

San Francisco Bay Conservation and Development Commission

455 Golden Gate Avenue, Suite 10600, San Francisco, California 94102 tel 415 352 3600 fax 415 352 3606

April 19, 2019

Application Summary: Encinal Beach

(For Commission consideration on May 2, 2019)

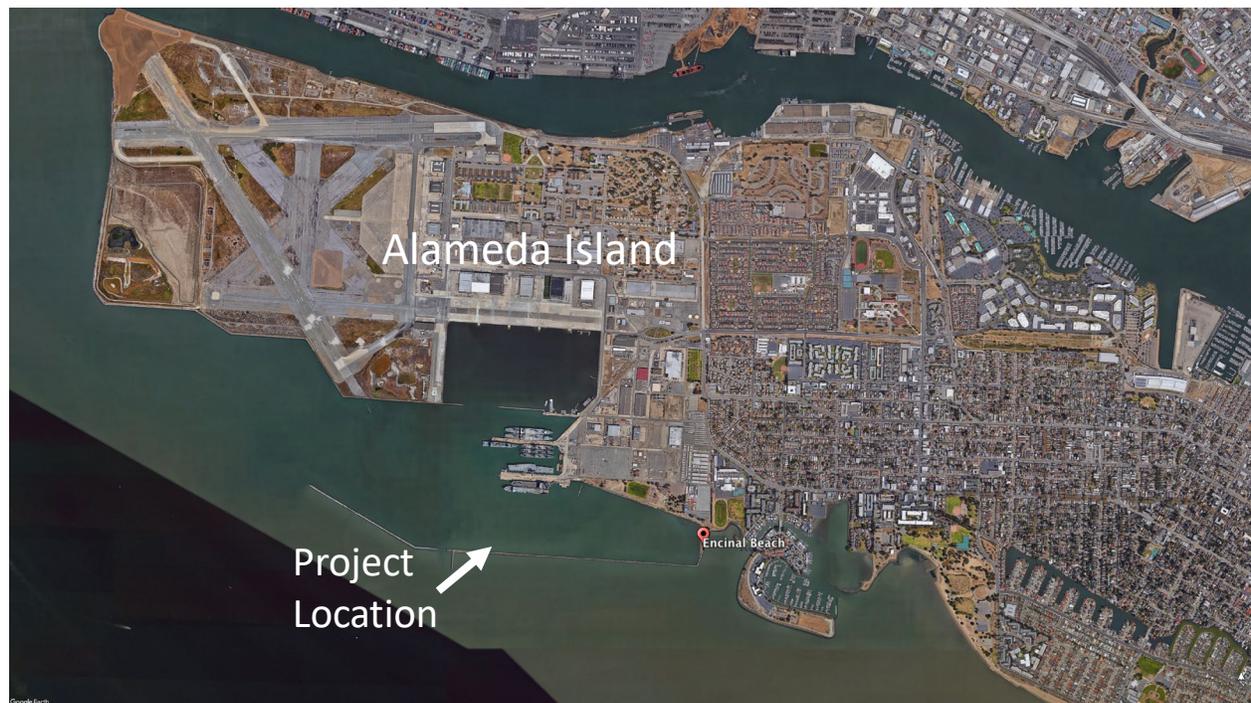
BCDC Permit Application Number: M2007.002.01 (Material Amendment)
Application Filed Complete: March 29, 2019
Deadline for Commission Action: June 27, 2019
Staff Contact: Rebecca Coates-Maldoon; 415/352-3634
rebecca.coates-maldoon@bcdc.ca.gov

Summary

Applicant: East Bay Regional Park District (EBRPD)

Location: In the Bay and within the 100-foot shoreline band, at Encinal Beach, along the Alameda Point shoreline, in the City and County of Alameda.

Figure 1. Project Location



Project: The proposed project involves beach and sand dune nourishment, derelict barge removal and bank stabilization, and public access improvements. The proposed work is primarily to provide improved recreation and public access at Encinal Beach.

Issues

Raised: The staff believes that the application raises three primary issues: (1) whether the project would be consistent with the Commission's law and policies on allowable Bay fill, including natural resources; (2) whether maximum feasible public access is provided consistent with the project, and if the project is otherwise consistent with Bay Plan policies on public access; and (3) whether the project would be consistent with the Bay Plan policies on recreation.

