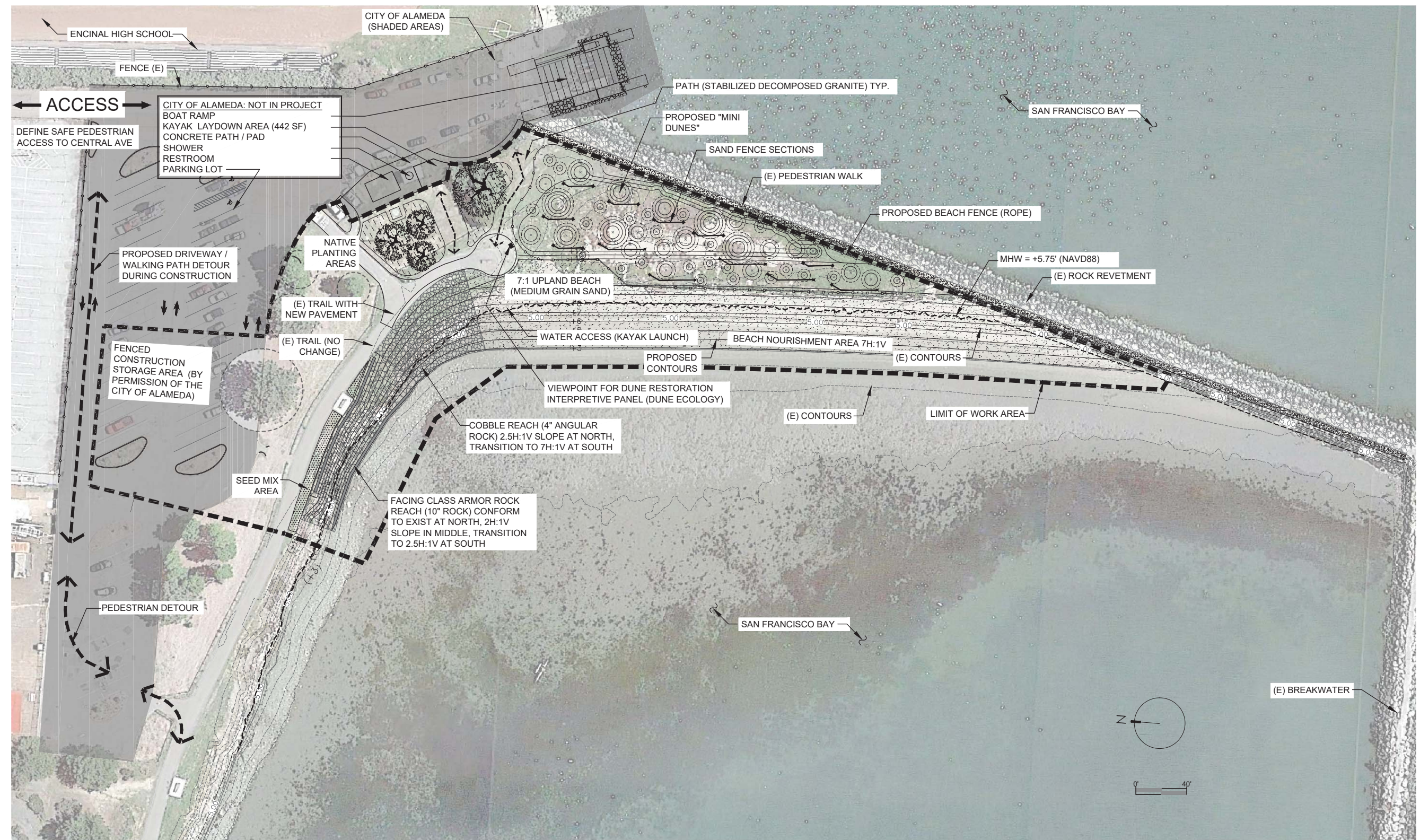
Approximately 0.19 acres (8,300 square feet) of sandy beach extends bayward from the escarpment that forms at the edge of the existing dune habitat. Encinal beach responds to tides and wind and waves, however sediment transport in this area is limited by the jetty which forms a protective barrier between the site and the Bay.

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ENCINAL DUNE RESTORATION AND SHORELINE STABILIZATION PROJECT

EAST BAY REGIONAL PARK DISTRICT
ALAMEDA, CALIFORNIA

FIGURE 3 SCHEMATIC PLAN



GRADING LEGEND

- 15--- EXISTING CONTOUR
- 15— PROPOSED CONTOUR
- — — — — LIMIT OF WORK
- PROPOSED DUNE

PLANT LEGEND

- COASTAL LIVE OAK
- NATIVE PLANTING AREA (CONTAINER PLANTS)
- NATIVE SEED MIX AREA
- TREE PROTECTION BOUNDARY

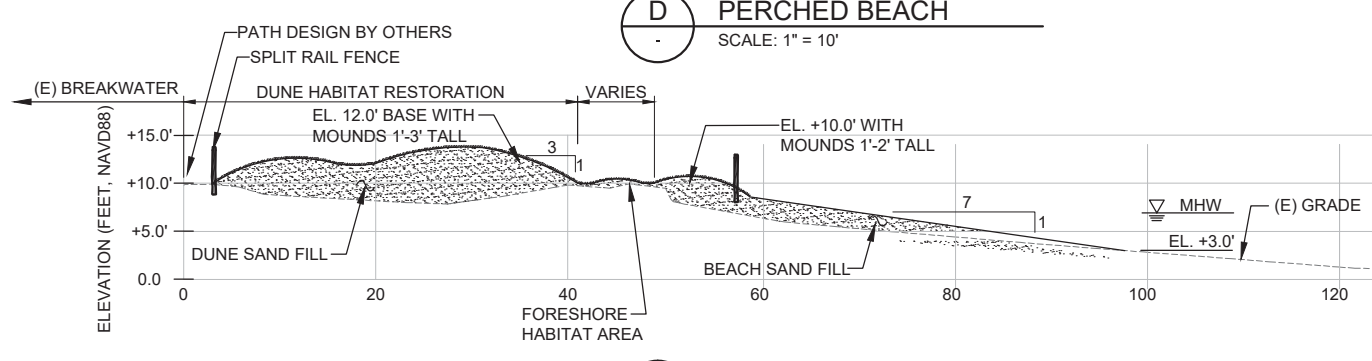
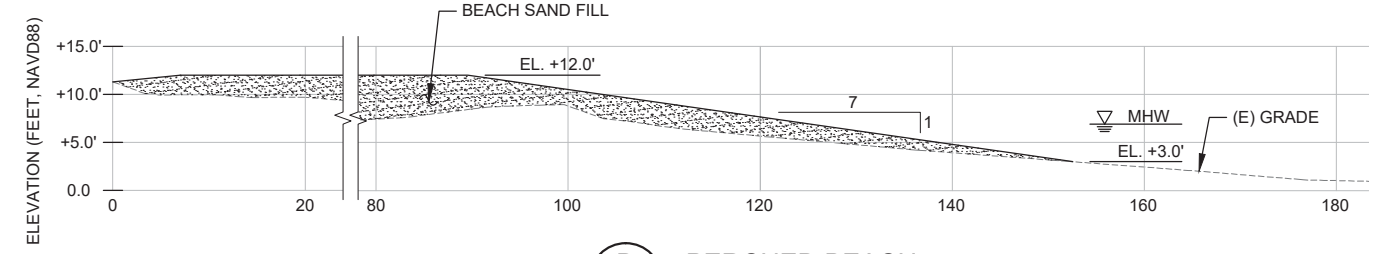
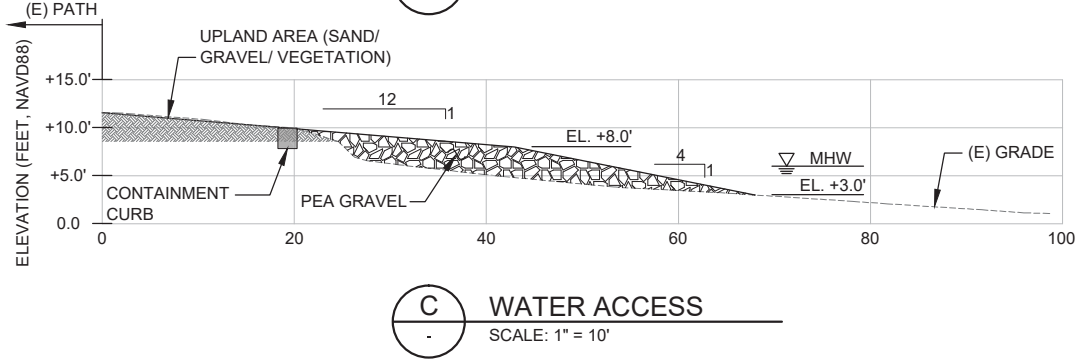
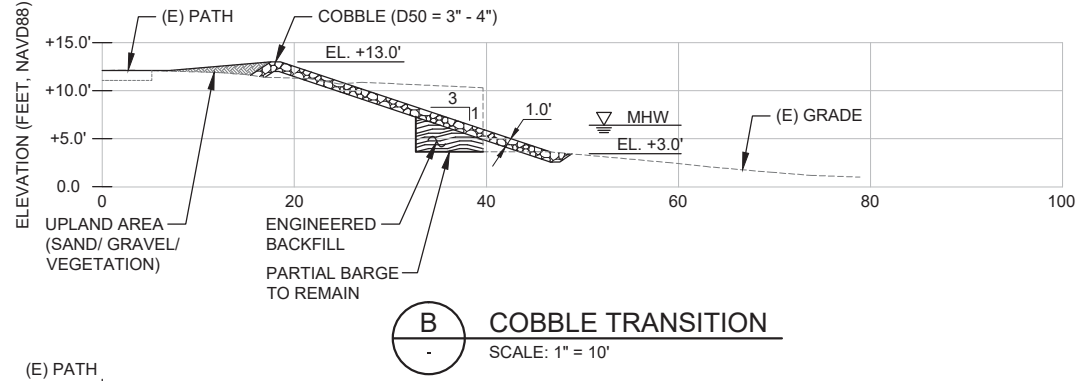
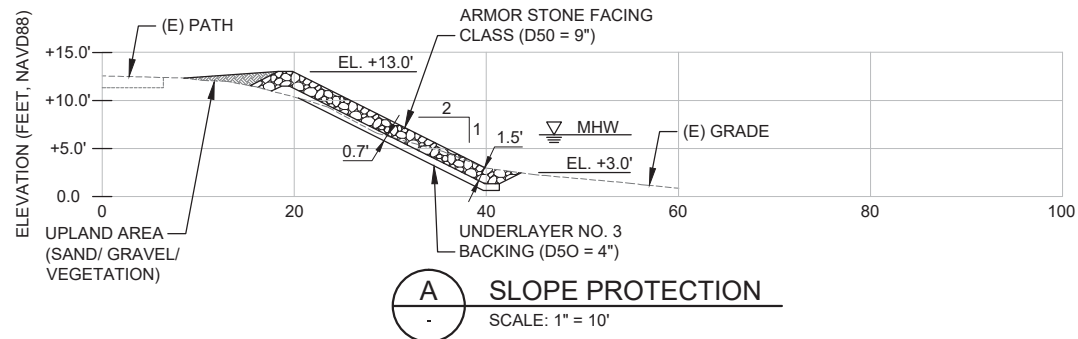
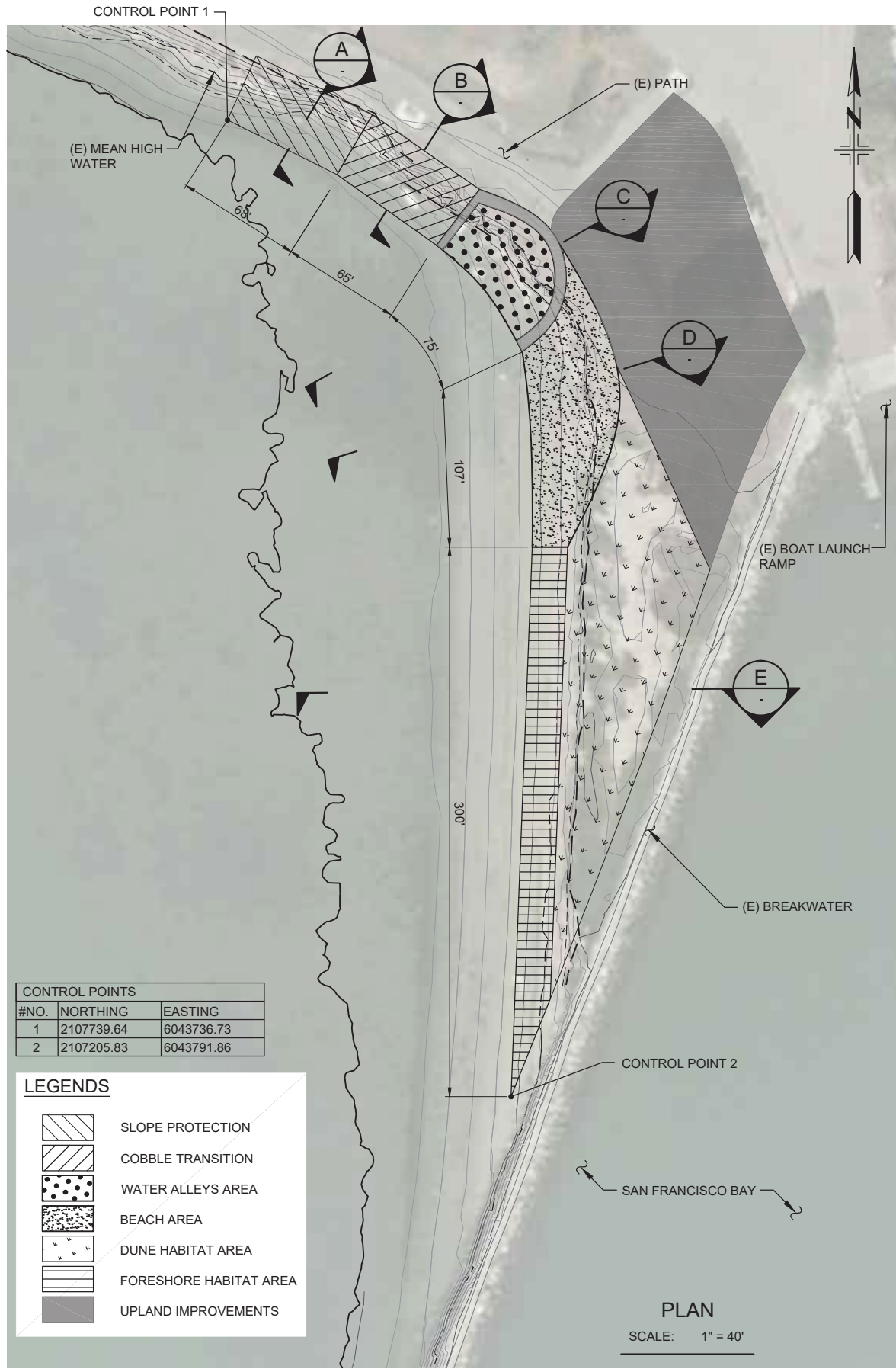
PROJECT #25317
DRAWN BY: MAS
ELEVATION DATUM: NAVD88



