

San Francisco Bay Conservation and Development Commission

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Agenda Item #9

November 8, 2019

Staff Recommendation

City of Foster City

Levee Protection Planning and Improvements Project

(For Commission consideration on November 21, 2019)

Permit Application Number:	2018.005.00
Applicant:	City of Foster City
Project Description:	Rehabilitate approximately 5.9 miles of the 6.5-mile Foster City levee system to regain FEMA accreditation and account for sea level rise to 2050 with an adaptation strategy beyond 2050.
Location:	In the Bay and within the 100-foot shoreline band and San Francisco Bay Plan-designated Waterfront Park, Beach and Wildlife Refuge Priority Use Areas, along the Foster City levee system and shoreline, in the City of Foster City, San Mateo County.
Application Filed Complete:	November 5, 2019
Deadline for Commission Action:	February 3, 2020
Staff Contact:	Walt Deppe (415/352-3622; walt.deppe@bcdc.ca.gov)
Staff Recommendation:	APPROVAL WITH CONDITIONS

Basis for Recommendation

The staff recommends approval of the application as conditioned in the recommended resolution, below. The project would construct shoreline protection structures and redevelop public access along the shoreline levee system, in the City of Foster City, San Mateo County. The proposed use is not in conflict with any Priority Use Areas established by the Bay Plan.

The project would include levee rehabilitation work with new shoreline protection, redevelop and widen the levee Bay Trail, provide public access amenities and access to the Bay, and construct two bridges to increase tidal circulation to enhance O'Neil Slough in the southern segment of the project site.

Special Conditions are also included to provide adequate public access amenities, protect bay resources, require the implementation of a sea level rise adaptation plan as necessary for the life of the project, and ensure that the project is developed consistent with the plans submitted as part of the application.



Recommended Resolution and Findings

The staff recommends the Commission adopt the following resolution:

I. Authorization

A. **Authorized Project.** Subject to the conditions stated below, the permittee, the City of Foster City, is hereby granted permission to construct the following along the Foster City levee system and shoreline, in the City of Foster City, San Mateo County:

1. **Levee Rehabilitation.** Rehabilitate approximately 31,300 linear feet of the 34,300-linear-foot Foster City levee system to regain FEMA accreditation and account for sea level rise to 2050 with an adaptation strategy beyond 2050. New fill associated with levee construction will total approximately 100,000 cubic yards. There is no new fill in the Bay directly associated with levee rehabilitation.

a. **Within the 100-foot Shoreline Band:**

- (1) **Sheet Pile Floodwall.** (a) Construct and maintain an approximately 24- to 30-inch-wide steel sheet pile floodwall with a concrete cap along segments of the existing levee, totaling approximately 21,100 linear feet, including refuge and cover elements for species; (b) Construct and maintain a secondary concrete or Mechanically Stabilized Earth (MSE) block wall primarily along East 3rd Avenue and Beach Park Boulevard, to retain the raised Bay Trail; (c) Raise and maintain the earthen levee with additional fill in locations where the finished floodwall elevation would be greater than approximately 3.5 feet above the existing trail elevation to ensure that the typical maximum wall height does not exceed 3.5 feet from the grade adjacent to the Bay Trail; and (d) Install and use corrosion monitoring devices;
- (2) **Earthen Levee.** Construct and maintain an earthen levee along segments of the existing levee, totaling approximately 4,480 linear feet, with elevations ranging from approximately 13.5 to 16.5 feet NAVD;
- (3) **Conventional Floodwall.** (a) Construct and maintain a concrete floodwall along segments of the existing levee, totaling approximately 5,100 linear feet, with a height above the finished grade ranging from approximately 2.5 to 4 feet, including levee excavation at the top of the existing berm during foundation construction; (b) During construction only, install a sheet pile wall on the water side of the berm excavation as necessary; and (c) Add earthen fill to ensure that the typical maximum wall height does not exceed 3.5 feet from the grade adjacent to the Bay Trail;
- (4) **Low Wall West of San Mateo Bridge.** Construct an approximately 275-foot-long, 18-inch-wide, 18-inch-tall flood wall on the waterside of the Bay Trail west of the San Mateo Bridge, approximately between Stations 98+30 and 101+25; and

- (5) **Temporary Cofferdams.** During construction only, install cofferdams around levee rehabilitation work areas for dewatering as necessary.

2. Bay Trail

a. Within the 100-foot Shoreline Band:

- (1) Reconstruct, widen, and use, and maintain the approximately 32,800-linear-foot portion of public access paths along the Foster City levee system; and
- (2) During construction only, install bicycle and pedestrian detour amenities and signage.

3. Flood Protection Devices

a. Within the 100-foot Shoreline Band:

- (1) On the east side of the San Mateo Bridge adjacent to Bridgeview Park (at Station 101+25), install and maintain a flood protection device;
- (2) At a break in the floodwall on the path toward Belmont near Baffin Street (at Station 306+00), install and maintain a flood protection device; and
- (3) At the new emergency egress route bridge (Authorization I.A.10.a.ii) adjacent to O'Neil Slough (at Station 331+00), install and maintain a flood protection device.

4. **Water Access Ramps.** Replace two water access ramps to the Bay from the public access path, generally consistent with Exhibit A.

a. In the Bay:

- (1) **Boat Ramp Northwest of Baywinds Park Parking Lot (Station 36+70).** Construct, use, and maintain an approximately 1,050-square-foot portion of an approximately 18-foot-wide and 82-foot-long concrete boat ramp, extending from the top of the levee for emergency rescue watercraft boats to access the Bay;
- (2) **Access Ramp North of Baywinds Park Parking Lot (Station 38+40).**
 - (a) Remove an approximately 130-square-foot portion of an approximately 3.5-foot-wide concrete access ramp; (b) Construct, use, and maintain an approximately 950-square-foot portion of an approximately 5-foot-wide and 170-foot-long concrete access ramp;
- (3) **Riprap.** Remove approximately 1,040 square feet (75 cubic yards) of riprap and install and maintain approximately 1,040 square feet (75 cubic yards) of rock riprap as part of the construction of the new water access ramps; and
- (4) **Temporary Work.** During construction only, dewater a total of approximately 3,500 square feet of work areas using cofferdams, temporarily remove riprap, grade the access ramp and pour concrete, and reinstall the riprap.

b. Within the 100-foot Shoreline Band:

(1) Boat Ramp Northwest of Baywinds Park Parking Lot (Station 36+70).

(a) Remove an approximately 200-square-foot portion of an approximately 3.5-foot-wide concrete access ramp; (b) Construct, use, and maintain an approximately 1,800-square-foot portion of an approximately 18-foot-wide and 82-foot-long concrete boat ramp;

(2) Access Ramp North of Baywinds Park Parking Lot (Station 38+40).

(a) Remove an approximately 280-square-foot portion of an approximately 3.5-foot-wide concrete access ramp; (b) Construct, use, and maintain an approximately 1,500-square-foot portion of an approximately 5-foot-wide and 170-foot-long concrete access ramp; and

(3) Temporary Work. During construction only, install cofferdams, temporarily remove riprap, grade the access ramp and pour concrete, and reinstall the rip-rap.

5. Public Access to the Bay. Construct waterside physical access to the Bay from the reconstructed levee Bay Trail system, generally consistent with Exhibit A, including:

a. Within the 100-foot Shoreline Band:

(1) Paths and Ramps to the Bay. Upgrade or construct nine access paths and ramps to allow for access to the Bay from the Bay Trail.

(a) Access Path South of Baywinds Park Parking Lot (Station 44+80).

Construct, use and maintain an approximately 6-foot wide and approximately 72-foot-long concrete access path;

(b) Access Ramp North of East 3rd Avenue (Station 57+00). Construct, use, and maintain an approximately 7-foot-wide and approximately 70-foot-long concrete access ramp;

(c) Access Ramp at Lagoon Outfall North of E. 3rd Avenue (Station 69+90).

Construct, use, and maintain an approximately 5-foot-wide and approximately 40-foot-long concrete access ramp;

(d) Access Path West of the San Mateo Bridge (Station 98+30). Construct, use, and maintain an approximately 5-foot-wide and approximately 270-foot-long concrete access path, extending behind the sheet pile floodwall at the shoreline;

(e) Access Ramp at the SFO ILS Outer Marker Southeast of Bridgeview Park (Station 111+10). Construct, use, and maintain an approximately 7-foot-wide and approximately 54-foot-long concrete access ramp;

- (f) **Access Path Northeast of Beach Park Boulevard between Sanderling Street and Gull Avenue (Station 136+00).** Construct, use, and maintain an approximately 6-foot-wide and approximately 65-foot-long concrete access path;
 - (g) **Access Path East of Beach Park Boulevard between Tarpon Avenue and Swordfish Street to Shell Bar Beach (Station 168+10).** Construct, use, and maintain an approximately 6-foot-wide and 61-foot-long concrete path at the Shell Bar Beach; and
 - (h) **Access Path East of Beach Park Boulevard between Tarpon Avenue and Swordfish Street to Shell Bar Beach (Station 170+10).** Construct, use, and maintain an approximately 6-foot-wide and 57-foot-long concrete path at the Shell Bar Beach;
- (2) **Bay Stairs.** Construct eight stair structures leading from the Bay Trail to the Bay.
- (a) **Staircase North of East Third Avenue for Access to “Last Chance” Beach Ramp (Station 63+20).** Construct, use, and maintain an approximately 7-foot-wide staircase within a concrete floodwall, at the water access ramp to “last chance” beach;
 - (b) **Emergency Egress Staircase (Station 69+40).** Construct, use, and maintain an approximately 5-foot-wide steel or concrete staircase near the lagoon outfall area for emergency egress;
 - (c) **Staircases Northeast of the Roundabout at the Terminus of E 3rd Avenue (Station 82+80).** Construct, use, and maintain two sets of approximately 5-foot-wide staircases within a concrete floodwall, at a public picnic area;
 - (d) **Staircase West of the San Mateo Bridge (Station 94+00).** Construct, use, and maintain an approximately 5-foot-wide staircase within a concrete floodwall;
 - (e) **Staircase at the Werder Pier East of the San Mateo Bridge (Station 103+00).** Construct, use, and maintain an approximately 5-foot-wide staircase within a concrete floodwall, extending from the top of the levee near Werder Pier;
 - (f) **Staircase Northeast of Beach Park Boulevard between Marlin Avenue and Tarpon Avenue for access to Shell Bar Beach (Station 159+80).** Construct, use, and maintain an approximately 5-foot-wide staircase within a concrete floodwall near the Shell Bar Beach;

and raise the existing grade on an approximately 1,800–square-foot portion of the Bayshore Towers property to provide access from adjacent parking lots and private property; and

- (3) **Landside Public Access Ramps.** Construct approximately 14 paths, approximately four ramps, and approximately 17 stairways to provide access to the Bay Trail from the landside.
7. **Additional Public Access Amenities.** Construct public access amenities, generally consistent with Exhibit A, including:
 - a. **Within the 100-foot Shoreline Band:**
 - (1) Construct and maintain an approximately 18,850-square-foot recreation area between the floodwall and Bay generally from Station 135+00 to Station 141+00, including public access amenities such as shade structures, picnic tables, etc.;
 - (2) Install and maintain planting areas along the levee;
 - (3) Remove existing and install, use, and maintain picnic tables, benches, recycling and trash containers, bicycle racks, bicycle repair stations, pet litter stations, signs, interpretive elements, lighting, and associated utilities.
 8. **Lagoon Intake/Outfall Structures.** Modify the Lagoon intake and outfall structures to accommodate the levee rehabilitation.
 - a. **In the Bay:**
 - (1) During construction only, dewater a total of approximately 2,000 square feet of the Lagoon intake and outfall work areas using cofferdams.
 - b. **Within the 100-foot Shoreline Band:**
 - (1) Deconstruct, reconstruct, use, and maintain an approximately 270-square-foot (approximately 27 cubic yards) Lagoon intake structure, including handrails and fencing; and
 - (2) Deconstruct, reconstruct, use, and maintain an approximately 200-square-foot (approximately 43 cubic yards) Lagoon outfall structure, including handrails and fencing.
 9. **Bridges.** Construct two free-spanning bridges and restore full tidal flows to a portion of O’Neil Slough.
 - a. **In the Bay:**
 - (1) **Baffin Street Bridge (Station 306+00).** (a) Remove an approximately 150-square-foot, approximately 36-inch-diameter culvert under the Bay Trail from Belmont Slough to a non-tidal/muted-tidal channel; (b) Excavate an

approximately 590-square-foot portion of a 1,050-square-foot levee segment under the culvert; (c) Excavate an approximately 530-square-foot portion of a 2,300-square-foot channel and levee below the bridge;

(2) **Emergency Egress Route Bridge (Station 331+00).** (a) Excavate an approximately 550-square-foot portion of a 1,700-square-foot levee segment to hydrologically connect Belmont Slough with the wetlands to the west of the levee; and (b) Excavate an approximately 1,750-square-foot channel below the bridge; and

(3) **Temporary Cofferdams.** During construction only, dewater a total of approximately 5,000 square feet of bridge construction and excavation work areas using cofferdams.

b. Within the 100-foot Shoreline Band:

(1) **Baffin Street Bridge (Station 306+00).** (a) Excavate an approximately 460-square-foot portion of a 1,050-square-foot levee segment under the culvert; (b) Construct, use, and maintain, an approximately 20-foot-wide, 15-foot-long free-spanning bridge, including concrete bridge abutments on each side of the channel; (c) Excavate an approximately 1,770-square-foot portion of a 2,300-square-foot channel and levee below the bridge; and (d) Relocate water and gas utilities;

(2) **Emergency Egress Route Bridge (Station 331+00).** (a) Excavate an approximately 1,150-square-foot portion of a 1,700-square-foot levee segment to hydrologically connect Belmont Slough with the wetlands to the west of the levee; (b) Construct, use, and maintain an approximately 12-foot-wide, 15-foot-long free-spanning bridge including concrete bridge abutments on each side of the channel; and

(3) **Temporary Cofferdams.** During construction only, install cofferdams around bridge construction and excavation work areas for dewatering.

10. Other General Activities. Along the entire project site:

a. In the Bay:

(1) **Environmental Measures.** Temporarily, during construction only, install and use environmental protection measures as necessary, including silt curtains to control turbidity; and

(2) **Habitat Restoration.** Conduct post-construction habitat restoration and monitoring activities, including restoring grades and planting native vegetation.

b. Within the 100-foot Shoreline Band:

- (1) **Environmental Measures.** Temporarily, during construction only, install and use environmental protection measures, including exclusion fencing and erosion control materials such as silt fences and straw rolls;
- (2) **Habitat Restoration and Planting.** Conduct post-construction habitat restoration, planting, and monitoring activities, including restoring grades and planting native vegetation;
- (3) **Dredge Sediment Area Fence** Around the dredged sediment area, remove a chain link fence and install and maintain a chain link fence located at the toe of the landward slope; and
- (4) **Construction Staging.** Temporarily, during construction only, use portions of three areas along the project site for construction staging, including:
 - (a) An approximately 9,650-square-foot area adjacent to the San Mateo Bridge;
 - (b) An approximately 138,580-square-foot area along Beach Park Boulevard; and
 - (c) An approximately 2,724-square-foot area adjacent to the dredged sediment disposal area.

