San Francisco Bay Conservation and Development Commission
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January 9, 2015

TO: Commissioners and Alternates

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SUBJECT: **Staff Recommendation on BCDC Permit Application No. 2014.005.00; Phase 1 of the Albany Beach Restoration and Public Access Project, in the Eastshore State Park, in the cities of Albany and Berkeley, Alameda County**
(For Commission consideration on January 15, 2015)

Recommendation Summary

The staff recommends approval of BCDC Permit No. 2014.005.00, to the East Bay Regional Park District (EBRPD), which, as conditioned, will result in the following, all at or adjacent to Albany Neck, in Eastshore State Park:

1. Construction of an engineered shoreline revetment that will prevent exposure of landfill debris to Bay waters;
2. Installation of a variety of habitat features that will improve habitat at the site for a variety of wildlife and aquatic organisms; and
3. Improvements to an existing shoreline pathway that will include new ADA-compliant surfacing, an adjacent shoreline planting area, and a pathway extension that will provide direct, ADA-accessible access to Albany Beach.

Staff Recommendation

The staff recommends that the Commission adopt the following resolution:

I. Authorization

A. **Authorized Project**. Subject to the conditions stated below, the East Bay Regional Park District (EBRPD) is hereby granted permission to conduct activities in the Bay and within the 100-foot shoreline band as part of Phase 1 of the "Albany Beach Restoration and Public Access Project", along the Albany "Neck", in the Eastshore State Park, at a site

designated as a “waterfront park/beach” priority use area on Bay Plan Map No. 5, at the end of Buchanan Street, in the Cities of Albany and Berkeley, Alameda County. Authorized work includes the following:

In the Bay:

1. Install, use and maintain, in-kind, a 1,800 linear-foot, 72,716-square-foot (1.67 acres) shoreline revetment along the southern shoreline of the Albany “Neck” by doing the following:
    a. Remove 1,712 cubic yards of un-engineered concrete, rock and debris from an approximately 18,211-square-foot (0.42 acre) portion of the Bay currently acting to protect the shoreline; and
    b. Place approximately 2,100 cubic yards of engineered rock to construct a 15,769-square-foot (0.36 acre) portion of the revetment; and
2. Place fill to create and maintain the following habitat features: (a) 250 cubic yards of pebble rock to create a 2,000-square-foot (0.05 acre) beach; (b) 325 cubic yards of rock to create three bird roosting islands covering a total of 5,800 square feet (0.13 acre); (c) 425 cubic yards of rock and oyster shell to create a 3,500-square-foot (0.08 acre) crescent-shaped reef for oyster recruitment; (d) 50 cubic yards of rock to create four porous tide pools, covering 300 square feet (0.01 acre); and (e) 500 cubic yards of rock to create a 2,100-square-foot (0.05 acre) groin/rock headland that will extend bayward from the shoreline. A total of 13,700 square feet (0.31 acre) of fill will be placed to create these habitats.

Within the 100-foot shoreline band:

1. Install, use and maintain, in-kind, a 1,800 linear-foot, 72,716-square-foot (1.67 acres) upland portion of the shoreline revetment along the southern shoreline of the Albany “Neck” by removing 8,391 cubic yards of unengineered concrete and debris from 50,902 square feet (1.17 acre) of the shoreline, and installing, using, and maintaining, in-kind, the upland portion of the shoreline revetment covering approximately 56,947 square feet (1.31 acres) of the shoreline;
2. Repair, extend and improve an existing 2,490-linear foot public access trail along the Albany “Neck” by doing the following:
    a. Remove debris (broken concrete, asphalt and rubble) from and adjacent to the existing trail;
    b. Reconstruct the trail by relocating the trail approximately five feet (on average) to the north (away from the Bay) to accommodate a shoreline planting area, provide a consistent path width of 14 to 16 feet, resurface the trail with a semi-permeable material, construct a 44-foot-long trail to provide a direct connection from the Bay Trail spur to Albany Beach, and make all trails ADA-compliant;

c. Install and maintain a 25- to 30-foot-wide, 2,065-foot-long shoreline planting area adjacent to the southern-edge of the trail to create habitat and aid in minimizing potential effects of public access use of the trail on wildlife; and

d. Install, use and remove, upon completion of construction activities, the following: (1) a 129,000-square-foot (2.96 acre) construction staging area, of which 17,000 square feet (0.39 acre) will be in the Commission's jurisdiction in the Albany "Plateau"; and (2) a five- to eight-foot-wide, 1,800-foot-long temporary pedestrian pathway near the center of the "neck" to allow continued public access to the park during construction activities.

B. **Application Date**. This authority is generally pursuant to and limited by the permittee's application dated July 3, 2014, including all accompanying and subsequent correspondence and exhibits, but subject to the modifications required by conditions hereto.

C. **Deadlines for Commencing and Completing Authorized Work**. Construction activities authorized herein must commence prior to December 31, 2015, or this permit will lapse and become null and void. All construction work authorized herein must be diligently pursued to completion and completed within two years of project commencement or by December 31, 2017, whichever is earlier, unless an extension of time is granted by amendment of the permit. All in-kind maintenance authorized herein is allowed as long as activities and uses authorized herein remain in place and as long as relevant title documents, including leases, are valid.

D. **Project Summary**. The project will result in the removal of 69,113 square feet of failing shoreline revetment, of which 18,211 square feet is located in the Bay, and installation of a 72,716-square-foot engineered revetment, of which 15,769 square feet will be located in the Bay. There will be an overall decrease in Bay fill of 2,442 square feet as a result of the revetment reconstruction. Five habitat features will be installed with the project that will cover 13,700 square feet of the Bay and will provide habitat for a variety of aquatic organisms and wildlife. Public access provided with the project consists of reconstructing an existing 2,490-foot-long public access trail by shifting the trail location slightly north (away from the Bay) and narrowing its width to 14- to 16-feet to provide an adjacent 30-foot-wide planting area. The reconstructed trail will be re-graded to provide a smooth and even surface and will be repaved with a semi-permeable material. An additional six-foot-wide, 44-foot-long trail extension will be installed at the eastern end of the existing trail that will provide direct access to Albany Beach. All public access improvements will comply with ADA-requirements. The project will provide a total of 99,564 square feet of new and/or improved public access (37,614 square feet of pathways and 61,950 square feet of planting area).