Background

Site Description and Existing Use. The proposed project is located at Encinal Beach in the City and County of Alameda. Encinal Beach is located at the terminus of a shoreline trail along Alameda Point, and is immediately adjacent to the City of Alameda's Encinal Boat Ramp. The small sandy beach was artificially formed as the result of sand accumulation inside of a jetty constructed in the 1940s (Figure 2). The resulting beach is relatively sheltered, and therefore does not experience significant erosion. The beach elevation is such that the full width of the beach is submerged during high tides. At the southeastern extent of the beach there is a small area of flattened sand dunes covered in ice plant (Figure 3).

Encinal Beach is a popular and much-used destination for beach goers and a launching site for kayaks and other non-motorized vessels. Users of Encinal Beach and the Encinal Boat Ramp share a public parking lot and a public restroom, primarily associated with the boat ramp. The applicant notes that: "The project site is visited by anglers, kayakers, beach-goers, and trail users. During the summer months, an outrigger club and sailing club utilize the site for summer camps. Though no formal study has been completed to assess the number of annual visitors, it is estimated that approximately 25,000 people visit the site annually, comprised of mostly anglers and [non-motorized] boaters."

Figure 2. Existing Site Conditions and Adjacent Uses



Figure 3. Existing Site Conditions and Adjacent Uses



Permit Background. On June 22, 2007, the Commission’s Executive Director issued BCDC Permit No. M2007.002.00, which authorized the installation of a shoreline path, benches, signage, trash receptacles, bollards and fences at the subject site. As part of this permit, an approximately 31,200-square-foot area along 2,600 feet of shoreline is required to be “made available exclusively to the public for unrestricted public access for walking, bicycling, sitting, viewing, fishing, picnicking, and related purposes.” This required public access area includes the shoreline path from Encinal Beach to the east to approximately the WETA Ferry Terminal to the west, as well as the dune area and the majority of the upland area proposed for work under this permit application (Exhibit A).

Project Description

Project

Details: The East Bay Regional Park District proposes Material Amendment No. One to BCDC Permit No. M2007.002.00 to authorize the following activities:

In the Bay:

1. Place and grade 620 cubic yards of imported sand within an approximately 17,810-square-foot (0.41-acre) area for beach nourishment;
2. Excavate approximately 300 cubic yards of existing sand over an approximately 9,300-square-foot (0.21-acre) area of the beach, and redistribute as part of the beach nourishment;
3. Construct and maintain in-kind an approximately 1,900-square-foot portion of an approximately 4,450-square-foot, 200-foot-long engineered rock riprap revetment, resulting in approximately 175 cubic yards of fill in the Bay;
4. Construct and maintain in-kind an approximately 815-square-foot portion of an approximately 2,350-square-foot cobble revetment, resulting in approximately 60 cubic yards of fill in the Bay;
5. Remove an approximately 246-square-foot portion of an approximately 896-square-foot dilapidated steel barge; and
6. Remove debris (e.g., wooden logs, creosote piles, concrete, bricks, rock) within an approximately 12,325-square-foot (0.28-acre) area and dispose outside the Commission’s jurisdiction.

Within the 100-foot shoreline band:

1. Place and grade approximately 1,250 cubic yards of imported sand within an approximately 9,045-square-foot (0.21-acre) area for beach nourishment;
2. Remove invasive ice plant, place approximately 2,000 cubic yards of sand over an approximately 20,994-square-foot (0.48-acre) area of dunes, reshape dune topography, and seed with native dune plants;
3. Install five approximately 35-foot-long, up to 3-foot-high sand fences, and seven approximately 20-foot-long, up to 3-foot-high sand fences within the dune area;
4. Install an approximately 791-foot-long rope fence around the perimeter of the dune area, and an approximately 491-foot-long rope fence around the native plant area;
5. Remove an approximately 650-square-foot portion of an approximately 896-square-foot dilapidated steel barge;
6. Construct and maintain in-kind an approximately 2,550-square-foot portion of an approximately 4,450-square-foot, 200-foot-long engineered rock riprap revetment, resulting in approximately 200 cubic yards of fill within the 100-foot shoreline band;
7. Construct and maintain in-kind an approximately 1,535-square-foot portion of an approximately 2,350-square-foot cobble revetment, resulting in approximately 90 cubic yards of fill within the 100-foot shoreline band;
8. Remove debris (e.g., chain link fencing, wooden logs, creosote piles, concrete, bricks, rock) within a 15,680-square-foot (0.36-acre) area and dispose outside the Commission's jurisdiction; and
9. Provide trail and landscaping improvements including: (1) repaving an approximately 220-foot-long section of the Alameda Point Trail; (2) replacing interpretive panels and a bench; (3) removing trees, seeding native vegetation adjacent to the trail, and installing irrigation; (4) constructing two decomposed granite pathways; and (5) installing a removable, accessible beach pathway (mobi-mat).