ENCINAL DUNE RESTORATION AND SHORELINE STABILIZATION PROJECT

EAST BAY REGIONAL PARK DISTRICT
ALAMEDA, CALIFORNIA

FIGURE 4 DEMOLITION PLAN



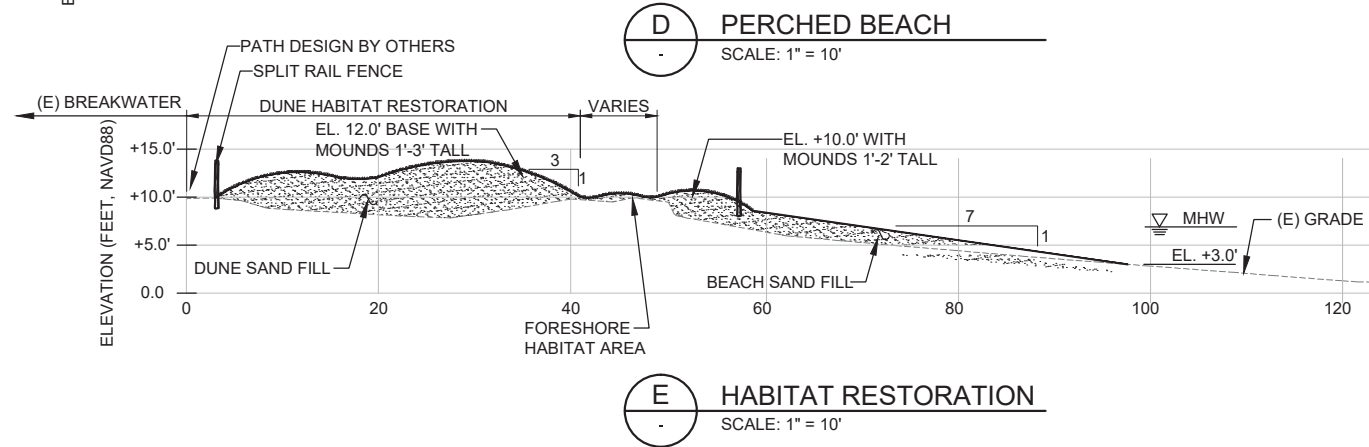
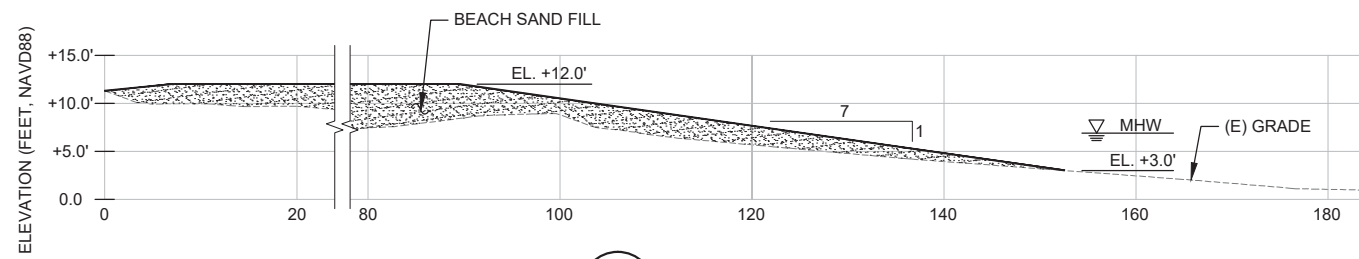
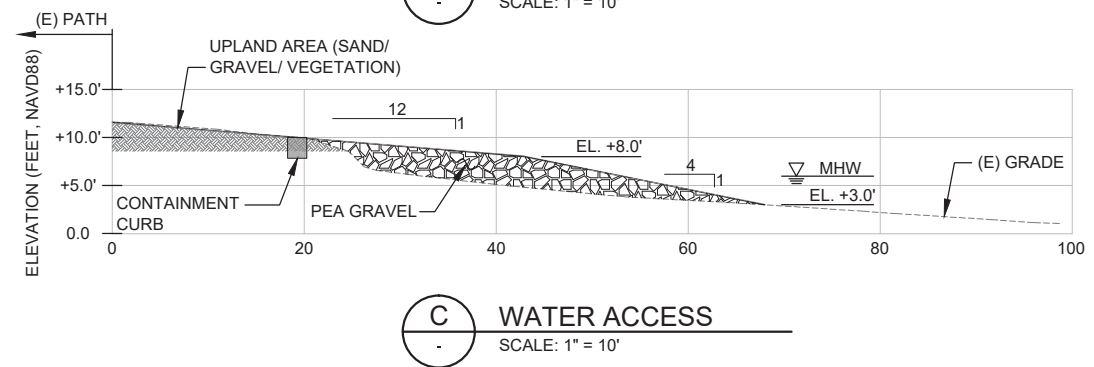
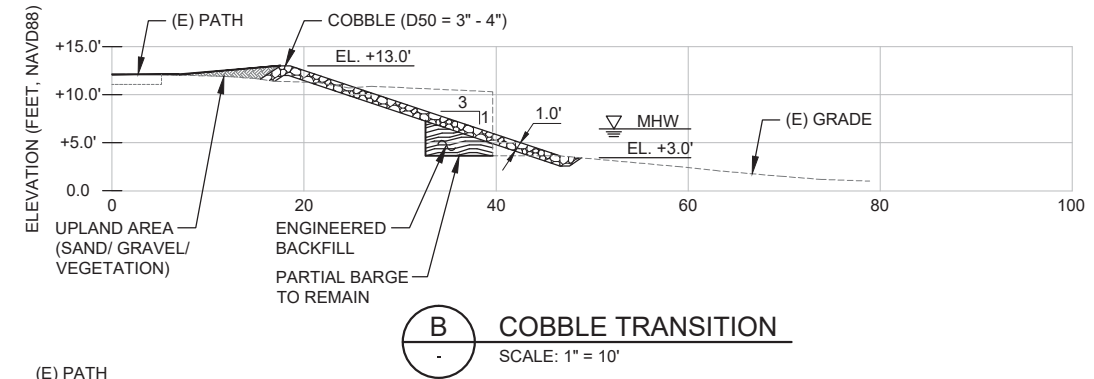
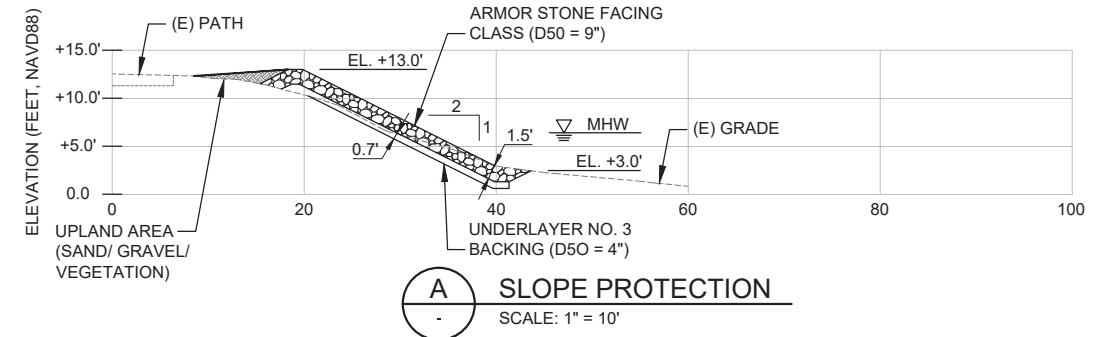
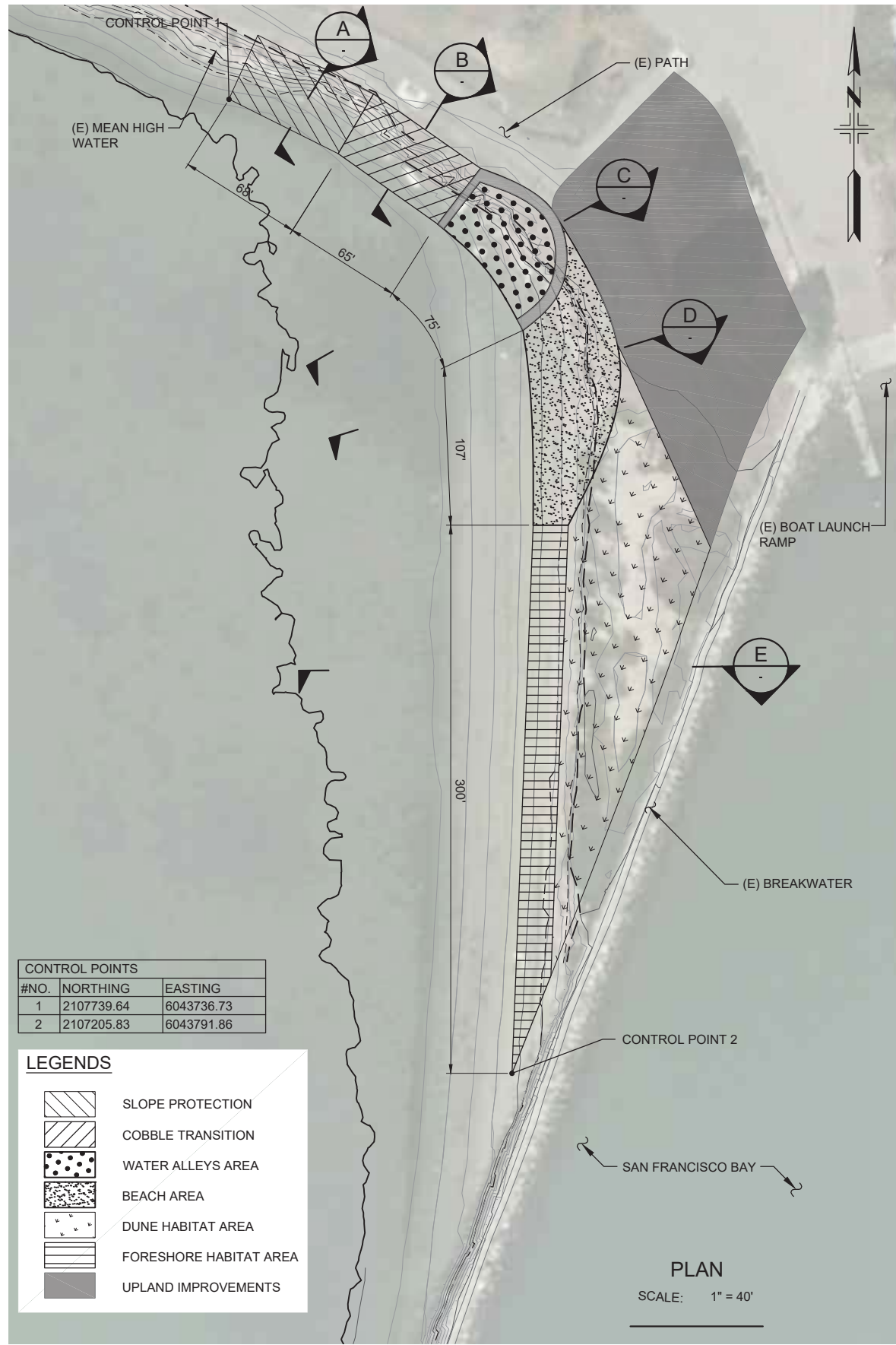
PROJECT #25317
ELEVATION DATUM: NAVD88



ENCINAL DUNE RESTORATION AND SHORELINE STABILIZATION PROJECT

EAST BAY REGIONAL PARK DISTRICT
ALAMEDA, CALIFORNIA

FIGURE 5 PRELIMINARY GRADING PLAN



PROJECT #25317
ELEVATION DATUM: NAVD88

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View 1: Encinal Beach Park looking east towards the Encinal Boat Ramp and future restrooms.



View 2: Looking north towards the park. Eroded slopes and ice-plant will be removed for dune restoration.



View 3: Looking north from jetty path. Fence will be replaced with split rail and path will remain.

Figure 6a: Views of the Project Site

Encinal Dune Restoration
and Shoreline Stabilization Project
East Bay Regional Park District



View 4: Encinal Beach looking north towards the park and Alameda Point Trail.



View 5: View west at low tide towards former Navy piers and San Francisco Bay.



View 6: Rusted barge will be removed and slopes will be graded and stabilized.

Figure 6b: Views of the Project Site

Encinal Dune Restoration
and Shoreline Stabilization Project
East Bay Regional Park District

A beach nourishment program is proposed to encourage establishment of dune habitat. The lower beach would be nourished to improve water access, and a second perched beach would be constructed at a higher elevation. The perched beach would extend landward into a foreshore habitat area and act as a transition between the beach and restored dune habitat. Both the perched beach and the water access beach would be medium-grained sand to form a naturalized beach dune feature at or above elevation +12 NAVD88 (Figure 5, Sections D, E). Under current sea level rise projections, this feature reduces the frequency of inundation of the restored dune habitat areas at extreme high tides for a period of about 50 years.

Native Dune Restoration

Native dune restoration would occur on approximately 0.32 acres (14,000 square feet) of the site. The restored dune area would be shaped and hydroseeded with native dune vegetation. Dune hillocks would be formed above the primary dune and would vary from one to three feet providing varying topography and habitat heterogeneity. Small amounts of crimped straw would be applied as mulch after seeding, and sand fences would temporarily stabilize the sand until native plants are established. A split rail fence would replace an existing chain link fence along the southeast side of the project site to provide a barrier between the existing pedestrian walk and the newly restored dune habitat (Figure 5, Section E). Another 0.30 acres (13,000 square feet) of the site would include landscaping with native grasses and shrubs.

Public Access Improvements

The proposed project would enhance public access for recreational anglers, beach users, and hikers on the Alameda Point Trail with improved access to the water and beach at this site. Approximately 0.06 acres (2,600 square feet) of the site would become a cobble pocket beach to provide a kayak put-in/pull-out destination on the San Francisco Bay Water Trail. Access into the restored native dune ecosystem, however would be discouraged with simple perimeter fence and limited signage to protect the dune restoration.

3.3 Construction

Site Access and Equipment Staging

All equipment would access the site via an access road off of Central Avenue, running parallel to Hancock Street, on the west side of Encinal High School. This access road runs directly south from Central Avenue toward the site, the Encinal Boat Ramp, and associated parking lot.

All equipment, construction vehicles, and work crew vehicles would be staged in the adjacent parking lot during construction (see Figure 3, Restoration Concept Plan). Dump trucks would haul in sand, cobbles, gravel and topsoil and remove debris from the construction site to an approved off-site disposal area. Other construction equipment would include excavators and loaders for debris removal and truck loading. The trucks would use the access road to Central Avenue to Webster Street, leading to the Posey Tube to Interstate 880. This haul route is in compliance with City of Alameda truck routes approved by the City Engineer and Chief of Police.¹

¹ City of Alameda (2009). *Truck Routes*. Website: https://alamedaca.gov/sites/default/files/department-files/2014-01-22/1113_truck_route_color_unsigned.pdf

Construction Schedule

Construction is anticipated to take place in the dry season (May through October) and would typically occur during daytime hours from 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturdays in accordance with the City's Noise Ordinance. Construction would take approximately three months to complete and is anticipated to occur between the months of August and October 2017. Barge removal and shoreline stabilization would be done during periods of low tide.

Tree Removal and Grading

The project would require removal of three non-native trees near the Encinal Boat Ramp and the excavation of approximately 650 cubic yards (CY) of debris material on the site. This excavated material would not be reused on-site. Approximately 2,700 CY of sand would be imported to the site for beach nourishment and dune restoration activities. The imported sand would likely use trucks with the capacity to haul 10 CY for transport to the site. Approximately 335 truck trips over four weeks, or 17 truck trips per day, would be required to export fill and import sand to the site. Trucks with the capacity to haul up to 20 CY could be used, in which case the number of truck trips could be cut in half to nine trips per day.

Best Management Practices

The contractor would also implement measures during construction to maintain safety, minimize impacts from hazardous materials spills, maintain emergency access, protect water quality, cultural and biological resources, and prevent fires, including:

- Follow all safety and health requirements set forth by the Occupational Safety and Health Administration.
- The Alameda Point Trail would remain open during construction and orange construction fencing would be installed on either side of the trail. Equipment crossings would be limited, pedestrian detours and caution signs would be installed.
- Hazardous materials would not be stored or used, such as for equipment maintenance, where they could affect nearby properties, or where they might enter the Bay or storm drain system.
- A spill prevention and control plan shall be developed to minimize the chance of toxic spills. Spill kits shall be present for any work adjacent to open waters. All spills of oil and other hazardous materials would be immediately cleaned up and contained. Any hazardous materials cleaned up or used on-site would be properly disposed of at an approved disposal facility.
- Prepare a Storm Water Pollution Prevention Plan (SWPPP) to limit erosion and protect water quality surrounding the project site.
- Creosote contaminated debris and sediment would be carefully handled to prevent air-borne debris, covered and contained in trucks prior to disposal at a landfill licensed to handle possible creosote-contaminated waste.
- Barge removal and shoreline stabilization would be done during low tides.

The Bay Area Air Quality Management District (BAAQMD) recommends best management practices to ensure minimal impacts on regional air quality. The contractor would be responsible for implementing the following basic measures during construction:

- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) would be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site would be covered.
- All visible mud or dirt track-out onto adjacent public roads would be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks to be paved would be completed as soon as possible.
- Idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
- Clear signage would be provided for construction workers at all access points.
- All construction equipment would be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment would be checked by a certified visible emissions evaluator.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints would be posted in or near the project site. The contact person would respond to complaints and take corrective action within 48 hours. The Air District's phone number would also be visible to ensure compliance with applicable regulations.

