

SAN FRANCISCO BAY RESTORATION AUTHORITY

Staff Recommendation  
April 11, 2018

**ENCINAL DUNE RESTORATION AND SHORELINE STABILIZATION PROJECT**

Project No. RA-008  
Project Manager: Karen McDowell

**RECOMMENDED ACTION:** Authorization to disburse up to \$450,000 to the East Bay Regional Park District (EBRPD) to implement the Encinal Dune Restoration and Shoreline Stabilization Project, consisting of removal of shoreline debris, restoration of dune habitat, and creation of new trail and water access at Encinal Beach, City of Alameda, Alameda County.

**LOCATION:** Encinal Beach, City of Alameda, Alameda County; Measure AA Region: East Bay

**MEASURE AA PROGRAM CATEGORY:** Safe, Clean Water and Pollution Prevention Program; Vital Fish, Bird and Wildlife Habitat Program; and Shoreline Public Access Program.

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**EXHIBITS**

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Project Designs and Photographs](#)

Exhibit 3: [Final Initial Study/Mitigated Negative Declaration for the Encinal Dune Restoration and Shoreline Stabilization Project](#)

Exhibit 4: [Project Letters](#)

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**RESOLUTION AND FINDINGS:**

Staff recommends that the San Francisco Bay Restoration Authority adopt the following resolution pursuant to The San Francisco Bay Restoration Authority Act, Gov. Code § 66700-66706:

“The San Francisco Bay Restoration Authority hereby authorizes the disbursement of an amount not to exceed four hundred and fifty thousand dollars (\$450,000) to East Bay Regional Park District (EBRPD) to implement the Encinal Dune Restoration and Shoreline Stabilization Project, consisting of removal of shoreline debris, restoration of dune habitat, and creation of new trail and water access. Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Authority the following:

- a. A detailed work program, schedule, and budget.
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- b. Names and qualifications of any contractors to be employed in carrying out the project.
- c. A plan for acknowledgement of Authority funding.
- d. Evidence that all permits and approvals required to implement the project have been obtained.
- e. Evidence that the grantee has entered into a project labor agreement consistent with San Francisco Bay Restoration Authority Resolution 22.

Staff further recommends that the Authority adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the San Francisco Bay Restoration Authority hereby finds that:

- 2. The proposed authorization is consistent with The San Francisco Bay Restoration Authority Act, Gov. Code § 66700-66706.
- 3. The proposed authorization is consistent with The San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Measure (Measure AA).
- 4. The Authority has considered the “Final Initial Study and Mitigated Negative Declaration (MND) for the Encinal Dune Restoration and Shoreline Stabilization Project” (MND), attached to the accompanying staff recommendation as Exhibit 3, and comments received, and finds that on the basis of the whole record, the proposed project avoids, reduces or mitigates any possible significant environmental effect of the project and there is no substantial evidence that the proposed project, as mitigated, will have a significant effect on the environment.”

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**PROJECT SUMMARY:**

Staff recommends the disbursement of up to \$450,000 to East Bay Regional Park District (EBRPD) to implement the Encinal Dune Restoration and Shoreline Stabilization Project. The proposed project will remove invasive ice plant, restore dune habitat (0.32 acres), remove a rusting barge (0.06 acres) and other debris (0.14 acres), stabilize eroding shoreline, and establish a beach nourishment program for the sandy beach (0.19 acres) at Encinal Beach. The project will improve water access (0.06 acres) and create new trail linkages to the Encinal Boat Ramp and Alameda Point Trail.

The site offers excellent opportunities to restore the beach and adjacent dunes to a more natural condition while improving both recreation and habitat values. After removal of ice plant and revegetation of the upland dune area with native vegetation, the restored area will encourage plant diversity and provide habitat for the variety of wildlife that are found in the area. Once restored, the new beach environment will be able to provide habitat for three federally listed species (Western Snowy Plover, California Least Tern, and the Red Knot), and will benefit other water-associated birds.