II. Special Conditions

The authorization made herein shall be subject to the following special conditions, in addition to the standard conditions in Part IV:

A. Plan Review and Approval

1. **Construction in Accord with Plans.** The project constructed pursuant to this permit shall generally conform with the plans entitled "Albany Beach Public Access and Restoration Phase 1" revised through dated August 8, 2014, and prepared by Questa Engineering Corporation, and all accompanying and subsequent correspondence and exhibits. Final project plans shall be prepared and submitted for staff review and approval by or on behalf of the Commission, as described below.

2. **Plan Review**. No work authorized herein shall commence until final site plans, including for demolition, grading, staging, construction, engineering, and landscaping activities authorized herein, have been submitted to, reviewed, and approved in writing by or on behalf of the Commission. Specific drawings and information required in such plans shall be discussed and determined in coordination with Commission staff prior to submittal. To save time, preliminary drawings should be submitted and reviewed prior to submittal of final drawings. The plans shall be accompanied by a letter requesting plan review and approval and identifying the type of plans. At a minimum, plans shall include: the shoreline (Mean High Water (MHW)), the 100-foot line inland of MHW, property lines, the boundaries of areas to be reserved for public access, and the location, dimensions, and materials of all elements of the project authorized herein. All plan review shall be completed by or on behalf of the Commission within 45 days after receipt of such plans.

   a. **Shoreline Revetment**. The revetment plans shall consist of diagrams and cross-sections that: (1) show and clearly label the MHW referenced to NGVD29 or NAVD 88, property lines, grading limits, and details showing the location, types, and dimensions of all materials to be used; (2) indicate the source of all materials to be used; and (3) identify who designed the shoreline protection improvements and their background in coastal engineering.

      Riprap material shall be either quarry rock or specially cast or carefully selected concrete pieces free of reinforcing steel and other extraneous material and conform to quality requirements for specific gravity, absorption, and durability specified by the California Department of Transportation or the U. S. Army Corps of Engineers. The material shall be generally spheroid-shaped. The overall thickness of the slope protection shall be no more than three feet measured perpendicular to the slope. Use of dirt, small concrete rubble, concrete pieces with exposed rebar, large and odd-shaped pieces of concrete, and asphalt concrete as riprap is prohibited, unless designed as part of the revetment to provide habitat.

Riprap material shall be placed so that a permanent shoreline with a minimum amount of fill is established by means of an engineered slope not steeper than two (horizontal) to one (vertical) unless the revetment is keyed at the toe. The revetment slope shall be created by the placement of a filter layer protected by riprap material of sufficient size to withstand wind and wave generated forces at the site. The revetment shall be constructed in a manner that approximately matches the grade at the adjacent properties to provide a gradual transition between these shoreline features and, at a later date, facilitate integration of these features.

3. **Plan Approval**. Plan approval or disapproval shall be based upon: (a) completeness and accuracy of the plans in showing features authorized herein; (b) consistency of the plans with the terms and conditions of this permit; (c) assurance that any Bay fill does not exceed this authorization and any work within the 100-foot shoreline band conforms with public access improvements authorized or required herein; (d) the appropriateness of the types of fill material and their manner of placement; (e) the preparation of the plans by professionals and their official stamp of or certification of approval; and (f) assurance that appropriate provisions have been incorporated for safety in case of a seismic or future flooding event.

4. **Conformity with Final Approved Plans**. Prior to commencement of any work authorized herein, the appropriate design professional(s) of record shall certify in writing that, through personal knowledge, the work covered by the authorization will be performed in accordance with the approved design criteria and in substantial conformance with the approved plans. All improvements constructed pursuant to this permit shall conform to the final approved plans. No changes shall be made thereafter to any final plans or to the constructed shoreline protection improvements without first obtaining written approval of the change(s) by or on behalf of the Commission.

5. **Discrepancies Between Approved Plans and Special Conditions**. In case of any discrepancy between final approved plans and special conditions of this authorization, the Special Condition shall prevail. The permittee are responsible for assuring that all plans accurately and fully reflect the special conditions of this authorization.

6. **Appeals of Plan Review Decisions**. Any plan approval, conditional plan approval or plan denial may be appealed by the permittee or any other interested party to the Design Review Board or, if necessary, subsequently to the Commission. Such appeals must be submitted to the Executive Director within 30 days of the plan review action and must include the specific reasons for appeal. The Design Review Board shall hold a public hearing and act on the appeal within 60 days of the receipt of the appeal. If subsequently appealed to the Commission, the Commission shall hold a public hearing and act on the appeal within 90 days of the receipt of the subsequent appeal.

B. **Public Access.**

1. **Improvements.** The public access improvements generally depicted on Exhibit A shall be completed and available for public access use by January 1, 2016. The public access improvements shall be consistent with the plans approved pursuant to Special Condition II.A of this authorization and substantially conform to the plans entitled, "Albany Beach Public Access and Restoration Phase 1," revised through dated August 8, 2014, and prepared by Questa Engineering Corporation. These improvements include the following:

   a. A 2,490-foot-long, 14- to 16-foot-wide public access pathway that shall be ADA-compliant and surfaced with a natural appearing surface treatment with low maintenance and high durability characteristics;

   b. A 2,065-foot-long, 25-30-foot-wide shoreline planting area that shall run parallel to the shoreline pathway and be hydro-seeded with plant seeds native to the Bay area (e.g., marsh gumplant, California poppy, blue-eyed grass, etc.);

   c. A 44-foot-long, 6-foot-wide pathway "extension" or connector trail that shall extend from the eastern end of the shoreline pathway (above) to Albany Beach. The pathway "extension" shall be ADA-compliant and surfaced with a surface material that is durable and can withstand environmental conditions at the site; and

   d. At least two public access signs, including one at the entrance to the spur trail and one wayfinding sign showing various trails available to park users.