3.4 Project-Related Approvals, Agreements, and Permits

The information contained in this Initial Study would be used by the EBRPD (the CEQA Lead Agency) as it considers whether or not to approve the proposed project. If the project is approved, the Initial Study would be used by the EBRPD and responsible and trustee agencies in conjunction with various approvals and permits. These actions include, but may not be limited to, the following approvals by the agencies indicated:

City of Alameda

- Grading Permit

Bay Conservation and Development Commission (BCDC)

- BCDC Permit

San Francisco Bay Regional Water Quality Control Board (SFRWQCB)

- Section 401 Water Quality Certification

U.S. Army Corps of Engineers (USACE)

- Clean Water Act Section 404 Permit

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4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

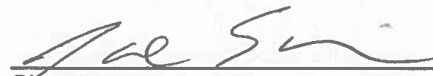
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Hazards/Hazardous Materials	<input type="checkbox"/> Recreation
<input type="checkbox"/> Agricultural Resources	<input type="checkbox"/> Hydrology/Water Quality	<input type="checkbox"/> Transportation/Traffic
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Noise and Vibration	<input checked="" type="checkbox"/> Mandatory Findings of Significance
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Population/Housing	
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Public Services	
<input type="checkbox"/>	<input type="checkbox"/>	

Determination

On the basis of this initial evaluation:

- I find that the project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- I find that although the 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 will be prepared.
- I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature

4/26/17

 Date

Joe Sullivan, Fisheries Program Manager, Stewardship
 Print Name and Title

Initial Study Checklist

This section describes the existing environmental conditions in and near the project area and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

“No Impact” means that no impact to the resource would occur as a result of implementing the project.

“Less than Significant Impact” means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

“Less than Significant with Mitigation Incorporated” means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

“Potentially Significant Impact” means that there is either substantial evidence that a project-related effect may be significant, or, due to a lack of existing information, could have the potential to be significant.

Each question on the checklist was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The checklist includes a discussion of the impacts and mitigation measures that have been identified. Sources used in this Initial Study are numbered and listed in Section 6.0.

4.1 Aesthetics

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
I.	AESTHETICS — Would the project:					
a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

The project site is located along the eastern edge of San Francisco Bay on the Alameda Point shoreline. The two-acre site serves as a public park and popular spot for marine anglers, kayakers, and beachgoers in the City of Alameda. The site provides connections to the Alameda Point Trail and is sheltered by a long rock jetty. The site contains approximately 0.5 acres (22,000 square feet) of invasive iceplant mats, a derelict rusting barge resting against the shore that serves bank stabilization purposes, a deteriorating chain link fence, and large wooden pilings that have been washed onto the beach. Photographs of the project site are provided in Section 3.0 (Project Description).

Discussion of Impacts

a, b) *Would the proposed project have a substantial adverse effect on a scenic vista, or substantially damage scenic resources including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less Than Significant. A scenic vista is a vantage point with a broad and expansive view of a significant landscape feature (e.g., a mountain range, the Bay, lake, or coastline) or of a significant historical or architectural feature (e.g., views of a historic tower). The proposed project would not significantly alter or obstruct a scenic vista. The project would retain all existing scenic vistas of the Bay that are currently available from the Alameda Point Trail. The project would also improve the aesthetic value of the shoreline by removing debris, restoring native dune habitat, and stabilizing the shoreline. Therefore, the project would have a less than significant impact on scenic vistas.

According to the California Department of Transportation (Caltrans) Scenic Highway Mapping Program, the project site is not visible from any designated or eligible scenic highways. While three non-native trees would be removed to accommodate the native

dune restoration, no rock outcroppings or historic building exist on the site. The primary scenic resources on the site are the shoreline and views of the Bay; neither of which would be damaged by implementation of the proposed project. Conversely, the removal of the barge, washed-up debris, and iceplant would improve the visual character of the site.

Public viewing areas around the project site include nearby roadways (Alameda Point Shoreline, Tideway Drive, and Ballena Boulevard), Encinal High School, the Alameda Point Trail, and a planned route for the Bay Trail on Main Street and Central Avenue north of the project site. Following debris removal and dune and beach restoration of the project site, there would be a net improvement in views over existing conditions. Therefore, the project would have a less than significant impact on scenic resources.

c) *Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?*

Less Than Significant. The project would improve the visual character of the site by restoration of the dune and beach habitats by removing invasive non-native vegetation, recontouring the sand dunes, and stabilizing the habitats with dune and beach sand fill. During the construction phase, portions of the site would be disturbed by grading, which would temporarily modify views of the site from surrounding public areas, including the Alameda Point Trail. The activities would be temporary and not substantially degrade views of the existing Bay front setting. Following stabilization of the project site with grading, sand dune restoration and revegetation, there would be a net improvement in the visual character of the site and therefore, impacts related to the existing visual character or quality of the site and its surroundings would be less than significant.

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

No Impact. The proposed project would not create a new permanent source of light or glare because no lighting would be installed at the site. The project would involve vegetation and debris removal as part of the restoration of dune and beach habitat and would not add reflective building materials to the site. Furthermore, no nighttime construction would take place. As the project would not include a new permanent source of lighting or reflective materials, and would not allow for nighttime construction activities, the project would have no impact related to light and glare for day or nighttime views in the area.

4.2 Agricultural and Forestry Resources

II. AGRICULTURAL AND FORESTRY RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1, 4

Environmental Setting

The project site is located along the Alameda Point shoreline, surrounded by industrial uses to the north, recreation uses to the west, a high school and suburban neighborhoods to the east, and the San Francisco Bay to the south. There are no agricultural uses on the site or in the surrounding vicinity.

Discussion of Impacts

- a-e) ***Would the proposed project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland; or result in or cause to result in the loss of forest land or conversion of forest land to non-forest use?***

No Impact. According to the Alameda County Important Farmland Map for 2012, created by the Farmland Mapping and Monitoring Program from the State Department of Conservation, the proposed project is located in an area that is designated as Urban and Built-Up Land and the proposed project would, therefore, have no impact on agricultural uses. The project area is also not zoned for agricultural use or under a Williamson Act contract. The proposed project would not result in the conversion of forest land or farmland to a non-agricultural use, and would thus have no impact on forestry or agricultural resources.

4.3 Air Quality

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:

		<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13
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 which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13
d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13
e)	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13

Environmental Setting

Discussion of Criteria Air Pollutants

The project is located in the western portion of the Alameda County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area’s attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter, or particles that have a diameter of 10 micrometers or less (PM₁₀), and fine particulate matter, where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels

aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Discussion of TACs

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer or serious illness) and include, but are not limited to, criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a highway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants that have established ambient air quality standards. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Diesel Particulate Matter

Diesel exhaust, in the form of diesel particulate matter (DPM), is the predominant TAC in urban air with the potential to cause cancer. It is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resource Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The U.S. Environmental Protection Agency (EPA) and CARB have adopted low-sulfur diesel fuel standards in 2006 that reduces diesel particulate matter substantially. CARB recently adopted new regulations requiring the retrofit and/or replacement of construction equipment, on-highway diesel trucks, and diesel buses in order to lower fine particulate matter (PM_{2.5}) emissions and reduce statewide cancer risk from diesel exhaust.

Fine Particulate Matter (PM_{2.5})

Particulate matter in excess of state and federal standards represents another challenge for the Bay Area. Elevated concentrations of PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest existing sensitive receptors to the project site include Encinal High School and the residences on 3rd Street and

Tideway Avenue that are adjacent to the eastern side of Encinal High School. Residences are farther away to the south and northeast of the site.

Discussion of Impacts

a, b) *Would the proposed project conflict with or obstruct implementation of the applicable air quality plan; or violate any air quality standard or contribute to an existing or projected air quality violation?*

Less Than Significant. Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction would produce fugitive dust (PM₁₀ and PM_{2.5}) during ground disturbance and would generate carbon monoxide, ozone precursors, and other emissions from vehicle equipment and operation. The project site is approximately two acres and the actual ground disturbance acreage would be smaller, as this acreage accounts for a large open water buffer area around the site and construction access. Fugitive dust emissions from grading would be minimal due to the small area of ground disturbance and short construction period. The BAAQMD CEQA Guidelines do not contain thresholds of significance for fugitive dust, and these emissions would also be controlled by the implementation of the BAAQMD standard BMPs listed in Section 3.0 (Project Description). Construction emissions would be temporary, lasting approximately three months, and would not have long-term effects on air quality in the Bay Area.

As discussed in Section 3.0 (Project Description), approximately 2,700 CY of sand bedding would be imported to restore the dune and beach habitats on the site. The average commercial dump truck can haul approximately 10-15 CY of soil. The project would require a maximum of 335 truck trips (65 for debris removal and 270 for sand import), and would not generate significant emissions in the context of existing air quality standards. The number of truck trips could be further reduced if larger trucks with the capacity to haul up to 20 CY were to be used.

Because of the small area of disturbance (approximately 1.0 acre), temporary nature of the emissions, small number of truck trips, and minimal construction equipment required, impacts on air quality would be less than significant and would comply with the Bay Area 2010 Clean Air Plan.

The BAAQMD recommends best management practices to ensure minimal impacts on regional air quality. The contractor would be responsible for implementing the following basic measures during construction as a condition of the proposed project:

- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) would be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site would be covered.
- All visible mud or dirt track-out onto adjacent public roads would be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

- All roadways, driveways, and sidewalks to be paved would be completed as soon as possible.
- Idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
- Clear signage would be provided for construction workers at all access points.
- All construction equipment would be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment would be checked by a certified visible emissions evaluator.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints would be posted in or near the project site. The contact person would respond to complaints and take corrective action within 48 hours. The Air District's phone number would also be visible to ensure compliance with applicable regulations.

In addition to these BAAQMD recommended BMPs, the contractor would also be responsible for all other BMPs listed in Section 3.0 (Project Description) including site specific BMPs such as:

- Creosote contaminated debris and sediment would be carefully handled to prevent air-borne debris, covered and contained in trucks prior to disposed of at a landfill licensed to handle possible creosote-contaminated waste.

Due to the temporary nature of air quality impacts related to construction and the implementation of BMPs, the proposed project would have a less than significant impact related to applicable air quality plans or standards.

- c) ***Would the proposed project 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 which exceed quantitative thresholds for ozone precursors?)***

Less Than Significant. As discussed under items a) and b) above, the proposed project would result in minor construction-related air pollutant emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant. The project would cause minimal short-term air quality impacts as a result of construction activities; and, it would result in less than significant long-term or cumulatively considerable increases in air quality pollutant emissions for which the Bay Area is currently in non-attainment (ozone and particulate matter). Implementation of the standard construction BMPs recommended by BAAQMD included in items a) and b) above would help ensure that the temporary increase in air pollutant emissions associated with construction activities would result in less than significant contributions to cumulative pollutant levels in the region.

d) ***Would the proposed project expose sensitive receptors to substantial pollutant concentrations?***

Less Than Significant. The primary sensitive receptors in the vicinity include students and employees at Encinal High School and some surrounding residences, which may include children, elderly people, or people with respiratory illnesses. Sensitive receptors located in close proximity to the construction area could be exposed to temporary air pollutants from construction activities, such as, fugitive dust, ozone precursors, and carbon monoxide. The duration of construction activities would be limited and is only anticipated to last three months. Basic construction measures recommended by BAAQMD, as listed in Section 3.0 (Project Description) and in Sections a) and b) above would be implemented to minimize air pollutants. New construction equipment has been subject to increasingly stringent emissions requirements at the Federal level (e.g. 40 CFR 89 and 1039), designated “Tier 1”, “Tier 2”, “Tier 3”, etc.; older construction equipment is subject to potential retrofit requirements required by the State of California (13 CCR 2449, 13 CCR 2450-2466, and 17 CCR 93116). As a result, sensitive receptors in the vicinity of the proposed project would not be exposed to substantial pollutant concentrations, and impacts would be less than significant.

e) ***Would the proposed project create objectionable odors affecting a substantial number of people?***

Less Than Significant. BAAQMD’s CEQA Guidelines identify the following as potential sources of objectionable odors: wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The proposed project does not involve construction of any of those types of facilities. Construction activities would involve the use of diesel powered equipment that temporarily emits exhaust gases and particulate matter, which can have objectionable odors. However, construction equipment is mobile (dispersing and diluting pollutants over a wider area than if they were fixed in place). The infrequency of the emissions, rapid dissipation of the exhaust and other odors into the air, and short-term nature of the construction activities would result in less than significant odor impacts.

4.4 Biological Resources

IV. BIOLOGICAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,5
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,5
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,5
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,5
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5, 9

Environmental Setting

The analysis of potential biological impacts has incorporated information from multiple site visits by WRA, a Biological Resources Assessment (BRA; WRA 2016; Appendix B), and a Jurisdictional Delineation of Waters of the United States (WRA 2016; Appendix C).

The Study Area for the BRA and Jurisdictional Delineation extends beyond the two-acre project site and consists of approximately 5.19 acres along the southwestern shore of the City of Alameda (see Figure 2, Project Vicinity Map). As described in the Project Description, the project site is bordered to the east by Encinal High School and the Encinal boat ramp. The Alameda Community Sailing Center is located immediately west of the project site. The Alameda Point Trail starts/ends at the project site. A planned connector route for the Bay Trail extends from the northern edge of the project site northward to Central Avenue and Main Street. In the Bay, an approximately 1.5-mile-long breakwater extends south and westward from the south end of Encinal Beach.

The purpose of the BRA was to provide an inventory of the biological resources present in the Study Area, which would inform potential beach/dune restoration and related natural resource and recreation improvements. The report describes the results of the site visit, which assessed the Study Area for the potential to support special-status species and the presence of sensitive biological resources protected by local, state, and federal laws and regulations. The report also contains an evaluation of potential impacts to special-status species and sensitive biological resources that may occur as a result of future activities on the project site.

In addition to the BRA, WRA also conducted a jurisdictional delineation in the 5.19-acre Study Area in order to determine the presence and extent of potential Water of the U.S. subject to federal jurisdiction under Section 404 of the Clean Water Act. The Study Area contains approximately 3.89 acres of non-wetland waters (including approximately 0.33 acre of waters over rubble and debris surfaces). Non-wetland waters may be considered jurisdictional under Section 404 of the CWA. Non-wetland waters below the MHW elevation may also be subject to the Corps jurisdiction under Section 10 of the Rivers and Harbors Appropriation Act (RHA). No wetlands were observed within the Study Area.

Methods

Prior to the site visit, the Soil Survey of Alameda County, California (Web Soil Survey 2016), aerial photographs (Google Earth 2016), and the USGS 7.5 minute quadrangle for Oakland West were examined to determine if the site has potential to support sensitive plant communities and/or aquatic features. Biological communities observed in the Study Area were classified based on existing plant community descriptions described in the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) and/or A Manual of California Vegetation (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Oakland West 7.5 minute USGS quadrangle and the three surrounding USGS quadrangles: Oakland East, Richmond, and San Leandro. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database (CNDDDB) records (CDFW 2016)
- USFWS quadrangle species lists (USFWS 2016)
- CNPS Inventory records (CNPS 2016)

- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFG publication “Amphibians and Reptile Species of Special Concern in California” (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- California Bird Species of Special Concern (Shuford and Gardali 2008)

A site visit was made to the Study Area to search for suitable habitats for special-status species. Habitat conditions observed in the Study Area were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists.

Results

Biological Communities

Three non-sensitive biological communities were observed within the Study Area: developed land, ruderal upland, and ice plant mats. Sensitive biological communities in the Study Area consisted of open waters, including open waters over riprap/rubble. These biological communities are summarized in Table 1 below. The vast majority (approximately 5.08 acres) of the 5.19-acre Study Area is also located within Bay Conservation and Development Commission’s (BCDC’s) area of jurisdiction, as defined in the McAteer-Petris Act. Within the Study Area, BCDC has two areas of jurisdiction: Bay jurisdiction and 100-foot shoreline band jurisdiction (Figure 7, BCDC Jurisdiction in the Study Area).