- B. Based on Application Dated.** This authority is generally pursuant to and limited by the application dated November 5, 2018, as modified by subsequent correspondence and exhibits, and all conditions of this permit (the “Application”).
- C. Deadlines for Commencing and Completing Authorized Work.** Work authorized herein must commence prior to January 1, 2023 or this permit will lapse and become null and void. Such work must also be diligently pursued to completion and must be completed within three years of commencement, or by January 1, 2026 whichever is earlier, unless an extension of time is granted by amendment of the permit. Maintenance authorized herein may be conducted in perpetuity so long as the development authorized herein remains in place.
- D. Project Summary.** The Foster City Levee Protection Planning and Improvements Project will rehabilitate approximately 31,300 linear feet of levee system and shoreline public access trails and infrastructure in the City of Foster City, San Mateo County. The project includes shoreline protection infrastructure, recreational amenities, and tidal habitat enhancement.
- E. Public Access.** The project results in the construction of approximately 1,527,850 square feet (35.1 acres) of improved public access areas, including approximately 1,445,020 square feet (33.2 acres) within in the Commission’s 100-foot shoreline band jurisdiction and 82,830 square feet (1.9 acres) outside of the Commission’s permitting jurisdiction. The project includes a 32,800 linear-foot section of the San Francisco Bay Trail (Bay Trail)

along the project site, with minimum trail and shoulder widths required by Special Condition II.B.2. The project also provides access to the Bay, landscaping, and a variety of amenities.

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

1. **Document(s).** The development authorized herein shall be built generally in conformance with those figures found in Exhibits A and B to this permit.

The permittees are responsible for assuring that all construction documents accurately and fully reflect the terms and conditions of this permit and any legal instruments submitted pursuant to this authorization. No substantial changes shall be made to these documents without prior review and written approval by or on behalf of the Commission through plan review or a permit amendment.

2. **Document(s) Review and Approval.** No work whatsoever shall commence pursuant to this permit until final construction documents regarding authorized activities and required improvements are approved in writing by or on behalf of the Commission. Documents submitted shall be accompanied by a written request for plan approval, identifying the type of plans submitted, the portion of the project involved, and indicating whether the plans are final or preliminary. All documents will be reviewed within 60 calendar days of receipt.

Approval or disapproval pursuant to this condition shall be based upon consistency of the plans, the terms and conditions of this permit, and the requirements of the McAteer-Petris Act, the San Francisco Bay Plan, the Commission's Regulations the California Environmental Quality Act or the Commission's Amended Management Program for the San Francisco Bay segment of the California Coastal Zone. If final construction document review is not completed by or on behalf of the Commission within the 60-day period, the permittees may carry out the project authorized herein in a manner consistent with the plans referred to in Special Condition II.A.1 of this permit.

- a. **Document Details.** All construction documents shall be labeled with: the Mean High Water line or the upland extent of marsh vegetation no higher than +5 feet above Mean Sea Level and the tidal datum reference (NAVD88 or, if appropriate, Mean Lower Low Water (MLLW)); the corresponding 100-foot shoreline band; property lines; the location, types, and dimensions of materials, structures, and project phases authorized herein; grading limits; and the boundaries of public access areas and view corridor(s) required herein. Documents for shoreline protection projects must be dated and include the preparer's certification of

project safety and contact information. No substantial changes shall be made to these documents without prior review and written approval by or on behalf of the Commission through plan review or a permit amendment.

- b. **Conformity with Final Approved Documents.** All authorized development and uses shall conform to the final construction documents. Prior to use of the facilities authorized herein, the appropriate professional(s) of record shall certify in writing that the work covered by the authorization has been implemented in accordance with the approved criteria and in substantial conformance with the approved documents. No substantial changes shall be made to these documents without prior review and written approval by or on behalf of the Commission through plan review or a permit amendment.
- c. **Discrepancies between Approved Plans and Special Conditions.** In case of a discrepancy between final approved documents and the special conditions of this permit or legal instruments, the special condition shall prevail.
- d. **Reconsideration of Plan Review.** The permittee may request reconsideration of a plan review action taken pursuant to this special condition within 30 days of a plan review action by submitting a written request for reconsideration to the Commission's Executive Director. Following the Executive Director's receipt of such a request, the Executive Director shall respond to the permittee with a determination on whether the plan review action in question shall remain unchanged or an additional review and/or action shall be performed by or on behalf of the Commission, including, but not limited to, an amendment to the permit and/or consultation with the Commission Design Review Board.

B. Public Access

1. **Area.** The approximately 1,527,850-square-foot (35.1 acre) area, along approximately 32,800-linear feet of shoreline as generally shown on Exhibits "A" and "B" shall be made available exclusively to the public for unrestricted public access for walking, bicycling, sitting, viewing, fishing, picnicking, and related purposes. If the permittee wishes to use the public access area for uses inconsistent with public access purposes, it must obtain prior written approval by or on behalf of the Commission.
2. **Improvements Within the Total Public Access Area.** Prior to the use of any structure authorized herein, the permittee shall install and make available the following improvements, as generally shown on Exhibits A and B:
 - a. **Bay Trail.** An approximately 32,800-linear-foot portion of the Bay Trail, including:
 - (1) An approximately 1,320-foot-long section with a minimum 10-foot-wide trail with 4-foot-wide shoulders on each side (a total of approximately 18 feet wide);

- (2) An approximately 25,135-foot-long section with a minimum 12-foot-wide trail with a 4-foot-wide shoulder on the Bay or Slough side and a 2-foot-wide shoulder on the land side (a total of approximately 18 feet wide); and
- (3) An approximately 3,200-foot-long section with a minimum 12-foot-wide trail with one 3-foot-wide shoulder (a total of approximately 15 feet wide);
- b. **Water Access.** One (1) minimum 18-foot-wide, 82-foot-long boat ramp and one (1) minimum 5-foot-wide, 170-foot-long water access ramp;
- c. **Shoreline Access.** Shoreline access, including:
 - (1) A minimum of five (5) accessible pathways from the levee Bay Trail to the shoreline;
 - (2) A minimum of three (3) accessible ramps from the levee Bay Trail to the shoreline;
 - (3) A minimum of eight (8) staircases from the levee Bay Trail to the shoreline;
 - (4) A minimum of seven (7) sections of approximately 3- to 4-foot-wide compacted surface lower shoreline pathways will be constructed on the waterside of the sheetpile wall above the rock slope; and
 - (5) A minimum of fourteen (14) openings (breaks) in the flood walls for access from the levee Bay Trail to the shoreline;
- d. **Landside Access.** On the landside of the levee Bay Trail, a minimum of fourteen (14) accessible pathways, four (4) accessible ramps, and seventeen (17) stairways;
 - (1) **Overlooks.** A minimum of eight (8) open-rail overlooks along the levee Bay Trail on the bayside, each with viewing platform of a minimum of 100 square feet;
- e. **Trail Elevation Picnic Area and Boardwalk.** An approximately 18,850-square-foot recreation area between the floodwall and shoreline generally from Station 135+00 to Station 141+00, an approximately 850-square-foot boardwalk, including shade structures and picnic tables;
- f. **Bridges at O'Neil Slough.** One (1) approximately 20-foot-wide, 15-foot long bridge and one (1) approximately 12-foot-wide, 15-foot-long bridge;
- g. **Amenities.** Along the trail, install a minimum of 16 picnic tables, 35 benches, including memorial benches, 19 recycle bins, 19 trash receptacles, 7 bicycle racks, 4 bicycle repair stations, 12 pet litter stations, appropriate lighting at trail access points; and an appropriate number of interpretive elements;

- h. **Signs.** Install a minimum of five information kiosks, 23 trail identity signs, and 17 shore access signs, trail speed limit signs, and an appropriate number of wayfinding and interpretive signs, including Bay Trail and public shore signs;
- i. **Modifications to Existing Public Access.** Modifications to existing public access, including:
 - (1) A reconfigured approximately 3,100-square-foot portion of accessible paths to the Bay Trail from the shoreline parking areas at Bayside Towers (to replace the existing area being required by BCDC Permit No. 1997.015.01), generally between Station 84+00 and Station 87+00) and an approximately 1,800-square-foot accessible area between adjacent parking lots and private property;
 - (2) A reconfigured approximately 785-square-foot accessible pedestrian bridge at the Bayshore Towers development (to replace the existing bridge being required by BCDC Permit No. 1997.015.01); and
 - (3) Public access areas and accessible paths reconfigured from existing connections to the Bay Trail, and associated signs;
- j. **Planting Areas.** Planting areas along the levee, including:
 - (1) Levee restoration planting, including ice plant and native planting; and
 - (2) High tide habitat refuge planting in areas that don't conflict with the lower shoreline pathways;
- k. **Shoreline and Flood Protection Features.** Flood walls, including the low wall adjacent to the San Mateo Bridge and three flood protection devices.

Such improvements shall be consistent with the plans approved pursuant to Condition II.A. of this authorization and substantially conform to Exhibits A and B to this permit and the plan review of subsequent construction documents as required in Special Condition II.A.2.

- 3. **Comprehensive Wayfinding, Interpretive Elements, and Amenity Design Plan.** Within six (6) months of the commencement of the construction work authorized by this permit and prior to the use of any public access authorized by this permit, the permittee shall prepare and submit to the Commission a comprehensive wayfinding, interpretive elements, and amenity design plan, for review and approval by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2. This plan shall include interpretive elements for the required public access area and shall include topics such as the context of the project (historical, cultural, scientific, etc.) and sea level rise risk and adaptation. The comprehensive design plan shall include design elements, including wall treatments and furnishing elements, to create a cohesive experience along the levee Bay Trail, and establish easily-identifiable access locations and points of interest along the trail.

4. **Replacement and Restoration of Public Access Areas.** If any existing public access amenities or improvements (e.g., pathways, benches, landscaping, etc.) that are required by another existing Commission permit are adversely impacted by the work authorized in this permit in a way not authorized herein, the permittee must relocate, restore, or replace them to the same condition, quality, and quantity as required by the underlying permit and/or public access or open space instrument. Any changes to the existing required public access amenities must be approved by or on behalf of the Commission pursuant to the plan review required in Special Condition II-A or an authorization through an amendment to an existing permit, as necessary.
 5. **Maintenance.** The areas and improvements as shown in Exhibits A and B along the approximately 32,800-foot-long project site 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 trees or other plant materials that die or become unkempt; repairs or replacement as needed of any public access amenities such as signs, benches, drinking fountains, trash containers and lights; periodic cleanup of litter and other materials deposited within the access areas; removal of any encroachments into the access areas; repairs to public access amenities damaged by flooding, and assuring that the public access signs remain in place and visible. Within 30 days after notification by staff, the permittee(s) shall correct any maintenance deficiency noted in a staff inspection of the site.
 6. **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 by or on behalf of the Commission upon a finding that the proposed rules would not significantly affect the public nature of the area, would not unduly interfere with reasonable public use of the public access areas, and would tend to correct a specific problem that the permittee has both identified and substantiated. Rules may include restricting hours of use and delineating appropriate behavior.
- C. **Sea Level Rise: Risk Assessment and Adaptive Management (RAAMP)**
1. **Flood Reporting.** If any portion of the project, including the required public access areas as defined in Special Condition II.B, is subject to coastal flooding that results in its closure in whole or in part, the permittees shall submit to the Commission a written report within 30 days after the flooding with documentation of: the date and duration of the closure; the location of the affected site; the recorded water levels during the closure period; the source of flooding (e.g., coastal flooding or stormwater backup or overland flow); the resulting damage or cleanup; and illustrative photographs with site details. Coastal flooding is defined as Bay overtopping of the shoreline during tides, storms, or both.

- 2. Risk Assessment and Adaptive Management Plan 5-year Assessment and Monitoring Report.** Every 5 years following the issuance of this permit, the permittee shall prepare an assessment to determine if an update to the risk assessment and adaptive management plan (“RAAMP”) for the project (the document entitled “City of Foster City, Levee Protection Planning and Improvements Project (CIP 301-657), Risk Assessment and Adaptive Management Plan for Future Sea Level Rise”, prepared by Schaaf & Wheeler Consulting Civil Engineers, dated October 24, 2019, or any subsequent update approved by or on behalf of the Commission) is necessary given the status of the following (compared to the existing RAAMP):
- a. The best available science, including: up-to-date sea level rise projections; tidal datum and extreme tides datum; available modeling of tidal dynamics and Bay hydrological process; tide gauge data over the subject five-year period;
 - b. The most up-to-date sea level rise guidance from state and federal agencies, including, but not limited to, the Commission, the State of California, the U.S. Army Corps of Engineers and Federal Emergency Management Agency (“FEMA”);
 - c. Documentation of any occurrences of flooding at the public access areas, as required in Special Condition II.C.1;
 - d. The current FEMA flood maps and accreditation;
 - e. Land settlement of the levee system or throughout public access areas at the project site; and
 - f. Regional planning efforts.

By January 31, 2025, and by January 31 of every fifth year thereafter, the permittee shall submit for review by or on behalf of the Commission, pursuant to Special Condition II.A.2, the assessment, including a determination of whether an update to the RAAMP is necessary at that time. The assessment shall include a monitoring report that summarizes all of the flood events reported pursuant to Special Condition II.C.1 since the last update to the RAAMP. If the assessment, following review and approval by or on behalf of the Commission, makes a determination that an update is necessary, the permittee shall prepare an update to the RAAMP pursuant to Special Condition II.C.3.

The permittee may submit update assessments to the commission sooner than required. The permittee may also request time extensions to the deadlines for providing assessment documentation, to be reviewed and approved by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2.

- 3. Risk Assessment and Adaptive Management Plan Updates.** If an update to the RAAMP for the project is determined necessary by the permittee or by or on behalf of the Commission pursuant to Special Condition II.C.2, within 6 months of that

determination the permittee shall prepare and submit an update to the RAAMP for review and approval by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2.

Each update to the RAAMP shall include a determination of whether adaptation is expected to be necessary within the following five years from the time of the completion of the RAAMP update in order for the public access required by the project in Special Condition II.B to remain resilient to flooding during a 100-year storm event, including wave runup, that takes into account the best estimates of sea level rise. If the updated RAAMP, following review and approval by or on behalf of the Commission, makes a determination that adaptive measures are necessary within the next five years, the permittee shall prepare and implement an adaptation work plan pursuant to Special Condition II.C.4.

The permittee may update RAAMP for the project sooner than required. The permittee may also request time extensions to the deadlines for providing their assessment documentation, to be reviewed and approved by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2.