Bay Fill:

The proposed project would result in the placement of approximately 855 cubic yards of new Bay fill over a 20,525-square-foot area and the removal of approximately 350 cubic yards of Bay fill scattered over an approximately 12,325 square foot area (Table 1). This fill is associated with the placement of beach sand and materials for bank stabilization (cobble and riprap) and with the removal of a deteriorated barge and debris. The proposed project would also involve the removal and replacement of approximately 300 cubic yards of Bay fill over a 9,300-square-foot area, through sand excavation and redistribution associated with beach sand placement. In total, the project would result in a net increase in Bay fill of approximately 505 cubic yards and, at minimum, over a 8,200-square-

foot area. The net square footage of fill placed may be higher than 8,200 square feet as the volume and acreage of debris removal is estimated due to its scattered nature.

Table 1. Proposed Bay Fill	Fill (Square Feet)	Fill (Cubic Yards)
Beach Sand Placement	17,810	620
Cobble Placement	815	60
Riprap Placement	1,900	175
Total Fill Placed	20,525	855
Sand Excavation	9,300	300
Total Fill Removed and Replaced	9,300	300
Debris and Barge Removal	12,325*	350
Total Fill Removed	12,325*	350
Net Fill	8,200**	505

*Debris is scattered, and thus does not cover the entirety of the 12,325-square-foot area.

**As the debris removal is scattered, the net fill may be higher than 8,200 square feet.

**Public
Access:**

The project would result in improvements to portions of the 31,200 square feet of public access at the site under the existing permit, but would not increase the total area of public access. The project would improve public access at the site by increasing the size of the beach through sand placement, and providing an educational dune habitat demonstration area. The project would improve the trail and landscaping by repaving a section of the Alameda Point Trail and constructing two decomposed granite pathways leading to the boat launch site; replacing interpretive panels and a bench; removing trees; seeding native vegetation adjacent to the trail; and installing irrigation. Other public access amenities, including parking and restrooms, are available on the adjacent City of Alameda property.

**Schedule
and Cost:**

Construction is anticipated to commence in August 2019, and would take approximately 3 months, with anticipated completion in November 2019. The Total Project Cost is \$594,000.00.

Staff Analysis

Issues Raised: The staff believes that the application raises three primary issues: (1) whether the project would be consistent with the Commission's law and policies on allowable Bay fill, including natural resources; (2) whether maximum feasible public access is provided consistent with the project, and if the project is otherwise consistent with Bay Plan policies on public access; and (3) whether the project would be consistent with the Bay Plan policies on recreation.

A. **Bay Fill.** The Commission may allow fill only when it meets the requirements identified in Section 66605 of the McAteer-Petris Act, which states, in part, that: (a) fill “should be authorized only when public benefits from fill clearly exceed public detriment from the loss of water areas” and fill “should be limited to water-oriented uses (such as water-oriented recreation or public assembly)” or “minor fill for improving shoreline appearance and public access;” (b) fill in the Bay should be approved only when “no alternative upland location” is available; (c) fill should be “the minimum amount necessary to achieve the purpose of the fill;” (d) “the nature, location, and extent of any fill should be such that it will minimize harmful effects to the Bay area, such as, the reduction or impairment of the volume, surface area or circulation of water, water quality, fertility of marshes or fish or wildlife resources, or other conditions impacting the environment;” and (e) “fill should be authorized when the applicant has such valid title to the properties in question that he or she may fill them in the manner and for the uses to be approved.”