Table 1. Summary of Biological Communities and BCDC Jurisdiction within the Study Area

Biological Community Type	Area (acres)
Non-sensitive Biological Communities	
Developed Land	0.26 acre
Ruderal Upland	0.64 acre
Ice Plant Mats	0.40 acre
Sensitive Biological Communities	
Open Water	3.56 acres
Open Water Over Riprap/Rubble	0.33 acre
BCDC Jurisdiction	
BCDC Bay Jurisdiction	3.72 acres
BCDC 100-foot Shoreline Band Jurisdiction	1.36 acres
Total Study Area	5.19 acres







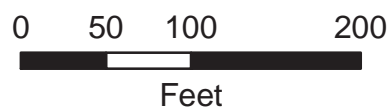
	Study Area
	Mean High Water Mark (5.75 ft. NAVD88)
	BCDC 100 ft. Shoreline Band (1.36 acres)
	BCDC Bay Jurisdiction (3.72 acres)

Figure 7. BCDC Jurisdiction in the Study Area



Encinal Dune Restoration
and Beach Stabilization Project
East Bay Regional Park District



Map Prepared Date: 5/19/2016
Map Prepared By: dchan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, USGS

Non-Sensitive Biological Communities

Developed Land

Developed land within the Study Area consists of paved surfaces occurring in the Study Area, particularly the trail which terminates at a bench landing area. Developed land also encompasses some areas of riprap which are located above the elevation of the high tide line (HTL; 7.83 feet NAVD88). The portion of riprap below the HTL elevation is accounted for as part of open water. In the southern region of the Study Area, riprap is engineered to provide a permanent shoreline, while in the western region of the Study Area riprap appears to be interspersed with gravel, concrete, and rocky debris. Paved surfaces are devoid of vegetation. Riprap areas contain some sparse vegetation, including iceplant (*Carpobrotus edulis*) and saltgrass (*Distichlis spicata*), among other species. Approximately 0.26 acre of developed land is present in the Study Area. Wildlife observed in this community includes rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), and European starling (*Sturnus vulgaris*).

Ruderal Upland

Ruderal upland within the Study Area consists primarily of *compacted, disturbed soils and* scattered ruderal, non-native grass and herbaceous species. The dominant vegetation in areas mapped as ruderal upland includes wild oat (*Avena sp.*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), fennel (*Foeniculum vulgare*), wild radish (*Raphanus sativus*), Coastal heron's bill (*Erodium cicutarium*), bur clover (*Medicago polymorpha*), and Bermuda buttercup (*Oxalis pes-caprae*), among other species. One Fremont's cottonwood (*Populus fremontii*) tree is located within the area mapped as ruderal upland within the Study Area (a few other trees are located just beyond the Study Area boundary). Approximately 0.64 acre of ruderal upland is present in the Study Area. Wildlife observed in this community includes western fence lizard (*Sceloporus occidentalis*) and rock pigeon (*C. livia*).

Ice Plant Mats

Ice Plant mats within the Study Area meet the description of the *Carpobrotus edulis* Herbaceous Semi-Natural Alliance provided by Sawyer et al. (2009), with ice plant taxa as dominant in the herbaceous layer. This community is typically found on sand dunes and disturbed land, as found in the Study Area. Within the Study Area, this community is largely dominated by ice plant with some sparsely vegetated, sandy openings. Sparse cover by the following species was observed within this community: saltgrass, ripgut brome, gumweed (*Grindelia stricta*), cut leaf plantain (*Plantago coronopus*), Bermuda buttercup, spring vetch (*Vicia sativa*), telegraph weed (*Heterotheca grandiflora*), and silver beachweed (*Ambrosia chamissonis*). Approximately 0.40 acre of ice plant mats are present in the Study Area. No wildlife species were observed in this community.

Sensitive Biological Communities

Open Water

Approximately 3.56 acres of open water are located bayward of the HTL within the Study Area, containing mud or sand substrate. The elevation of the HTL was determined to be approximately 7.83 feet NAVD88. The elevation of the MHW was determined to be approximately 5.75 NAVD88, as reported by National Oceanic and Atmospheric Administration (NOAA) for the Alameda Station. Eelgrass (*Zostera marina*) has previously been mapped in the vicinity of the Study Area (NOAA 2010); however, eelgrass was not visible in the protected Study Area at the time of the site visit, which was conducted during a low tide event of approximately 0.3 feet NAVD88.

Typically, eelgrass grows in subtidal areas but not near shallow shorelines like those in the Study Area. Eelgrass can sometimes drift and become established at higher elevations temporarily. This temporary establishment appears to have previously occurred in the Study Area. Algae was observed within open water areas, especially in the southern region of the Study Area. The open water habitat in the Study Area is Essential Fish Habitat (EFH) for the following Fisheries Management Plans: Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagic Species. Wildlife observed in this biological community includes Western gull (*Larus occidentalis*), California gull (*Larus californicus*), greater yellowlegs (*Tringa melanoleuca*), greater scaup (*Aythya marila*), surf scoter (*Melanitta perspicillata*), bufflehead (*Bucephala albeola*), ruddy duck (*Oxyura jamaicensis*), American widgeon (*Anas americana*), American coot (*Fulica americana*), sanderling (*Calidris alba*), Western sandpiper (*Calidris mauri*), dunlin (*Calidris alpina*), Western grebe (*Aechmophorus occidentalis*), black oystercatcher (*Haematopus bachmani*), and jellyfish.

Open Water Over Riprap/Rubble

Approximately 0.33 acre of open water areas are located over riprap and/or scattered rubble bayward of the HTL. This community is largely un-vegetated and subject to the tides. Wildlife observed in this biological community includes black mussels and barnacles.

BCDC Jurisdiction

Within the Study Area, BCDC has two areas of jurisdiction: Bay jurisdiction and 100-foot shoreline band jurisdiction. BCDC Bay jurisdiction within the Study Area comprises approximately 3.72 acres and includes all tidal waters up to the elevation of MHW. BCDC's 100-foot shoreline band jurisdiction within the Study Area comprises approximately 1.36 acres and encompasses all areas within 100 feet of their Bay jurisdiction.

Special-Status Species

Plants

Based upon a review of the resources and databases, 39 special-status plant species have been documented in the vicinity of the Study Area. No special-status plant species have a moderate or high potential to occur in the Study Area. The Study Area is unlikely to support any of the special-status plant species documented in the vicinity primarily due to a lack of suitable habitat. Five special-status species known from the vicinity can be found in coastal dune habitat; however, these species were determined to be unlikely to occur in the Study Area due to the poor quality of dune habitat found in the Study Area and dominance by ice plant. Additionally, most of these dune habitat species are known only from occurrences documented in the vicinity of the Study Area near the end of the 19th century and are possibly locally extirpated. No special-status plant species were observed in the Study Area during the assessment site visit. The site assessment occurred during the blooming period of 17 of the 39 special-status plant species with a potential to occur in the Study Area. None of the potentially blooming species were observed.

Wildlife

Based upon a review of the resources and databases, 46 special-status wildlife species have been documented to occur in the greater vicinity of the Study Area. Five special-status wildlife species have a moderate potential to occur in the Study Area. The Study Area is unlikely to support a majority of special-status wildlife species documented in the vicinity primarily due to a lack of suitable habitat. The Study Area does not contain freshwater habitat, woodland, forest, or valley and foothill grassland communities, and there is no beach habitat within the Study Area

that does not become inundated during high tide; these habitats would support special status species known to occur in the vicinity. No special-status wildlife species were observed in the Study Area during the assessment site visit.

Green sturgeon (*Acipenser medirostris*); Federal Threatened, Moderate Potential. The southernmost spawning population of green sturgeon is in the Sacramento River, with the principal spawning area located in the lower Feather River (Moyle 2002). Spawning populations of green sturgeon in the San Joaquin River are presumed to have been lost in the past 25-30 years. Green sturgeon are primarily marine species, entering into fresh water rivers mainly to spawn, although early life stages may reside in freshwater for up to two years (Moyle 2002). Adults typically migrate into fresh water from late February through late July. The spawning period occurs from March to July, with peak spawning occurring from mid-April to mid-June (Emmett et al. 1991). Green sturgeon prefer deep pools in large, turbulent, freshwater river mainstems to spawn (Moyle et al. 1992). Juvenile green sturgeon emigrate out to sea primarily during the summer and fall before the end of their second year (Emmett et al. 1991). Green sturgeon adults, subadults, and juveniles are widely distributed throughout the Delta and estuary. Adults typically migrate upstream on the western edge of the Delta, returning to the ocean when river temperatures decrease and flows increase during the fall and early winter. They may hold in low gradient or off-channel sloughs or coves where temperatures are within acceptable thresholds. Larvae prefer open aquatic habitats for foraging, but utilize structure habitat during the day. Juvenile rearing habitats for green sturgeon include spawning areas and migration corridors. Rearing habitat utilization varies dependent on seasonal flows and temperatures. Juvenile green sturgeon are found year round in the Delta and use the region as a migration corridor, feeding area, and juvenile rearing area. Juvenile green sturgeon are strong swimmers and thus have the ability to select or avoid habitats. Green sturgeon are salvaged at the CVP and SWP pumping plants on an irregular basis throughout the year, verifying their presence in the south Delta (EPIC et al. 2001).

The Study Area contains estuarine habitat within the San Francisco Bay, which is designated as Critical Habitat for green sturgeon. The species spawns in large rivers, but adults are benthic and live primarily in marine environments. The Study Area does not contain suitable spawning habitat for the species; however, juvenile foraging and rearing could occur within the estuarine portion of the Study Area. Juvenile sturgeon has a moderate potential to occur, as they may forage opportunistically within the Study Area.

Steelhead - Central California Coast DPS (*Oncorhynchus mykiss irideus*), Federal Threatened, Moderate Potential. The Central California Coast DPS includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin. Steelhead typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for 2 or 3 years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Steelhead adults typically spawn between December and June. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.

Central California Coast DPS steelhead has an anadromous life cycle and migrate through San Francisco Bay to headwater streams to spawn. Waters of the San Francisco Bay have been

designated as Critical Habitat for the species. Areas of the Bay are used by steelhead for foraging before the species migrates to or from the open ocean. While the Study Area does not contain suitable spawning habitat or a migration corridor, Steelhead has a moderate potential to occur, as the species may opportunistically forage within the open estuarine waters of the Study Area.

Chinook Salmon - Sacramento River Winter-run ESU (*Oncorhynchus tshawytscha*), Federal Endangered, State Endangered, Moderate Potential. The ESU includes all naturally spawned populations of winter-run Chinook salmon in the Sacramento River and its tributaries in California, as well as two artificial propagation programs: winter run Chinook from the Livingston Stone National Fish Hatchery (NFH), and winter run Chinook in a captive broodstock program maintained at Livingston Stone NFH and the University of California Bodega Marine Laboratory. Winter-run Chinook salmon are unique because they spawn during summer months when air temperatures usually approach their yearly maximum. As a result, these salmon require stream reaches with cold water sources that will protect embryos and juveniles from the warm ambient conditions in summer. Winter-run chinook salmon are primarily restricted to the mainstem Sacramento River.

Chinook salmon migrate through San Francisco Bay when returning to streams during spawning season or as dispersing juveniles going to the open ocean, and the Bay is considered Essential Fish Habitat for the species. As juveniles, Chinook salmon can migrate to brackish estuaries and rear for several months before migrating to the open ocean as adults. While the Study Area does not contain suitable spawning habitat or a migration corridor, the species has a moderate potential to occur, as juvenile Chinook may opportunistically forage within open waters of the Study Area.

Chinook Salmon - Central Valley Spring-run ESU (*Oncorhynchus tshawytscha*), Federal Threatened, State Threatened, Moderate Potential. The Central Valley Spring-run ESU includes all naturally spawned spring-run populations from the Sacramento San Joaquin River mainstem and its tributaries. Chinook salmon are anadromous (adults migrate from a marine environment into the fresh water streams and rivers of their birth) and semelparous (spawn only once and then die). Spring-run chinook salmon enter the Sacramento River between February and June. They move upstream and enter tributary streams from February through July, peaking in May-June. These fish migrate into the headwaters, hold in pools until they spawn, starting as early as mid-August and ending in mid-October, peaking in September. They are fairly faithful to the home streams in which they were spawned, using visual and chemical cues to locate these streams. While migrating and holding in the river, spring Chinook do not feed, relying instead on stored body fat reserves for maintenance and gonadal maturation. Eggs are laid in large depressions (redds) hollowed out in gravel beds. Some fish remain in the stream until the following October and emigrate as "yearlings", usually with the onset of storms starting in October through the following March, peaking in November-December. Large pools with cold water are essential over-summering habitat for this species.

Chinook salmon migrate through San Francisco Bay when returning to streams during spawning season or as dispersing juveniles going to the open ocean, and the Bay is considered Essential Fish Habitat for the species. As juveniles, Chinook salmon can migrate to brackish estuaries and rear for several months before migrating to the open ocean as adults. While the Study Area does not contain suitable spawning habitat or a migration corridor, the species has a moderate potential to occur, as juvenile Chinook may opportunistically forage within open waters of the Study Area.

Longfin Smelt (*Spirinchus thaleichthys*), Federal Candidate, State Threatened, CDFW Species of Special Concern, Moderate Potential. Longfin Smelt is a pelagic, estuarine fish that ranges from Monterey Bay northward to Hinchinbrook Island, Prince William Sound Alaska.

As this species matures in the fall, adults found throughout the San Francisco Bay migrate to brackish or freshwater in Suisun Bay, Montezuma Slough, and the lower reaches of the Sacramento and San Joaquin Rivers. Spawning is believed to take place in freshwater. In April and May, juveniles are believed to migrate downstream to San Pablo Bay. Juveniles tend to inhabit the middle and lower portions of the water column. This species tends to be abundant near freshwater outflow, where higher-quality nursery habitat occurs and potential feeding opportunities are greater.

Longfin smelt is known to live throughout the San Francisco Bay. However, the Study Area does not contain marsh habitat, and is not located within or near freshwater habitat suitable for spawning or rearing. Longfin smelt adults have a moderate potential to occur, as they may use the Study Area for foraging.

California least tern (*Sternula antillarum browni*), Federal Endangered, State Endangered, California Fully Protected Species, Unlikely to Occur. The California least tern is a summer resident in California, with a current breeding distribution from the San Francisco Bay Area south to Baja California. This distribution is widely fragmented as a result of human activities. The California subspecies winters on the southern coast of Mexico and the Gulf of California. The nesting season lasts from mid-April through August, with peak activity between June and July. Least terns typically nest in loose colonies on flat sand-shell beaches, mud or gravel flats, and manmade habitats including airports, landfills, and dredge-fill sites, relatively free of plant growth (Fancher 1992). Typical colony population size is 25 pairs (USFWS 2006). Islands or isolated beaches are preferred, and nest sites are generally located in the proximity of suitable foraging habitat including coastal lagoons, estuaries, or rivers. Colony size may be linked to habitat availability, as nests may be located between 10 to 300 feet apart (USFWS 1985). Least terns forage in inshore waters for small fishes.

The Study Area does not contain suitable beach habitat for nesting, as the entire beach area is inundated at high tide. There is a least tern nesting colony located 1.7 miles northwest (CDFW 2016), and the species has been observed in the immediate vicinity (eBird 2016). California least tern may occasionally forage within the Study Area during low tides, but is unlikely to nest within or permanently use habitat within the Study Area.

Discussion of Impacts

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

Less than Significant with Mitigation Incorporated. A total of five state and/or federally listed fish species have the potential to occur within the project site. The project site is also located within Critical Habitat for green sturgeon and steelhead and Essential Fish habitat for Pacific Coast Salmon, Pacific Coast Groundfish, and Coastal Pelagic Species. Any work disturbing waters of the San Francisco Bay may result in potentially significant impacts to these species and protected habitats. In addition to protected fish, breeding birds potentially utilizing the area are protected by the Migratory Bird Treaty Act (MBTA), and could be affected by ground disturbance and vegetation removal within the project site. Implementation of Mitigation Measures BIO-1a and BIO-1b would reduce these impacts to a less than significant level.

Mitigation Measure BIO-1a

Consultation with the National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW) shall occur prior to the start of any in-water work that could significantly impact the federal and state listed species with habitat or the potential to occur within the study area.

The results of consultation with NMFS, USFWS and CDFW shall ensure that all potentially significant impacts to species identified as a candidate, sensitive, or special-status species are reduced to a less than significant level and may include:

- Implementation of minimization and avoidance measures, which may include: work-windows, presence of a biological monitor during construction activities to ensure no take would occur and species would not be adversely affected; and/or
- Formal Section 7 consultation, which concludes with the issuance of a biological opinion that contains reasonable and prudent necessary or appropriate to minimize impacts and ensure the project is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. Avoidance and minimization measures from formal consultation may include employee education and training programs, work-windows, presence of a biological monitor during construction activities, construction monitoring reports, and implementation of minimization and avoidance measures recommended by other agencies.