In addition, the beach area is a popular launch site for non-motorized watercraft. By removing large woody debris and improving access to the beach EBRPD will be providing a better

recreational site both functionally and aesthetically. By removing the large rusty barge and stabilizing the shoreline they will be removing debris while protecting a portion of the Bay Trail from erosion and constructing watercraft improvements for a designated Bay Water Trail location.

The shore debris and barge removal portion of the 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 will 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 will 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 within the aquatic (intertidal) zone 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. Removing the large rusty barge and stabilizing the shoreline will improve the scenery and water quality while also protecting a portion of the Bay Trail from erosion.

As part of the site improvement effort, the ice plant (*Carpobrotus* sp.) will be eradicated prior to implementation of overall restoration design. Ice plant will be removed by hand or by other non-chemical, mechanical methods. The site will then be monitored for encroachment of any non-native plants, and treatment will be decided on case by case basis. It is anticipated that most follow-up treatment will also be conducted by hand or mechanical removal.

The shoreline stabilization, grading and beach nourishment portion of the project will include regrading of the beach escarpment. To the west, the escarpment will be graded into the adjacent embankment. Stone armor will help stabilize the bank in steeper sections, with other areas moving east involving cobble transition areas and the gradually sloping Water Access Area that would be graded and stabilized with pea gravel.

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.

A beach nourishment program is proposed to encourage establishment of dune habitat. The lower beach will 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 will use medium-grained sand to form a naturalized beach dune feature at elevations that, under current sea level rise projections, will reduce the frequency of inundation of the restored dune habitat areas at extreme high tides for a period of about 50 years.

The native dune restoration portion of the project will occur on approximately 0.32 acres (14,000 square feet) of the site. The restored dune area will be shaped and hydroseeded with native dune vegetation. Dune hillocks will be formed above the primary dune and will vary from one to three feet providing varying topography and habitat heterogeneity. Mulch and sand fences will

temporarily stabilize the sand until native plants are established. A split rail fence will 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. Another 0.30 acres (13,000 square feet) of the site would include landscaping with native grasses and shrubs.

The public access portion of 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 will 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 a simple perimeter fence and limited signage to protect the dune restoration.

Created in 1934, the EBRPD has been constructing, operating, and maintaining parks, trails, and open space in the East Bay for over 80 years. The EBRPD has the resources, expertise and track record for successfully delivering large complex restoration and public access projects. A recent example is the Dotson Family (Breuner) Marsh Restoration and Public Access Project in Richmond, Contra Costa County, at Point Pinole Regional Shoreline. EBRPD restored approximately 150 acres of high quality habitat for threatened and endangered species, such as the Ridgway's Rail and the salt marsh harvest mouse, and constructed public access features including a 1.5-mile extension of the San Francisco Bay Trail, a new parking lot, restroom, picnic area, and a spur trail. The project was designed to retain a mix of high quality habitat and public access with projected sea rise through 2080.

The project is supported by the local community and public meetings were held as part of the CEQA process. The East Bay Regional Park District meets regularly with the City of Alameda at regularly scheduled liaison meetings. These meetings are often held in the City of Alameda and give the community an opportunity to comment on projects, including the Encinal Beach Restoration and Shoreline Stabilization Project. Encinal Beach is a designated site on the San Francisco Bay Water Trail.

Encinal Beach is located in Alameda Point, the site of the former Naval Air Station Alameda, which operated from 1940-1997. The area was reopened by the City in 1999. The City is currently managing the planning and development of the former Naval Air Station to create a "strong employment and commercial base with a mix of open space, recreational, residential and retail values" (City of Alameda website). While the Encinal Beach habitat restoration is a relatively small geographic area, it represents an important opportunity to provide rich habitat and open space in an urban city in the process of transformation.

Design, engineering and analysis under the California Environmental Quality Act are complete. All permit applications have been submitted to the pertinent agencies and are expected to be completed by the time funding is fully approved and agreements signed. The Biological Opinion from the National Marine Fisheries Service has been received. The project is expecting permits from the Bay Conservation and Development Commission, the San Francisco Bay Regional Water Quality Control Board, the U.S. Army Corps of Engineers, and the city of Alameda (encroachment permit) by May 2018.