1. **Proposed Fill.** The project involves new Bay fill through the placement of beach sand and materials for shoreline stabilization (cobble and riprap) and the removal of fill through the removal of a deteriorated barge and debris. In total, the project would result in a net increase in Bay fill of approximately 500 cubic yards and, at minimum, over a 8,200-square-foot area. The net square footage of fill placed may be higher than 8,200 square feet as the volume and acreage of debris removal is estimated due to its scattered nature and therefore may be less than anticipated.

a. **Beach Sand Placement and Excavation.** The proposed project would involve the placement of approximately 620 cubic yards of medium-grain (approximately 0.8 mm) sand over a 17,810-square-foot area of the beach foreshore in the Bay and approximately 1,250 cubic yards of sand over a 9,045-square-foot area of the beach in the 100-foot shoreline band, on the existing beach. The sand layer would be approximately 12 inches thick, and placed over the beach at a steeper slope on the water’s edge (7H:1V) than currently exists to create a wider beach during high-tide conditions, and to provide increased protection from storms for the adjacent dune area. The beach would be wider during high tides at the north end, near the shoreline trail, and would narrow towards the south end of the beach. The sand depth and slope were designed to allow for stability of the new slope, to both support and maintain the wider beach berm.

Additionally, to create the new beach slope, approximately 9,300 square feet (300 cubic yards) of existing sand would be excavated along the subtidal edge of the beach creating a trench. The trench creates an area to “key in” the toe of the new slope, much like that of levee construction. During placement of the coarser imported sand, the trench would be filled in, creating a more stable base to the newly created steeper beach slope. The excavated existing sand would be redistributed on the upper portion of the slope, below the 12-inch-thick layer of new sand.

- b. **Fill Removal and Bank Stabilization.** The project would involve the removal of a 896-square-foot dilapidated barge that is embedded in the bank adjacent to the beach, including a 246-square-foot section in the Bay and a 650-square-foot section within the 100-foot shoreline band, and the removal of scattered debris and rocks over an approximately 12,325-square-foot area. The barge and debris are part of the stable shoreline. Their removal will destabilize the shoreline in this location and therefore, the applicant proposes measures to restabilize it as they are removed. The barge is currently a public safety hazard due to its rusty and decaying state.

In stabilizing the bank and connecting it to the new beach slope, the proposed project would involve the placement of approximately 175 cubic yards of riprap over a 1,900-square-foot area of intertidal and subtidal Bay, and 200 cubic yards of riprap over a 2,550-square-foot area within the 100-foot shoreline band. The transition between the riprap and the beach sand would involve the placement of approximately 60 cubic yards of cobble over a 815-square-foot area in the Bay, and 90 cubic yards of cobble within a 1,535-square-foot area of the 100-foot shoreline band.

2. **Public Benefit v. Detriment and Water-Oriented Use.** The proposed imported sand for placement on the beach and the redistribution of excavated sand would provide for enhanced water-oriented recreational use at the site through the maintenance of a larger area of dry sand for the public during high tide and future sea level conditions, and by providing additional protection for the public access area on the adjacent dunes that is required in the original permit. The proposed riprap and cobble would stabilize the shoreline after the removal of the barge and debris, which would also provide erosion protection for the existing public trail. As the purpose of the riprap and cobble is to provide bank stabilization for an existing shoreline reach, the fill would be for a water-oriented use.
3. **Alternative Upland Location.** The proposed Bay fill from the placement and excavation of sand would steepen and widen an existing sandy beach. As beaches by their nature are located intertidally, and the purpose of the sand placement is to improve water-oriented recreational use of the beach, no upland alternative is possible nor available. The purpose of the proposed Bay fill from the placement of riprap and cobble would be to provide bank stabilization for an existing shoreline reach, and thus no alternative upland location is possible nor available.
4. **Minimum Amount Necessary.** As proposed, the project would result in the placement of approximately 855 cubic yards of new Bay fill over a 20,525-square-foot area, associated with the placement of beach sand and materials for bank stabilization (cobble and riprap). The proposed project would also involve the removal and replacement of approximately 300 cubic yards of Bay fill over a 9,300-square-foot area, through sand excavation and redistribution associated with beach sand placement.

The fill associated with the beach is intended to increase the width of the beach to provide recreational opportunities under high tide conditions. The area of new sand placement is determined by the desired area of the expanded beach, and the purpose of providing a wider beach berm along the entirety of the beach. The volume of sand is designed to cover the existing beach with a layer of sand that is both thick enough and at a steep enough slope to maintain the wider beach. The applicant indicates that the 12-inch-thick layer of sand is necessary for slope stability.