Mitigation Measure BIO-1b

If ground disturbance or removal of vegetation occurs between February 1 and June 30, preconstruction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of active breeding bird nests. If ground disturbance or removal of vegetation occurs between July 1 and August 31, pre-construction surveys shall be performed within 30 days prior to such activities. If active nest that contains eggs, chicks, or young are present, establishment of temporary protective breeding season buffers will avoid direct mortality of these birds, nests or young. The appropriate buffer distance is dependent on the species, surrounding vegetation, and topography and shall be determined by a qualified biologist as appropriate to prevent nest abandonment and direct mortality during construction. Ground disturbance and removal of vegetation performed between September 1 and January 31 does not require pre-construction surveys.

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

Less Than Significant. As described above, eelgrass is a sensitive natural community with the potential to occur in the subtidal zone of the Study Area. Eelgrass has previously been mapped offshore in the vicinity of the Study Area (NOAA 2010); however, eelgrass was not visible in the Study Area at the time of the site visit, which was conducted during a low tide event of approximately 0.3 feet NAVD88. Project construction activities could result in potentially significant impacts to eelgrass, depending on the extent of activities and the location of eelgrass. However, based on the subtidal elevations that eelgrass

typically grows and the limit of project work above those subtidal elevations, as seen in Figure 3, the proposed project would not include work in areas with the potential for eelgrass. Dune enhancement, barge removal and shoreline stabilization would all be done during low tides. Therefore, due to the limited extent of project work, location of eelgrass beds, and implementation of BMPs, project impacts to sensitive natural communities would be less than significant.

- c) ***Would the proposed project 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 with Mitigation Incorporated. The project would involve work in Waters of the U.S. and State (below the elevation of the HTL). Waters of the U.S. and State in the project site are potentially subject to Corps jurisdiction under Section 404 of the Clean Water Act and the jurisdiction of the RWQCB under the Porter Cologne Act and Section 401 of the Clean Water Act. The proposed project would also involve work in BCDC's Bay and 100-foot shoreline band jurisdiction. In addition, the project site contains areas subject to BCDC's Bay and 100-foot shoreline band jurisdiction, as defined by the McAteer-Petris Act. These impacts are considered to be significant but can be reduced to a less than significant level via implementation of Mitigation Measure BIO-2.

Mitigation Measure BIO-2

- Temporary impacts to federal-protected waters in the project site shall require a Corps Section 404 Nationwide Permit and a RWQCB Section 401 Water Quality Certification to ensure no net loss of federal-protected waters.
- Any work within BCDC's Bay or 100-foot shoreline band jurisdiction shall require a permit from BCDC to ensure protection of state waters and continued shoreline protection and public access.
- Best management practices shall be used to lessen potential impacts to sensitive habitats. This includes conducting work during periods of low tide.
- All construction personnel and equipment shall be confined to designated work areas and access corridors.
- Trail and beach closures shall be minimized to the extent feasible.

- d) ***Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

No Impact. Wildlife movement corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human induced factors such as urbanization. The project site is bordered by, or in proximity to, development to the north, east, and west and is enclosed by the breakwater extending westward from the south end of Encinal Beach. Therefore, the proposed project would not have any adverse impacts to wildlife movement or wildlife corridors.

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

Less Than Significant. The City of Alameda Municipal Code requires written permission from the Public Works Director prior to removal of any tree located within City right-of-way. The project work would require the removal of three trees located between the bathroom and Bay Trail. Therefore, although the proposed project would remove three trees, the project would be required to comply with the City of Alameda Municipal Code and thus impacts would be less than significant.

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. The project site is not within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan. The Comprehensive Conservation and Management Plan (CCMP) for the San Francisco Estuary Project (SFEP), although not a regulatory document, includes recommendations and long-term goals for Bay habitats potentially affected by project activities. The proposed project is intended to restore habitat and remove invasive species along the Bay and therefore, the proposed project is consistent with this plan. Therefore, the proposed project would have no impact related to consistency with conservation plans.

4.5 Cultural Resources

V.	CULTURAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a)	Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11
d)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11

Environmental Setting

Tom Origer & Associates (Origer) conducted a Cultural Resources Study of the project site in November 2016. A copy of the study is included in Appendix D, and its findings are summarized below.

Cultural Setting

As described in Origer (2016), the geology of the study area consists of Artificial Fill of a man-made deposit of various materials and ages. Some are compacted and quite firm, but fills made before 1965 are nearly everywhere not compacted and consist simply of dumped materials. Soils within the study area belong to Urban land. This miscellaneous area consists of land that is covered by buildings, roads, parking lots, and other urban structures. The soil material is mainly heterogeneous fill. Historically, portions of Alameda were covered in marsh and wetlands. This would have been utilized as a year-round food source by the prehistoric peoples who inhabited the area. Presently, Alameda is largely developed and very little, if any, of the original wetland habitat remains.

Archaeological evidence indicates that human occupation of California began at least 11,000 years ago. Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears to be coeval with the development of sedentism and population growth and expansion.

Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

At the time of European settlement, the study area was included in the territory controlled by Costanoan-speaking peoples; hunter-gatherers who were organized socially into numerous different tribelets. The project area was home to speakers of Chochenyo or East Bay Costanoan; this linguistic group is thought to have had around 2,000 members. Members of this linguistic group were hunter-gatherers who were socially organized in tribelets. Costanoan tribelets had at least one permanent village site about which were distributed seasonal camps and task-specific sites. Primary village sites were occupied continually throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites often were situated near sources of fresh water and in ecotones where plant life and animal life were diverse and abundant.

Historically, the study area is within the San Antonio Rancho, finally confirmed to Antonio Maria Peralta in 1871. It consisted of 15,206 acres and currently encompasses the city of Alameda.

Mission San Jose was closest mission to the project area. Missionization resulted in the destruction of the aboriginal way of life and the Costanoans suffered high mortality rates. Following the mission period many Costanoans lived in multiethnic communities such as the one at Pleasanton, which included members of the Chochenyo group.

Methodology

A request was sent to the State of California's Native American Heritage Commission seeking information from the sacred lands files and the names of Native American individuals and groups that would be appropriate to contact regarding this project. Letters were also sent to the following groups:

- Amah Mutsun Tribal Band
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the SF Bay Area
- The Ohlone Indian Tribe
- Trina Marine Ruano Family

Additionally, three individuals, Jakki Kehl, Linda G. Yamane, and Katherine Erolinda Perez were also notified about the proposed project. This contact represents notification regarding the project to provide an opportunity for comment. As of February 2017 no responses to notification letters were received. The above notification does not constitute formal consultation with tribes. Formal consultation with local tribes, in compliance with AB52 is described in further detail in Section 4.17 (Tribal Cultural Resources) below.

Archival research included examination of the library and project files at Tom Origer & Associates. A review (NWIC File No. 16-0720) was completed of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. Sources of information included but were not limited to the current listings of properties on the National Register of Historic Places, California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation's *Historic Property Directory* (OHP 2012).

An intensive field survey was completed by Julia Franco of Tom Origer & Associates on November 15, 2016. Ground visibility ranged from good to poor, with vegetation and asphalt being the primary hindrances. In addition to the surface survey, a single hand-dug auger unit using a 4-inch diameter barrel auger was excavated to examine subsurface soils within the study area.

Study Findings

The study area had been previously surveyed as part of an evaluation of the buildings on the Naval Air Station (NAS) Alameda. Numerous buildings and structures were recorded as a result of that study; however, none of those buildings or structures are within the current study area. The NAS Alameda was determined to be a historic district by the Navy in 1992. The State Historic Preservation Officer concurred with the Navy's finding. JRP Historical Consulting identified the historic district as being over a half mile northwest of the current study area. Although the entire study area was surveyed during a previous study, it represents only a small portion of the total area surveyed during that study and is not included in the NAS Alameda Historic District. One other study has been conducted within a quarter mile of the study area. No historical resources were identified during that study. There are no reported ethnographic sites within one mile of the study area and no buildings are within the study area.

Archaeology

The auger hold was excavated to a depth of 80 centimeters. The soil observed within the unit was dark brown sand with small amounts of rock. No archaeological resources were observed during our survey or within the auger unit.

Built Environment

A former restroom with two stalls that is currently used for storage and the remains of a dock are located within the study area. Neither are eligible for inclusion on either the National Register or the California Register. Criteria for important historical resources on the California Register or historic properties on the National Register are as follows:

- 1/A Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- 2/B Is associated with the lives of persons important to local, California or national history.
- 3/C Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possess high artistic values.
- 4/D Has yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation.

They are both outside of the Naval Air Station Alameda Historic District and are not associated with the Air Station; therefore, they do not meet Criteria 1/A or 2/B. The former restroom is constructed of wood framing with plywood siding on a concrete slab. The doors have been replaced with chain link gates. The remains of the dock do not have characteristics to suggest that they have any unique construction or design features. Therefore, both do not meet Criteria 3/C. Lastly, there is nothing to indicate that either the restroom or the remains of the dock will yield any important information regarding the history of Alameda. Therefore, neither meets

Criteria 4/D. Since none of the Criteria for the National Register or California Register have been met, neither are eligible for inclusion on either register.

No historical resources were observed within the study area. Therefore, no resource specific recommendations are required.

Discussion of Impacts

a) *Would the project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?*

No Impact. Pursuant to State CEQA guideline 15064.5, record searches, field surveys, and research were conducted to determine the potential presence of historic resources by Origer. The project site does not contain any resource listed in, or determined to be eligible by, the State Historical Resource Commission and does not contain a resource included in a local register of historic resources or identified as significant in a historical resource survey. As described above, the dock and restroom located on the site do are not eligible for inclusion on the National Register or California Register. Additionally, the project site does not contain any object, building, structure, site, area, place, record, or manuscript that a lead agency determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Therefore, no impact would occur.

b, c) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant with Mitigation Incorporated. No evidence of prehistoric or historic archaeological sites has been identified by Origer for the project site. The cultural resources study conducted at the site did not identify any archaeological resources through archival research or during the field survey. Additionally, based on the project site's geologic age, and analysis of the environmental setting there is virtually no chance of identifying buried prehistoric sites within the project site as the geology and the soils are far too recent to contain prehistoric archaeological materials. However, construction could result in encountering unanticipated archaeological resources. Unanticipated and accidental archaeological discoveries during project implementation have the potential to affect significant archaeological resources.

There are no known paleontological resources or geologic features on-site. The project site consists entirely of artificial fill. This material is considered to have a very low likelihood of containing significant geologic or paleontological features. Regardless, construction activities at the proposed project could result in adverse impacts to undiscovered paleontological resources. Construction excavation could expose and have an adverse impact on undiscovered paleontological resources. Following construction, the operation of the proposed project would not require actions that could expose paleontological resources and would not result in an impact to any such resources.

Impacts resulting from unanticipated and accidental discovery of archaeological or paleontological resources are potentially significant, but would be reduced to a less than significant level with the implementation of Mitigation Measure CULT-1 below.

Mitigation Measure CULT-1

During construction, if buried cultural, archaeological, or paleontological resources are discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist or paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City of Alameda and other appropriate agencies.

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

Less than Significant with Mitigation Incorporated. Although no formal cemeteries or other places of human internment are known to exist at the site, there would be a potentially significant impact if human bone or bone of unknown origin were uncovered during project construction; however, implementation of Mitigation Measure CULT-2 would reduce potential impacts to a less than significant level.

Mitigation Measure CULT-2

In the event of the discovery of human remains, the County Coroner shall be immediately notified. If human remains of Native American origin are discovered during ground-disturbing activities, it is necessary to comply with state laws relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (Public Resources Code Section 5097). According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to determine the most likely living descendant(s). Disposition of the remains shall be overseen by the most likely living descendants to determine the most appropriate means of treating the human remains and any associated grave artifacts.

4.6 Geology and Soils

VI. GEOLOGY AND SOILS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					2,6
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,6
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,6
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,6
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,6
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,6
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,6
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,6
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2,6

Environmental Setting

Regional geology along Alameda Point consists of fill on tidelands west of Alameda Island within the San Francisco Bay. Most of Alameda Island and areas inland of the historic shoreline of the bay north of the Estuary are underlain by Merritt Sand, a loose, fine-grained, well-sorted beach dune sand formation deposited late in the Pleistocene.

The Merritt Sand is underlain by a thick sequence of unconsolidated sediments that together were called the Alameda Formation. These sediments are over 1,000 feet thick in the vicinity of Alameda Point. Recent geologic studies limit use of the name Alameda Formation to the continental deposits at the base of this sequence. The upper portion of the sequence contains a fine silty sand deposit called the Posey Sand. Together, the Merritt Sand and the Posey Sand comprise an aquifer that is or has been exploited as a source of potable water. West of the historic margin of the bay, the Merritt/Posey aquifer is overlain by Younger Bay Mud. In some areas, such as beneath the Oakland Inner (Estuary) and Outer Harbors, the Bay Mud has been removed by dredging and has exposed the aquifer to brackish bay water.

Beneath the Posey Sand is a clayey unit identified in some reports as the San Antonio Formation. The San Antonio Formation may have been deposited during about the same period as the Temescal Formation to the east (older alluvial fan deposits that lie at the base of the East Bay hills) and the Older Bay Mud (also known as the Yerba Buena Mud) that is found beneath the bay to the west. Because it is very fine-grained and not very permeable, the Yerba Buena Mud/San Antonio Formation/Temescal Formation acts as a confining unit for deeper aquifers within the Alameda Formation. Beneath these deposits, the Alameda Formation consists of mixed sediments that were deposited above sea level. The Alameda Formation rests on the Franciscan bedrock.

Seismicity

Alameda Island, as part of the San Francisco Bay Area, is in one of the most seismically active regions in the United States. The study area could be affected by ground shaking due to movement along any one of a number of active faults in the region. The San Andreas Fault lies about 12.5 miles to the west of the project site, the Hayward Fault lies about 5.5 miles east of the site, and the Calaveras Fault lies about 16 miles to the east. The area within Alameda would be subject to strong ground motion in the event of a moderate to severe earthquake in the Bay Area. The U.S. Geological Survey has estimated that there is a 67 percent probability that there will be one or more earthquakes of magnitude 7.0 or greater (comparable to the 1989 Loma Prieta earthquake) in the Bay Area in the next 30 years. Ground shaking, rather than surface fault rupture, is the cause of the most damage during earthquakes.

The Alquist-Priolo Special Studies Zones Act requires the state to identify zones around "active" faults (those having evidence of surface displacement within about the last 11,000 years) in order to manage development near possible surface rupture sites. There are no Special Studies Zones within Alameda (the closest Special Studies Zone is along the Hayward Fault, about 5.5 miles to the southwest).

Soils

Soils at Alameda Point consist mainly of non-native soils developed on fill materials. These soils include Urban Land and Xeropsamments. These are all disturbed, mixed soils with variable properties.

Discussion of Impacts

- a-i) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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?***

Less Than Significant. The proposed project is not located within a mapped fault zone. The nearest fault is the Hayward Fault located approximately 5.5 miles east of the project site. In addition, the proposed project would not create any structures or expose a significant number of people to seismic-related hazards due to ground rupture. Therefore, impacts related to rupture of a known fault would be less than significant.

- a-ii) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?***

Less Than Significant. As the proposed project is a dune and beach restoration project for open space along the Alameda Point shoreline, the project would not create structures or facilities for human habitation or services. Although the project site, like all locations in the San Francisco Bay area, is likely to experience strong seismic shaking in the event of a major earthquake, there would be no significant exposure of persons or structures to seismic risks. Therefore, impacts related to strong seismic shaking would be less than significant.

- a-iii) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?***

Less Than Significant. According to the Association of Bay Area Governments (ABAG) Hazard Mapping Program, the project site has a liquefaction susceptibility rating of "Very High Susceptibility." However, as stated above, the proposed project would not expose people or structures to seismic induced ground failure, including liquefaction, as the project includes dune and beach restoration activities and the site would remain open space. Thus, project impacts related to this issue would be less than significant.

- a-iv) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?***

No Impact. The rusty barge provides shoreline support, but has been degrading within the shoreline bank for decades. Removal of the barge and installation of more sustainable shoreline protection would stabilize the area. According to the ABAG Hazard Mapping, the project site is not subject to landslides from seismic activity or from rainfall. The project area is characterized by flat or slightly sloping dunes, and thus has no potential for landslides. No further discussion is necessary.

- b) *Would the project result in substantial soil erosion or the loss of topsoil?***

Less than Significant with Mitigation Incorporated. The proposed project would excavate approximately 650 CY of debris material on-site which would not be reused on-

site. Approximately 2,700 CY of sand would be imported to the site for beach nourishment and dune restoration activities. The project would improve erosion control through the use of engineered techniques and hydroseeding with dune stabilization species. Crimped straw would also be applied to the site in order to stabilize the sand until native plant establishment has occurred. However, construction activities could potentially impact the San Francisco Bay if adequate best management practices (BMPs) are not implemented. The project design also requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would ensure that impacts would be less than significant.

