San Francisco Bay Conservation and Development Commission
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December 31, 2014

Application Summary
(For Commission consideration on January 15, 2015)

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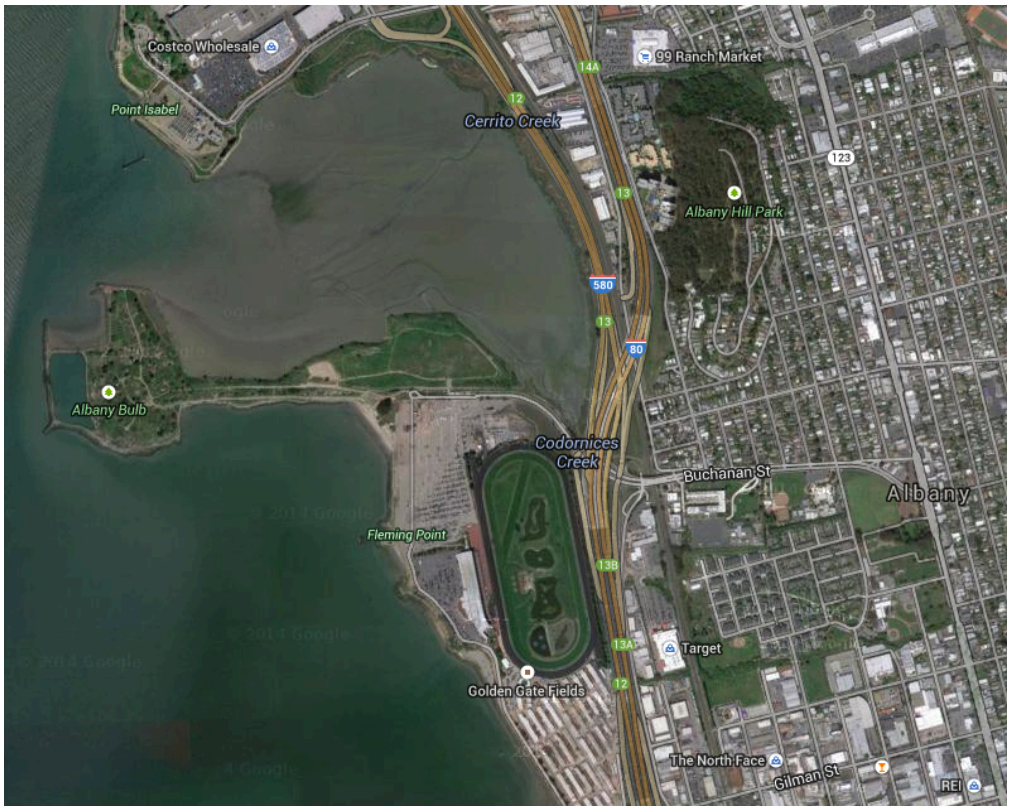
Staff Assigned: Michelle Burt Levenson (415/352-3618; michelle.levenson@bcdc.ca.gov)

Summary

Applicant: East Bay Regional Park District (EBRPD)

Location: Within Eastshore State Park, at the end of Buchanan Street, in the cities of Albany and Berkeley, Alameda County, in an area designated for "waterfront park/beach" priority use in the *San Francisco Bay Plan*. (Figure 1)



Project Location

Project: The project is the first of the three-phase "Albany Beach Restoration and Public Access Project," proposed along the southern shoreline of the "Albany Bulb." The site, comprised of the "Plateau," the "Neck" and the "Bulb," form a peninsula that extends westward from the Buchanan Street/U.S. Interstate 80 interchange. The site is bordered by U.S. Interstate 80 and Golden Gate Fields race track to the east, and the Bay to the north, south and west (Exhibits A and B).

The proposed project includes stabilizing the existing shoreline, constructing a series of habitat features (e.g., roosting islands, pebble beach, oyster habitat) in the Bay, and improving an existing "San Francisco Bay Trail" spur (Exhibit C).