**Site Description:**

The project site is located in the East Bay region of the San Francisco Bay area, within the City and County of Alameda. Encinal Beach Park is on the southwestern shore of Alameda Island and

is leased to EBRPD by the City of Alameda. The project site is at the southeastern corner of the Alameda Point shoreline.

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. The 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 site is bordered by the Alameda Center Community Sailing Center, Encinal High School, and the Encinal Boat Ramp and parking, which is managed by the City of Alameda. 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 nonnative 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.

Encinal Beach is a designated put-in/take-out destination for the San Francisco Bay Water Trail and the proposed project will 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. This is a popular use site and represents an important opportunity to provide rich habitat and open space in city.

**PROJECT FINANCING**

<b>San Francisco Bay Restoration Authority</b>	<b>\$450,000</b>
EBRPD Measure WW Bond Funds	\$450,000
<b>Project Total</b>	<b>\$900,000</b>

**CONSISTENCY WITH AUTHORITY’S ENABLING LEGISLATION, THE SAN FRANCISCO BAY RESTORATION AUTHORITY ACT:**

The proposal is consistent with Section 66704.5(a), (b), and (e) of the San Francisco Bay Restoration Authority Act.

Under section 66704.5(a), “[t]he Authority may award grants to public and private entities, including, but not limited to, owners and operators of shoreline parcels in the San Francisco Bay area, excluding the Delta primary zone, for eligible projects in the counties within the authority’s jurisdiction.” EBRPD is a public agency that owns and operates shoreline parcels in the East Bay region of the San Francisco Bay area.

Under section 66704.5(b), “[a]n eligible project shall do at least one of the following: (1) Restore, protect, or enhance tidal wetlands, managed ponds, or natural habitats on the shoreline in the San Francisco Bay area, excluding the Delta primary zone...(3) Provide or improve public access or recreational amenities that are part of a project to restore, enhance, or protect tidal wetlands, managed ponds, or natural habitats...” The proposed project restores habitat by removing invasive ice plant, restoring dune habitat, stabilizing eroding shoreline, and

establishing a beach nourishment program for the sandy beach at Encinal Beach. The project provides public access by improving water access and creating new trail linkages to the Encinal Boat Ramp and Alameda Point Trail. Encinal Beach is a designated site on the San Francisco Bay Water Trail.

Under section 66704.5(e), “[g]rants awarded pursuant to subdivision (a) may be used to support all phases of planning, construction, monitoring, operation, and maintenance for projects that are eligible pursuant to subdivision (b).” The proposed project is a construction project that is consistent with this section.

### **CONSISTENCY WITH MEASURE AA PROGRAMS AND ACTIVITIES:**

Under Measure AA’s “Safe, Clean Water and Pollution Prevention Program...to remove pollution, trash and harmful toxins from the Bay in order to provide clean water for fish, birds, wildlife and people,” this project “[r]educe pollution levels through shoreline cleanup and trash removal from the Bay.” The shore debris and barge removal portion of the project will 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 removal near the existing dune habitat will 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. The existing derelict barge occupies approximately 0.06 acres (2,600 square feet) of the shoreline, and demolition will occur in place to the extent practicable.

Under Measure AA’s “Vital Fish, Bird and Wildlife Habitat Program... to significantly improve wildlife habitat that will support and increase vital populations of fish, birds, and other wildlife in and around the Bay,” this project will restore the beach (0.19 acres) and adjacent dunes (0.32 acres) to a more natural condition while improving both recreation and habitat values. By removing the ice plant and revegetating the upland dune area with native vegetation, the project will encourage plant diversity and provide potential habitat for a variety of wildlife that are found in the area. Once restored, the new beach environment has the potential to provide habitat for three federally listed species: Western Snowy Plover, California Least Tern, and the Red Knot.