- c) ***Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

Less Than Significant. The project is expected to result in improved stability of the project site. Removal of the barge and installation of more sustainable shoreline protection would stabilize the area. As discussed above, the project site has no potential for landslides. While the proposed project is located on a site with high potential for liquefaction, the proposed project would retain the current open space use of the site and therefore, implementation of the proposed project would not significantly alter the site from existing conditions. Project impacts related to this issue would be less than significant.

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

No Impact. The project does not propose construction of any structures that would be subject to the Uniform Building Code (1994) and would not create substantial risks to life or property.

- e) ***Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?***

No Impact. The proposed project would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur.

4.7 Greenhouse Gas Emissions

VII. GREENHOUSE GAS EMISSIONS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13

Environmental Setting

Assembly Bill 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020. Senate Bill 97, adopted in 2007, required the Governor’s Office of Planning and Research to develop CEQA guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions,” and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009.

GHGs are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The major GHGs released from human activity are carbon dioxide, methane, and nitrous oxide (Governor’s Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Discussion of Impacts

a) ***Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Less Than Significant. GHG emissions from the proposed project would be produced from construction-related equipment emissions. No significant increase in operational emissions would result from the proposed project as it would continue to serve as open space. Given the nature of the proposed project and short duration of construction, GHG emissions resulting from construction activities would be minor and temporary. Construction activities would last approximately three months and would utilize minimal equipment due to the small amount of ground disturbance (less than 1.0 acre). The project would generate approximately 335 truck trips, or 17 truck trips per day, for sand import and debris removal. 17 truck trips per day would not constitute a significant contribution to annual GHG emissions for the City of Alameda or Alameda County. While the proposed project would have an incremental contribution to GHG emissions, within the context of the County and region, the individual GHG impact of the project is considered less than significant.

b) *Would the proposed project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant. The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. GHG emissions from off-road equipment are identified and planned for in the BAAQMD's 2010 Clean Air Plan as well as the BAAQMD's Source Inventory of Bay Area Greenhouse Gas Emissions (BAAQMD 2010a and 2010b). A primary objective of the 2010 Clean Air Plan is to reduce greenhouse gas emissions to 1990 levels by 2020 and 40% below 1990 levels by 2035. Alameda County adopted a Climate Action Plan (CAP) in May 2010 and similarly the City of Alameda adopted a Local Action Plan for Climate Protection in February 2008. These Plans include policies to encourage reductions in GHG emissions through improving public transportation, increasing recycling efforts, and implementing energy efficiency standards. Due to the nature of the proposed project, the project would not conflict with these policies. The proposed project is a dune and beach restoration effort that would not include significant energy usage and may result in a negligible increase in visitors to the site for open space and recreational uses. The project would generate minimal emissions during construction and would not generate additional emissions during operation. Therefore, the proposed project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, a less than significant impact would occur.

4.8 Hazards and Hazardous Materials

VIII. HAZARDS AND HAZARDOUS MATERIALS — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,7
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,8
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,6

Environmental Setting

"Hazardous materials" are defined in this Initial Study as substances with certain chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed.

If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There may also be a potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern. For example, in the project site vicinity, soil and groundwater contamination from previous industrial uses is a potential concern.

Construction workers typically have the greatest risk of exposure to contaminated soil or groundwater. If contamination at a site remains undetected, workers and the public may be at risk of exposure if precautions are not taken during site development. Accidents or spills during transport of hazardous materials or wastes can also expose the general public and the environment to these substances.

Discussion of Impacts

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

Less Than Significant. Construction of the proposed project would require the transport of beach and dune sand fill to the site, and operation of the proposed project would include open space beach and dune habitat. Debris removal from the site would include the removal of creosote treated timber from the site and an old barge structure; however, the transport of these materials off the project site would be short-term during construction. Operation of the proposed project allows for the continued use of the site as open space. Therefore, the proposed project would not involve routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.

b, c) ***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? 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. The removal of creosote treated wood on the site may result in the release of contaminated soils into the Bay; however, the removal of this debris would improve water quality in the long term by removing these hazardous materials from the site. The project description also requires that creosote contaminated debris and sediment would be carefully handled to prevent air-borne debris, covered and contained in trucks prior to disposal at a landfill licensed to handle possible creosote-contaminated waste. Furthermore, a SWPPP would be prepared for the proposed project in compliance with the City's Municipal Regional Stormwater NPDES permit in order to prevent erosion and protect water quality at the project site. Adherence to the various BMPs included in the project description would ensure that the project results in a less than significant impact related to 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.

During construction there would also be limited heavy equipment and supplies on the site that could result in a release of hazardous materials such as fuel and lubricants. Encinal High School is located approximately 100 feet to the east of the project site and project construction vehicles would use the existing access road along the west side of the High School. The project description includes BMPs to ensure air quality emission impacts during construction would be less than significant, including:

- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas) would be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site would be covered.
- All visible mud or dirt track-out onto adjacent public roads would be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All roadways, driveways, and sidewalks to be paved would be completed as soon as possible.
- Idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations).
- Clear signage would be provided for construction workers at all access points.
- All construction equipment would be maintained and properly tuned in accordance with manufacturer's specifications, and all equipment would be checked by a certified visible emissions evaluator.
- A publicly visible sign with the telephone number and person to contact at the lead agency regarding any dust complaints would be posted in or near the project site. The contact person would respond to complaints and take corrective action within 48 hours. The Air District's phone number would also be visible to ensure compliance with applicable regulations.

The project description requires that hazardous materials not be stored or used, such as for equipment maintenance, where they could affect nearby properties, or where they might enter the storm drain system. In addition, the project description requires that any creosote contaminated debris and sediment would be carefully handled to prevent airborne debris, covered and contained in trucks prior to disposal at a landfill licensed to handle possible creosote-contaminated waste. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and impacts would be less than significant.

- 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. The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the proposed project would not result in impacts related to the being located on a site included on a list of hazardous material sites.

- 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. While the City of Alameda is located in near proximity to the Oakland Airport, the project is not included within an airport influence area or within two miles of a public airport or public use airport. The Oakland Airport is approximately 4.5 miles to the southeast of the project site. Therefore, the proposed project would not result in a safety hazard related to airports and no impact would occur.

- 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. The project is not within the vicinity of a private airstrip, and therefore no impact would occur.

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

Less Than Significant. The proposed project would not impact the surrounding roadways and therefore, emergency vehicle and fire control access would not be impacted. As the proposed project is a shoreline restoration project and would not occur on adjacent roadways, the project would not interfere with or change existing emergency response and evacuation plans, and therefore no impact would occur.

- 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. The project site is located in an urbanized area with almost no wildland fire potential. According to the ABAG Hazard Mapping Program, there is no Wildland Urban Interface Fire Threat at the project site or in the surrounding vicinity. Therefore, the project would have no impact related to wildland fires.

4.9 Hydrology and Water Quality

IX. HYDROLOGY AND WATER QUALITY — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11

IX. HYDROLOGY AND WATER QUALITY — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,6

Environmental Setting

Rainfall and Climate

Precipitation patterns along the California coast are influenced by a number of factors including elevation. The project site is located along the Alameda Point shoreline and ranges from sea level to approximately 12 feet above sea level. According to the Alameda Point Master Infrastructure Plan, the lower elevations of Alameda Point result in a mean annual precipitation of approximately 18 inches per year. The climate of the San Francisco Bay is characterized as Mediterranean with cool wet winters and relatively warmer dry summers.

Drainage

Alameda Point is located within the Central Basin of the San Francisco Bay Hydrologic Region. This region lies adjacent to San Francisco Bay. San Francisco Bay marks a natural topographic separation between the northern and southern coastal mountain ranges. The San Francisco Bay estuarine system conveys the waters of the Sacramento and San Joaquin rivers into the Pacific Ocean. Within the San Francisco Bay Hydrologic Region, the project area is a part of the Central Bay region in Alameda County.

Flooding

Most floods on undeveloped bay margins are caused by an intense rainstorm that comes after a prolonged period of rainfall has saturated the ground. Flooding is most common in the low-lying areas around the mouths of rivers that drain to the Bay. Coastal floods are exacerbated by high tide events that tend to push the water landward and resists the flow down the river or creek.

Most of the project site is susceptible to flooding during 100-year events and is located in Zone VE "Coastal flood zone with velocity hazard (wave action)" (FEMA, 2009).

Regulatory Framework

This section describes the regulatory setting as it relates to hydrology and water quality in the project site.

There is a well-established regulatory framework of federal and State laws for floodplain management and protection of water quality, which would apply to the project site. These regulations establish requirements for projects in flood-prone areas and water quality criteria for the protection of human health and the environment, including storm water discharges to surface water. The regulations are discussed below.

Federal Agencies, Programs and Regulations

Federal Emergency Management Agency (FEMA)

FEMA issues Flood Insurance Rate Maps FIRMs that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 (1 percent) chance of occurring in any given year. The area with this designation is also referred to as the 100-year flood plain. FEMA also designates the area with a 1-in-500 chance (0.2 percent) of flooding in a given year, or the 500-year flood plain.

The map is dated August 3, 2009 and there have been no amendments since that time. The 2009 FIRM shows the project site as Zone VE, "Coastal flood zone with velocity hazards (wave action)."

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. The insurance rate offered to communities is based on the designations shown on the FIRMs and recorded in the updates known as Letters of Determination.

Clean Water Act (CWA)

The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (EPA) as well as the states. Various elements of the CWA address water quality, and they are discussed below. Wetland protection is administered by the USACE under Section 404 of the CWA, including permits to dredge or fill wetlands.

Section 401: Wetland Filling

Under Section 401 of the CWA, an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to the nine Regional Water Quality Control Boards (RWQCBs).

Section 303: Water Quality Standards and Total Maximum Daily Loads (TMDLs)

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question; and (2) criteria that protect the designated uses. Water Quality standards applicable to the project site are listed in the Water Quality Control Plan for the San Francisco Bay Basin. Section 303(d) of the CWA requires states

to make a list of waters that are not attaining standards and requires them to develop a set of Total Maximum Daily Loads (TMDLs) (see below under State Water Resources Control Board (SWRCB)). San Francisco Bay Central is on the Section 303(d) list as impaired by: chlordane, DDT, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, PCBs, and selenium.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems. NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify limits on allowable concentrations in the effluent and receiving water, and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring and other activities. NPDES permits are issued by the SWRCB (see below).

State Plans, Policies, and Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) of 1969 is California's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans and objectives that protect the State's waters for the use and enjoyment of the people. The Act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (Basin Plans). Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives and implementation programs are established for each of the nine regions in California. The project site falls under the San Francisco Bay Region Hydrologic Basin Planning Area Map.

The Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge (RWD) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals.²

State Water Resources Control Board (SWRCB)

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Regional authority for planning, permitting and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans.

² Porter-Cologne Water Quality Act's website. <http://ceres.ca.gov/wetlands/permitting/porter.html>, accessed September 8, 2009.

NPDES Construction General Permit

The SWRCB permits all regulated construction activities under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.³ The permit is administered at the County level. Construction activities that disturb one acre or more of land must comply with a Construction General Permit that regulates storm water leaving construction sites. The project applicant must file Permit Registration Documents (PRDs) before beginning construction, including filing a Notice of Intent (NOI), and a Stormwater Pollution Prevention Plan (SWPPP).

The SWPPP must be implemented and monitored to ensure its effectiveness. The plan, which must also address control of pollutants in stormwater post-construction, must be on-site and available to inspectors. A SWPPP must include “Best Management Practices” (BMPs) designed to reduce potential impacts to surface water quality through the construction and life of the project. Under the 2009 revision to the Construction General Permit, for discharges to water bodies that have beneficial uses such as fish spawning and fish migration, the project would at least be a Risk Level 2 project subject to Numeric Action Levels and some additional monitoring requirements. If erosion potential is considered high, the project could be determined to be a Risk Level 3 project subject to Numeric Effluent Limits, and more rigorous monitoring requirements, including receiving water monitoring or bioassessment.

NPDES Post-Construction Stormwater Quality

Post-construction stormwater management is covered by a different set of BMPs under the NPDES permit system. The intent of these regulations is to rigorously control the quality and quantity of stormwater runoff from any new development that creates or replaces impervious area over 10,000 square feet, so that receiving waters downstream are not adversely impacted.

To comply with these requirements, new projects are required to install water quality, stormwater runoff BMPs that filter or treat rainfall runoff generated from storm events up to approximately the 85th percentile rainfall event (or approximately the 1-inch storm event) before discharging into storm drains or natural drainage systems. Projects over 10,000 square feet are required to capture 100 percent of rainfall runoff from new impervious surfaces and to treat it in post-construction stormwater systems. Projects that begin after December 2012 must reuse the water on-site, unless that reuse is proven to be “infeasible.” If the water is reused in irrigation, it is returned to the aquifer.

California Fish and Wildlife Code

The CDFW protects streams, water bodies and riparian corridors through the streambed alteration agreement process under Section 1601 to 1606 of the California Fish and Wildlife Code. The CDFW stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the Department, incorporating necessary mitigation and obtaining a streambed alteration agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

³ Order No. 2009-009-DWQ, NPDES No. CAR000002, adopted September 2, 2009.

Regional and County Programs and Regulations

Regional Water Quality Control Board (San Francisco Bay Region)

The project site is within the jurisdiction of the San Francisco Bay RWQCB. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the San Francisco RWQCB's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives.

Basin Plan for San Francisco Bay

The Basin Plan established water quality objectives for total dissolved solids (TDS), mineral constituents, and turbidity on a watershed-by-watershed basis within the region, while objectives for total and fecal coliform bacteria, nutrients (total nitrogen and total phosphorus), pH, dissolved oxygen, and un-ionized ammonia are set on a region-wide basis.

Total Maximum Daily Loads (TMDLs)

Under section 303(d) of the Clean Water Act, States, territories, and authorized tribes are required to develop lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet the water quality standards set by the relevant regulatory agency. The law requires that these jurisdictions establish priority rankings for waters on the lists and develop a calculation of the maximum amount of a pollutant that the impaired water body can receive and still safely meet water quality standards.⁴ This calculation is called a Total Maximum Daily Load (TMDL). The TMDL approach provides a framework for evaluating pollution control efforts and for coordination between federal, State, and local efforts to meet water quality standards. TMDLs are adopted as amendments to the Basin Plan.

San Francisco Bay Conservation and Development Commission (BCDC)

McAteer-Petris Act

The McAteer-Petris Act is a provision under California law that preserves San Francisco Bay from indiscriminate filling. The act established the San Francisco Bay Conservation and Development Commission (BCDC) as the agency in-charge with preparing a plan for the long-term use of the Bay and regulating development in and around the Bay while the plan was being prepared. The San Francisco Bay Plan, completed in January 1969, includes policies on 18 issues critical to the wise use of the Bay, ranging from ports and public access to design considerations and weather. The McAteer-Petris Act authorizes BCDC to incorporate the policies of the Bay Plan into state law. The Bay Plan has two features: policies to guide future uses of the Bay and shoreline, and maps that apply these policies to the bay and the shoreline. BCDC conducts the regulatory process in accordance with the Bay Plan policies and maps. These policies guide the protection and development of the bay and its tributary waterways, marshes, managed wetlands, salt ponds, and shoreline.

⁴ U.S. Environmental Protection Agency (EPA). *Impaired Waters and Total Maximum Daily Loads*, <http://www.epa.gov/OWOW/tmdl/>, accessed on February 25, 2010.

BCDC has jurisdiction over areas within “a shoreline band that consists of all territory located between the shoreline of the Bay and a line 100 feet landward of and parallel with that line.”⁵ The proposed project includes activity within the Bay and within the 100-foot shoreline band and is therefore subject to BCDC requirements.

Discussion of Impacts

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

Less Than Significant. The proposed project would not violate any water quality standards or waste discharge requirements. While long-term water quality impacts from site restoration are expected to be beneficial, construction that would disturb approximately 1.0 acre of ground could potentially cause short-term impacts to the project site. During construction the proposed project could potentially violate water quality standards or waste discharge requirements if sediment-laden runoff from disturbed work areas enters local waterways and increases turbidity or if fuel or other construction chemicals are accidentally spilled or leaked into the water. However, implementation of the spill prevention and control plan required as a part of the project description as well as preparation and implementation of the required SWPPP would ensure that impacts would be less than significant.

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.***

Less Than Significant. The proposed project does not involve groundwater pumping or construction of large impervious areas. There are therefore no activities that would affect groundwater supplies or recharge in the area and the impact would be less than significant.