2. **Use.** Until this permit is revoked, or otherwise modified by or on behalf of the Commission, the permittee shall construct, hold and maintain the 2,490-foot-long, 14- to 16-foot-wide reconstructed shoreline pathway and the 44-foot-long, 6-foot-wide pathway extension, as generally shown on Exhibit A, open to the public for access to the shoreline of San Francisco Bay and to the Bay itself for viewing, fishing, walking, picnicking, sitting, bicycling, and related purposes. The exact configuration of the public access areas shall be delineated on plans to be submitted to, and approved by or on behalf of the Commission pursuant to Special Condition II-A, herein.

3. **Maintenance**.

   a. The public access areas and improvements authorized and required herein shall be permanently maintained by and at the expense of the permittee or its assignees. Such maintenance shall include, but is not limited to, repairs to all path surfaces; replacement of any landscaped materials that die or become unkempt; repairs or replacement as needed of any public access amenities such as signs, trash receptacles, overlooks, and art; periodic cleanup of litter and other materials deposited within the access areas; removal of any encroach

ments into the access areas; and assuring that the public access signs remain in place and visible. Within 30 days after notification by staff, the permittee shall correct any maintenance deficiency noted in a staff inspection of the site; and

b. To ensure that views to the Bay are achieved from the public access area, all plantings adjacent to the shoreline pathway shall be kept to a height of four feet or lower.

4. **Assignment of Maintenance Responsibility.** Prior to assigning any portion of this permit, the permittee shall transfer maintenance responsibility of the public access area authorized and required herein to a public agency or other party acceptable to the Commission but only provided that the transferee agrees in writing, acceptable to counsel for the Commission, to be bound by all terms and conditions of this permit. If the permittee proposes to establish an entity that has a membership, such as a homeowners' association, the instrument shall also: (a) establish the authority of the entity to impose charges on its members to assure that the entity has sufficient financial resources to maintain all of the public access improvements and landscaping; (b) provide that the entity has the legal authority to take any and all actions necessary to maintain all of the public access improvements and landscaping; (c) provide that each and every member is jointly and severally responsible with each and every other member to maintain all of the public access improvements and landscaping pursuant to this permit; (d) provide that the Commission may serve all notices, including notices on any members, on the entity only; and (e) provide that the entity has the authority to accept a partial assignment of the amended permit for the purposes described above.

5. **Reasonable Rules and Restrictions**. The permittee may impose reasonable rules and restrictions for the use of the public access areas to correct particular problems that may arise. Such limitations, rules, and restrictions shall have first been approved in writing by or on behalf of the Commission upon a finding that the proposed rules will not significantly affect the public nature of the area, will not unduly interfere with reasonable public use of the public access areas, and will tend to correct a specific problem that the permittee has identified and substantiated. Rules may include restricting hours of use and delineating appropriate behavior.

6. **Required Public Access and Site Flooding**. The permittee shall implement strategies to ensure that the public access areas required herein are either protected against or resilient to future flooding and/or sea level rise. In the event that adaptation strategies to assure resilience and/or protection from tidal flooding will result in a significant visual or physical impact at the required public access areas so as to result in a decrease in area or impact the public's ability to use such areas and view the Bay, the permittee shall coordinate with the Commission staff to prepare an alternative public access plan and obtain the necessary authorization by or on behalf of the Commission to ensure the creation of equivalent public access associated with the project authorized herein.

7. **Public Access and Wildlife Compatibility.** By March 31 of every year, as part of the monitoring report through 2020, and in a brief letter thereafter, the permittee shall report on conflicts between public access use and adjacent wildlife habitat, and assess whether there are opportunities to reduce such conflicts. If conflicts are detected, the permittee shall propose and obtain Commission approval, if deemed necessary by Commission staff, to implement strategies (e.g., post and cable fencing, etc.) to reduce potential conflicts.

C. **Monitoring Plan and Program.** By March 31, 2015, the permittee shall submit and receive approval, by or on behalf of the Commission, of a monitoring plan that shall contain measures to assess whether the habitat features are persisting or being reshaped by natural forces, and are providing benefits for target species. The monitoring plan and program shall contain the following:

1. **Habitat Features**. A schedule for the submittal of monitoring reports shall be provided that encompasses a 5-year monitoring period, with monitoring events occurring each year following construction completion for a total of 5 monitoring events. The monitoring reports shall provide information on how the created habitats are persisting or being reshaped by natural forces, the success of the habitat features in providing habitat for target wildlife species, specifically information on the use of the habitat features by target animal species including bird use, oyster density, fish species presence or absence, evidence of predation, and any other anecdotal information that bears on the success of this program in providing the target habitat(s). The monitoring plan shall outline measures that will be employed, if any, if it is determined that the features are not providing the anticipated habitat benefits.

D. **Minimizing Impacts to Natural Resources.** All construction activities in the Bay authorized herein shall comply with the restrictions contained in the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) Endangered Species Act (ESA) Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation Management Act Essential Fish Habitat Response for the project, dated February 4, 2014, 2014. These measures to minimize disturbance to special-status species include: (i) all in-water construction activities shall be limited to June 1st through November 1st of any year to avoid impacts to migrating salmonids; (ii) all in-water work shall be conducted at low tide; and (iii) debris booms and silt curtains shall be used during construction activities. In addition, to reduce potential impacts to existing eelgrass beds, the permittee shall perform a pre-construction survey to determine the extent of the eelgrass bed; establish a work-exclusion zone a minimum of 10 feet from an adjacent eelgrass bed during all in-water construction activities; and perform a post-construction survey of the eelgrass bed. If impacts to eelgrass are detected, the permittee shall propose and implement mitigation, subject to approval, by or on behalf of the Commission.