4. **Sea Level Rise Adaptation Planning and Implementation**

- a. **Work Plan.** Within 6 months of approval by or on behalf of the Commission of the updated RAAMP for the project, if the determination is made by the update that adaptation is expected to be necessary within following 5 years the public access required by the project in Special Condition II.B to remain resilient to flooding during a 100-year storm event, including wave runup,, pursuant to Special Condition II.C.3, the permittee shall prepare and submit a work plan describing the planning process to identify proposed adaptation measures to address the risk of flooding from sea level rise and storms and to protect the required public access areas, and provide a timeline for permitting and implementation of those measures. Any adaptation measures proposed pursuant to the planning process required in this condition shall not result in a reduction of the size or usability of the public access required herein or, if reduction of the size or usability of the public access is unavoidable, equivalent access must be provided nearby. The permittees shall obtain additional Commission review and approval of any such changes to the public access required herein.
- b. **Review and Approval.** The submitted work plan shall be reviewed by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2. Review of adaptation timelines proposed in the work plan should take into account any records of flooding at the project site, as reported according to Special Condition II.C.1.

- c. **Implementation.** Following approval of the adaptation work plan by or on behalf of the Commission, the permittee shall implement that work consistent with timeline proposed in work plan.
- d. **Time Extensions.** The permittee may request time extensions to the deadlines for providing their work plan documentation or implementing adaptation measures, to be reviewed and approved by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2.

Review by or on behalf of the Commission of the submittals required in parts II.C.2, II.C.3, and II.C.4, of this special condition shall consider, among other things, the best available science, most recent state and federal guidance, and BCDC policies then in-effect. The Commission may: (i) accept the submittals and recommend no changes to the permittees' approach; (ii) recommend revisions to submittals on the basis that they are incomplete; or (iii) require revisions based on findings and information that they are necessary to protect public access of the size and usability required by this permit.

- D. **Natural Resources and Water Quality Protection.** The permittees shall minimize impacts to Bay resources and water quality at the site by implementing the following measures. Minor modifications to the below requirements may be approved by the Executive Director upon a finding that they are no less protective of Bay resources or water quality.
 1. **USFWS Consultation.** The Applicant shall adhere to the avoidance and minimization measures to protect the California least tern and other sensitive species in the vicinity of the project site, including best management practices and worksite protocols, from the Formal Consultation on the Foster City Levee Protection Planning and Improvements Project in San Mateo County, California (Corps File No: 2015-00391S), dated October 2, 2019, by the US Fish and Wildlife Service (USFWS);
 2. **NMFS Consultation.** The Applicant shall adhere to the conservation measures, including best management practices, described in the Endangered Species Act Section 7 (a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Foster City Levee Protection Project in San Mateo County, California (Corps File No. 2015-00391S), dated August 28, 2019 (Reference No. WCRO-2018-00327) by the National Marine Fisheries Service (NMFS) on potential project impacts on Central California Coast steelhead distinct population segment (DPS), North American green sturgeon southern DPS, and essential fish habitat (EFH) for various life stages of fish species managed under the Pacific Groundfish Fishery Management Plan (FMP), the Coastal Pelagic Species (CPS) FMP, and the Pacific Coast Salmon FMP;

3. **Water Quality.** The permittees shall ensure that project construction and operations for the work authorized by this permit are in compliance with the Regional Water Quality Control Board (Water Board) Water Quality Certification issued for the project on October 23, 2019, including required precipitation and construction planning, equipment maintenance protocols, and best management practices.
 - a. **Erosion Control.** The permittee shall implement appropriate erosion control methods, such as installing silt fences and straw rolls, as needed during construction activities within the project area to avoid adverse impacts to water quality in the Bay. Silt fences in combination with straw wattles shall be installed to protect adjacent wetlands from increased sedimentation. Erosion control devices shall be free on nylon mesh that could entrap animals. In addition, vegetation shall only be cleared from the permitted construction footprint. Areas cleared of vegetation, pavement, or other substrates shall be stabilized as quickly as possible to prevent erosion and runoff.
 - b. **Turbidity Control.** The permittee shall implement appropriate turbidity control methods for in-water work, including installing physical barriers such as silt curtains, to prevent potential localized impacts to water quality, such as increases in turbidity, from spreading to surrounding surface waters.
 - c. **Dewatering Plan.** The permittee shall submit to the Commission any dewatering plans required by the Water Board for in-water work that will require dewatering, which will describe the areas proposed to be dewatered and the timing and methods to be implemented as consistent with this permit. Dewatering methods used during construction shall be removed immediately upon completion of the project activities requiring dewatering.
 - d. **Creosote Treated Wood.** No pilings or other wood structures that have been pressure treated with creosote shall be used in any area subject to tidal action in the Bay or any certain waterway, in any salt pond, or in any managed wetland within the Commission's jurisdiction as part of the project authorized herein.
4. **Work Windows and Hours**
 - a. **Work Window for Nesting Season Avoidance.** To avoid the nesting season of the Ridgway's rail, work authorized by this permit south of Shorebird Park (approximately Station 200+00 to Station 343+25) shall only occur between September 1 and January 31, unless the permittee seeks and obtains approval by the Executive Director to work outside this window, and consults with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). If construction work is proposed after January 31 or prior to September 1, protocol surveys for Ridgway's rail shall be conducted to determine the extent and location of nesting Ridgway's rail. Results of protocol breeding surveys shall be submitted to USFWS for a determination of whether work proposed within 700 feet of a Ridgway's rail nest (or the activity center of

not allow harvest mice to pass through, and the bottom shall be buried so that mice cannot crawl under the fence. All supports for the exclusion fencing shall be placed landward side of the fence.

- b. **Extreme High Tide Avoidance.** Construction work shall be scheduled to avoid extreme high tides to avoid interfering with the potential for salt marsh harvest mice to retreat to higher, drier ground.
 - c. **Marine Mammals.** If marine mammals enter zones that could result in harassment, injury, or death, to individuals, construction activity shall cease and shall not resume until the individual has left the area or has not been observed for at least 15 minutes.
 - d. **Bridge Construction Protocols.** Prior to commencement of construction of the two bridges authorized by this permit, pickleweed and other vegetation shall be removed using hand tools from areas that will be impacted.
 - e. **Lagoon Inlet and Outlet Reconstruction Protocols.** No work associated with the reconstruction of the lagoon intake and outtake structures shall be conducted below the high tide line unless the permittee seeks and obtains approval by the Executive Director to do so, and consults with NMFS.
 - f. **Post-Construction Restoration.** If any Bay or tidal wetland areas are temporarily impacted during construction activities authorized herein, the permittee, at a minimum shall restore those areas to their previous condition, including returning disturbed areas to original pre-project elevation and soil composition, and monitor the same for re-establishment of marsh plant communities for a minimum of three years. If the marsh plant communities do not independently reestablish within three years, additional measures, such as seeding or planting may be required. Restoration to ensure successful recovery, shall be conducted consistent with the consultations with NMFS, USFWS, and the Water Board.
7. **High Tide Refuge Planting.** To provide high tide refuge and cover for Ridgway's rail, California black rail, and salt marsh harvest mouse, vegetation shall be planted along the bayside of the sheet pile wall in all areas adjacent to salt marsh habitats where sheet pile is installed along the levee within 1 year after sheet pile installation at those locations. The permittee shall submit to the Commission any vegetation planting plans required by USFW. Shrubs shall be installed prior to the rainy season and shall be native plants. Vegetation plantings shall be designed and planted to avoid conflicts with public access paths on the bayside of the wall.
8. **O'Neil Slough Enhancement**
- a. **Photograph Documentation.** Prior to the start of construction for the project authorized by this permit, the Permittee shall establish a minimum of 8 photo-documentation points at locations along O'Neil Slough (as required by the Water Board), in order to illustrate its pre-project condition and shall prepare a site

map with the photo-documentation points clearly marked. Prior to and following construction, the Permittee shall photographically document pre- and post-construction condition at the established photo-documentation points. The photographs shall be used to track the project's construction impacts, temporarily impacted areas, revegetation success, and overall project success. These post-construction photographs and map shall be submitted to the Commission, within 60-days of completion of construction. Photographs taken at the documentation points shall be submitted annually to the Commission by January 31 of each calendar year for three year period from the date of completion of the project to assess the success of the O'Neil Slough enhancement portion of the work authorized by this permit.

- b. **Bathymetry Survey Results.** The permittee shall submit to the Commission the results of any bathymetric survey conducted as part of the requirements in the NMFS consultation for the O'Neil Slough enhancement portion of the work authorized by this permit within 6-months of the completion of that survey.
 - c. **Excavated Material Testing Results.** The permittee shall submit to the Commission the results of any soil or sediment testing that is conducted on any material excavated as part of the O'Neil Slough enhancement portion of the work authorized by this permit.
- E. **Shoreline Protection Material, Placement, and Maintenance.** The shoreline protection improvements, including sheetpile walls and flood walls, authorized herein shall be regularly maintained by and, at the expense of, the permittee, lessee, assignee or other successor in interest to the project. Maintenance shall include the collection of riprap material that becomes dislodged, the in-kind replacement of damaged or missing riprap material and associated filter fabric or other material, the removal of debris on riprap, and the monitoring for corrosion and maintenance for the sheetpile walls. Within 30 days of notification by or on behalf of the Commission, the permittee or any successor in interest shall correct any identified maintenance deficiency.

New riprap material shall be either quarry rock or specially cast or carefully selected concrete pieces free of reinforcing steel and other extraneous material and conforming 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. 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 slope is keyed at the toe. The 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.

- F. **Construction Closures, Detours, and Notices.** During construction activities for the work authorized in this permit, the permittee may temporarily close publicly accessible areas consistent with the plans referenced in Special Condition II.A of this permit:
1. **Duration.** The duration of closure shall be minimized and shall not exceed thirty (30) months total, unless an extension of time is granted by, or on behalf of, the Commission. If an extension is necessary, the permittee shall open all public access areas and amenities for which construction has been completed at that time, to the greatest extent feasible, and if necessary, construct temporary access to those completed sections. In the event an extension is necessary, the permittee shall submit to the Commission, for review and approval by or on behalf of the Commission pursuant to Special Condition II.A, a plan detailing how and when completed areas will be opened and the extended construction timeline; and
 2. **Detour Plan, Signage, and Outreach.** Detour routes and detour signage shall be provided for the duration of the closure for construction-related activities, consistent with the plans referenced in Special Condition II.A of this permit. These plans shall include a Bay Trail closure plan that includes recommended detour routes, appropriate signage and striping, and public outreach strategies, as detailed in this section for each phase of construction. Signs shall be posted to inform the public, including at the locations where water-related recreational activities may be impacted by closures or result in limited access to the waterfront, of the temporary closure at least 30 days prior to closure, indicating the length of the closure, the location of the detour route (for the trail) and alternative parking locations (for the parking lot closure), and contact information for public questions.
 3. **Beach Park Boulevard.** The permittee shall provide a temporary Class II, or better, bicycle infrastructure along Beach Park Boulevard for the duration of the closure of the Bay Trail located along that section of the project.
- G. **Bridge Geotechnical Analyses.** The permittee shall prepare and submit a geotechnical analysis for each of the two bridges authorized by this permit for review and approval by or on behalf of the Commission pursuant to the procedures in Special Condition II.A.2, prior to construction of each respective bridge.
- H. **Property Interest.** The permittee shall acquire proof of legal interest for each individual parcel along the project site consistent with Appendix F of Title 14, Division 5 of the Code of Regulations before commencing construction within that parcel. Within 6 months of completion of the project authorized by this permit, the permittee shall submit to the Commission the complete set of property documentation for the entire project site.

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 Coastal Zone Management Program for the following reasons:

A. Site History and Description.

1. **Project Site.** The project site comprises approximately 31,300 linear feet (about 6 miles) of the 34,300 linear feet (about 6.5 miles) of existing levees that surround the City of Foster City ("the City") along the bayfront, starting at the San Mateo city limit in the north and following the shoreline to Belmont Slough to the east and southeast, and ends adjacent to U.S. Highway 101 (US 101) in the south at the San Mateo/Belmont city limit. The project site is bordered by San Francisco Bay to the north and east, Belmont Slough to the southeast and south, and O'Neil Slough to the south, and the Marina Lagoon (Lagoon) is situated to the west of the two opposite ends of the project site.

The project site consists of parcels owned by the City, State Lands, and private ownership totaling approximately 52-acres along the levee. The entire project site is open to the public via the levee pathway and is part of the San Francisco Bay Trail (Bay Trail) which connects under the San Mateo-Hayward Bridge at its western touchdown. The trail provides both recreational opportunities and pedestrian/bicycle travel routes for the community. A water trail access site is located at Baywinds Park.

The existing levee consists of both raised earthen levees and berms with concrete floodwalls. The existing elevation of levee berms and concrete walls ranges from approximately 10 to 13 feet above the North American Vertical Datum of 1988 (NAVD88). Land uses on the landward side of the levee system consist of streets, residential uses, office and commercial uses, landscaped open space and recreational uses, unimproved lots, muted tidal wetlands, and seasonal wetlands. The San Francisco Bay side of the City levee system consists mostly of fully tidal open water, slough channels, wetlands, and mud flats. Approximately 9,000 individual properties in the City rely on the existing levee system for flood protection. An additional 8,000 individual properties within the City of San Mateo are also protected, in part, by the City levee system (i.e., if the City levee was not in place, San Francisco Bay could flow overland through the City, reaching San Mateo from the east and southeast). Similarly, properties in the City receive flood protection benefit from San Mateo's levee and floodwall systems south of San Mateo Creek.

2. **Levee Construction History.** Construction of the levee was initially authorized by the U.S. Army Corps of Engineers (USACE) in February 1976 to protect properties interior of the levee from flooding. In 1976, the Commission issued a permit (No. M1976.005) to the Estero Municipal Improvement District, the entity responsible for



maintaining the levee at that time, for improvement of a portion of the levee from the San Mateo-Hayward Bridge to the terminus at US 101, which included an authorization for a bicycle/pedestrian pathway. The City has continued to improve the levee over time to maintain Federal Emergency Management Agency (FEMA) levee accreditation. This included a number of smaller projects along various segments of the levee, as well as a significant project along the entire levee for which the Commission issued a permit in November 1991 (No. 1991.016) to the City, the Estero Municipal Improvement District, and the California Department of Transportation, to raise the elevation of the levee for flood protection and included extensive public access improvements.

The current levee system was recertified and accredited by FEMA in 2007 designating land within the City as “Zone X low-risk area.” FEMA conducted a coastal flood hazard study in 2014 which determined that roughly 85% of the City’s levee system does not meet FEMA requirements. FEMA granted the City a temporary “seclusion mapping” designation in 2015 to remain classified as Zone X low-risk area, so long as progress was made to address the deficiencies of the levee. To satisfy current FEMA requirements, the required freeboard elevation of the levee needs to be raised. Freeboard is considered the additional height above the 100-year flood elevation that tends to compensate for the factors that could contribute to greater flood heights caused by factors such as wave action and the hydrological effect of urbanization of the watershed.