Under Measure AA’s “Shoreline Public Access Program... to enhance the quality of life of Bay Area residents, including those with disabilities, through safer and improved public access, as part of and compatible with wildlife habitat restoration projects in and around the Bay,” this project will “[c]onstruct new, repair existing... public access trails, signs, and related facilities along the shoreline and manage these public access facilities.” The public access portion of 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. The decomposed granite trail from the boat launch to the beach is accessible to those with disabilities and a removable Mobi-mat<sup>1</sup> placed on the sand will provide access to people with disabilities from the trail to the water. Approximately 0.06 acres (2,600 square feet) of the site would

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<sup>1</sup> Mobi-mat<sup>®</sup> is a lightweight non-slip portable roll-out beach access pathway for individuals of all abilities, pedestrians, wheelchair users, etc. It includes white stripes for people with visual impairments.

become a cobble pocket beach to provide a kayak put-in/pull-out destination on the San Francisco Bay Water Trail.

**CONSISTENCY WITH MEASURE AA PRIORITIZATION CRITERIA:**

1. **Greatest positive impact.** The Encinal Beach Restoration project will improve shoreline habitat along San Francisco Bay and clean up accumulated structural debris, while simultaneously improving public access and shoreline stability in one of the most highly urbanized areas of the bay. This project has the greatest positive impact by balancing public access and habitat restoration in a way that will benefit all Bay Area residents.

Encinal Beach is a regional destination on the Water Trail and Bay Trail. The beach is currently littered with debris, a rusting barge and invasive ice plant. Erosion is severe and the site is at risk of inundation from sea level rise. These conditions are less than optimal for both park visitors and wildlife. The project will remove debris and legacy structures and restore 14,000 square feet of dunes. Interpretive and wayfinding signs will educate visitors about the restoration and why bay habitats are so important. The project will strengthen residents' sense of place and connection to San Francisco Bay.

The site offers excellent opportunities to restore the beach and adjacent dunes. By removing the ice plant and revegetating the upland dune area with native vegetation the restored area will encourage plant diversity and provide potential habitat for a variety of wildlife that found in the area. Once restored, the new beach environment has the potential to provide habitat for federally listed bird and fish species, and other water associated birds.

2. **Greatest long-term impact.** Dunes and beaches are rare in the central/east bay shoreline. The beach is at risk of disappearing due to sea level rise if no action is taken. The project will reduce the frequency of inundation at extremely high tides for 50 years.

The public access improvements also have a great long-term impact by strengthening residents' connection and access to the bay and bay shoreline. Interpretive and wayfinding signs will educate visitors about the restoration and why bay habitats are so important. By connecting the community with bay conservation and restoration, EBRPD will be fostering future generations of bay stewards.

3. **Leveraging resources and partnerships.** Measure AA funds would be leveraged by \$450,000 in EBRPD Measure WW Bond funds. These funds are secured and already committed to the project. In addition, the EBRPD has already fully funded and completed the design and environmental work on the project. The project is shovel ready.

The EBRPD is closely coordinating with the City of Alameda's Encinal Boat Launch project, which is adjacent to this project. The projects have been designed to complement each other and improve shoreline access at this beautiful dune and water access location on San Francisco Bay.

4. **Economically disadvantaged communities.** The project is located within an economically disadvantaged community as defined by San Francisco Bay Restoration Authority Guidelines (census tract and block group). Median income in this census tract is \$39,310. For some residents, this location may be a rare point of contact with the bay and bay wildlife. In addition to being located within a disadvantaged community, Encinal Beach is a regional facility that services the greater east bay.

The District is committed to access for all. One of many initiatives to serve economically disadvantaged communities is its “Parks Express” bus program. Parks Express provides subsidized bus tips to any regional park for groups of low-income youth, seniors and people with disabilities.