E. **Water Quality Certification**. All construction activities in the Bay authorized herein shall comply with the requirements of the water quality certification dated May 7, 2014, issued by the California Regional Water Quality Control Board, San Francisco Bay Region, including the preparation of a Storm Water Pollution Prevention Plan (SWPPP), the use of silt fences, construction booms and straw wattles during construction and the restriction of in-water work to low tide events.

F. **Shoreline Revetment Maintenance.** The shoreline revetment authorized herein shall be regularly maintained by and at the expense of the permittee, any assignee, lessee, sublessee, or other successor in interest to the project. Maintenance shall include, but not be limited to, collecting any riprap materials that become dislodged and repositioning them in appropriate locations within the riprap covered areas, replacing in-kind riprap material that is lost, repairing the required filter fabric as needed, and removing debris that collects on top of the riprap. Revetment maintenance activities shall not result an increase Bay fill at the site. Within 30 days after notification by the staff of the Commission, the permittee or any successor or assignee shall correct any maintenance deficiency noted by the staff.

III. Findings and Declarations

This authorization is given on the basis of the Commission's findings and declarations that the work authorized herein is consistent with the McAteer-Petris Act, the *San Francisco Bay Plan* (Bay Plan), the California Environmental Quality Act (CEQA), and the Commission's amended management program for the San Francisco Bay segment of the California coastal zone for the following reasons:

A. **Use**. The project is located within a "waterfront park/beach" priority use area on Bay Plan Map No. 5. All of the proposed uses are consistent with this designation in that they will assure that the landfill debris that makes up the substructure of the park will remain contained and isolated from the Bay and public using the park, that habitat will be enhanced, enriching visitors experience, and that public access will be improved with the addition of landscaping and an ADA-compliant path surface.

B. **Bay Fill.** The Commission may authorize fill when the proposed fill complies with the requirements of Section 66605 of the McAteer-Petris Act, including: (a) the public benefits of the fill exceed the public detriment from the loss of water area, and the fill is limited to water-oriented uses (such as ports, water-related industry, airports, bridges, wildlife refuges, water-oriented recreation, and public assembly, water intake and discharge lines for desalinization plants and power generating plants requiring large amounts of water for cooling purposes or is "minor" to improve shoreline appearance or public access; (b) no alternative upland location exists for the fill and the fill is the minimum amount necessary; (c) the fill minimizes harmful effects to the bay area, including water quality and fertility of fish and wildlife resources; (d) the applicants have valid title to the property proposed to be filled; and (e) the fill will be constructed in accordance with sound safety standards and afford reasonable protection against the hazards of unstable geologic conditions or flooding.

The project will involve the removal of approximately 1,712 cubic yards of unengineered concrete, rock and debris covering an 18,211-square-foot (0.42 acre) area of the Bay, and the placement of 2,100 cubic yards of rock covering approximately 15,769 square feet (0.36 acres) of Bay surface within roughly the same footprint to provide an engineered revetment system.

In addition, the project includes placing approximately 1,550 cubic yards of rock and oyster shell covering 13,700 square feet of Bay surface to create a series of habitats such as bird roosting islands, a pebble beach, an oyster reef, and shorebird foraging areas. Portions of these habitat features will be below Mean High Water after fill placement, and will continue to remain in the Bay.

- **Public Benefit.** The existing shoreline consists of un-engineered construction debris placed over a 50-year period and that provides a measure of shoreline protection. The site was a former landfill that was closed in December 1989 and governed by Regional Water Quality Control Board Order No. 98-072. Continued erosion of the shoreline has exposed landfill debris to bay water. The existing loosely constructed revetment ranges in height from approximately 9 feet to 15 feet NAVD 88. Along most of its length, the revetment ranges in elevation from 12 feet to 14 feet NAVD88.

  The goals for the redesigned revetment include halting further erosion of the landfill materials and constructing a shoreline protection system that will be resilient to the current 100-year flood elevation at the site (9.2 feet NAVD 88) and the projected 100-year flood elevation at 2050 with a projected 12 inches of sea level rise (10.2 feet NAVD 88). The expected design life of the structure is approximately 35 years.

  The permittee retained Coast and Harbor, Inc., to perform a coastal engineering analysis for the project. Coast and Harbor, Inc. determined that building the revetment to an elevation of 12 feet NAVD 88 will protect the shoreline from current and projected 2050 100-year flood elevations. The permittee, in coordination with the RWQCB, evaluated a number of design options for the revetment. The public benefits of the selected revetment include limited Bay-exposure of landfill debris during construction, long-term containment of the debris in accord with the RWQCB landfill closure order for the site, and a reduction in the amount of fill over the existing revetment.

  The habitat features that will be constructed with the project will enhance existing subtidal and tidal habitats at the site and will provide increased foraging habitat for shorebirds, both public benefits.

- **Water Oriented Use.** While not explicitly defined as a “water-oriented use” in the McAteer-Petris Act, shoreline protection systems (e.g., rip rap, flood walls, etc.) have been authorized by the Commission in numerous projects around the Bay and have been found to be water-oriented. The San Francisco Bay Plan contains an entire section of Findings and Policies on Shoreline Protection in the Bay. Finding (b) of the Shoreline Protection section of the Bay Plan states, “Most structural shoreline protection projects involve some fill….”

In addition to fill for the revetment, the project will result in the placement of some fill to enhance existing habitat by creating habitat features such as bird roosting islands, a pebble beach, and an oyster reef. The project site is not designated a "wildlife refuge," (a water-oriented use defined in the McAteer-Petris Act), but in the past, the Commission has authorized some fill to create or enhance wildlife habitat in areas not designated as a wildlife refuge. For example: (1) BCDC Permit No. M2012.016 authorized the California State Coastal Conservancy to create California ridgway rail refuge islands totaling 5,760 square feet of fill at various marsh locations around the Bay, including some areas not within designated wildlife refuges; and (2) BCDC Permit No. M2010.032 authorized the Richardson Bay Audubon Center and Sanctuary and the Marin County Department of Parks and Open Space to place sand, gravel, rock and oyster shell over a 2.17-acre area to provide habitat for native oysters, foster beach replenishment, and create foraging habitat for shorebirds in Marin County near Mill Valley. In a designated wildlife refuge, the Commission recently concurred with the U.S. Fish and Wildlife Service that the placement of 31,565 cubic yards of material over 15 acres to enhance tidal marsh habitat and provide upland refugia at Sonoma Creek, in the San Pablo Bay National Wildlife Refuge, Sonoma County was consistent with its laws and policies (C2014.004.00). To ensure that the habitat features will provide the anticipated benefits, and assure that the project is consistent with the Bay Plan policies on natural resources which require restoration projects be monitored to assure project sustainability, Special Condition II-C has been included in this authorization requiring the permittee to monitor the habitat annually, for a period of five years following construction. A monitoring duration of five years was determined to be appropriate based on the relatively small size of all the restored habitats, and the expected rapid colonization and use of the restored features by native species.