B. Waterfront Park, Beach and Wildlife Refuge Priority Use Areas and Recreation

1. **Applicable Policies.** A portion of the site is located within a San Francisco Bay Plan-designated “Waterfront Park, Beach” Priority Use Area, identified on Bay Plan Map No. 6. Portions of the site are located within or adjacent to a San Francisco Bay Plan-designated “Wildlife Refuge” Priority Use Area, also identified on Bay Plan Map No. 6, Policy 14 for Foster City states, “Provide continuous public access to Bay and Belmont Slough, including paths, beaches, and small parks.”

Further, Bay Plan Recreation Policy No. 4 provides, in part, that “to capitalize on the attractiveness of their [i.e., Waterfront Park Priority Use Areas] bayfront location, parks should emphasize hiking, bicycling, riding trails, picnic facilities, swimming, environmental, historical and cultural education and interpretation, viewpoints, beaches, and fishing facilities...” and that “...public launching facilities for a variety of boats and other water-oriented recreational craft, such as kayaks, canoes and sailboards, should be provided in waterfront parks where feasible.” Furthermore, “trails that can be used as components of the San Francisco Bay Trail, the Bay Area Ridge Trail or links between them should be developed in waterfront parks” and “San Francisco Bay Trail segments should be located near the shoreline unless that alignment would have significant adverse effects on Bay resources; in this case, an alignment as near to the shore as possible, consistent with Bay resource protection, should be provided...” In addition, “interpretive information describing natural,

historical and cultural resources should be provided in waterfront parks where feasible” and where they “serve as gateways to wildlife refuges, interpretive materials and programs that inform visitors about the wildlife and habitat values present in the park and wildlife refuges should be provided” and “instructional materials should include information about the potential for adverse impacts on wildlife, plant and habitat resources from certain activities...”

Bay Plan Recreation Policy No. 7 also states that “because of the need to increase the recreational opportunities available to Bay Area residents, 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.”

2. **Authorized Project.** The project authorized by this permit achieves the benefits provided for in the Bay Plan Map No. 6 Policies and the Recreation Policies.

Several large beaches and parks currently exist along the levee Bay Trail in Foster City and include interpretive elements to inform visitors about the resources of the wildlife refuge. The Bay trail will be widened as part of the project and these amenities will continue to function with some modifications once the project is complete and, although access to them will be reconfigured and formalized, access to these areas will maintained in some form as part of the public access required by Special Condition II.B. The project includes small amounts of fill in the Waterfront Park Priority Use Area and adjacent to Wildlife Refuges to ensure continued use of the Bay for recreation.

As conditioned, the Commission finds that the project is consistent with the Waterfront Park, Beach Priority Use Area designation in the San Francisco Bay Plan and Recreation Policies in the San Francisco Bay Plan.

C. **Benefits, Purposes and Manner of Filling**

1. **Bay Fill Resulting from the Project.** The fill associated with the project includes new water access ramps, including rip rap, resulting in approximately 2,000 square feet (approximately 250 cubic yards) of new Bay fill and the removal of approximately 1,070 square feet (approximately 78 cubic yards) of existing Bay fill, for a net Bay fill increase of approximately 930 square feet (approximately 172 cubic yards).

The project will replace bridges at the muted tidal channel referred to as O’Neil Slough, resulting in 510 square feet of cantilevered fill. The construction of the bridges at either end of the muted tidal channel will include excavation at the shoreline that will open an approximately 2,750-square-foot area at both ends of what is currently a muted tidal marsh to full tidal exchange through the excavation of open channels beneath the bridge spans. Currently, the tidal flow at the slough is received from only one culvert which is blocked with sediment, muting the tidal

action. The excavation will result in restoration of the salt marsh and a net improvement in aquatic habitat value, especially from the standpoint of suitability to support federally-listed species such as Ridgway's Rail and salt marsh harvest mouse.

The project authorized herein will temporarily impact approximately 10,500 square feet of the Bay during construction of water access ramps and bridges and the reconstruction of lagoon intake and outfall structures, associated with cofferdams for dewatering and environmental construction measures used during construction, such as silt curtains. Temporary impacts are estimated to occur for less than 1 year.

Temporary and permanent fill impacts will be mitigated by removing fill material along two earth levees and replacing the earth fill with free spanning bridges, which will enhance habitat and water circulation along the O'Neil Slough channel.

2. **Applicable Policies.** 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) the public benefits of the fill should clearly exceed the public detriment from the loss of water area and the fill should be limited to water-oriented uses (such as water-oriented recreation or public assembly) or "minor fill for improving shoreline appearance or 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..."; (e) "[t]hat public health safety, and welfare require that fill be constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters..."; "fill should be authorized when the filling would, to the maximum extent feasible, establish a permanent shoreline"; and (g) "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."
3. **Public Benefit versus Detriment and Water-Oriented Use/Minor Fill for Public Access.** The overall purpose and goals of the project are to raise a levee for shoreline protection and to improve existing public access to the shoreline. The permanent fill in the Bay will upgrade access to the Bay, including for public access and emergency boat access, and the temporary fill in the Bay would be associated with environmental protection measures. Tidal marsh vegetation will revegetate in areas impacted by construction. The fill associated with the project will provide public benefits through the two main components:

- a. Improvements to the existing access to the Bay to accommodate recreation, meet accessibility standards, provide emergency boat access; and
- b. Enhance water circulation and habitat in O'Neil Slough through work associated with installing two free-span bridges.

Public detriments associated with the project include impacts to the existing tidal marsh from fill to achieve the benefits described above, which include restoring wetlands, improving the existing public access, and installing the boat launch. Excavation in tidal channels and tidal marsh to restore and enhance wetlands will impact existing marsh and subtidal habitats. Special Condition II.D requires the permittee to use environmental protection measures to minimize these impacts.

The project includes fill for water-oriented public access. The temporary fill associated with environmental protections for the reconstruction of the lagoon intake and outtake structures, is water oriented by the nature of those structures. The fill associated with the construction of the two bridges is a water-oriented use in that it involves enhancement to Bay habitat in O'Neil Slough. As a result, the public benefits of the project exceed the public detriments from the fill and the fill associated with the project constitutes a minor amount of fill for public access.

4. **Alternative Upland Location.** The Commission finds that, by their nature, there are no upland alternative locations for the water access ramps and bridges, which must be partially located in the Bay for water access and be located over water, respectively.
5. **Minimum Amount Necessary.** The fill in the Bay is necessary to create wider and accessible ramps, paths, and stairs to the Bay from the levee Bay Trail, the majority of which will be associated with water access ramps at Mariners Point, including for emergency boat access. Some temporary fill in the Bay is necessary to ensure that the bridges, Bay access, and lagoon intake and outfall structures, are constructed in a manner that minimizes adverse impacts to sensitive species and habitat. Tidal marsh impacted by construction will naturally reestablish after construction and Special Condition II.D.6.f requires the permittee to restore disturbed areas to their previous condition and monitor for re-establishment of marsh plant communities. As a result, the project involves the minimum amount of fill necessary to achieve the purposes of the project.
6. **Minimize Harmful Effects to the Bay**
 - a. **Volume, Surface Area, and Circulation.** Policy No. 2 of the Bay Plan policies on Water Surface Area and Volume states, in part that “[w]ater circulation in the Bay should be maintained, and improved as much as possible.”

The linear channel referred to as O'Neil Slough is bounded by the Foster City Levee to the north and the O'Neil Slough Path to the south. The O'Neil Slough Path is an emergency evacuation route between Foster City and the City of

Belmont. Currently, the west end of the linear channel has no culvert which would allow for a hydrologic connection to the adjacent Belmont Slough tidal marsh to the west. Near the eastern end of the linear channel there is a partially functioning culvert in the O'Neil Slough Pathway which allows for muted tidal exchange between the linear channel and Belmont Slough. The reduced water flow is the result of the culvert flattening over time at each end of the culvert pipe due to differential settlement of the underlying bay mud and the pipe becoming partially filled with sediment. During the summer months algal blooms and low surface water conditions occur because of poor surface water flows between the channel and Belmont Slough.

By removing the failing culvert and excavating open channels to an elevation of Mean Low Low Water (MLLW) at both ends of the linear channel and constructing clear span bridges, full tidal action will be restored within the linear channel. Lowered water temperatures, nitrogen levels, and biological oxygen demand will result from the unimpeded daily tidal circulation. Expansion of tidal marsh vegetation along the banks of the channel will also occur resulting in vegetated connectivity between the adjacent marsh habitat within Belmont Slough. Full tidal connectivity also allows for enhanced carbon import and export and unimpeded movement connectivity of aquatic organisms and wildlife with Belmont Slough and the Bay.

The free spanning bridges will improve circulation along this slough channel and adjacent wetlands improving and increasing habitat for aquatic species and the salt marsh harvest mouse and Ridgeway's rail. This alternative will also offset, in part, temporary and permanent fill impacts associated with the project. Special Conditions II.D.8 require the permittee to study and monitor the enhancement of O'Neil Slough to achieve these circulation and habitat improvements. As conditioned, the Commission finds the project is consistent with the Water Surface Area and Volume policies in the Bay Plan and the requirements of the McAteer-Petris Act.

- b. **Water Quality.** The Bay Plan policies on Water Quality state, in part, that "Bay water pollution should be prevented to the greatest extent feasible. The Bay's tidal marshes, tidal flats, and water surface area and volume should be conserved and, whenever possible, restored and increased to protect and improve water quality." The policies also state 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..." and "[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." Additionally, the policies state 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 by:

(a) controlling pollutant sources at the project site; (b) using construction materials that contain nonpolluting materials; and (c) applying appropriate, accepted and effective best management practices..." Finally, the policies also state that "[t]o offset impacts from increased impervious areas and land disturbances, vegetated swales, permeable pavement materials, preservation of existing trees and vegetation' planting native vegetation and other appropriate measures should be evaluated and implemented where appropriate" and that "[w]henver practicable, native vegetation buffer areas should be provided as part of a project to control pollutants from entering the Bay, and vegetation should be substituted for rock riprap, concrete, or other hard surface shoreline and bank erosion control methods where appropriate and practicable."

On October 23, 2019, the Regional Water Quality Control Board (RWQCB) issued a water quality certification for the project. The RWQCB required mitigation and monitoring of the project pursuant to the City's Monitoring Plan titled, "Aquatic Resources Mitigation Plan for the City of Foster City Levee Protection Planning & Improvement Project (CIP 301-657), Revision 1 (Huffman-Broadway Group, Inc., September 2019)," and determined that the restoration activities at the site will mitigate for the temporary and permanent impacts to tidal marsh and water quality resulting from the project. Special Condition II.D.3 requires that the permittee construct the project using measures to minimize harmful effects on water quality consistent with the approval of the Water Board and Special Condition II.D.8 requires the permittee to study and monitor the enhancement of O'Neil Slough to achieve these circulation and habitat improvements. As conditioned, the project is consistent with the requirements of the McAteer-Petris Act and the Bay Plan policies on Water Quality.

c. **Marshes, Fish, and Wildlife Resources.** Policy No. 1 of the Bay Plan policies on Tidal Marshes and Tidal Flats states, in part: "Tidal marshes and tidal flats should be conserved to the fullest possible extent..."

(1) **Consultations with State and Federal Wildlife Agencies.** Policy No. 4 of the Bay Plan policies on Fish, Other Aquatic Organisms and Wildlife states, in part: "The Commission should: (a) Consult with the California Department of Fish and Game 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; (b) Not authorize projects that would result in the "taking" of any plant, fish, other aquatic organism or wildlife species listed as endangered or threatened... and (c) Give appropriate consideration to the recommendations of the California Department of Fish and Game, the National Marine Fisheries Service or the United States Fish and Wildlife Service in order to avoid possible adverse effects of a proposed project on fish, other aquatic organisms and wildlife habitat."

No State CDFW Incidental Take Permit is required as take will be avoided either by conducting work during allowable seasonal work windows or through avoidance by not working in suitable habitat. However, the project will implement a condition imposed by CDFW's Temporary Entry Permit to the Redwood Shores Ecological Reserve which requires: "Permanent high tide refuge and cover for salt-marsh harvest mouse" to be "installed on the bay side of the sheet pile wall in addition to planting of native endemic vegetation" and that "[d]esign for this refuge is still in progress and shall be installed once the design has been agreed upon by CDFW and Foster City." The permanent high tide refuge and cover are authorized in Authorization I.A.1.a(1)(a) as the "refuge and cover elements for species" for the sheet pile floodwall.

Special Conditions II.D.1 and II.D.2 require the permittee to construct the project using measures to minimize harmful effects in the Bay to sensitive species consistent with the consultations with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) for the project.

- (2) **Minimizing Construction Impacts.** Policy No. 2 of the Bay Plan policies on Tidal Marshes and Tidal Flats states: "Any proposed fill, diking, or dredging project 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."

Special Condition II.4 requires work to be conducted during work windows and using appropriate survey methods designated to avoid harmful effects on sensitive species in the Bay and tidal marsh, including nesting birds and fish species, consistent with the consultations with USFWS, NMFS, and the RWQCB. Measures included in the Endangered Species Act Biological Assessment to reduce impacts on fish (e.g., installing sheet piles within the levee using land-based equipment; conducting pile driving based on land and using vibratory hammering methods) will also serve to reduce impacts on marine mammals, including harbor seals. Bay Plan Map No. 6, Policies 13 and 16, note harbor seal haul-outs adjacent to the project site. Special Condition II.D.5 requires sheet piles to be installed in a manner that will minimize impacts to sensitive species, consistent with consultations with NMFS.

Tidal wetland vegetation temporarily impacted by construction will be replanted with the same impacted native plant species such as pickleweed (*Salicornia pacifica*) and salt grass (*Distichlis spicata*). These areas which provide potential suitable habitat for the salt marsh harvest mouse and Ridgeway's Rail will be enhanced by also planting taller salt marsh vegetation such as gum plant (*Grindelia stricta*) and big saltbush (*Atriplex lentiformis*) which are important for the survival of these Federal and State listed species

as this taller vegetation provides refugia during high tide events. Special Condition II.6 requires other measures, including the oversight of biological monitors and post-construction restoration, to minimize harmful effects on sensitive species and habitat during construction consistent with the consultations with the USFWS and NMFS for the project.

- (3) **Minimizing Post-construction Impacts.** Policy No. 2 of the Bay Plan policies on Fish, Other Aquatic Organisms and Wildlife states, in part: “Specific habitats that are needed to conserve, increase or prevent the extinction of any native species, species threatened or endangered, species that the California Department of Fish and Game has determined are candidates for listing as endangered or threatened under the California Endangered Species Act, or any species that provides substantial public benefits, should be protected...” Policy No. 3 of the Bay Plan policies on Tidal Marshes and Tidal Flats states: “Projects should be sited and designed to avoid, or if avoidance is infeasible, minimize adverse impacts on any transition zone present between tidal and upland habitats. Where a transition zone does not exist and it is feasible and ecologically appropriate, shoreline projects should be designed to provide a transition zone between tidal and upland habitats.”

Special Conditions II.D.6.f and II.D.7 require the permittee to protect Bay resources by conducting post-construction restoration of disturbed sensitive species habitat and by planting high tide refuge habitat for sensitive species in locations where the flood protection walls will limit or reduce transitional habitat zones along Belmont Slough.