Shoreline Stabilization: Shoreline stabilization would involve the removal of the existing 69,113-square-foot, unengineered shoreline revetment (1,712 cubic yards of concrete debris and rock, both in the Bay and within the 100-foot shoreline band) and the installation of a 72,716-square-foot engineered revetment system (2,100 cubic yards, both in the Bay and within the 100-foot shoreline band). The new revetment would have a 1.5 to 1 slope with an upper crest elevation of 12 feet NAVD 88. Though the new revetment would be comprised of more material than the existing shoreline protection, because it would be placed carefully (as compared to the haphazard placement of the existing shoreline rubble), the new revetment would cover less Bay area than the existing structure, resulting in a decrease in Bay fill of 2,442 square feet.

Habitat Features: A total of five distinct habitat features would be constructed in the Bay with the project. A raised rock crescent/groin would extend in a southwestern direction from the reconstructed revetment into the Bay. The crest of the groin would be 4.5 feet NAVD88 and would require the placement of 500 cubic yards of rock, resulting in 2,100 square feet of solid Bay fill. At the end of the crescent/groin,

three bird roosting islands would be constructed. At the highest elevations, the islands would be 7.5 feet NAVD 88, but would also include lower shoulders at elevations of 3.5 feet NAVD 88 to support foraging habitat for shorebirds. The islands would require the placement of 325 cubic yards of rock, resulting in the placement of 5,800 square feet of solid fill. Between the new revetment and the rock crescent/groin, a pebble beach would be constructed. The pebble beach would involve placing 250 cubic yards of rock pebble, covering 2,000 square feet of the Bay bottom. At the western end of the "Neck," oyster habitat would be created by placing 425 cubic yards of rock and oyster shell over 5,800 square feet of low intertidal to subtidal Bay bottom to create a crescent-shaped reef that would provide substrate for native oyster recruitment. The lowest elevation of the reef would be 3.5 feet NAVD 88 and would extend to 7.5 feet NAVD 88 to provide bird roosting habitat at all stages of the tide. Lastly, four porous tide pools are proposed and would be created by strategically reusing existing concrete flow materials (areas where wet concrete was dumped and allowed to set), allowing the deepest areas of the pools to retain water. Construction of the pools would require the placement of 50 cubic yards of rock over 2,100 square feet of Bay intertidal habitat to create basins that will retain water as tides recede. A total of 1,550 cubic yards of rock and oyster shell would be placed for the habitat features described above and would result in 13,700 square feet of solid Bay fill, much of which would still be below Mean High Water after fill placement.

Bay Trail Improvements: An existing 2,490-foot-long "San Francisco Bay Trail" spur segment extends along the "Neck" and connects to Buchanan Street. The existing trail surface is uneven and ranges from 25 to 30 feet wide. The applicant proposes to improve the pathway by providing an area adjacent to the path for native plants, creating a consistent width of 14 to 16 feet, and paving the pathway with a semi-permeable surface. To accommodate the planting area, the location of the trail

would be shifted approximately 5 feet to the north (away from the Bay). The planting area would have an average width of 30 feet and would be 2,065 feet long. The area would be hydro-seeded with a native planting mix and would aid in screening public access use from adjacent wildlife areas. In addition, a six-foot-wide, 44-foot-long trail extension would also be constructed and would lead from the spur trail to Albany Beach. Both trails would comply with ADA-requirements. In total, the project would provide a total of 99,564 square feet (2.29 acres) of new and/or improved public access, 37,614 square feet (0.86 acres) of pathways and 61,950 square feet (1.42 acres) of planting area (Exhibits D and E).

Background: The project site was formerly open Bay but was filled with construction debris over a period of approximately 45 years. The first recorded filling at the site occurred in 1939 and continued into the 1960's with the creation of the "Bulb" and the Albany Landfill in 1963. The landfill was closed in December of 1983. The site is currently eroding, exposing landfill debris to Bay waters. Invasive plants are widespread on the site, providing poor quality wildlife habitat and, in some cases, blocking views to the Bay. In the Bay along the northeastern portion of the site and adjacent to the Albany Beach, a large eelgrass bed is present. The site was acquired from the City of Albany through a partnership of the California State Parks and the East Bay Regional Park District in 1998.