5. **Engage youth and young adults.** Encinal High School is within walking distance of the project and several teachers have already expressed interest in involving their students in ice plant removal, biological monitoring and/or other community based restoration. District stewardship staff will work with the high school and other groups in Alameda to involve the community in the restoration. Stewardship staff has a successful track record of using community-based restoration techniques, most recently at Elsie Romer Marsh at Crown Beach, also in the City of Alameda.
6. **Monitoring, maintenance, and stewardship.** The project’s CEQA analysis established mitigation and monitoring procedures for the project including performance measures for a successful dune restoration project. Regulatory permits will be secured prior to project construction. These permits will include monitoring periods and establish success criteria including vegetation coverage of the restored dunes.
7. **Coastal Conservancy’s San Francisco Bay Area Conservancy Program.** The project is consistent with the San Francisco Bay Area Conservancy Program’s Criteria, as follows:
- a. it is supported by several local/regional plans, including the:
    - East Bay Regional Park District Master Plan (2013)
    - Baylands Ecosystem Habitat Goals Update (2015)
    - California State Wildlife Action Plan (2015)
    - Enhanced San Francisco Bay Area Water Trail Plan (2011)
    - San Francisco Bay Trail Plan (1989)
  - b. The project will serve a regional constituency including Alameda and Contra Costa County residents, and the Bay Area as a whole.
  - c. The project can also be implemented in a timely way, with construction estimated for 2018 or 2019.
  - d. The project’s benefits, particularly regarding protection against erosion, invasive plants, and sea level rise, could be lost should the project not be implemented.
  - e. The project includes significant matching funds that are already secured from the EBRPD.
8. **San Francisco Bay Conservation and Development Commission’s Coastal Management Program.** The project meets the following priorities of the program: habitat restoration,

climate change resilience, setting goals and success criteria and creating resource-compatible public access.

9. **San Francisco Bay Joint Venture's Implementation Strategy.** Encinal Dune Restoration and Public Access Project has been submitted to San Francisco Bay Joint Venture for future inclusion on their list. The project is consistent with the SFBJV Implementation Strategy (Central Bay) in that it restores and enhances bay habitat already in public ownership and using funding partnerships (Measure AA and EBRPD funds).

### **COMPLIANCE WITH CEQA:**

The EBRPD, as the lead agency under the California Environmental Quality Act (CEQA) prepared a Final Initial Study and Mitigated Negative Declaration (MND) for the *Encinal Dune Restoration and Shoreline Stabilization Project*. The MND describes the proposed project and provides an assessment of the project's potential significant adverse impacts on the environment. The MND concludes that the proposed project will not have any significant effects on the environment after implementation of project design features, conservation measures, avoidance and minimization and mitigation measures, and best management practices.

The MNC was prepared in accordance with CEQA (Public Resources Code § 21000 et seq.) and CEQA Guidelines (California Code of Regulations Title 14, section 15000 et seq.). The EBRPD adopted the MND for this project on July 5, 2017.

The MND indicates that the proposed project will not have a significant effect on the environment with incorporation of certain mitigation measures. The only potential effects for which mitigation is proposed are in the areas of biological resources and cultural resources. The EBRPD and its contractors will be responsible for compliance with the mitigation measures. The potential significant effects on biological resources and cultural resources will be mitigated by the following measures:

#### **Biological Resources**

##### **Protected Species**

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
- Section 7 consultation, which may be formal or informal depending on the potential for “take” of an ESA protected species to occur with the project. If “take” is anticipated to occur, then formal consultation which concludes with the issuance of a biological opinion that contains reasonable and prudent [measures] 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.

#### **Wetlands**

The project would involve work in waters potentially subject to Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act and the jurisdiction of the Regional Water Quality Control Board under the Porter Cologne Act and Section 401 of the Clean Water Act. The proposed project would also involve work in the Bay Conservation and Development Commission’s jurisdiction. These impacts are considered to be potentially 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 in intertidal areas 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.

## **Cultural Resources**

### **Prehistoric or Archaeological Sites**

No evidence of prehistoric or historic archaeological sites have been identified 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.

### **Formal Cemeteries or Other Places of Human Interment**

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.

Authority staff has independently evaluated the Mitigated Negative Declaration, and concurs that there is no substantial evidence that the proposed project will have a significant effect on the environment. Staff therefore recommends that the Authority find that the project, as mitigated, avoids, reduces, or mitigates the possible significant environmental effects of the project to a less-than-significant level and that there is no substantial evidence that the project, as mitigated, will have a significant effect on the environment.

Upon approval of the project, Authority staff will file a Notice of Determination.