- (4) **O’Neil Enhancement.** Policy No. 1 of the Bay Plan policies on Fish, Other Aquatic Organisms and Wildlife states, in part: “To 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.” Policy No. 4 of the Bay Plan policies on Tidal Marshes and Tidal Flats states, in part: “Where feasible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions, such as resting, foraging and breeding habitat for fish, other aquatic organisms and wildlife...”

Native tidal wetland vegetation species will also be planted within newly established tidal salt marsh areas along the O’Neil Slough channel once the two bridges are constructed and full tidal flow is reestablished. Establishment of full tidal hydrology will be accomplished by the removal of a crushed culvert on the eastern end of the channel and excavating channel openings to a depth of MLLW on the west end of the channel and east end of the channel where the crushed culvert is to be removed. These two channels

overcrossed by bridges will allow for unimpeded corridors for wildlife and aquatic species. Special Condition II.D.8 requires monitoring and study of the success of the O'Neil Slough enhancement portion of the project to ensure that habitat and water circulation objectives are met and provide a net benefit to sensitive species and tidal hydrology.

As conditioned, the Commission finds the project is consistent with the Fish, Other Aquatic Organisms and Wildlife policies and the Tidal Marshes and Tidal Flats policies in the Bay Plan and the requirements of the McAteer-Petris Act.

- d. **Other Conditions Impacting the Environment.** The shoreline protection structures authorized but this permit are located within the Commission's 100-foot shoreline band and would therefore not result in new Bay fill. Hardened shoreline protection structures have the potential to intensify wave reflection and contribute to shoreline erosion and overtopping at adjacent or nearby shorelines in the Bay area, which can be harmful to habitats or public access in those locations. The Application included an analysis of the potential of these adverse impacts and determined that there is not anticipated to be any significant impact to other neighboring flood protection system designs due to the construction of the Foster City's levee enhancement project, including under future conditions with future projected sea level rise.

Following the construction of the shoreline protection structures authorized by this permit, waves would be expected to break on the existing levee slope and vertical sheetpile walls would provide freeboard against overtopping from broken wave run-up and would not intensify wave reflection significantly under present sea level conditions. Eventually, with sea level rise, waves could be reflected off of the Foster City levee system. Under future projected conditions, wave reflection would be expected to be governed by a reflection ratio K_r of approximately 0.7 based on a combination rock and sea wall revetment type where K_r^2 is proportional to wave energy, meaning reflected waves will have about 30 percent lower height and 50 percent less energy than the incident wave. The waves would experience an additional loss of energy due to seabed friction during reflection. The idealized angle of reflection α would be equal to the angle of the incident wave (this does not account for wave refraction which would generally lessen this angle, thereby making the idealized assumption conservative). For a reflected wave to be higher than the incident wave, the fetch that produces the reflected wave would have to be about twice as long as the incident fetch, if the adjusted wind speeds are roughly equivalent.

The Application examined three adjacent shoreline locations that could be affected by wave reflection at the Foster City levee system, with future sea level rise: the San Francisco Airport, Coyote Point, and Redwood Shores. The analysis determined that there is no potential for reflected waves at Coyote Point because the fetch is blocked by Mariners Point. In the other two scenarios,

reflected waves from Foster City could potentially impact the adjacent shorelines but the reflected waves would be oblique to the waves from the direction of the most significant fetches with a magnitude less than that of the primary waves approaching the neighboring shores. These primary waves, not associated with reflection from Foster City shorelines, would govern the maximum wave height and run-up on the neighboring jurisdictions. The Application also states that the project would not directly or cumulatively alter existing drainage patterns that could result in flooding.

Therefore, the Commission finds that the project is unlikely to have harmful effects on nearby shoreline erosion as a result of wave reflection impacts, even with future projected sea level rise, and the project would not substantially alter San Francisco Bay hydrodynamics, including water levels along other jurisdictions' shorelines.

7. **Sound Safety Standards.** The bridges will be supported at each end with deep piles, likely augured rather than driven, and most likely extending at least 20 feet from the ground surface. The expected life of the two bridges in question is 100 years. The bridges would have a low potential dynamic wave energy given their location. The bridges are also designed to be fully submerged to any depth, particularly since full submergence is not the critical structural loading condition. As such, the bridges would remain structurally sound with periodic flooding events and impacts of future sea level rise and storm activity through their expected life. Special Condition II.G requires the permittee to submit to the Commission a geotechnical analysis for each of the two bridges authorized by this permit for review and approval prior to construction of each respective bridge.
8. **Permanent Shoreline.** The project will not significantly alter the already established shoreline around Foster City.
9. **Valid Title of Project Site.** The permittee provided the Commission with a document summarizing the City's legal property interest in each property impacted by the project (whether it be fee title, lease, easement, or right-of-way), a corresponding map of these properties, and the underlying documentation of the City's legal interest in these properties. Special Condition II.H requires the permittee to acquire proof of legal interest for each individual parcel along the project site before commencing construction and to submit to the complete set of property documentation following completion of construction for the Commission's records.

Special Condition II.A is included to ensure the project is constructed consistent with the Application and provides for plan review to ensure that construction complies with the requirements of the McAteer-Petris Act and the San Francisco Bay Plan. As conditioned, the Commission finds that the fill for the project is consistent with the McAteer-Petris Act and Bay Plan policies on allowable fill of the Bay.

D. Public Access

1. **Maximum Feasible Public Access.** In assessing whether the proposed project would provide maximum feasible public access consistent with the proposed activities, the Commission relies on the McAteer-Petris Act, the Bay Plan policies, access requirements of similar previously permitted projects, and relevant court decisions. When the activity under consideration is proposed by a public agency, such as the City, the Commission also evaluates whether the proposed public access is reasonable in light of the project scope.

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.” Section 66632.4 of the McAteer-Petris Act states, “[w]ithin any portion or portions of the shoreline band that are located outside the boundaries of water-oriented priority land uses...the Commission may deny an application for a permit for a proposed project only on the grounds that the project fails to provide maximum feasible public access, consistent with the proposed project, to the bay and its shoreline.”

2. **Applicable Bay Plan Policies**

- a. **Public Access**

- (1) Policy No. 1 of the Bay Plan policies on Public Access states: “A proposed fill project should increase public access to the Bay to the maximum extent feasible, in accordance with the policies for Public Access to the Bay.”
 - (2) Policy No. 2 of the Bay Plan policies on Public Access states, in part: “In addition to the public access to the Bay provided by waterfront parks, beaches... and fishing piers, maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline...”
 - (3) Policy No. 3 of the Bay Plan policies on Public Access states: “Public access to some natural areas should be provided to permit study and enjoyment of these areas. However, some wildlife are sensitive to human intrusion. For this reason, projects in such areas should be carefully evaluated in consultation with appropriate agencies to determine the appropriate location and type of access to be provided.”
 - (4) Policy No. 4 of the Bay Plan policies on Public Access states, in part: “Public access should be sited, designed and managed to prevent significant adverse effects on wildlife” and “[s]iting, 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.”

- (5) Policy No. 5 of the Bay Plan policies on Public Access states: “Public access should be sited, designed, managed and maintained to avoid significant adverse impacts from sea level rise and shoreline flooding.”
- (6) Policy No. 6 of the Bay Plan policies on Public Access states, in part: “Whenever public access to the Bay is provided as a condition of development, on fill or on the shoreline, the access should be permanently guaranteed” and “[a]ny public access provided as a condition of development should either be required to remain viable in the event of future sea level rise or flooding, or equivalent access consistent with the project should be provided nearby.”
- (7) Policy No. 7 of the Bay Plan policies on Public Access states: “Public 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. The 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.”
- (8) Policy No. 9 of the Bay Plan policies on Public Access states, in part: “Access to and along the waterfront should be provided by walkways, trails, or other appropriate means... Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.”
- (9) Policy No. 10 of the Bay Plan policies on Public Access states, in part: “Roads near the edge of the water should be designed as scenic parkways for slow-moving, principally recreational traffic.”
- (10) Policy No. 12 of the Bay Plan policies on Public Access states: “The Public Access Design Guidelines should be used as a guide to siting and designing public access consistent with a proposed project. The Design Review Board should advise the Commission regarding the adequacy of the public access proposed.”

b. Recreation

- (1) Policy No. 1 of the Bay Plan policies on Recreation states, in part: “Diverse and accessible water-oriented recreational facilities, such as marinas, launch ramps, beaches, and fishing piers, should be provided to meet the needs of a growing and diversifying population, and should be well distributed around

the Bay and improved to accommodate a broad range of water-oriented recreational activities for people of all races, cultures, ages and income levels.”

- (2) The introduction to Policy No. 3 of the Bay Plan policies on Recreation states: “Recreational facilities, such as waterfront parks, trails... non-motorized small boat access, fishing piers, launching lanes, and beaches, should be encouraged and allowed by the Commission, provided they are located, improved and managed consistent with the following standards...”
- (3) Policy No. 3a of the Bay Plan policies on Recreation states, in part: “General Recreational facilities should... [b]e well distributed around the shores of the Bay... [b]e feasible from an engineering viewpoint... [b]e consistent with the public access policies that address wildlife compatibility and disturbance...” and “[s]ites, features or facilities within designated waterfront parks that provide optimal conditions for specific water-oriented recreational uses should be preserved and, where appropriate, enhanced for those uses, consistent with natural and cultural resource preservation” and “[a]ccess to... launch ramps, beaches, fishing piers, and other recreational facilities should be clearly posted with signs and easily available from parking reserved for the public or from public streets or trails”.
- (4) Policy No. 3e of the Bay Plan policies on Recreation states, in part: “Where practicable, access facilities for non-motorized small boats should be incorporated into waterfront parks... launching ramps and beaches, especially near popular waterfront destinations...”
- (5) Policy No. 3g of the Bay Plan policies on Recreation states, in part: “Beaches. Sandy beaches should be preserved, enhanced, or restored for recreational use, such as swimming, consistent with wildlife protection.”
- (6) Policy No. 5 of the Bay Plan policies on Recreation states, in part: “Bay resources in waterfront parks and, where appropriate, wildlife refuges should be described with interpretive signs.”
- (7) Policy No. 8 of the Bay Plan policies on Recreation states: “Signs and other information regarding... weather, tide, current and wind hazards, the location of habitat and wildlife areas that should be avoided, and safety guidelines for smaller recreational craft, should be provided at marinas, boat ramps, launch areas, personal watercraft and recreational vessel rental establishments, and other recreational watercraft use areas.”

c. Appearance Design and Scenic Views

- (1) Policy No. 1 of the Bay Plan policies on Appearance, Design, and Scenic Views states: “To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shores of the Bay should be developed in accordance with the Public Access Design Guidelines.”
 - (2) Policy No. 2 of the Bay Plan policies on Appearance, Design, and Scenic Views states, in part: “Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore” and “planning of waterfront development should include participation by professionals who are knowledgeable of the Commission's concerns, such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.”
 - (3) Policy No. 12 of the Bay Plan policies on Appearance, Design, and Scenic Views states, in part: “In order to achieve a high level of design quality, the Commission's Design Review Board... should review, evaluate, and advise the Commission on the proposed design of developments that affect the appearance of the Bay in accordance with the Bay Plan findings and policies on Public Access; on Appearance, Design, and Scenic Views; and the Public Access Design Guidelines.”
 - (4) Policy No. 12 of the Bay Plan policies on Appearance, Design, and Scenic Views states, in part: “In order to achieve a high level of design quality, the Commission's Design Review Board... should review, evaluate, and advise the Commission on the proposed design of developments that affect the appearance of the Bay in accordance with the Bay Plan findings and policies on Public Access; on Appearance, Design, and Scenic Views; and the Public Access Design Guidelines.”
 - (5) Policy No. 14 of the Bay Plan policies on Appearance, Design, and Scenic Views states, in part: “Views of the Bay from... roads should be maintained by appropriate arrangements and heights of all developments and landscaping between the view areas and the water.”
- d. Safety of Fills.** Policy No. 4 of the Bay Plan policies on Safety of Fills states, in part: “Adequate measures should be provided to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project. The Commission may approve fill that is needed to provide flood protection for existing projects and uses... Rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future levee widening to support additional levee height so that no fill for levee widening is placed in the Bay.”

e. Shoreline Protection

- (1) Policy No. 1 of the Bay Plan policies on Shoreline Protection states: “New 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. Professionals knowledgeable of the Commission's concerns, such as civil engineers experienced in coastal processes, should participate in the design.”
- (2) Policy No. 2 of the Bay Plan policies on Shoreline Protection states, in part: “Riprap revetments... should be constructed of properly sized and placed material that meet sound engineering criteria for durability, density, and porosity.”
- (3) Policy No. 3 of the Bay Plan policies on Shoreline Protection states: “Authorized protective projects should be regularly maintained according to a long-term maintenance program to assure that the shoreline will be protected from tidal erosion and flooding and that the effects of the shoreline protection project on natural resources during the life of the project will be the minimum necessary.”

f. Climate Change

- (1) Policy No. 2 of the Bay Plan policies on Climate Change states: “When planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared by a qualified engineer and should be based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection that will be funded and constructed when needed to provide protection for the proposed project or shoreline area. A range of sea level rise projections for mid-century and end of century based on the best scientific data available should be used in the risk assessment. Inundation maps used for the risk assessment should be prepared under the direction of

a qualified engineer. The risk assessment should identify all types of potential flooding, degrees of uncertainty, consequences of defense failure, and risks to existing habitat from proposed flood protection devices.”

- (2) Policy No. 3 of the Bay Plan policies on Climate Change states, in part: “To protect public safety and ecosystem services, within areas that a risk assessment determines are vulnerable to future shoreline flooding that threatens public safety... projects... should be designed to be resilient to a mid-century sea level rise projection. If it is likely the project will remain in place longer than mid-century, an adaptive management plan should be developed to address the long-term impacts that will arise based on a risk assessment using the best available science-based projection for sea level rise at the end of the century.”
 - (3) Policy No. 4 of the Bay Plan policies on Climate Change states, in part: “To address the regional adverse impacts of climate change, undeveloped areas that are both vulnerable to future flooding and currently sustain significant habitats or species, or possess conditions that make the areas especially suitable for ecosystem enhancement, should be given special consideration for preservation and habitat enhancement and should be encouraged to be used for those purposes.”
 - (4) Policy No. 5 of the Bay Plan policies on Climate Change states, in part: “Wherever feasible and appropriate, effective, innovative sea level rise adaptation approaches should be encouraged.”
 - (5) Policy No. 7 of the Bay Plan policies on Climate Change states, in part: “Until a regional sea level rise adaptation strategy can be completed, the Commission should evaluate each project proposed in vulnerable areas on a case-by-case basis to determine the project’s public benefits, resilience to flooding, and capacity to adapt to climate change impacts...”
 - (6) Policy No. 8 of the Bay Plan policies on Climate Change states: “To effectively address sea level rise and flooding, if more than one government agency has authority or jurisdiction over a particular issue or area, project reviews should be coordinated to resolve conflicting guidelines, standards or conditions.”
3. **Existing Site Conditions.** The existing approximately 34,300-foot-long (6.5-mile) paved levee-top trail measures approximately 10-foot-wide with unpaved shoulders of varied widths. In addition to the trail, there are 39 benches, 20 paths to the water and approximately 90 formal and informal paths from adjacent streets to the trail, and 11 picnic areas adjacent to the trail. There are presently 22 public access points to the Bay Trail from the landward side of the levee, 19 private access points and

67 “ad-hoc” access points where people have ignored the use of more permanent access points. From the Bay Trail to the Bay shoreline there are presently 10 public access points, 4 private access points and 19 “ad-hoc” access points.