In November 2012, a Final Environmental Impact Report (EIR) was certified by the EBRPD for all three phases of the "Albany Beach Restoration and Public Access Project." Following certification, the Final EIR was challenged in court because of alleged insufficiencies in evaluating potential project impacts on the environment from dog use at the site. To address these insufficiencies, the court ruled that the EBRPD must conduct additional environmental analysis of the potential impacts of dogs on wildlife and wildlife habitat. The court ruling applies to the proposed activities at Albany Beach (Phases 2 and 3) and does not apply

to Phase I activities along and bayward of the "Neck". The proposed project (Phase 1) that is the subject of the current permit application has been evaluated and certified under the November 2012 Final EIR.

Issues Raised: *The staff believes that the application raises five primary issues regarding the project's consistency with the McAteer-Petris Act and the San Francisco Bay Plan (Bay Plan): (1) whether the proposed fill would be consistent with the Commission's law regarding fill; (2) whether the proposed shoreline protection would be consistent with the Commission's laws and policies regarding shoreline protection; (3) whether the proposed public access would be the maximum feasible consistent with the project; (4) whether the project would be consistent with the Bay Plan policies on natural resources; and (5) whether the project would be consistent with the Bay Plan policies on Water Quality.*

Project Description

Project Details: The applicant, the East Bay Regional Park District, describes the proposed project as follows:

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 unengineered 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.
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 would extend bayward from the shoreline. A total of 13,700 square feet (0.31 acre) of fill would be placed for to create these habitats.

Within the 100-foot shoreline band:

1. Install, use and maintain, in-kind, an 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 a 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 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 spur trail 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 aid in minimizing potential effects of public access use of the trail on wildlife; and
   d. Install, use and remove, upon the 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) would 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.

Bay Fill: Approximately 1,712 cubic yards of solid Bay fill (construction rubble) haphazardly placed to provide shoreline protection and covering an approximately 18,211-square-foot (0.42 acre) area below Mean High Water would be removed and, in its place, 2,100 cubic yards of rock would be placed over an approximately 15,769-square-foot area below Mean High Water to construct an engineered rock riprap revetment. The new revetment, because of the careful placement of the shoreline protection materials, would result in a 2,442-square-foot increase in Bay surface area.

In addition to the revetment, fill in the Bay would be placed to create several habitat features including: (a) a 2,000-square-foot pebble beach; (b) three bird roosting islands, totaling 5,800 square feet; (c) a crescent-shaped rock and oyster shell reef for oyster recruitment; (d) four porous tide pools covering 300 square feet; and (e) a 2,100-square-foot rock crescent/groin. A total of 1,550 cubic yards of material covering 13,700 square feet of the Bay bottom would be placed to create these various habitats, though many of these features would still be below Mean High Water, the edge of the Commission's Bay jurisdiction.

In total the project would result in the placement 15,769 square feet of fill to replace the revetment and 13,700 square feet of fill to create the various habitat features. The new revetment would cover 2,442 square feet less Bay bottom than the existing structure, but the new habitat features would cover 13,700 square feet of Bay bottom, resulting in a net fill of 11,258 square feet.

Table 1: Fill Removal and Placement

Fill	**Area (sf)**	**Volume (cy)**
Revetment to be Removed	-18,211	-1,712
Revetment to be Installed	+15,769	+2,100
Habitat Features	+13,700	+1,550
Net Increase in Bay Fill	+11,258	+1,938

Public Access: An existing 2,490-linear-foot Bay Trail "spur" exists on the site and would be improved with the project. Improvements would include shifting the trail approximately five feet to the north (away from the Bay), resurfacing the trail with a semi-permeable material while providing a consistent width of 14- to 16-feet, and constructing a 44-foot spur trail to connect the Albany Bay Trail spur to Albany Beach. All trail improvements would comply with ADA-requirements. In addition, an approximately 30-foot-wide, 2,065-foot-long area bayward of the trail would be planted with native plants to provide habitat, help control erosion, and provide a physical barrier to keep users out of sensitive habitat areas. The planted area would contain a hydro-seeded mix of native plant species, would be low in height, and would aid in minimizing conflicts between public access and wildlife.