- **Minor Fill for Improving Shoreline Appearance.** The current appearance of this regional park's shoreline is degraded and unsightly, with large pieces of concrete construction debris and exposed rebar in several locations. The new revetment system has been designed to provide a cohesive and uniform appearance, while minimizing erosion of the shoreline. In addition, by replacing the existing revetment, the public access trail along the "Neck" will be protected from continued erosion and rising sea levels, at least through 2050. The design of the revetment will also provide a more natural, irregular shoreline appearance, in contrast to present, linear conditions.
- **Upland Alternative.** The revetment is designed to provide shoreline protection from wave action and erosion, and contain landfill debris that has been placed in areas that once were Bay. The sole purpose of the fill placed to create habitat features is to enhance existing tidal and subtidal habitats. Thus, by the very nature of these activities, there is no upland alternative location for the revetment and habitat features.

- **Minimizing Harmful Effects.** Several measures will be employed during construction to ensure that the fill associated with the project is placed in a manner that minimizes harmful effects to the Bay. To ensure that the adjacent eelgrass bed is not affected during construction, a pre-construction eelgrass survey will be conducted to establish the extent of eelgrass present on site, a debris boom will be installed a minimum of 10 feet from an eelgrass bed to limit the migration of construction debris into the bed, and a post-construction eelgrass survey will be conducted to assess whether the eelgrass bed has been affected by construction activities. In addition, a Storm Water Pollution and Prevention Plan (SWPPP) will be prepared and implemented, in accord with Regional Water Quality and Control Board Water Quality Certification for the project dated May 7, 2014, to ensure that water quality and sensitive Bay resources are protected. (The measures that will be employed to minimize impacts to Bay water quality are more fully discussed in Section 5 on Water Quality, below).

  On February 4, 2014, the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) issued a "Concurrence Letter", in accord with the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act for the project. While the letter states that the project is not likely to have an adverse effect on ESA-listed species or critical habitat for ESA-listed species, there is the potential for adverse effects on essential fish habitat (EFH), due to degradation of water quality and disturbance of benthic organisms during construction. The February 4, 2014 "Concurrence Letter" goes on to state that effects to EFH will be minimized due to the implementation of the best management practices and avoidance measures proposed by the permittee, including limiting in-water construction activities to June 1st through November 1 to avoid migrating salmonids, conducting all in-water work at low tide, and using debris booms and silt curtains during construction. NMFS found that while the project will result in temporary degradation to EFH during construction, that implementation of the project will result in a long-term benefit to EFH through the removal of debris and rubble and the creation of subtidal habitats. (The potential project effects on Bay natural resources are more fully discussed in Section 4 on Natural Resources, below).

- **Valid Title.** As previously stated, the project site was acquired from the City of Albany through a joint effort of the California State Parks and the East Bay Regional Park District in 1998. The EBRPD possesses a long-term lease for the operation and maintenance of the project site for park uses from California State Parks.

The Commission finds that the project is consistent with the McAteer Petris Act and the Bay Plan policies on fill.

C. **Shoreline Protection.** The Bay Plan Shoreline Protection Policy 1 states, in part, "[n]ew shoreline protection projects and the maintenance or reconstruction of existing projects and uses should be authorized if: (a) the project is necessary to provide flood or erosion protection for (i) existing development, use or infrastructure, or (ii) proposed develop-

ment, use or infrastructure that is consistent with other Bay Plan policies; (b) the type of the protective structure is appropriate for the project site, the uses to be protected, and the erosion and flooding conditions at the site; (c) the project is properly engineered to provide erosion control and flood protection for the expected life of the project based on a 100-year flood event that takes future sea level rise into account; (d) the project is properly designed and constructed to prevent significant impediments to physical and visual public access; and (e) the protection is integrated with current or planned adjacent shoreline protection measures." Additionally, Shoreline Protection Policy 2 states, in part: "Riprap revetments, the most common shoreline protective structure, should be constructed of properly sized and placed material that meet sound engineering criteria...."

The project involves removing un-engineered fill along the shoreline and placing approximately 2,100 cubic yards of solid fill covering approximately 15,769 square feet of Bay surface area to create an engineered rock revetment. The elevation of the existing revetment averages in height from 9 feet to 15 feet NAVD88 with average elevations occurring at 12.5 to 14 feet NAVD88. Along the length of the "Neck" the Bay Trail spur is located at 13 feet NAVD88. The 100-year flood elevation at MHHW for the site is currently 9.2 feet NAVD88. Table 2 below lists the sea level rise projections for the site through 2100.