Several public parks with bathrooms and a variety of public parking areas are located next to the trail. The informal trails appear to have been formed at locations that connect intersections and parking areas with trail-top benches and with water access sites. There are predominantly unobstructed views of the San Francisco Bay from the entire levee trail. The project site is generally categorized into four segments with unique features:

- a. **Mariners Point to Bridgeview Park.** The segment of the levee from Mariners Point (Station 00+00) to Bridgeview Park (Station 103+00) is generally bounded by the Bay to the north and features a shoreline consisting of mostly rip rap with occasional beaches, water access ramps, and picnic areas. Moving from the west to east along the Bay Trail from the San Mateo city limit, trail users encounter views across tidal marshes and tidal flats until they round Mariners Point with a raised golf course on the landward side. On the east side of Mariners point is Baywinds Park which features board sailing access and rigging areas and a sand beach. Past the beach, the Bay Trail follows generally along East 3rd Avenue with non-tidal wetlands between the road and the trail at some points, as well as a Lagoon outfall structure. Beyond the outfall structure, the trail continues with trail access provided by a pedestrian bridge, public shore parking, and an access path at Bayside Towers, as required by BCDC Permit No. 1997.015. The trail continues east and passes under the San Mateo Bridge and around Werder Pier to Bridgeview Park.
- b. **Bridgeview Park to Tarpon Street.** The segment of the levee from Bridgeview Park (Station 103+00) to Tarpon Street (Station 166+00) is generally bounded by the Bay to the northeast with a shoreline consisting of mostly riprap until just south of Marlin Avenue. This entire segment is located within a “waterfront park, beach” PUA as designated in the San Francisco Bay Plan. Bridgeview Park features picnic areas, parking, restrooms, and views across the Bay featuring the San Mateo Bridge and the Werder Pier. Moving southward along the Bay Trail from the park, trail users pass a signal tower for SFO on the shore and then continue along a straight section of trail elevated above Beach Park Boulevard, until a slight bend between Sanderling Street and Gull Avenue. The bend provides an expanded public access area with two picnic areas on the waterside of the trail. South of the picnic area, the trail continues to Marlin Avenue, where access to the Shell Bar Beach area includes tidal flats with marsh vegetation and a soft shoreline edge. The existing Foster City Shell Bar Beach is located on both public lands to the south and private property to the north. There are a number of existing “ad hoc” trails over adjacent private property that are used by the public to access Shell Bar Beach from the existing levee. The riprap shoreline

resumes further south near the Tarpon Street access point. This segment includes a few formal access points, as well as many informal access paths from the parking along the shoulder of Beach Park Boulevard. These informal paths lead up the planted slope of ice plant, to the trail, and are often associated with bench locations along the trail spaced roughly 300 to 400 feet apart.

- c. **Tarpon Street to Sea Cloud Park.** From Tarpon Street (Station 166+00) south to Sea Cloud Park (Station 255+00) the trail is bounded by the Bay to the east and Beach Park Boulevard to the west. The riprap ends where the waterside of the trail opens up to a wide sandy, vegetated area referred to as the “Runco Property”, which includes a network of informal access paths. The Runco property sits bayward of the levee trail until Shorebird Park which is located at the mouth of Belmont Slough. There are expansive views across the slough to Bird Island. The trail continues south along Belmont Slough, bordered by tidal marsh, past Foster City Boulevard and bends directly south where Beach Park Boulevard turns landward, and passes a townhouse development, with public access areas required by BCDC permit No. M1986.078.01, until reaching the Lagoon intake structure (Station 229+50). Past the Lagoon intake structure, the trail is bordered on the landside by a dredge sediment deposit basin with a chain link fence surrounding it (four benches with views of Belmont Slough are required by BCDC permit No. M2001.036.00 along this stretch) and the trail bends around toward the west and reaches the southern fields of Sea Cloud Park. This entire segment of Bay Trail is designated as a waterfront park, beach priority use area, except for a section between where Beach Park Boulevard moves inland and the lagoon intake structure. Belmont Slough along this segment is part of the Bair island/Redwood Shores Ecological Reserve, a wildlife refuge priority use area.
- d. **Sea Cloud Park to US 101.** Along the segment of the levee from Sea Cloud Park (Station 252+00) to US 101 (Station 342+93) trail users move generally southwest, with occasional turns, following Belmont Slough on the east (with views across to Redwood City) until Baffin Court, where the trail transitions to move directly west along a muted tidal channel and eventually along O’Neil Slough where it reaches a tide gate adjacent to US 101. The portion of Belmont Slough along this segment is part of the Bair island/Redwood Shores Ecological Reserve, a wildlife refuge PUA. This segment is bounded on the landward side by a series of residential complexes and park areas, including a number of areas with public access requirements associated with a series of BCDC permits. The segment along the muted tidal channel features a fence of the landside and short concrete wall on the channel side. An emergency access road to Redwood City (with a culvert connecting Belmont Slough to muted tidal channel) is located at Baffin Court. A dirt access path connects the trail to Redwood City between the end of the muted tidal channel and O’Neil Slough.

4. Public Access Design

- a. **“Public”**. Objective No. 1 of the Public Access Design Guidelines states, in part, that projects should “make public access public” and should “provide physical public access to and along the shoreline and visual public access (views) to the Bay from other public spaces... provide clear connections to public rights-of-way, be related to the adjacent uses and be designed, built and maintained in a way that indicates their public character” and “be designed in a manner that [feels public] and “[make] the shoreline enjoyable to the greatest number of people .”

The levee Bay Trail provides views of the Bay and multiple shoreline access points from approximately Station 20+00, west of Mariners Point, to Station 193+00, at Shorebird Park, just north of the intersection of Beach Park Boulevard and Foster City Boulevard. Views of tidal saltmarsh extend from approximately Gull Avenue to the southwest terminus of the levee system. These views give trail users a sense of separation from roadways, residential, and commercial areas which occur landward of the levee. Vegetated open space and landscaped area combined with fencing and / or roadways provide physical separation from residential areas from the levee-Bay Trail. Commercial buildings along East Third Avenue and the roadway are separated from the levee Bay trail by open space areas which include both uplands and brackish marsh / seasonal wetland areas.

The reconfigured levee Bay Trail and other public access amenities provided by the project will continue to provide physical public access to and along the shoreline 24 hours a day, seven days a week and visual public access (views) to the Bay from adjacent public spaces to include Baywinds, Bridgeview, and Shorebird Parks. These parks connect to public rights-of-way and to the Bay Trail. Baywinds Park has been specifically designed for use by the Boardsailing community together with other users who access the shoreline and Bay waters. ADA-compliant access to the shoreline and restrooms and shower facilities are provided. Baywinds, Bridgeview, and Shorebird Parks provide play areas for children and ADA-compliant access to parking, picnic areas, benches, and restrooms. Benches and picnic areas along the Bay Trail are oriented to maximize Bay Area views. Bridgeview, and Shorebird parks are adjacent to the Bay Trail and provide access to the trail.

- b. **“Usable”**. Objective No. 2 of the Public Access Design Guidelines states, in part, that projects should “make public access usable” and that should be “designed and built to encourage diverse, Bay-related activities along the shoreline” and “be designed for a wide range of users” and “be designed to respect all visitors' experiences of the Bay.”

The existing as well as the improved Bay Trail area provides a diverse useable and safe public space for trail visitors including universally accessible designed amenities. The project accommodates shoreline access for fishing, bay viewing,

picnicking, swimming, boating, and boardsailing in its design. The trail will be widened 8 to 10 feet to provide for a better biking, jogging, walking experience. Basic public amenities provided periodically along the length of the Bay Trail include benches, picnic tables, bicycle racks, bicycle repair stations, trash/recycling receptacles, and informational signage, and interpretive elements. Drinking fountains, restrooms and parking are provided within Shorebird, Bridgeview, and Baywinds Parks which are adjacent to and are accessible from the Bay trail. Shorebird Park also provides a large children's play area and Baywinds Park provides significant international class boardsailing opportunities including kite board rigging areas, bay access from the shore including ADA compliant access, emergency boat access, showers, and spectator viewing areas.

Wayfinding information, as required by Special Condition II.B.3, will be integrated into the levee pathway with supplemental additional signage at major street and Bay Trail Parks (Shorebird, Bridgeview, and Baywinds) intersections. This will include mile markers and signs indicating maintained public pathways to parks and streets, pathways to the shoreline, adjacent Bay Trail parks and historical and ecological points of interest. This wayfinding information will be designed to encourage the community to gather and to make connections to the Bay, provide a sense of place and history, and to aid emergency responders.

- c. **Visual Access.** Objective No. 3 of the Public Access Design Guidelines states, in part, that projects should "provide, maintain and enhance visual access to the Bay and shoreline."

The existing Foster City Levee is situated along the Bay Shoreline and provides unobstructed views of the Bay from the levee top, and, in the southern portion of the levee, unobstructed views of Belmont and its adjacent tidal marsh. The improved levee and Bay Trail will continue to provide visual access to the wide surface of the Bay and distant shorelines and associated landmarks, but will limit access to the nearby shore as a result of a 42-inch tall guardrail in most locations between the trail and the Bay. Visual access to the Bay from the shoreline is further provided by the shoreline access improvements. As a FEMA-certified flood protection project with a required top elevation, unobstructed visual access cannot always be met. Visual impacts are thoroughly described by the EIR and were considered a significant impact for which the City, as lead agency, adopted a statement of overriding considerations. On the other hand, the flood protection improvements along with the interpretive elements will certainly meet the BCDC objective of "[a] landmark that suggest[s] the location of the waterfront, even when the Bay itself is not visible." The project, as a result of discussions with staff during the application process, includes features to enhance visual access, including railed overlook platforms with railings and a picnic area.

- d. **Visual Quality.** Objective No. 4 of the Public Access Design Guidelines states, in part, that projects should “maintain and enhance the visual quality of the Bay, shoreline, and adjacent developments” and should “relate directly to a set of site-specific factors.”

The Project maintains the visual quality of the Bay and Shoreline to the maximum extent feasible. Visual quality is maintained through development of shoreline access points. The conceptual access plan uses plantings, forms, colors, and textures that are compatible with the Bay and nearby residential and commercial areas. Trash receptacles will be installed within shoreline access points and trash will be picked up by the City in the same scheduled manner as existing trash receptacles along the Bay Trail. Removal of debris adjacent to shoreline access points will be incorporated into the City’s existing trail maintenance activities. The Bay is generally not immediately visible from adjacent streets due to the existing levee elevations. Views of the Bay from the trail itself along the flood wall will largely be maintained for those taller than about three and a half feet.

- e. **Connections and Continuity.** Objective No. 5 of the Public Access Design Guidelines states, in part, that projects should “provide connections to and continuity along the shoreline”.

The existing Bay Trail and Project improvements interconnect the San Francisco Bay, Belmont Slough, Marina Slough, and the Foster City Lagoon shorelines with City streets and sidewalks, street and park parking areas, bike and pedestrian paths, public park, open space and schools. The project will improve formal access to and from the Bay Trail and shoreline. Access will not be formalized at all ad hoc access to and from the Bay Trail and shoreline, such as the many ad hoc paths on the slope between Beach Park Boulevard and the levee Bay Trail through ice plant. In certain areas, new ad hoc paths may eventually be established informally post construction.

- f. **Bay Setting.** Objective No. 6 of the Public Access Design Guidelines states, in part, that projects should “take advantage of the Bay setting”.

The Project improves the City’s existing levee for the purpose of flood protection to meet FEMA standards. All improvements will be constructed within the existing levee footprint and in one instance, will be relocated slightly landward along the property between Marlin Avenue and Foster City Boulevard. The project seeks to take maximum advantage of its bay setting by adding shoreline access points where feasible to allow for continued opportunities for bay related activities. As indicated above, the Bay Trail will be widened by 8 to 10 feet in order to enhance and improve the experience of the shoreline setting. In

addition, street access to the trail and access from the trail to the shoreline will be improved to be more accessible through the use of stairs and ramps. Breaks along the floodwall allow for access on the waterside of the flood wall.

The permittee consulted with the Commission's staff and worked extensively to integrate additional public access design features. Based on these discussions, further design analysis, and the input of the Design Review Board, the local boardsailing community, and other regulatory agencies, the following improvements were added during the application process to improve the design physical and visual access to the shoreline for the project:

- (1) The applicant added a wall opening with wave barrier and stairs for access to the "last chance" beach ramp near Station 63+00 to accommodate the boardsailors;
 - (2) The applicant provided the required accessible path to the Bay Trail from the shoreline parking area at Bayside Towers;
 - (3) The applicant added a low wall on water side of trail in the unprotected section where it passes under the San Mateo Bridge to mitigate near term flooding and keep path open;
 - (4) The project includes a recreational area at trail-elevation between the floodwall and shoreline, generally from Station 135+00 to Station 141+00. This would maintain unfettered access to the shoreline at a commanding viewpoint. The recreation area would be large enough to support shade structures and a boardwalk at trail elevation outside of the wall;
 - (5) The project includes trail access to the Shell Bar Beach. Rights to provide access have been secured from roughly Station 157+00 to Station 177+00;
 - (6) The project will replace the proposed sheet pile wall along Beach Park Boulevard adjacent to State Lands property with an earthen levee. This replacement occurs between roughly Station 188+00 and Station 202+00;
 - (7) The project maintains public access from the levee adjacent to Shorebird Park to an existing trail on State Lands property which also leads to the Shell Bar Beach; and
 - (8) The project will improve public access along the O'Neil Slough channel through the use of bridge overcrossings.
- g. **Wildlife Compatibility.** Objective No. 7 of the Public Access Design Guidelines states, in part, that projects should "ensure that public access is compatible with wildlife through siting, design and management strategies."