Schedule and Cost: The applicant proposes to begin construction in mid-2015 and be completed by the end of 2016. The estimated total project cost is approximately $2.5 million.

Staff Analysis

A. *The staff believes that the application raises five primary issues regarding the project's consistency with the McAteer-Petris Act and the San Francisco Bay Plan (Bay Plan): (1) whether the proposed fill would be consistent with the Commission's law regarding fill in the Bay; (2) whether the proposed fill for shoreline protection would be consistent with the Commission's laws and policies regarding shoreline protection; (3) whether the proposed public access would be the maximum feasible consistent with the project; (4) whether the proposed project is consistent with the Commission's policies on natural resources; and (5) whether the proposed project is consistent with the Commission's policies on water quality.*

1. **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 would be constructed in accordance with sound safety standards and afford reasonable protection against the hazards of unstable geologic conditions or flooding.

   The proposed project would 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 proposed 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 would still be below Mean High Water after fill placement, so would remain in the Bay.

   - **Public Benefit.** The existing shoreline consists of unengineered construction debris placed over a 50-year period and providing 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 of 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 applicant 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 would protect the shoreline from current and projected 2050 100-year flood elevations. The applicant, in coordination with the RWQCB, evaluated a number of design options for the revetment. The applicant states that 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 application states that the habitat features proposed with the project would enhance existing subtidal and tidal habitats at the site and would provide increased foraging habitat for shorebirds, a public benefit.

- **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 would place 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. M2010.32 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).

- **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 applicant states that the new revetment system has been designed to provide a cohesive and uniform appearance, while minimizing erosion of the shoreline. In addition, the applicant states that by replacing the existing revetment, the public access trail along the "Neck" would be protected from continued erosion and rising sea levels, at least through 2050. The applicant has also attempted to design the revetment to provide a more natural, irregular shoreline appearance, in contrast to present, linear conditions.
- **Upland Alternative.** The proposed 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 revetment and habitat features.
- **Minimizing Harmful Effects.** The applicant states that several measures would 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 would be conducted to establish the extent of eelgrass present on site, a debris boom would be installed a minimum of 10 feet from the bed to limit the migration of construction debris into the bed, and a post-construction eelgrass survey would be conducted to assess whether the eelgrass bed has been affected by construction activities. Any impacts to the eelgrass bed would be mitigated. In addition, the applicant is required to prepare and implement a Storm Water Pollution and Prevention Plan (SWPPP), 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 would 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 proposed 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 would be minimized due to the implementation of the best management practices and avoidance measures proposed by the applicant, 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 would result in temporary degradation to EFH during construction, that implementation of the project would 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 is 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 should determine whether the proposed fill would be consistent with its law regarding fill in the Bay.

2. **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 development, 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 proposed project involves removing unengineered 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. The habitat features would vary in elevation from slightly above Mean Sea Level, (approximately three feet NAVD88 for the pebble beach) to 7.5 feet NAVD88 for the top of the bird roosting islands. 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 proposed revetment would 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 would be removed and the revetment toe would be created in a trench excavated to a depth of three feet into the Bay bottom. All debris excavated from the site would be transported to an upland portion of the site for sorting and handling. During the handling and sorting process, contractors would determine whether the rubble could be reused during the construction of the replacement revetment. It is estimated that only a small fraction of the removed rubble would be usable in the new revetment, which would be constructed primarily of imported rock. The replacement revetment would 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 would 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, would 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 applicant 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 applicant’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 applicant states that 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 roosting islands, pebble beach, groin, and oyster reef would all be inundated under current 100-year flood conditions and would be inundated increasingly frequently with future rising sea levels. The applicant states that the habitat features were designed to provide habitat under "current ecological conditions." The applicant states that the habitat features would evolve with rising sea levels. For example while the bird roosting islands would "gradually shrink and become subtidal" the oyster shell area and reef would "would flatten to an interlocked armored surface and would accumulate silts that would further aid in inter-bedding the shell substrate increasing its resistance to movement from wave surge…." In addition the applicant states that the pebble beach and the oyster reef would "accrete sediment and shell materials and may have a more extended life…" as a result of rising sea level. Thus, it is expected that these habitat features would initially adapt to sea level rise, but would likely be lost over time with rising Bay waters.