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.***

Less Than Significant. The proposed project would involve earthwork and grading, including the regrading of dune habitat. This could potentially result in substantial erosion or siltation on- or off-site that could adversely affect the quality of receiving waters, including San Francisco Bay waters. However, preparation and implementation of the required SWPPP would ensure that impacts would be less than significant.

d) ***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 or otherwise substantially degrade water quality.***

Less Than Significant. Runoff from the project site currently flows into San Francisco Bay. The proposed project would not add any impervious surfaces to the project site and therefore would not result in an increase in stormwater runoff to the Bay. Drainage at the project site would remain similar as under existing conditions. Therefore, the project would

⁵ BCDC (2007). *The San Francisco Bay Plan*. http://www.bcdc.ca.gov/plans/sfbay_plan.html

not adversely affect capacity of the existing off-site stormwater drainage system. This is considered a less than significant impact.

- e) ***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.***

Less Than Significant. The proposed project would not add any impervious surfaces to the project site. Drainage on the project site would remain the same as under existing conditions where the beach and dunes on-site allow for percolation. As the project site is located along the bay shoreline, any surface water that does not percolate into the ground may runoff into the Bay. However, the proposed project would not alter the drainage on-site from existing conditions or result in an increase in runoff. Therefore, the proposed project would have a less than significant impact related to storm water runoff flooding on- and off-site.

- f) ***Otherwise substantially degrade water quality.***

Less Than Significant. The proposed restoration of the project site would not substantially degrade water quality by any means other than those discussed under item (a) above.

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

No Impact. No housing or structures would be built as part of the project and there would be no impact.

- 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.***

No Impact. The proposed project would restore native dune and beach habitat on the site and would not involve the development of residences or other structures on the site. Furthermore, the project site is located along the Alameda Point Shoreline and there are no dams located within the City of Alameda. The proposed project would have no impact related to flooding as a result of a levee or dam failure.

- j) ***Inundation by seiche, tsunami, or mudflow.***

Less Than Significant. The new access road and wetland could potentially be inundated by a large tsunami or seiche event. According to ABAG's Resilience Program Hazard Mapping, the project site is located within a tsunami hazard zone. However, no structures are proposed associated with this project that could be damaged by a seiche or tsunami. The National Warning System would provide warning to the City and the City would rely on its existing system of emergency notification developed for multi-hazard response to warn trail users and close trail segments as necessary. Therefore, the impact would be less than significant.

4.10 Land Use and Planning

X. LAND USE AND PLANNING – Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,10
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,10
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,10

Environmental Setting

The project site is in the East Bay region of the San Francisco Bay area, within western Alameda County. The northern edge of the project site is at terminus of Alameda Point Shoreline in the City of Alameda, while the southern, western, eastern sides of the project site are all surrounded by the San Francisco Bay. The project site is located on Assessor's Parcel Number for the site is 74-890-4 and there is no physical address for the parcel. The project site is zoned Alameda Point – Open Space and has a general plan designation of Parks and Public Open Space.

The City of Alameda General Plan provides policies and implementation strategies for management of the resources and land uses in the City, and the City Codes provide restrictions and requirements to protect resources and comply with local, state, and federal laws. The proposed project is subject to the City of Alameda General Plan and City of Alameda Zoning Ordinance. No habitat conservation plans have been adopted for the area.

Regulatory Setting

City of Alameda General Plan

The proposed project is subject to the following applicable General Plan policies:

Open Space and Conservation Element

5.1.a Preserve and enhance all wetlands and water-related habitat.

5.1.b Protect Open Space-Habitat areas, including sensitive submerged tidelands areas (mudflats) and eelgrass beds, from intrusions by motorized recreational craft, including jet skis and hovercraft.

- 5.1.q Work with East Bay Regional Park District and other appropriate agencies to improve, protect, and preserve Crown memorial Stat Beach and Alameda Beach as habitat as well as recreational resources.
- 5.1.x Prevent migration of runoff off-site or into wetland areas and water-related habitat by requiring that proposed projects include design features ensuring detention of sediment and contaminants.
- 5.2.a Protect and preserve Bay waters and vegetation as nurseries and spawning grounds for fish and other aquatic species, both as part of habitat preservation and to encourage continued use of the Bay for commercial fishing production.

City of Alameda Zoning Ordinance

The project site has the zoning designation of Alameda Point – Open Space.

Section 30-4.24 *The Alameda Point Zoning District is comprised of six Sub-districts. The Open Space sub-district provides lands for parks, recreation, trails and large-scale public assembly and event areas consistent with the Public Trust Agreement. Development standards are intended to support maximum public access, use and enjoyment of these lands, and the protection of natural habitat and wildlife. Use standards are intended to allow for a variety of public open space and compatible uses, such as museums, concessions and parking areas necessary for public use of these lands, in a manner that ensures the protection of the natural environment. Residential, office, and non-visitor serving or non-maritime oriented commercial uses are not permitted in this sub-district.*

Bay Conservation and Development Commission (BCDC)

BCDC is responsible for the regulation of construction activities in close proximity to the Bay, including, but not limited to: regulating all filling and dredging in the Bay; regulating all new development within the first 100 feet inland of the Bay shoreline; ensuring that public access to the shoreline is provided; and protecting the Bay for water related industries, water-oriented sports, airports, and wildlife refuges. Approval from BCDC would be required for infrastructure, landscaping, and revetment repair activities within the 100-foot shoreline band along the Project Area. A permit may be an administrative (minor) or major development permit, depending on what work is being done at the site.

San Francisco Estuary Project Comprehensive Conservation and Management Plan (CCMP)

The San Francisco Estuary Project is a cooperative effort to promote effective management of the Bay-Delta Estuary, and to restore and maintain its water quality and natural resources.

Action AR-2.2 Prohibit and prevent the intentional, illegal, and unintentional introduction of non-native invasive species into the Estuary and its watershed.

Action AR-2.3 Control problem non-native invasive species already in the Estuary.

Action AR-2.7 Identify and control sources and sinks of contaminants that may affect fish populations or ecosystem health.

Discussion of Impacts

a) ***Physically divide an established community?***

No Impact. The project involves restoration of dune and beach habitat on existing open space parcels. The project site abuts the San Francisco Bay, 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?***

Less Than Significant. A proposed project would have a significant impact if it were to 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. The proposed project is subject to several local policies, plans, and regulations, as described above. The proposed site restoration would not alter or affect any existing land uses on the project site or the surrounding area. The proposed project would not conflict with the land use designation for the project site and supports efforts to improve water quality and native habitats. The proposed project is consistent with all applicable land use plans, policies, and regulations, and therefore impacts would be less than significant.

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

No Impact. No habitat conservation plans or similar plans have been adopted by the City of Alameda, or Alameda County for the project site and immediately surrounding area. The Comprehensive Conservation and Management Plan (CCMP) for the San Francisco Estuary Project (SFEP), although not a regulatory document, includes recommendations and long-term goals for Bay habitats potentially affected by project activities. The proposed project is intended to restore habitat and remove invasive species along the Bay and therefore, the proposed project is consistent with this plan.

4.11 Mineral Resources

XI. MINERAL RESOURCES — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,10
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,10

Environmental Setting

The project site is located along the shoreline of Alameda Point and the site's geology is comprised entirely of artificial fill. According to the Mineral Resources Data System, managed by the U.S. Geological Survey (USGS), there are no mineral resources known or prospect within the project site.⁶

Discussion of Impacts

a, b) 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, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The project area does not contain any lands designated for mineral production or known for mineral deposits according to the USGS. Furthermore, the development of the proposed project would not preclude future excavation of oil or minerals should such resources be found. Therefore, the proposed project would have no impact on mineral resources.

⁶ USGS (2011). Mineral Resource Data System (MRDS). Website: <http://mrddata.usgs.gov/general/map.html>

4.12 Noise

XII. NOISE — Would the project result in:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,6,1 2
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
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 of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Environmental Setting

The project site is located in the City of Alameda, along the Alameda Point shoreline within the tidal influence of San Francisco Bay. The project site is surrounded by waters of the San Francisco Bay on the east, south, and western sides of the site. Urban development is located to the north of the site. The Encinal Boat Ramp and associated parking lot are located directly adjacent to the project site. The closest sensitive noise receptor to the project site is Encinal High School which is located approximately 100 feet to the east of the site. The primary noise sources in the project area include aircraft noise, automobile and truck noise, and noise associated with various commercial, industrial, recreational, and educational land uses. Short-term noise measurements taken for the Alameda Point Project Draft Environmental Impact Report at the adjacent parking lot to the project site (50 feet from Viking Street centerline and 50 feet from West Hornet Avenue centerline) ranged from 51 leq (dBA) to 58 Lmax (dBA).

Regulatory Setting

Local

City of Alameda Municipal Code

- Section 4.10-4(c) In the event the measured ambient noise level exceeds the applicable noise level standard in any category listed in Table 2 below, the applicable standards shall be adjusted so as to equal said ambient noise level.
- Section 4.10-4(d) Each of the noise level standards specified in Table 2 shall be reduced by five (5) dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.
- Section 4.10-4(e) If the intruding noise source is continuous and cannot be reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the applicable noise standards in Table 2.
- Section 4-10.5(b)10 Construction noise is exempted from the noise standards provided it is limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. and 5:00 p.m. on Saturdays.

Table 2. Exterior Noise Standards

Location	Cumulative Number of Minutes in Any One Hour Time Period	7:00 a.m. to 10:00 p.m. (dBA)	10:00 p.m. to 7:00 a.m. (dBA)
Single or Multiple Family Residential, School, Hospital, Church, or Public Library Properties	30	55	50
	15	60	55
	5	65	60
	1	70	65
	0	75	70
Commercial Properties	30	65	60
	15	70	65
	5	75	70
	1	80	75
	0	85	80

Source: City of Alameda Municipal Code (2012). Article II. Noise Regulations Tables I and II – Receiving Land Uses.
Website: <https://www.municode.com/library/ca/alameda/codes/>

City of Alameda General Plan

The Health and Safety Element of the City of Alameda General Plan includes the following policies related to noise that would be applicable to the proposed project:

- 8.7.a Minimize vehicular and stationary noise sources, and noise emanating from temporary activities.
- 8.7.g Minimize the impact of aircraft, railroad, and truck noise by requiring that noise levels cause by single events be controlled to 50 dB in bedrooms and 55 dB in living areas within the 60 dB contour.
- 8.7.h In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be “significant”:
 - An increase in noise exposure of 4 or more dB if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1.
 - Any increase of 6 dB or more, due to the potential for adverse community response.
- 8.7.i Continue to enforce the Community Noise Ordinance.
- 8.7.j Enforce compliance with noise emissions standards for all types of automotive vehicles established by the California Vehicle Code and by Federal regulations.
- 8.7.l Maintain day and nighttime truck routes that minimize the number of residents exposed to truck noise.

Discussion of Impacts

The discussion of project impacts follows the noise- and vibration-related CEQA checklist questions as summarized below. The primary noise issue associated with the project would be temporary construction activities. CEQA checklist questions a) and d) evaluate the potential for noise impacts attributable to construction. Item a) evaluates construction noise with regard to applicable local limits contained in the City of Alameda Municipal Code and General Plan. Item d) evaluates the temporary noise resulting from project construction activities with respect to activity interference thresholds. Construction activities would also have the potential to result in excessive groundborne vibration levels. This issue is addressed under Item b). Item c) evaluates the potential for substantial permanent increases in ambient noise levels, and Items e) and f) evaluate the potential exposure of persons or workers to excessive aircraft noise.

a,d) *Would the project result in 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?*

Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant with Mitigation Incorporated. The proposed project is located within the City of Alameda, which has established regulations within the Municipal Code and noise guidelines within the General Plan.

Section 4-10.5(b)10 of the City's Municipal Code exempts construction noise from the noise standards provided in Table 2 above provided that it is limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays. Project construction activities would occur during allowable hours (7 a.m. to 7 p.m. Monday through Friday), consistent with the allowable hours of construction as described in the City of Alameda Municipal Code.

In addition to the City's Municipal Code, the City of Alameda Noise Element states the following:

In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be "significant":

An increase in noise exposure of 4 or more dB if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1.

Any increase of 6 dB or more, due to the potential for adverse community response.

The dune restoration and shoreline stabilization project would be accomplished through the excavation of fill previously deposited on the site, import of dune and beach sand fill to the site, and the removal of a barge structure and other debris on the site. As described in Section 3.0 (Project Description), the import of sand fill to the site estimates approximately 17 truck trips per day during the construction phase. Additional truck trips would be required to remove timber piles and other debris on the site. All equipment would be staged on the project site during construction. All equipment would access the site via Alameda Point Shoreline on the north side of the project site and an unnamed access road that parallels Hancock Street from Central Avenue to the Encinal Boat Ramp. Dump trucks taking debris removed from the construction site to an approved off-site disposal area would use this unnamed access road to Central Avenue to Main Street, to Atlantic Avenue, to Webster Street, to the Posey Tube, to Interstate 880. Construction is anticipated to take place during the dry season (May through October). Construction should take approximately three months to complete.

Equipment expected to be used for construction of the project is listed below:

- Long-Reach Excavator – Standard excavator used for most land-based construction projects. It would be used for all excavation activities in the project, including removing existing sand.
- Bulldozer – Standard bulldozer used for most land-based construction projects. It would be used for grading the site.
- Dump Truck – Standard dump truck used for most land based construction projects. It would be used to haul material excavated and for off-hauling all excess excavated materials to a selected disposal site. Each dump truck would have the capacity to hold

10 cubic yards of soil. Haul trailers capable of holding an additional 10 cubic yards of material may be hitched to dump trucks to increase capacity to reduce hauling trips.

- Loader – Standard loader used for most land-based construction projects. It would be used for placing excavated materials and debris into dump trucks.
- Water Truck – Standard water truck readily available in case the site produces dust.

Noise impacts from project construction activities are a function of the level of noise generated by individual pieces of construction equipment, the amount of equipment operating at any given time, the distance and sensitivities of nearby land uses, the presence of noise barriers or other structures that provide acoustical shielding, and the timing and duration of the noise-generating activities. The U.S. EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment (Table 3). These noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would reduce to 78 dBA at 100 feet from the source to the receptor, and reduce by another 6 dBA to 72 dBA at 200 feet from the source to the receptor. For the purposes of this analysis, the project would result in a significant construction noise impact if construction activity would occur outside of the allowable daytime hours specified by the City noise ordinance. As discussed in Section 3.0 (Project Description), project construction would occur during daytime hours from 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturdays in accordance with the City's Noise Ordinance. Therefore, project construction noise levels would be exempt from the noise standards provided in Table 2 above, and construction noise impacts would be less than significant.

Table 3. Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dBA L_{eq} at 50 Feet ^a
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

Notes:

^a Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Source: United States Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

- b) **Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

Less Than Significant. Construction activities can generate groundborne vibration that is feelable (causes annoyance) and in extreme cases, causes physical damage to nearby buildings. Groundborne vibration is typically associated with blasting operations, the use of pile drivers, and large-scale demolition activities, none of which are anticipated for the construction or operation of the proposed project. As such, no excessive groundborne vibration would be generated by the proposed project and these impacts would be less than significant.

- c) **Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

Less Than Significant. The proposed project would improve and enhance public access on the site; recreational anglers, beach users, and hikers on the Alameda Point Trail would have access the water and beach at the site. Up to two viewing areas would be located around the beach area to enhance passive recreation opportunities on the Bay Trail. The proposed project could therefore have the potential to increase usage of the site. However, the increased use of the site after construction is not anticipated to be significantly greater than existing conditions due to the relatively small scale improvements to the dunes and shoreline and because no additional parking spaces would be provided. The operation of the proposed project would not, therefore, cause a substantial permanent increase in the noise environment at receptors in the project vicinity and impacts would be less than significant.

- e) **For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?**

No Impact. The western portion of the former Alameda Naval base included two runways which are outside of the project site. These runways are no longer active and there is no associated airport land use plan associated with them. The nearest airport to the project site is the Oakland International Airport, which is approximately 5 miles southeast of the project site. The project is not located within two miles of a public airport or public use airport and would not expose people residing or working in the area to excessive noise levels; therefore, the project would result in no impact.

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

No Impact. The project is not located within the vicinity of a private airstrip and would not expose people residing or working in the area to excessive noise levels; therefore, there would be no impact.