Sea Level Rise Projections

Year	Future Sea Level Rise (NAVD88)	Project Tidal Elevation (NAVD88)
2015	-	9.2 feet
2050	12" (1 foot)	10.2 feet
2070	19" (1.6 feet)	10.8 feet
2100	36" (3 feet)	12.2 feet

The revetment will be constructed to an elevation of 12 feet NAVD88 with a 1.5 to 1 slope. To construct the revetment, the existing concrete rubble revetment will be removed and the revetment toe will be created in a trench excavated to a depth of three feet into the Bay bottom. All debris excavated from the site will be transported to an upland portion of the site for sorting and handling. During the handling and sorting process, contractors will determine whether the rubble can be reused during the construction of the replacement revetment. It is estimated that only a small fraction of the removed rubble will be usable in the new revetment, which will be constructed primarily of imported rock. The replacement revetment will be constructed by placing a geotextile blanket over the shoreline once the rubble has been removed and grading the exposed shoreline to create a smooth slope. Then a bedding stone material composed of 1- to 6-inch crushed rock will be placed on top of the geotextile blanket,

providing a firm surface for the protective rock/armor stone. The two- to three-foot armor stone rock, will be placed on top of the crushed rock, providing the armor to protect all the elements of the replacement revetment. All materials and the revetment design are consistent with standardized procedures used in San Francisco Bay.

The permittee collaborated with the RWQCB and the U.S. Army Corps of Engineers to develop an optimal design for the shoreline revetment with the goals of containing the landfill debris while minimizing disturbance of the material and withstanding rising sea levels. The permittee's consultant, Coast and Harbor Engineering, Inc., performed a coastal engineering analysis for the project site that included an evaluation of rising sea levels, winds, wave runup and overtopping. The analysis concluded that at current sea level, some overtopping of the revetment could occur under the "most extreme" conditions as a result of wave runup and storm surge. Nonetheless, they concluded that utilizing a higher revetment crest elevation "was not practicable," and that the effects of wave runup and overtopping should "be considered in the design of the upland features…." The permittee states that the reconstructed revetment has been designed to withstand occasional overtopping and contains the appropriate drainage to ensure that it will not be undermined during on overtopping event. The revetment could be adapted for sea level rise beyond 2050 by further extending rock rip rap into the 30-foot-wide vegetated strip and raising the elevation of the Bay Trail spur (currently at 13 feet NAVD88).

The Commission finds that the revetment has been designed to withstand current and projected (2050) tidal flows, can be adapted to provide shoreline protection into the future, and has been designed based on sound engineering criteria, and is thus, consistent with the Bay Plan policies on Shoreline Protection.

D. **Public Access and Views.** Section 66602 of the McAteer-Petris Act provides, in part, "existing public access to the shoreline and waters of the San Francisco Bay is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided." The Bay Plan Public Access Policy 1 states, in part: "[a] proposed fill project should increase public access to the Bay to the maximum extent feasible…." Policy 4 states, "[p]ublic access should be sited, designed and managed to prevent significant adverse effects on wildlife. To the extent necessary to understand the potential effects of public access on wildlife, information on the species and habitats of a proposed project site should be provided, and the likely human use of the access area analyzed…. Siting, design and management strategies should be employed to avoid or minimize adverse effects on wildlife, informed by the advisory principles in the Public Access Design Guidelines…. Where appropriate, effects of public access on wildlife should be monitored over time to determine whether revisions of management strategies are needed…." Policy 5 states, in part "[p]ublic access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding." Policy 7 states, in part "[p]ublic access improvements…should be designed and built to encourage diverse Bay-related activities and movement to and along the shoreline, should permit barrier free access for persons with disabilities to the maximum feasible extent, should include an ongoing maintenance program, and should

be identified with appropriate signs." Lastly, the Bay Plan Appearance, Design and Scenic Views Policy 2 states, in part "[a]ll bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay."

Currently two parallel pathways extend along the "Neck" within former road alignments that were used to access past landfill operations on the "Bulb". Both trails run from Buchannan Street, to the east, to the "Bulb", to the west. The trails are of varying widths, ranging from 25 to 30 feet, are not ADA-accessible, and contain low spots that pond with water. The areas adjacent to the trails are highly disturbed with widespread, invasive plants that block views to the Bay. The trails are popular destinations for a variety of public access users (e.g., walking, jogging, bicycling, dog walking, and kite and wind surfing) and provide excellent wildlife viewing opportunities.

The purpose of the project is to prevent continued erosion of a shoreline park, protect Bay water quality by preventing exposure of the debris that is the foundation material of the park to Bay water, protect the park from rising sea levels, and enhance public access and habitat values. Public access provided with the project consists of relocating the lower trail approximately 5 feet to the north (away from the Bay) to provide space for a 25-30-foot-wide planting area that will be located along the southern shoreline adjacent to the trail. The trail will be constructed in compliance with ADA-requirements and will have a consistent width of 14- to 16-feet. The trail will be graded to provide a level and smooth pathway and surfaced with a surfacing material that is durable and can withstand environmental conditions at the site to provide a more consistent surface. The planting area will be hydroseeded with a mix of native plant species (e.g., marsh gumplant, California poppy, blue-eyed grass, etc.) and the vegetation will be maintained and managed to assure that its height will not interfere with views to the Bay from the trail. In addition, a six-foot-wide, 44-foot-long connector trail will be constructed at the eastern end of the reconstructed spur trail that will connect Albany Beach to this Bay Trail spur. The extension will also be ADA-accessible.

The area to be planted will make the shoreline trail more attractive, will provide a buffer between trail users and the new Bay habitat features, and will provide upland habitat that may attract wildlife, thereby enhancing the experience of trail users. The permittee states that the vegetation that will be located in the planting area will be strategically located to visually screen the trail from the habitat. Special Condition II-C requires the permittee to monitor the new and existing habitats to assess whether public access use of the trail is negatively affecting wildlife use of the area. If it is determined that further strategies are needed to buffer public access and wildlife use, the permittee will implement additional measures (e.g., post and cable fencing, etc.), after receiving any required Commission authorization.

As discussed above, the trail will be located at 13 feet NAVD88. Sea level rise projections for the site (100 year flood elevations of 10.2 feet NAVD88 by 2050 and 12.2 feet NAVD88 by 2100) are below the trail elevation, but storm surge and wave run up could occasionally inundate the trail. While trail has been designed to withstand some flood-

ing, it is likely that it will need to be repaired, raised, modified, or relocated, depending on the effects of sea level rise over time. Special Condition II-B-6 has been included in this authorization and requires the permittee to implement strategies to ensure that the public access required herein is resilient to rising sea levels and is maintained and repaired after possible damage caused by sea level rise.