The fill associated with the placement of cobble and riprap is intended for bank stabilization. The riprap would be placed in the steepest reach of shoreline, where the wave energy would be greater and shoreline stabilization would be needed to prevent potential erosion. The applicant notes that this is “consistent with existing riprap treatments located along the shoreline west of the Project site.” The riprap would then transition to cobble at a shallower slope as it approaches the beach.

Staff explored with the applicant in depth whether the proposed fill for the riprap and cobble represents the minimum amount necessary for the purpose of shoreline stabilization and whether non-structural alternatives might be more in keeping with the life of the beach, as the project site is relatively protected from wave energy due to the jetty. The applicant indicated that the riprap would be placed in an area close to an existing public trail, and is appropriate for that location both due to site steepness and space constraints, as it would not be feasible to relocate the public trail. Other alternatives to riprap in this location would require substantially more Bay fill than the proposed riprap. The cobble is included to provide for a softer transition between the riprap and the beach sand in an area that allows for a slightly shallower slope while adequately stabilizing the shoreline.

5. **Effects on Bay Resources.** In addition to Section 66605(d) of the McAteer-Petris Act regarding the impacts of fill on Bay resources, the Bay Plan contains related policies, cited below.
 - a. **Fish and Wildlife.** The Bay Plan Fish, Other Aquatic Organisms and Wildlife Policy No. 4 states, in part, that “[t]he Commission should consult with the California Department of Fish and [Wildlife] and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service whenever a proposed project may adversely affect an endangered or threatened plant, fish, other aquatic organism or wildlife species...and give appropriate consideration of (their) recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat.” The Bay Plan Fish, Other Aquatic Organisms and Wildlife policies also 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.”

- i. **National Marine Fisheries Service.** On December 13, 2017, the National Marine Fisheries Service (NMFS) issued a concurrence letter that determined that the project is not likely to adversely affect listed salmon or green sturgeon. The project includes measures to minimize impacts to Bay resources, including conducting work between June 15 to October 31 to avoid impacts to listed salmonid species in San Francisco Bay and limiting in-water work to low tide. NMFS also determined that the project “would adversely affect EFH [Essential Fish Habitat] designated under the [Magnuson Stevens Fishery Conservation and Management Act, Pacific Groundfish Management Plan]; however, adverse effects are minimal in nature and, once the project is complete, EFH will benefit from restoration of the sand beach and rocky shore. Therefore, NMFS has no practical EFH [c]onservation [r]ecommendations to provide to avoid or reduce the magnitude of these effects.” During sand and riprap placement, the project may affect water quality and may bury benthic organisms, but these effects are anticipated to be temporary.
- ii. **Biological Impacts of Sand Placement and Excavation.** The placement and excavation of sand could have impacts to invertebrate communities within the existing beach sand, through burying, crushing, or smothering invertebrates with sand or by using construction equipment. The application indicates that, as the sand to be placed on the beach is relatively shallow, some invertebrates are expected to “survive and burrow through the new sand, especially along the leading edge of beach fill where depths are shallow.” The applicant further states that “Reported recovery rates for invertebrates range from weeks to less than a year, with recovery beginning almost immediately after cessation of construction activities. The duration for complete recovery may vary depending on sediment characteristics and seasonal considerations. Recovery rates are generally fastest for benthic invertebrates and slowest for vegetated habitats. Most monitoring studies have demonstrated sandy beach invertebrate recovery rates on the order of months after beach nourishment.” The application also notes that the project incorporates measures to minimize impacts to invertebrates by conducting construction activities in late summer and fall, which corresponds to a seasonal decrease in invertebrate abundance. The application states that “[i]nvertebrate abundance on a beach varies seasonally, with increasing development from spring to summer and decreasing from late summer through winter.”

Staff found in discussions with U.S. Geological Survey Ecological Field Station personnel that the benthic maximum for much of the Bay is summer and fall, with species numbers decreasing into the winter season. With construction planned during the fall, there may be impacts to invertebrates and associated feeding shorebirds. Scheduling the beach work in late fall may minimize the impacts. Further, the area is expected to re-colonize over time by invertebrate communities, with worm species in the intertidal zone

colonizing first, and fairly rapidly, and with other species such as clams and less mobile species colonizing later. Previous beach nourishment projects have found that supra tidal invertebrates with high mobility recolonize nourishment sites over a varying period of time. Full recolonization of the complete invertebrate community would likely occur within 2-3 years. Habitat conversion is not anticipated to occur as part of the project, as the sand would be placed only over areas with existing sand.