4.13 Population and Housing

XIII. POPULATION AND HOUSING — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12

Environmental Setting

The project site is currently used as recreational open space and attracts marine anglers, kayakers, beachgoers, and visitors who use the San Francisco Bay Trail. The City of Alameda is an urban island city with limited developable land remaining within its boundaries, with the exception of the project area. According to the Department of Finance 2016 population estimates, Alameda's population was 79,277 on January 1, 2016. Between 2000 and 2010, the number of households decreased from 30,226 households (2000 Census) to 30,123 households (2010 Census). The number of households is projected by ABAG to increase to 36,570 households in 2040 (ABAG and MTC, 2012).

Discussion of Impacts

a-c) Induce substantial population growth in an area, either directly or indirectly, or displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not induce population growth, as it does not propose any new homes, businesses, or infrastructure that could potentially induce growth. No new permanent employment opportunities would be created from the proposed project. While a limited number of short-term employment opportunities would be created by the project, it is likely that these workers would come from the Bay Area and would not have to relocate their housing. The project would not displace any people, as there is no existing housing on the project site. Therefore, there would no impacts to population and housing.

4.14 Public Services

XIV. PUBLIC SERVICES — Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
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 public services:					1
i)	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
ii)	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
iii)	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12
iv)	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
v)	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,12

Environmental Setting

The Alameda Fire Department provides fire protection, fire prevention, and emergency medical services to the project site. The Alameda Police Department is located at 1555 Oak Street, approximately 3 miles from the project site. The Alameda Unified School District (AUSD) operates the public school system in the City of Alameda and administers 10 elementary schools, two middle schools, and four high schools. The City of Alameda has over 228 acres of developed parklands that include neighborhood parks, community parks, community open space, greenways, and regional parks. EBRPD spans Alameda and Contra Costa counties and operates 65 parks of approximately 113,000 acres and over 1,200 miles of trails. These parklands provide habitat for birds and other wildlife, in addition to recreational and educational activities for the public. The Alameda Free Library has three locations. The West End Library, located at 788 Santa Clara Avenue, is the closest library to the project site.

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:**

a-i) Fire Protection

Less Than Significant. Implementation of the proposed project would result in the restoration and enhancement of public recreational space, which could result in a slight increase in usage. A slightly higher level of visitation to the proposed project site may result in increased demands for fire protection and emergency services by the City of Alameda Fire Department. However, given the scope of the project, the proposed project is not anticipated to require the expansion of existing or the construction of new fire department facilities which could cause significant environmental impacts. Therefore, impacts would be less than significant for fire protection services.

a-ii) Police Protection

Less Than Significant. Implementation of the proposed project would result in the restoration and enhancement of public recreational space, which could result in a slight increase in usage. A slightly higher level of visitation to the project site may result in increased demands for police protection and emergency services by the City of Alameda Police Department. However, given the scope of the project, the proposed project is not anticipated to require the expansion of existing or the construction of new police department facilities which could cause significant environmental impacts. Therefore, impacts would be less than significant for police protection services.

a-iii) Schools

No Impact. The project does not propose any residential development, and therefore would not create new residential population that could affect the number of students attending public schools. Furthermore, the proposed project would not create any permanent jobs that would result in persons relocating to the area. Thus, the proposed project is not anticipated to induce population growth and no impact would occur.

a-iv) Parks

Less Than Significant. The proposed project would not affect existing neighborhood or regional parks or recreational facilities other than the project site (Encinal Beach Park). The project would provide improved open space for local and regional users and would continue to connect to the San Francisco Bay Trail. The proposed project would potentially increase use of the project site as recreational open space. However, this increase in use is not anticipated to require the expansion of parks or other recreational spaces which could cause significant environmental impacts. Impacts would be less than significant.

a-v) Other Public Facilities

No Impact. The project does not propose any residential development, and therefore would not create new residential population that could create additional demands on other public facilities, such as libraries. Therefore, the project is not anticipated to add to the current population and no impact would occur.

4.15 Recreation

XV. RECREATION — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12

Environmental Setting

The City of Alameda has over 228 acres of developed parklands that include neighborhood parks, community parks, community open space, greenways, and regional parks. EBRPD spans Alameda and Contra Costa counties and operates 65 parks of approximately 113,000 acres and over 1,200 miles of trails.

Discussion of Impacts

- a) ***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?***

Less Than Significant. The proposed project would not affect existing off-site neighborhood or regional parks or recreational facilities as it is not anticipated to induce population growth that could use such facilities. The project would provide dune restoration, shoreline stabilization, and improved open space for local and regional users and would continue to connect to the Alameda Point Trail and the planned route for the San Francisco Bay Trail.

- b) ***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. The proposed project would enhance current recreational facilities. Marine anglers, kayakers and beachgoers currently utilize the project site as a public beach. The Alameda Point Trail runs along the proposed project site. However, the Alameda Point Trail would remain open during project construction and orange construction fencing would be installed on either side of the trail. Equipment crossings would be limited, with caution signs installed. The access road from Central Avenue to the project site, as well as the stretch of Central Avenue from Hancock Street to Crown Drive, are designated “Planned” routes of the San Francisco Bay Trail. As the proposed project would utilize these routes for site access and truck hauling, minor delays may occur; however, these routes would remain open to the public during construction

activities. Potentially significant impacts from implementation of the project at Encinal Beach Park would be reduced to less than significant levels via the various construction measures and BMPs included in the Project Description and implementation of Mitigation Measures BIO-1a, BIO-1b, BIO-2, CULT-1 and CULT-2.

4.16 Transportation and Traffic

XVI. TRANSPORTATION/TRAFFIC — Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,12
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,11,12
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,11

Environmental Setting

The City of Alameda consists of Alameda Island and Bay Farm Island that are connected by Doolittle Drive / Otis Drive (State Route 61) across the San Leandro Channel. The proposed

project is located on Alameda Island, which is separated from the City of Oakland by the Oakland Estuary. Access to and from the island across the Oakland Estuary is provided by a one-way couplet of underwater tunnels at Webster and Harrison Streets (Webster and Posey Tubes) (State Route 260), and three draw bridges at Park Street / 29th Avenue, Tilden Way / Fruitvale Avenue, and High Street. Access between the project site and downtown Oakland is via the Webster and Posey Tubes and the one-way couplet of Seventh Street (eastbound) and Eighth Street (westbound). All of these streets run through Oakland's Chinatown neighborhood.

Regional vehicular access to the site is provided primarily by the freeway system that serves the Bay Area region. Specifically, Interstate 880 (I-880), connects the study area with the remainder of the interstate freeway network. Other key freeways in the study area include Interstate 980 (I-980), Interstate 580 (I-580), and State Route 24 (SR 24).

Key roadways that provide access to the project site include Webster Street, Main Street, Stargell Avenue, Atlantic Avenue, Pacifica Avenue, Central Avenue, and the unnamed access road south of Central Avenue. The Alameda Point Shoreline path also terminates at the project site.

Discussion of Impacts

Operational Trip Generation

The proposed project could have the potential to increase usage of the site. It can reasonably be assumed that visitors would come to view the restored natural habitat and beach. However, the increased use of the site after construction is not anticipated to be significantly greater than existing conditions due to the relatively small scale improvements to the dunes and shoreline and because no additional parking spaces would be provided.

Construction Trip Generation

Construction traffic would be temporary in nature lasting only for the duration of the construction activity. During the grading and construction phases, construction traffic would primarily consist of worker vehicles and trucks that would enter and exit the project site. The staging of construction equipment and worker vehicles would occur on the project site. Construction would occur during daytime hours from 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturdays in accordance with the City's Noise Ordinance. Most of the worker trips and most of the truck trips would occur during off-peak hours.

The restoration of the project site would require the excavation of approximately 650 CY of accumulated fill material which would not be reused on-site due to potential creosote contamination. Approximately 2,700 CY of sand would be imported to the site. The imported soil would be transported to the site in trucks with the capacity to haul 10 cubic yards of material. The project estimates that approximately 335 truck trips would be required to import this sand to the site over the duration of the construction period, or approximately 17 truck trips per day. Construction should take approximately three months to complete. Dump trucks taking debris from the construction site to an approved off-site disposal area would use the unnamed access road to Central Avenue to Webster Street, leading to the Posey Tube to Interstate 880.

- a) ***Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and 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. Construction traffic (equipment and materials transport, debris hauling off-site, sand import to the site and daily worker traffic) would increase traffic on local roads during the construction phase. All heavy equipment would be stored on-site during construction. Approximately 17 truck trips per day would be required to export fill and import sand to the site based on a 10-CY truck capacity. Trucks with the capacity to haul up to 20 CY could be used, in which case the number of truck trips could be cut in half to nine trips per day. Construction traffic would therefore be minimal and limited to an approximate three-month period, resulting in a less than significant impact. The

The increased use of the site after construction is not anticipated to be significantly greater than existing conditions due to the relatively small scale improvements to the dunes and shoreline and because no additional parking spaces would be provided. As such, operational traffic impacts are also considered to be less than significant.

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

Less Than Significant. As described above, the project would not significantly increase vehicle travel during the construction and operational phases. This limited level of vehicle trips would not conflict with the Alameda County Transportation Commission Congestion Management Program for the area. Impacts would be less than significant.

- 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. The project would not affect air traffic patterns and would have no effect on air traffic levels or safety.

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

No Impact. The project would not involve new road construction or activities that could increase hazards due to a design feature or incompatible uses.

- e) ***Result in inadequate emergency access?***

Less Than Significant. All existing access would be maintained, and there would be no modifications to existing access that could reduce access for emergency vehicles. Impacts relating to emergency access would be less than significant.

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

No Impact. The project would not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Construction of the proposed restoration project would provide minimal new trips to the road system and would have no effect on alternative transportation or policies.

4.17 Tribal Cultural Resources

XVII. TRIBAL CULTURAL RESOURCES — Would the project:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
a) 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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
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 Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11

Environmental Setting

In September 2014, the California Legislature passed Assembly Bill (“AB”) 52, which added provisions to the Public Resources Code (“PRC”) concerning the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze a project’s impacts on “tribal cultural resources,” separately from archaeological resources (PRC Section 21074; 21083.09). Under AB 52, “tribal cultural resources” include “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are either (1) listed, or determined to be eligible for listing, on the state or local register of historic resources; or (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource (PRC Section 21074). AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3). If a project may have a significant impact on a tribal cultural resource, the lead agency’s environmental document must discuss (1) whether the proposed project has a significant impact on an identified tribal cultural resource and (2) whether feasible alternatives or mitigation measures avoid or substantially less the impact on the identified tribal

cultural resource (PRC Section 21082.3(b)). Finally, AB 52 required the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09). AB 52's provisions apply to projects that have a notice of preparation filed on or after July 1, 2015.

Discussion of Impacts

a-i,ii) **No Impact.** In accordance with AB52, all tribes that have requested notification, were contacted requesting consultation for the proposed project. The Wilton Rancheria (Tribe) was the only tribe to request notification under AB52 for EBRPD projects. A project notification letter was sent to the Tribe on March 24, 2017 and the Tribe was given 30 days to respond. See Appendix D for documentation of tribal consultation. No response was received from the tribe within the 30-day response window, and therefore no tribal cultural resources have been identified within the project site. Criteria for listing on the California Register of Historical Resources is described in Section 4.5 (Cultural Resources). Based on the results of this consultation, no tribal cultural resources were identified on site that are listed or eligible for listing on the California Register of Historical Resources or a local register of historical resources. Furthermore, no tribal cultural resources have been identified on the site, which the lead agency has determined to be significant to a California Native American tribe. Therefore, the proposed project would not result in a substantial adverse change to any tribal cultural resources and no impact would occur.

4.18 Utilities and Service Systems

XVIII. UTILITIES AND SERVICE SYSTEMS — Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Source
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

Environmental Setting

No municipal water, sewer, or storm drains are located on-site. Portable restrooms are located on the adjacent City of Alameda property. One trash can is provided near the site entrance and Alameda County Industries provides residential, commercial, and industrial collection services for recyclables, organics and garbage in the project area.

Discussion of Impacts

a-e) Less Than Significant. Operation of the project would not generate wastewater or require a new water supply. Construction workers for the project would provide a portable

restroom for their own use, and the project would not result in any increase in wastewater discharge during construction activities. As construction activities would be temporary and minimal in duration, approximately three months, the project would not impact wastewater treatment or capacity. There are no sewer lines or storm drains located on the project site that would be impacted by restoration activities. As no water supply currently serves the site, and the project site would continue to serve as open space, no water supplies would be required during operation of the proposed project. Water would be trucked into the site during construction for the purpose of dust abatement and initial irrigation of plant materials. This water use would be minimal as construction is only anticipated to occur for approximately three months. The City of Alameda, in a separate project has proposed a restroom and outdoor beach shower be connected to existing utilities near the boat ramp and the parking lot. Recreational users of the park would have future access to those facilities, but they are not part of this project and any increase in use would be incidental. No new storm drainage facilities would be developed as a part of the project. Therefore, impacts to new storm drainage facilities, water, and wastewater would be less than significant.

- f, g) *Less Than Significant.*** The City of Alameda delivers its solid waste to the Davis Street Resource Recovery Complex located in San Leandro, where it is sorted and recyclable materials are recovered. Residual solid waste is disposed at the Altamont Landfill. The project would generate solid waste during construction, but all generated waste would be properly disposed at the Altamont Landfill which has sufficient capacity to receive the waste. Any materials used during construction would be properly disposed of in accordance with federal, state, and local regulations. As described in Section 3.0 (Project Description), creosote contaminated debris and sediment would be disposed of at a landfill licensed to handle possible creosote-contaminated waste. Impacts related to solid waste would be less than significant.

4.19 Mandatory and Findings of Significance

XIX. MANDATORY FINDINGS OF SIGNIFICANCE	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Source</i>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

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 with Mitigation Incorporated. The project could affect natural habitats or federally or state-listed species, including Essential Fish Habitat, and could result in impacts to undiscovered cultural artifacts. However, Mitigation Measures BIO-1a, BIO-1b, BIO-2, CULT-1 and CULT-2 would be required to be implemented that would reduce impacts to biological and cultural resources to less than significant levels.

- 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 with Mitigation Incorporated. The project includes construction measures and BMPs to minimize the temporary impacts of construction activities, and no significant long-term adverse impacts would occur. With these design features list in Section 3.0 (Project Description) as well as Mitigation Measures BIO-1a, BIO-1b, BIO-2, CULT-1 and CULT-2, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts on any resource, resulting in a less than significant impact.

Section 15130 of the CEQA *Guidelines* requires an evaluation of potential environmental impacts when the project’s incremental effect is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual 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. These impacts can result from a combination of the proposed project together with other projects causing related impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

A significant impact may occur if a project, in conjunction with other related projects in the area of the project, would result in impacts which are less than significant when viewed separately, but would be significant when viewed together. The project includes mitigation measure to minimize temporary impacts of construction activities, and no long-term adverse impacts are anticipated. With these measures, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts in conjunction with the implementation of other projects in the area such as the Site A – Alameda Point Master Plan, Encinal Boat Ramp, and Bay Area Water Trail projects. The proposed project is also consistent with the Open Space designation of the Alameda Point Master Plan. In addition, the Encinal Boat Ramp would include the repairs and expansion of the parking lot and boat ramp, and would also include stormwater infrastructure that would prevent flooding in the area, including the proposed project site.

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

Less than Significant with Mitigation Incorporated. The project, particularly during the construction phase, could result in temporary impacts to human beings. Potential adverse effects would be related to temporary increases in air pollutants during construction and any accidental spills of hazardous materials. However, implementation of construction measures and BMPs included in the Project Description as well as Mitigation Measures BIO-1a, BIO-1b, BIO-2, CULT-1 and CULT-2 would ensure these impacts are less than significant.

5.0 REPORT PREPARERS AND PERSONS/ORGANIZATIONS CONSULTED

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6.0 REFERENCES

6.1 Checklist Information Sources

1. Professional judgment and expertise of the environmental/technical specialists evaluating the project, based on a review of existing conditions and project details, including standard construction measures
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3. City of Alameda Zoning Map
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5. WRA (2016) Biological Resource Assessment Encinal Beach Restoration Project
6. Association of Bay Area Governments (ABAG) (2015) Resilience Program Hazard Mapping
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8. Oakland International Airport (2010) Airport Land Use Compatibility Plan
9. San Francisco Estuary Project (2007) Comprehensive Conservation and Management Plan
10. Federal Emergency Management Agency (FEMA) (2009) Flood Insurance Rate Map (FIRM)
11. Alameda County Transportation Commission (2013) Congestion Management Plan
12. ESA (2013) Draft Environmental Impact Report Alameda Point Project.

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