The Commission finds that the public access provided with the project is the maximum feasible consistent with the project and, as conditioned, is consistent with the Bay Plan policies on public access.

E. **Natural Resources.** The San Francisco Bay Plan policies on "Fish, Other Aquatic Organisms and Wildlife" state, in part, that [t]o assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased…"; and "[t]he Commission should give appropriate consideration to the recommendations of the California Department of Fish and Game, the National Marine Fisheries Service or the U.S. Fish and Wildlife Service in order to avoid possible adverse effects of a proposed project on fish, other aquatic organisms and wildlife habitat…"'. The Bay Plan policies on Tidal Flats and Tidal Marshes state, in part, that "[a]ny proposed filling…should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects…." The Bay Plan Subtidal Areas Policy 3 states, in part, that "[s]ubtidal restoration projects should be designed to (a) promote an abundance and diversity of fish, other aquatic organisms, and wildlife; (b) restore rare subtidal areas; (c) establish linkages between deep and shallow water and tidal and subtidal habitat in an effort to maximize habitat values for fish, other aquatic organisms and wildlife; and (d) expand open water areas in an effort to make the Bay larger…."

The land-side portion of the site is a highly-disturbed former landfill made up largely of construction debris. There are no known occurrences of special-status terrestrial species. The permittee contacted the U.S. Fish and Wildlife Service several times during development of the project, and, due to the disturbed nature of the site, the U.S. Army Corps of Engineers determined that consultation with the USFWS was not required.

The Bay waters offshore of the site are known to contain the following special-status species and the habitat(s) used by these species: Sacramento River winter-run and Central Valley spring-run Chinook salmon, central California coast and California central valley steelhead and the north American green sturgeon, southern Distinct Population Segment. The Bay waters offshore of the park contain Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act. The permittee received concurrence from NOAA Fisheries that the project will not have an adverse effect on special-status fish species, their critical habitat or essential fish habitat (EFH). NOAA Fisheries' concurrence letter, dated February 4, 2014, states that additional conservation measures were not required as the project will implement several avoidance and minimization measures to reduce potential impacts to special-status resources including the use of construction booms and silt curtains during construction,

limiting construction to times outside the migration period of special-status salmonids, and performing all in-water construction activities at low tide. The concurrence letter concluded that post-construction the project site "will be restored to a condition of greater aquatic habitat diversity" than currently exists and that the project is "anticipated to result in significant benefits to designated critical habitat in the action area through the expansion of intertidal habitat, increased habitat complexity and increased foraging opportunities for listed fish…."

Special Condition II-E has been included in this authorization to ensure that potential effects of the project on Bay resources are minimized. This special condition requires the use of construction booms to contain construction debris, prohibits in-water work to periods outside the migration period of special-status salmonid species and requires that all in-water work be conducted at low tide. In addition, this special condition requires that specific measures be implemented to reduce potential impacts to eelgrass found at the project site.

Finally, the roosting islands, pebble beach, groin, and oyster reef will all be inundated under current 100-year flood conditions and will be inundated at an increasingly frequent rate with future rising sea levels. The permittee states that the habitat features were designed to provide habitat under "current ecological conditions." The permittee states that the habitat features will evolve with rising sea levels. For example while the bird roosting islands will "gradually shrink and become subtidal" the oyster shell area and reef will "will flatten to an interlocked armored surface and will accumulate silts that will further aid in inter-bedding the shell substrate increasing its resistance to movement from wave surge…." In addition the permittee states that the pebble beach and the oyster reef will "accrete sediment and shell materials and may have a more extended life…" because of the addition of these naturally present materials. Thus, it is expected that while the habitat features will initially adapt to sea level rise, some features may be lost (such as the bird islands), but others may persist and change (the pebble beach and oyster reef) with rising Bay waters.

The Commission finds that the project, as conditioned, is consistent with the Bay Plan policies on Natural Resources.

F. **Water Quality.** The Bay Plan policies on Water Quality state, in part, that "[b]ay water pollution should be prevented to the greatest extent feasible…" and that "[t]he policies, recommendations, decisions, advice and authority of the State Water Resources Control Board and the Regional Board should be the basis for carrying out the Commission's water quality responsibilities…."

As discussed above, the site was a former landfill that was closed in 1998. Remediation of the landfill materials is subject to Regional Water Quality Control Board (RWQCB) Order No. 98-072. The existing revetment is eroding, exposing the landfill materials to tidal action. The permittee has worked with the RWQCB to develop a replacement revetment that will contain the landfill debris and minimize disturbance of landfill materials. On May 7, 2014, the RWQCB issued approval of the project under RWQCB Certification No. 02-01-C1154. The RWQCB approval requires that several measures be

employed to minimize effects to water quality including the removal of all construction debris, the preparation and approval of a Storm Water Pollution and Prevention Plan (SWPPP), use of silt fences, construction booms and straw wattles during construction, daily checking of construction equipment for leaks, providing environmental education to construction personnel and presence of a biological monitor on-site during construction activities. In addition, the RWQCB approval requires that the revetment and habitat features be monitored for a minimum of five years following construction to ensure that the structures are stable and provide the anticipated habitat benefits, respectively. Special Condition II-F has been included in this authorization to ensure that potential effects to Bay water quality are minimized.

The Commission finds that the project, as conditioned, is consistent with the Bay Plan policies on Water Quality.

G. **Engineering Criteria Review Board.** The staff determined that the project did not raise seismic issues. For this reason, input from the Commission's Engineering Criteria Review Board was not sought.

H. **Design Review Board.** The Design Review Board did not review the project because the public access required largely involves the reconstruction of an existing trail, essentially in the same location of an existing trail, and therefore, did not raise design issues.

I. **Environmental Review.** On November 21, 2012, the East Bay Regional Park District certified to Final Environmental Impact Report for the proposed project.