The Commission should determine whether the shoreline revetment would be consistent with the Commission's laws and policies regarding shoreline protection and climate change.

3. **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, "Public 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: "Public 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: "Public 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: "All 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, 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 30-foot-wide planting area that would be located along the southern shoreline adjacent to the trail. The trail would be constructed in compliance with ADA-requirements and would have a consistent width of 14- to 16-feet. The trail would be graded to provide a level and smooth pathway and surfaced with a semi-permeable material to provide a more consistent surface. The planting area would be hydroseeded with a mix of native plant species (e.g., marsh gumplant, California poppy, blue-eyed grass, etc.) and the vegetation would be maintained and managed to assure that its height would not interfere with views to the Bay from the trail. In addition, a six-foot-wide, 44-foot-long connector trail would be constructed at the eastern end of the reconstructed spur trail that would connect Albany Beach to this Bay Trail spur. The extension would also be ADA-accessible.

The area to be planted would make the shoreline trail more attractive, would provide a buffer between trail users and proposed new Bay habitat, and would provide upland habitat that may attract wildlife, thereby enhancing the experience of trail users. The applicant states that the vegetation proposed in the planting area would be strategically located to visually screen the trail from the habitat. The applicant would also monitor the new and existing habitats to assess whether public access use of the trail is negatively affecting wildlife use of remaining areas of the park. If it is determined that further strategies are needed to buffer public access and wildlife use, the applicant would implement additional measures (e.g., post and cable fencing, etc.).

As discussed above, the trail would 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 proposed trail elevation, but storm surge and wave run up could occasionally inundate the trail. The trail has been designed to withstand some flooding, but would likely need to be repaired, raised, modified, or relocated, depending on the effects of sea level rise on the trail.

The Commission should determine whether the proposed public access is the maximum feasible consistent with the project.

4. **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 applicant 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 applicant received concurrence from NOAA Fisheries that the project, as proposed, would 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 would 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…."

In addition to protecting special-status fish resources, the applicant would employ several measures, such as pre- and post construction surveys and establishing a work exclusion zone around the eelgrass bed, to ensure that the eelgrass bed that occurs just southeast of the proposed revetment would be protected during construction.

The Commission should determine whether the proposed project is consistent with the Bay Plan policies on Natural Resources.

5. **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 applicant has worked with the RWQCB to develop a replacement revetment that would contain the landfill debris and minimize disturbance of landfill materials. On May 7, 2014, the RWQCB issued approval of the proposed 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.

   The Commission should determine whether the proposed project is consistent with the Bay Plan policies on Water Quality.

B. **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.

C. **Design Review Board.** The Design Review Board did not review the proposed project because it involves the reconstruction of an existing trail, essentially in the same location of an existing trail, and therefore, did not raise design issues.

D. **Environmental Review.** On November 21, 2012, the East Bay Regional Park District certified to Final Environmental Impact Report for the proposed project (Exhibit E).

E. **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.

F. **Relevant Portions of the McAteer-Petris Act**

   1. Section 66605

   2. Section 66602

G. **Relevant Policies of the San Francisco Bay Plan (Bay Plan)**

1. Fish, Other Aquatic Organisms, and Wildlife
2. Subtidal Areas
3. Water Quality
4. Shoreline Protection
5. Climate Change
6. Public Access
7. Appearance, Design and Views

Exhibits

A. **Exhibit A:** Site Plan

B. **Exhibit B:** Figure 2-Area Site Plan

C. **Exhibit C**: Figure 4-Site Plan and Proposed Features

D. **Exhibit D:** Figure 5-Existing and Proposed Public Access Areas

E. **Exhibit E:** Figure 6-Cross Section and Tidal Elevations

F. **Exhibit F**. Final EIR-Executive Summary