Site analysis indicates that suitable habitat for the special status species salt marsh harvest mouse (*Reithrodontomys raviventris*) and California Ridgway's Rail (*Rallus longirostris obsoletus*) The salt marsh harvest mouse (SMHM) is a Federal



Endangered species and a California state fully protected species. The California Ridgway's Rail (CRR) is a federal and state listed endangered species. Suitable habitat for the SMHM can be found along the levee / Bay Trail between approximately Station lines 0+00 and 16+00 (outboard of levee); 48+00 and 63+00 (inboard of levee); 70+00 and 93+40 (inboard); 106+00 and 111+30 (inboard); 230+00 and 253+70 (inboard); 196+00 and 343+90 (outboard). Suitable habitat for the CCR can be found from approximately Station lines 0+00 and 16+00 (outboard); and 204+00 to 343+90. The Belmont Slough tidal marsh area which can be viewed between approximately Station Lines 204+00 and 312+00 is a significant nesting area for the CRR. Direct impact to the habitat for these species is being avoided by the Project and 3.06 acres of tidal wetlands is being restored/enhanced through the addition of two pedestrian and emergency access bridges along O'Neil Slough between Station lines 306+25 and 331+00. All access will be confined to the Bay Trail with no access to these biologically sensitive areas allowed. This has been the standard practice since the trail was constructed decades ago and has contributed to the continued breeding and nesting success of the CRR within the adjacent Belmont Slough tidal marsh. This requirement will be reinforced with signs prohibiting entry into habitat areas. In addition, educational signs will be placed along the trail at various locations to describe the history of the area, ecology of the marsh, descriptions of its biota, and the importance of the continued existence of tidal marsh habitat.

Raising the levee would not create any new or additional conflicts between public access and wildlife. The Bay Trail is currently situated along the Bay shore on the top of the existing levee and the Bay Trail will continue to be located at the top of the levee after the levee improvements are installed. The existing uses at the Bay Trail will continue. Existing recreational use of the levee may be associated with minor disturbance to nesting Ridgway's Rail in the segment along Belmont Slough, but this situation would not change after implementation of the levee improvement project. No new impact resulting from the number of users of the Bay Trail would necessarily result from constructing the levee improvements.

The Endangered Species Act Biological Assessment (BA) recognizes that installation of sheet pile or wall could restrict the extent of high marsh or transitional upland vegetation on the outboard side of the levee for use as refugial habitat during extreme high tides, especially for listed species such as Ridgway's rail or salt marsh harvest mouse. The Endangered Species Act BA recommended planting of refugial habitat vegetation on the bayward side of the sheet pile wall to provide greater cover from predators and help mitigate this effect. If the new Bay Trail is positioned next to the sheet wall, there is the possibility that recreational users on the Bay Trail could slightly exacerbate

disturbances to species attempting to seek refuge during extreme high tides at the upper end of high marsh vegetation on the levee slope next to the sheet wall and trail.

The major conflict between public users of the Bay Trail and wildlife use historically has been at the Foster City Shell Bar Beach, which is a major winter roosting spot for shorebirds. Wildlife use of the Shell Bar Beach is discussed in the Endangered Species Act BA. The Shell Bar Beach supports large numbers of roosting shorebirds during the winter that includes scarce and/or declining species such as Red Knot, which often numbers in the hundreds at this location. Recreational users of the Bay Trail leaving the trail to access the Shell Bar Beach, sometimes with unleashed dogs, has, in recent years resulted in adverse impact on the shorebird populations at this location. The City of Foster City has been coordinating with Sequoia Audubon Society (the local Audubon Society chapter) in an effort to provide educational materials at the Shell Bar Beach to inform users of the Bay Trail about the value of the Shell Bar Beach to the large populations of roosting shorebirds in the winter. The result of these negotiations has been the installation of new educational signs at the Shell Bar Beach in recent months that may help alleviate stresses on the shorebird populations. The levee improvement project is not likely to adversely impact shorebird activity at the Shell Bar Beach.

5. **Required Public Access.** Special Condition II.B requires the improvements to the Foster City levee trails and parks, including a number of site amenities, and the levee Bay Trail, and requires construction of a number of formal Bay access features. Special Condition II.A provides for plan review prior to construction to ensure the project is constructed in accordance with these requirements. Special Condition II.B.5 requires maintenance of the public access amenities. Special Condition II.B.6 requires notice to the Commission of assignment of maintenance responsibilities and Special Condition II.B.7 provides for Commission approval of any reasonable rules and restrictions imposed on the public access by the permittee.
 - a. **Bay Trail.** Existing activities along the Bay Trail, including birding, walking, running and bicycling, will be enhanced with the required width and better trail markings for safer pedestrian and bicyclist movement.
 - b. **Water Access.** Access to prime kite surfing and windsurfing areas will not be interrupted in most cases, and will be improved by the required accessible ramps. Boat ramp improvements at Station 37+00, while primarily for emergency rescue watercraft launching, can also be used for water-oriented recreational activities. Access to the Bay at Baywinds Park will be improved with an accessible ramp to the adjacent beach area and additional lay-down areas for kite surfers, wind surfers, and other recreational users. All existing beaches are

preserved by the project. Riprap authorized as part of the water access ramps is required to be constructed with sound engineering criteria by Special Condition II.E.

- c. **Bay Access.** Access to the Bay will be maintained by the required accessible pathways and ramps and stairs from the levee trail to the Bay. Access is to be provided through the floodwall by the required flood breaks to existing concrete ramps down the existing riprap revetments that lead to small sandy beaches often used by fishermen. In certain sections where access to the Bay-side of the levee is limited, 3- to 4-foot-wide compacted surface (e.g. concrete) pathways are required on the waterside of the sheetpile wall above the rock slope protection. Appropriate signage will be posted warning users that paths are subject to inundation during heavy storm events.

There will be a short wall between the Bay Trail and the adjacent private property near the Shell Bar Beach, which is required for flood protection. However, the existing trails on this private property will not be altered or removed and will continue to be able to be accessed from the improved Bay Trail on an ad hoc basis. Therefore, existing ad hoc public access to these trails over the adjacent private property will not be obstructed by the project. Access from the Bay Trail to some of the “ad hoc” trails to the Shell Bar Beach that occur on City easement and State Lands Commission property near Shorebird Park will be provided.

- d. **Landside Access.** Access to the levee trail from the landside will be maintained by the required landside accessible pathways and ramps and stairs. Also, the required overlook platforms on top of the levee on the Bay side of the trail are necessary as part of mitigation for view impacts cause by the flood walls along the levee authorized by this permit.
- e. **Trail Elevation Picnic Area and Boardwalk.** A recreational and picnic area on the waterside of the levee trail is required to be raised to trail elevation to maintain access and provide amenities, such as a number of shade structures to mimic those recently installed at Shorebird Park. There are limitations to the height of fill that can be placed against the sheet pile wall, but the project engineers determined it is geotechnically and structurally feasible to place fill in this manner at this location. This would limit flooding of the wide unobstructed public access area to wave runup splash during extreme storm events. In the event of such inundation, the public access area may need to be repaired due to erosion. The City anticipates that these repairs will be infrequent. A boardwalk between the two sections of this area is required.
- f. **Bridges at O’Neil Slough.** The bridges to be constructed at O’Neil Slough are required to remain publicly accessible to maintain bicycle and pedestrian access between Foster City and Redwood City.

- g. **Amenities and Signs.** A variety of amenities and signs are required along the project site to replace the existing ones that will be removed as part of construction of the levee improvements. A number of street lights will be replaced along Beach Park Boulevard as a result of construction. The replacement lights will be double-armed, providing LED lighting on photo-electric switches over the Bay Trail from approximately Station 112+00 to Station 206+00. Solar powered lights will be provided at access points at trail level, to facilitate nighttime egress from the trail.

The City plans to include signs stating the names of intersecting streets adjacent to the Bay Trail placed at the various intersection locations in order to encourage connections to and from the Bay Trail and the adjacent community. Special Condition II.B.3 requires the permittee to submit a comprehensive wayfinding, interpretive element, and amenity design plan to be completed as part of the project. The Design Review Board reinforced this concept and recommended incorporating an interpretive program into the overall design to provide context (historical, cultural, scientific, etc.) to the levee project and to explain to users the future risks and what needs to be prepared for. The Board recommended a wayfinding strategy that could unify the site details and that could use elements such as custom furniture. Such a program would help to mitigate some of the unavoidable impacts to public access from the levee project.

- h. **Modifications to Existing Public Access.** The project site includes several areas with existing public access requirements from several BCDC permits, as mentioned in Finding III.D.3, both along and adjacent to areas included in this project. The City of Foster City is the permittee or co-permittee for several permits, while some are held by other parties. Special Condition II.B.6 provides that public access areas required in other BCDC permits must be restored, replaced, or relocated, if necessary, in conjunction with the project authorized by this permit, to ensure that maximum feasible public access remains as part of the projects authorized by those BCDC permits. Modifications to these areas include those authorized at the Bayside Towers development.
- i. **Planted Areas.** The City proposes to implement coastal scrub-type restoration on the landward side of the levee at major trail access points using plants with low soil moisture tolerance. Restoration of bayside and landward sides of the levee where temporary impacts to wetlands occur will consist of saltgrass plantings and the addition of wetland shrubs species to include big saltbush and marsh gumplant. The City is willing to add native shrubs to the landscape design where native plantings have been proposed at major trail access points provided it is determined that this does not constitute a public safety issue (i.e. by allowing attackers to hide and strike).

The inboard side of the Foster City Levee is populated primarily with ice plant (*Carpobrotus chilensis*). Native plants will be used more sparingly at various public access points to provide additional visual interest and providing a visual landscape cue as to the location of public access points to the Bay Trail without drastically increasing maintenance requirements. The existing ice-plant has been successfully contained along Beach Park Boulevard with the Bay Trail on one side and a four-lane road on the other side. This condition will remain in the improved levee system. Additionally, the project will install 6" wide concrete mow-bands at the edge of the access planting areas to guide City staff on where the limits of the ice plant are. This method is successfully used by public agencies to delineate limits of maintenance. Finally, the areas planted with perennials and grasses, which are more susceptible to ice plant intrusion, are buffered by wide zones of woody native *Ceanothus* groundcover planting, which when mature will form a dense impenetrable planting mass.

- j. **Shoreline Protection.** Shoreline protection infrastructure authorized by this permit are included to protect required public access areas from flooding from waves, storms, and sea level rise and are designed consistent with the Bay Plan's policies on Shoreline Protection.

Depending upon the location, the wall heights are consistently dictated by the maximum wave runup associated with the 100-year storm surge assuming two feet of sea level rise, or the 100-year storm surge assuming two feet of sea level rise in the absence of wind-wave fetch.

- k. **Maintenance.** Public access amenities will be included in levee inspections. The City of Foster City will be responsible for maintaining the public access improvements. The City currently operates a levee maintenance inspection program every quarter, and maintenance repair actions take place on an as needed basis. The Project public access improvements will be incorporated under this program.
 - l. **Barrier-free Access.** As shown on the design plans, barrier-free access that is accessible to persons with disabilities is provided to the Bay Trail and Bay Shoreline to the maximum extent feasible, while retaining the necessary flood protection elements of the project. Presently there are very few barrier-free accessible points to either the Bay Trail or Bay shoreline. Shore access signs will also be included.
6. **Comprehensive Wayfinding, Interpretive Elements, and Amenity Design Plan.** Special Condition II.B.3 requires the permittee to submit a comprehensive wayfinding, interpretive element, and amenity design plan to be completed as part of the project. The Design Review Board, in its second review of the project recommended an interpretive program to include topics such as the following:
“(i) The infrastructure needed to be put in to meet a future condition; (ii) The

infrastructure represents the maximum extent of how high it can go before something else needs to be done; (iii) The levees have been improved over time; (iv) Areas that look natural are fairly new and manmade; (v) Where the shoreline used to be; and (vi) Where existing and future flood events might be.”

Interpretive signs will describe historical, cultural, and biological points of interest. Interpretative signs will also be used to provide educational opportunities along the length of the levee Bay Trail. Topics may include hydrology, biology, ecology, engineering, history, and cultural issues. Specifically, some signs will include predicted changes from climate change and associated rise in sea level.

The permittee has agreed to include various decorative treatments to surface paving, to distinguish trail and beach entrance points, and to the levee walls along the visible Beach Park Boulevard length. Paving treatments might involve thermoplastic overlays with patterns that repeat in modular sized precast concrete panels with custom form liners using the Foster City logo, waves, birds, etc.

7. **Outreach and Engagement.** Since FEMA alerted the City as to the results of its coastal flood hazard analysis in 2015, the City has engaged in a comprehensive program of public outreach. In 2018, the City residents voted to pass a bond to fund the planning and construction of the Foster City Levee project. The City is also an active participant in various regional sea level rise adaptation efforts. The City will continue its public outreach program through the conclusion of design, bidding, project construction, and FEMA accreditation.
8. **Construction Impacts.** The City will close and detour the Bay Trail and other public access areas for the duration of construction. Special Condition II.F limits those closures to the plans approved through Special Condition II.A and requires the permittee to abide by closure duration limitations or extensions thereof, and to provide a detour plan, signage, and conduct outreach to the public, including recreation groups, such as the boardsailing community, to communicate closure plans. Special Condition II.F also requires the permittee to reopen completed sections of the Bay Trail between completed access facilities where feasible if construction lasts longer than anticipated.
 - a. **Construction Phasing:** The public access amenities will be built concurrently with the flood protection aspects of the project, while the trail is closed to the public. Given that the project can be phased only to the extent that existing access points line up with City-approved haul routes for construction equipment access, completing the project in a single phase will be the shortest and therefore the most cost-effective phasing alternative. A single closure will also be the safest and least disruptive to the community because it will set the detour routes for the term of the project. The City anticipates to re-open the entire length of the

trail in one year and nine months. The alternative considered by the City included closing the Bay Trail in three phases and would have taken an entire year longer to complete.

Access to Baywinds Park and beach, boating launch points, and City parks will remain open throughout construction, with only intermittent and short-duration closures to facilitate the delivery of equipment and materials to nearby work sites. Additional restrictions will be placed on construction scheduling to ensure that at least one route from the southern end of the Marina Lagoon detour remains open to the Bay Trail in Belmont and Redwood City Bay Trail at all times throughout the duration of the project. The permittee will be responsible for providing advance notification of trail closures.

- b. **Construction Detours.** In some instances, temporary detour infrastructure will not comply with standards to be designated as Bay Trail because there may not be sufficient width when in the right of way to meet these standards. Pedestrians will be routed to the nearest public right-of-way with sidewalk access. The Lagoon pathway itself is an additional detour that may be used during Bay Trail closures. Detours will be further detailed in the detour plan required for submittal and approval pursuant to Special Condition II.F.

For public safety, there will be no interim access to the Bay Trail within each segment while that specific segment is under construction. The detour plans will include existing sidewalks where pedestrians will be routed during the detour. Since a portion of Beach Park Boulevard immediately parallel to the limits of work will be provided for contractor access, material stockpiling and staging, a more detailed traffic control and striping plan will be installed, including a Class II or better bicycle infrastructure, pursuant to Special Condition II.F.

- c. **Notice of Closure.** The City will provide notice of public access closures and their anticipated duration at least 30 days prior to closure. Closure durations will be updated throughout construction. The City will reach out to the boardsailing community prior to the start of construction.
- d. **Emergency Access.** None of the proposed work would prevent egress from the Bay to dry land for kite boarders and wind surfers and other recreational users of the Bay. The Contractor will be provided with instructions on whom to call in the event of an egress emergency needing assistance.