- iii. **Sand Grain Size.** The beach sand proposed for placement (approximately 0.8 mm) is coarser than the existing beach sand, which is medium- (0.5 to 0.8 mm) to fine- (0.125 to 0.25 mm) grained. The applicant indicates that the coarser sand is necessary to construct the proposed steeper 7H:1V beach slope, allowing for the creation of a wider beach with a larger area that is dry during high tides. The application states that “[t]he grain size was selected primarily because it will provide a stable beach slope and won’t be substantially eroded by waves, blown onto the dune, or require on-going maintenance.”

Staff discussed with the applicant that according to their analysis, the beach is not currently eroding, and the possibility that the dunes (discussed in Staff Analysis Section B.1.a, below) may not persist over time due to the placement of coarse-grained sand on the beach, which would prevent transport of finer-grained Aeolian sand onto the dunes. The applicant indicated that transport of sand from the beach to the dunes does not occur on a large scale under current conditions. This raises the issue that the dunes as designed may not persist over time, and may need to be augmented by additional sand over time. Additionally, while the dunes would provide minor habitat value, they are located within the 100-foot shoreline band and are primarily anticipated to serve as a public access feature.

- iv. **Biological Impacts of Shoreline Stabilization and Debris Removal.** The portions of the shoreline stabilization work that would take place in the Bay could have impacts to invertebrate communities, as biological impacts could include burial of benthic organisms during placement of riprap and cobble. However, the current shoreline in this area consists of a dilapidated barge and scattered debris, providing little or no habitat. Removal of the barge and associated debris and filling the area with riprap is also not anticipated to have much habitat value. Biological impacts associated with riprap and cobble placement are anticipated to be minimal with measures incorporated to protect fish, wildlife, and water quality, as would also be implemented for the placement of sand on the beach. These measures include conducting in-water work during low tides and during specified environmental work windows. The removal of the barge and debris is expected to provide some benefits to habitat quality, particularly in the area where cobble is used to transition between the riprap and sandy beach.

- b. **Water Quality.** The Bay Plan Water Quality policies state, in part, that “[w]ater quality in all parts of the Bay should be maintained at a level that will support and promote the beneficial uses of the Bay as identified in the San Francisco Bay Regional Water Quality Control Board’s (RWQCB) Basin Plan...[and] the 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.” Policy No. 3 states, in part, that “[n]ew projects should be sited, designed, constructed, and maintained to prevent or, if prevention is infeasible, to minimize the discharge of pollutants into the Bay...”

The proposed project could have impacts to water quality during project construction, including increased turbidity during removal of the barge and debris, and placement of sand, riprap, and cobble. These impacts are expected to be temporary as the sand and soil settle to the Bay bottom. The San Francisco Bay Regional Water Quality Control Board (RWQCB) issued a Water Quality Certification for the proposed project on February 28, 2019. The Water Quality Certification determined that the project would impact 0.62 acres of waters of the State, but would have a net benefit to habitat quality through the removal of debris and increased resiliency of the beach to sea level rise. The Water Quality Certification requires measures to protect water quality and limits in-water work to the period of June 1 to November 30.

6. **Valid Title.** East Bay Regional Park District leases the project site from the City of Alameda, and thus the applicant has valid title to the property where fill is proposed.

The Commission should determine whether the proposed project is consistent with the McAteer-Petris Act sections and relevant San Francisco Bay Plan policies regarding fill in the Bay.

- B. **Maximum Feasible Public Access.** Section 66602 of the McAteer-Petris Act states, in part, that “...existing public access to the shoreline and waters of the...[Bay] is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided.” In addition, the Bay Plan Public Access policies state, in part, that “a proposed fill project should increase public access to the Bay to the maximum extent feasible...” and that “access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available.” The Bay Plan Public Access policies further state, in part, that “[p]ublic access improvements provided as a condition of any approval should be consistent with the project and the physical environment, including protection of Bay natural resources, such as aquatic life, wildlife and plant communities, and provide for the public’s safety and convenience” and that “improvements should be designed and built to encourage diverse Bay-related activities and movement to and along the shoreline...”