J. **Coastal Zone Management Act**. The Commission further finds, declares, and certifies that the activity or activities authorized herein are consistent with the Commission's Amended Management Program for San Francisco Bay, as approved by the Department of Commerce under the Federal Coastal Zone Management Act of 1972, as amended.

K. **Conclusion**. For all the above reasons, the Commission finds, declares, and certifies that, subject to the Special Conditions stated herein, the project authorized herein is consistent with the *San Francisco Bay Plan*, the McAteer-Petris Act, the California Environmental Quality Act, and the Commission's amended management program for the San Francisco Bay segment of the California coastal zone.

IV. Standard Conditions

A. **Permit Execution**. This permit shall not take effect unless the permittee executes the original of this permit and return it to the Commission within ten days after the date of the issuance of the permit. No work shall be done until the acknowledgment is duly executed and returned to the Commission.

B. **Certification of Contractor Review.** Prior to commencing construction authorized herein, the general contractor or contractors in charge of such work within the Commission's jurisdiction shall submit written certification that s/he has reviewed and understands the requirements of the permit and any final plans subject to BCDC approval.

C. **Notice of Completion**. The attached Notice of Completion and Declaration of Compliance form shall be returned to the Commission within 30 days following completion of the work.

D. **Permit Runs With the Land**. Unless otherwise provided in this permit, the terms and conditions of this permit shall bind all future owners and future possessors of any legal interest in the land and shall run with the land.

E. **Other Government Approvals**. All required permissions from governmental bodies must be obtained before the commencement of work; these bodies include, but are not limited to, the U. S. Army Corps of Engineers, the State Lands Commission, the Regional Water Quality Control Board, and the city or county in which the work is to be performed, whenever any of these may be required. This permit does not relieve the permittee of any obligations imposed by State or Federal law, either statutory or otherwise.

F. **Built Project Consistent with Permit Application**. Work must be performed in the precise manner and at the precise locations indicated in your application, as such may have been modified by the terms of the permit and any plans approved in writing by or on behalf of the Commission.

G. **Life of Authorization**. Unless otherwise provided in this permit, all the terms and conditions of this permit shall remain effective for so long as the permit remains in effect or for so long as any use or construction authorized by this permit exists, whichever is longer.

H. **Commission Jurisdiction**. Any area subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission under either the McAteer-Petris Act or the Suisun Marsh Preservation Act at the time the permit is granted or thereafter shall remain subject to that jurisdiction notwithstanding the placement of any fill or the implementation of any substantial change in use authorized by this permit. Any area not subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission that becomes, as a result of any work or project authorized in this permit, subject to tidal action shall become subject to the Commission's "bay" jurisdiction.

I. **Changes to the Commission's Jurisdiction as a Result of Natural Processes**. This permit reflects the location of the shoreline of San Francisco Bay when the permit was issued. Over time, erosion, avulsion, accretion, subsidence, relative sea level change, and other factors may change the location of the shoreline, which may, in turn, change the extent of the Commission's regulatory jurisdiction. Therefore, the issuance of this permit does not guarantee that the Commission's jurisdiction will not change in the future.

J. **Violation of Permit May Lead to Permit Revocation**. Except as otherwise noted, violation of any of the terms of this permit shall be grounds for revocation. The Commission may revoke any permit for such violation after a public hearing held on reasonable notice to the permittee or their assignees if the permit has been effectively assigned. If

the permit is revoked, the Commission may determine, if it deems appropriate, that all or part of any fill or structure placed pursuant to this permit shall be removed by the permittee or their assignees if the permit has been assigned.

K. **Should Permit Conditions Be Found to be Illegal or Unenforceable**. Unless the Commission directs otherwise, this permit shall become null and void if any term, standard condition, or special condition of this permit shall be found illegal or unenforceable through the application of statute, administrative ruling, or court determination. If this permit becomes null and void, any fill or structures placed in reliance on this permit shall be subject to removal by the permittee or their assignees if the permit has been assigned to the extent that the Commission determines that such removal is appropriate. Any uses authorized shall be terminated to the extent that the Commission determines that such uses should be terminated.

L. **Permission to Conduct Site Visit**. The permittee shall grant permission to any member of the Commission's staff to conduct a site visit at the subject property during and after construction to verify that the project is being and has been constructed in compliance with the authorization and conditions contained herein. Site visits may occur during business hours without prior notice and after business hours with 24-hour notice.

M. **Best Management Practices**

1. **Debris Removal.** All construction debris shall be removed to an authorized location outside the jurisdiction of the Commission. In the event that any such material is placed in any area within the Commission's jurisdiction, the permittee, its assigns, or successors in interest, or the owner of the improvements, shall remove such material, at their expense, within ten days after they have been notified by the Executive Director of such placement.

2. **Construction Operations.** All construction operations shall be performed to prevent construction materials from falling, washing or blowing into the Bay. In the event that such material escapes or is placed in an area subject to tidal action of the Bay, the permittee shall immediately retrieve and remove such material at its expense.

N. **Permit Assignment.** Prior to entering into any agreement to transfer any interest in any property subject to this permit, the permittee or any assignees of this permit or any part of it, shall provide the third party with a copy of this permit and shall call their attention to any provisions regarding public access or need to obtain further Commission approval related to any activities authorized herein. No more than ten days after transferring any interest in any property subject to this permit to another party, the transferors shall: (a) notify the Commission of the nature of the transfer, the name, address, and telephone number of the transferee, and the effective date of the transfer; and (b) shall submit an assignment of this permit for the area transferred that has been executed by the transferor and the transferee and that indicates that the transferor has transferred

the permit as it applies to the property that was transferred and that the transferee has read, understood, and has agreed to be bound by the terms and conditions of this permit.

O. **Abandonment**. If, at any time, the Commission determines that the improvements in the Bay authorized herein have been abandoned for a period of two years or more, or have deteriorated to the point that public health, safety or welfare is adversely affected, the Commission may require that the improvements be removed by the permittee, its assignees or successors in interest, or by the owner of the improvements, within 60 days or such other reasonable time as the Commission may direct.