1. **Proposed Public Access.** The proposed project would result in improvements to portions of the 31,200-square-foot public access area at the site, but would not increase the total area of public access. The proposed beach sand placement would provide enhanced public access on the existing beach, as discussed above under Bay Fill. In addition to the beach sand placement, the project would involve the following components related to public access:

- a. **Dune Sand Replenishment.** The proposed project would involve the placement of approximately 2,000 cubic yards of fine-grained sand over a 20,994-square-foot area and within the 100-foot shoreline band in the existing dune area. The sand would be sculpted to create dune topography and would be seeded with native plant species. Up to 3-foot-high sand fences would be installed within the dune area, which are intended to help maintain the reshaped dune structure and prevent sand loss due to wind erosion. A rope fence would be installed around the dune area during initial establishment of dune plants, after which openings in the rope fence would allow the public to access the area. Interpretive signage would also be installed.

The original permit at the site (BCDC Permit No. M2007.002.00) requires that the dune area be made available to the public for unrestricted public access. The dune area is currently used by members of the public for sitting, picnicking, and other recreational activities. While the applicant indicates that the native plant species proposed for the dune area will provide benefits to common birds and wildlife, which may include monarch butterflies, the dune area is small, heavily trafficked, and has limited connectivity with similar habitat types. Therefore, the dune area is expected to function as a demonstration dune habitat, akin to a garden, with the provision of accessible, educational opportunities for public access through the dunes rather than providing substantial habitat benefits. Thus, with the proposed dune sand replenishment, the dune area would still function as public access, with openings in the perimeter fence after initial plant establishment to allow the public to access the area, but would provide a different public experience than currently exists in the dune area. During dune plant establishment, the dune area would be closed to the public, and thus public access would be diminished from the unrestricted access available under current conditions.

- b. **Trail and Landscaping Improvements.** The proposed project would involve trail and landscaping improvements for public access purposes, including repaving an approximately 220-foot-long section of the Alameda Point Trail; constructing two decomposed granite pathways leading to the adjacent boat launch site; seeding native vegetation adjacent to the trails; replacing interpretive panels and a bench; removing trees; and installing irrigation. A removable, accessible beach pathway known as a “mobi-mat” would also be installed on the beach, to provide ADA-accessible beach access from the edge of the trail to the high tide line. All of these activities would take place within the 100-foot shoreline band.

The trail and landscaping improvements would provide additional connections between Encinal Beach and the adjacent City of Alameda boat launch site, and would update and enhance the public amenities currently available at the Encinal Beach site, serving a variety of users.

- c. **Cobble and Sand Interface.** The applicant proposes to place riprap to stabilize the bank after removal, and then place cobble to the south of the riprap, transitioning to beach sand. To provide for greater public access benefits, beach sand would be placed over a triangular area at the eastern edge of the cobble, which was proposed for additional cobble placement in the original design (Exhibit B). This area of sand would be aligned with the public access path leading down to the shoreline trail from the parking lot, and would allow for more direct visual and physical public access to the beach area from the parking area northeast of the beach. This area of sand would be constructed at an approximately 6.5:1 slope. The applicant indicates that maintenance may be needed over time due to potential downslope movement of sand. Additional cobble would be placed over the sand in this area later on if downslope movement of sand becomes an issue (Exhibit C).
2. **Impacts to Existing Public Access During Construction.** During construction, approximately 50 out of 100 parking spaces of the public parking lot adjacent to the site would be used for construction staging. The application states that “[t]he duration of the closure and the size of the construction area would be refined during construction and minimized to the extent feasible. The number of parking spaces remaining available would be sufficient to accommodate users of nearby amenities and facilities, such as the Encinal Boat Ramp, the Alameda Center Community Sailing Center, and trail users.”
3. **Barrier-Free Access.** Bay Plan Public Access Policy No. 7 states, in part: “Public access improvements provided as a condition of any approval...should permit barrier free access for persons with disabilities to the maximum feasible extent...”

The repaved shoreline trail and additional decomposed granite trails would be universally accessible. The installation of the removable, accessible beach pathway (“mobi-mat”) would create barrier-free beach access from the shoreline trail to just above the high tide line.

4. **Operations and Maintenance.** Bay Plan Public Access Policy No. 7 states, in part: “Public access improvements provided as a condition of any approval...should include an ongoing maintenance program.”

The applicant, East Bay Regional Park District, would operate and maintain the public access improvements at the site. The dune area may be subject to continued wind erosion and potentially wave erosion in extreme storm events. As a result, the dune sand has the potential to be blown onto an adjacent public path leading to the jetty on City of Alameda property, which is required public access at the adjacent site (BCDC Permit No. 1979.032.02). The applicant indicates that the sand fences and dune vegetation would help to stabilize the dune sand and minimize loss of sand.

The application also states that, “[i]n the event that sand is blown onto the adjacent path leading to the jetty, District and City staff would coordinate as needed to assess the extent to which this occurs, and determine an appropriate schedule for sweeping the sand back into the restoration area, or devising another solution to ensure continued, unimpeded access along the path.” If the dune sand is lost to wind erosion at a greater rate than expected, the dune area could continue to provide public access, which would be similar to the unrestricted public access provided under current conditions in the flattened dune area.

5. **Sea Level Rise and Flooding.** The Bay Plan Public Access Policy No. 5 states that “public access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding.”

The project as it relates to the beach and dune nourishment has a design life of 25 years, or through approximately 2045. The berm of the beach would be widened and raised through the placement of sand to an elevation of +10’ NAVD88. Based on the 2018 State of California Sea Level Rise Guidance from the Ocean Protection Council and Natural Resources Agency, which represents the best available science, 1.9 feet of sea level rise is anticipated to occur by 2050 under a high-emissions scenario. With these projections, the berm of the beach is anticipated to experience flooding during 2-year or greater storm events, but would remain dry during King Tides (1-year storm events). The raised elevation of the berm would provide greater protection from sea level rise and flooding than currently exists for recreational use of the beach, as the berm of the beach currently floods under high tide conditions. The application states that, “for recreational beaches, it is typically not desirable or practical to build to extreme elevations as a way of accommodating anticipated future sea level rise. Beaches by nature are intended to provide access to the water and raising the beach substantially would inhibit this access.”

The applicant also indicates that sea level rise monitoring would be conducted and that adaptation would be incorporated for the beach for the longer term, beyond the anticipated life of the project, consisting of either “(1) adding sand to the beach as needed to meet actual sea level rise; or (2) allow[ing] conversion of the beach to other habitats.”

The Commission should determine whether the proposed project is consistent with the McAteer-Petris Act sections and relevant San Francisco Bay Plan policies regarding public access.

- C. **Recreation.** The Bay Plan Recreation policies state, in part, that “[d]iverse and accessible water-oriented recreational facilities, such as...beaches...should be provided to meet the needs of a growing and diversifying population, and should be...improved to accommodate a broad range of water-oriented recreational activities for people of all races, cultures, ages and income levels.” The Recreation policies also state that “[s]andy beaches should be preserved, enhanced, or restored for recreational use, such as

swimming, consistent with wildlife protection” and that “small amounts of Bay fill may be allowed for waterfront parks and recreational areas that provide substantial public benefits and that cannot be developed without some filling.”

The proposed project would enhance an existing sandy beach for recreational use through the creation of a larger area of dry sand on an existing beach, and could improve water-oriented recreational opportunities for a variety of users. Trail improvements and the installation of an ADA-accessible “mobi-mat” would facilitate stronger physical connections to the beach. The site has existing beach and dune areas that are currently used for water-oriented recreation, and measures would be taken during construction to minimize impacts to wildlife, including conducting in-water construction during specified environmental work windows.

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

- D. **Review Boards.** The proposed project was not reviewed by the Commission’s Engineering Criteria Review Board or Design Review Board, as Commission staff determined that the project did not raise significant issues related to safety of fills or design of the public access.
- E. **Environmental Review.** On July 5, 2017, the East Bay Regional Park District, as the lead agency, adopted a Mitigated Negative Declaration for the project.
- F. **Relevant Portions of the McAteer-Petris Act**
 - 1. Section 66602
 - 2. Section 66605
 - 3. Section 66632
- G. **Relevant Portions of the San Francisco Bay Plan**
 - 1. Policies on Public Access
 - 2. Policies on Recreation
 - 3. Policies on Fish, Other Aquatic Organisms, and Wildlife
 - 4. Policies on Water Quality

Exhibits

- A. **Existing Public Access at Project Site (Exhibit A, Permit No. M2007.002.00)**
- B. **Proposed Site Plan**
- C. **Proposed Alternative Site Plan (Change in Cobble and Sand Interface)**
- D. **Shoreline Demolition Plan**
- E. **Beach Restoration Layout and Section**