9. Recreation

- a. **Bay Trail.** As discussed above in Finding III.D.4, as part of the project, the Bay Trail will be widened, amenities will be provided, and many access points will be formalized and made more accessible, enhancing recreational opportunities for cyclists, runners, pedestrians, nature viewers, and other recreationalists.



- b. **Water Access.** Sandy beaches will be preserved, with enhanced public access as feasible. Members of the boardsailing community were consulted for specific design considerations during the application process, as mentioned above in Finding III.D.4.f, resulting in modifications to the water access ramps design at Mariner’s Point, the ramp to the beach at Baywinds Park, and extra water egress points east of Baywinds Park. These discussions led to designs that would not conflict with their existing uses and take safety and emergency situations into account. The parking area at Baywinds Park and access to the water trail are expected to be resilient to the one-percent storm surge after sea level rise through 2090. There may be very infrequent (one percent annual chance) and short duration periods when water trail access is impacted by extreme wave runoff. Trail preservation and shoreline access in the face of more extreme future sea level rise is addressed in the RAAMP.
- c. **Fishing.** Current access to the Bay shoreline for fishing at the rock-protected levee bank and the existing concrete ramps down the bank will be maintained as feasible. Public access to selected fishing locations will be improved by providing stairways and ramps. The permittee will also add wayfinding signs as part of the wayfinding and interpretive design plan.

10. Sea Level Rise Resilience and Adaptation. In analyzing a project’s risk of flooding as a result of sea level rise, the Commission currently relies on the sea level rise estimates provided in the 2018 California Sea Level Rise Guidance from the Ocean Protection Council and Natural Resources Agency (“2018 State Guidance”), which represents the best available science. The Guidance recommends use of probabilistic projections to understand and address potential sea level rise impacts, which associate a likelihood of occurrence with sea level increases and rates tied to a range of emission scenarios. The analysis for this permit relies on the State’s projections for projects where a “medium to high” level of risk aversion is called for. The 2018 State Guidance states that the medium to high risk aversion projections are appropriate to provide “[a] precautionary protection that can be used for less adaptive, more vulnerable projects or populations that will experience medium to high consequences as a result of underestimating sea-level rise....” The medium to high risk aversion scenario is appropriate in analyzing this project in part because the levee improvements authorized by this permit are near the engineering limits for the project site given design constraints and space available without major changes to the surrounding developed areas.

- a. **Project Life.** The project is designed with an 80-year lifespan based on estimated long-term corrosion rates for the steel sheet piling, and the sacrificial steel allowance in those piles. The life of the steel sheet piling can be extended by installing sacrificial anodes or an impressed current corrosion protection system. A corrosion monitoring system will be installed with the project and monitored over the long-term to establish the necessary design parameters for such a

system. As such, conceptual project planning assumed that a sufficiently robust structural foundation could be provided that would allow a future vertical extension of the flood protection system, to adapt to future sea level rise without a significant expansion in the flood protection system footprint.

- b. **Flood Risk.** Given the level of risk tolerance for this project and on the basis of the projections in the 2018 State Guidance, the project plans for 1.9 feet of projected sea level rise at 2050. The permittee provided as part of the Application, a risk assessment and adaptive management plan (RAAMP) for the project that makes use of the 2018 State Guidance and explains how the project is designed to be resilient to mid-century sea level rise projections during a 100-year storm event, including wave runup, along the distinct segments of the project site.

The anticipated lifetime for the project is 80 years, which means the project is expected to remain in place through the end of century. The 2018 State guidance assumes that if global greenhouse gas emissions are curbed consistent with the United Nations Framework Convention on Climate Change (UNFCCC) 2015 Paris Agreement—a “low-emissions” scenario—5.7 feet of sea level rise are anticipated to occur by 2100. If global emissions are not aggressively reduced and a “business-as-usual” scenario occurs—a “high-emissions” scenario—6.9 feet of sea level rise are anticipated to occur by 2100.

- c. **Resilience to Mid-Century Sea Level Rise.** The public access required by the project is primarily sited behind shoreline improvements designed so that these areas would not experience flooding during a 100-year storm event today, nor is it anticipated that they would be subject to flooding during a 100-year flood at a mid-century projection of 1.9 feet of sea level rise. It is also anticipated that both the lower shoreline paths on the waterside of the flood walls and the section of trail beneath the San Mateo Bridge would not be subject to flooding during a 100-year flood at a mid-century projection of sea level rise. Thus, the public access is anticipated to be resilient to mid-century sea level rise based on the best available scientific data.
- d. **Adaptive Capacity and Adaptation Measures.** The RAAMP provided with the Application outlines a suite of feasible adaptation measures given site conditions, and establishes an adaptation pathways approach for future adaptation through 2100 with sea level rise projections of 6.9 feet and a 100-year storm event. Special Condition II.C requires flood reporting for the public access required by this permit, monitoring reports and assessments of whether the RAAMP requires an update every 5 years, criteria for updating the RAAMP when necessary, and criteria for planning and implementing any adaptation measures necessary to retain resilience to storm events over time with sea level rise. This is intended to provide for the timely development of adaptation actions

for the site as soon as sea level rise begins to impact the project during tides, storms, or both. The adaptation plan would establish an implementation timeline to ensure the project's adaptability to sea level rise.

Adaptation measures considered in the version of the RAAMP referenced in this permit include landward ecotone levees, traditional shoreline revetments with landward expansion, ecotone levees with Bay fill, adaptive offshore structures, and traditional shoreline revetments. This version of the RAAMP also references the San Francisco Bay Adaptation Atlas (published by the San Francisco Estuary Institute, April 2019) and acknowledges that different segments of the Foster City levee project site may require different adaptation requirements and the project site may require a mix of different kinds of adaptation measures as necessary.

As conditioned, the Commission finds that the public access provided as a condition of the project will remain viable in the event of future sea level rise or flooding, and therefore the project is consistent with the Commission's law and Bay Plan policies related to sea level rise and flooding.

- e. **Maintenance.** City monitoring and maintenance on the existing levee and Bay Trail has been ongoing since original construction and will continue for the sheet pile wall and other flood protection devices proposed post project construction. The flood protection devices will be maintained according to the manufacturer's specifications and maintenance guidelines. Rock slope protection that is disturbed during a storm event would be replaced in-kind at the same location, as is the current practice. Special condition II.E requires the authorized shoreline protection structures to be properly maintained.
- f. **Flood Protection Devices.** Special Condition II.B.2.k requires three flood protection devices, which are grade-flush gates designed to automatically raise and close for flood protection when subject to hydrostatic forces from flood waters. As proposed, these devices are completely passive in operation and require no attendance. When closed (its normal position), the flood break device is a non-slip surface. The surface will be designed to be compatible with bicycle, pedestrian, and occasional vehicular traffic.
- g. **Bridges.** At each of the free-span bridges, which serve as emergency egress for Foster City, the need to conform to existing grades precludes raising the bridge decks above the flood protection elevation. These structures do not, however, form any part of the flood protection system, but are designed to remain structurally sound during storm conditions, and include flood protection devices to protect adjacent public access areas.

- h. **Low-Lying Areas.** The project scope does not include raising portions of the levee Bay Trail on the north side of Mariners Point and under the San Mateo Bridge, or most areas on the Bay-side of the levee. In many cases, these areas are not subject to flooding from storms or flooding, except under extreme conditions.
- i. **Stormwater and Drainage.** There are no stormwater systems within areas that may be flooded during 100-year storm conditions. All stormwater drainage is interior to the levee system. Interior drainage relies upon lagoon storage and pumping. Both of these features are not affected by future sea level rise as long as the levee system provides the necessary protection.
- j. **Adjacent Communities.** At the northwesterly end of the proposed levee improvements, the existing San Mateo top of levee elevation is 15.0 feet NAVD88, which provides resilience against the maximum wave runup associated with the one-percent storm surge with projected sea level rise of 1.9 feet through 2050. At the southwesterly end of the proposed levee improvements, the flood protection elevation at San Mateo's O'Neil Slough Tide Gate is 12.6 feet NAVD88. While 0.9 foot lower than the planned top of floodwall elevation proposed for the Foster City Levee improvements, this elevation still provides resilience against the one-percent flood hazard with future sea level rise through 2050.

As conditioned, the Commission finds the project is consistent with the policies in the Bay Plan on Public Access, Recreation, Appearance Design and Scenic Views, Safety of Fills, Shoreline Protection, and Climate Change, and the requirements of the McAteer-Petris Act.

E. Design Review Board

1. **Design Review Board Meetings.** The project appeared in front of the Design Review Board ("the Board") for two separate reviews, first on February 11, 2019, and second on August 5, 2019. At the February 2019 meeting, the Design Review Board requested to see the project again, made some suggestions regarding public access design, and requested more information regarding the feasibility of expanding landward into publicly owned lands in areas such as along Beach Park Boulevard. A number of the project design changes detailed above in Finding III.D.4.f, resulted from the input received from the Board.
2. **Landward Constraints Analysis.** The current project design utilizes available landward rights-of-way to the extent feasible. The City acknowledges that further expansion landward could be an option to adapt to sea level rise past mid-century predictions and this option is further detailed in the RAAMP. However, the City has determined that further expansion landward is generally not feasible or desirable at this time for the reasons explained below segment by segment:

- a. The landward area adjacent to the segment between Station 56+00 to Station 64+00 is owned by the State and controlled by Caltrans. This area is a mitigation site for one of their projects. Encroaching into this land would require approval from Caltrans which is unlikely given the area is a mitigation site for one of their projects.
- b. The landward area adjacent to the segment between Station 64+00 and Station 70+00 is within City right-of-way and is currently occupied by East Third Avenue. Expanding landward at this segment would involve reduction of traffic lanes which the City does not desire at this time because it would require relocation of the sanitary sewer main serving several other cities.
- c. Additional fill encroachment between Station 70+00 and the San Mateo Bridge (Station 96+00) would be on private property and is therefore not considered a viable option at this time. This property is also non-tidal wetland and therefore landward expansion here would require filling these non-tidal wetlands, which the City has sought to avoid to the maximum extent feasible with this project.
- d. The design already contemplates land side encroachment at the segment between Station 96+00 and Station 105+00.
- e. Beach Park Boulevard, which is within the City's right-of-way, is adjacent to the project from Station 105+00 to Station 206+00 at Foster City Boulevard. As proposed, the project limits land side encroachments to the back of existing curb. The City has directed minimized encroachment into the street right of way, and preservation of the existing four-lane road and parking area within this right-of-way for the following reasons: (1) Relocation of existing underground utilities, including the City's water main, sanitary sewage force main, gas lines, storm drains, and various communication infrastructure would be required, which would involve significant costs and delays and require further environmental analysis under CEQA; (2) Adjacent residences would be more significantly impacted as the levee improvements would be brought closer to their front doors; (3) Traffic would be impacted by reducing lane configuration from 2 lanes in each direction to one lane in each direction. The impact of this reduction would require further environmental analysis under CEQA; and (4) Existing parking areas would need to be eliminated to accommodate the landward expansion; the associated reduction in parking would have a negative impact on public access to the levee and Bay Trail.
- f. From Station 206+00 to the end of the project, the majority of adjacent landward right-of-way is privately held.
- g. The inland wall could be eliminated if the project were able to grade the levee into Beach Boulevard and Third Avenue, however this would result in the loss of about one-half the street right of way along East Third Avenue, a parking lane plus a full traffic lane on Beach Park Boulevard. Aside from the reasons set forth

above, the City is not able to do so because it would involve “take” of the SMHM. Grading the levee into Third Avenue would result in the loss of 8.6 acres of palustrine emergent brackish marsh habitat. When these areas pond during the rainy season they provide foraging habitat for water birds. The seasonal wetlands also provide potential suitable habitat for the SMHM.

3. **Suggestions From Second Review.** The Board, in its review of the project in August 2019, included a number of suggestions to the project team to further enhance the design. The Board suggested a “wayfinding strategy... which would unify all the materials, details, colors, finishes, metals, graphics, and signage”, as well as “looking for opportunities to put together the art and storytelling to help the community learn about flood protection that is in place now and to understand what the next steps will be”, both of which are considered in the comprehensive wayfinding, interpretive element, and amenity design plan required by Special Condition II.B.3. The Board also emphasized that “stated public comment included the request to keep certain access points open during construction or timing of the seasons”. This will be considered in the review of the detour plan required by Special Condition II.F. The Chair of the Design Review Board also suggested “five-or-ten-year reviews of the project” and that “someone needs to program, watch over, and maintain all of this corridor, and identify places for other amenities to bring more people there.”
- F. **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.
- G. **Public Trust.** The project authorized herein is to provide public access to the Foster City shoreline and the Bay and protection of that public access from flooding and storm events, which will serve a regional and statewide need. Therefore, the Commission finds the project is consistent with public trust needs.
- H. **Environmental Review.** The Commission finds that the City of Foster City adopted the Resolution No. 2017-27, “A Resolution of the City Council of the City of Foster City Certifying the Final Environmental Impact Report under the California Environmental Quality Act for Foster City Levee Protection Planning and Improvements Project (CIP 301-657)” and the Resolution No. 2017-28, “A Resolution of the City Council of the City of Foster City Adopting a Statement of Findings under the California Environmental Quality Act, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program under the California Environmental Quality Act (CEQA) for the Foster City Levee Protection Planning and Improvements Project (CIP 301-657)” on May 8th of 2017. The Commission, as a responsible agency under CEQA, finds that the project will have significant and unavoidable adverse impacts on the visual access to the Bay and shoreline, and adopts and makes this statement of overriding considerations that the flood protection benefits of the project outweigh such impacts, particularly given that flood protection is the primary project purpose. The Commission has reviewed and

considered the certified Final Environmental Impact Report and finds that many of the mitigation measures in the adopted Mitigation Monitoring and Reporting Program will occur within BCDC jurisdiction and are consistent with the Fish, Other Aquatic Organisms and Wildlife policies and the Tidal Marshes and Tidal Flats policies in the Bay Plan and the requirements of the McAteer-Petris Act.”

- I. **Enforcement Program and Civil Penalties.** The Commission has an enforcement program that reviews its permits for compliance. The Commission may issue cease and desist and civil penalty orders if violations are discovered. The McAteer-Petris Act provides for the imposition of administrative civil penalties ranging from \$10 to \$2,000 per day up to a maximum of \$30,000 per violation. The Act also provides for the imposition of court-imposed civil penalties of up to \$30,000 in addition to any other penalties; penalties for negligent violations of between \$50 and \$5,000 per day; knowing and intentional penalties of between \$100 and \$10,000 per day; and exemplary penalties, which are supplemental penalties, in an amount necessary to deter future violations. In addition, anyone who places fill, extracts materials, or makes any substantial change in use of any water, land or structure within the area of the Commission’s jurisdiction without securing a permit from the Commission is guilty of a misdemeanor.
- J. **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 McAteer-Petris Act, the San Francisco Bay Plan, the Commission’s Regulations, 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. **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.
- C. **Permit Assignment.** The rights, duties, and obligations contained in this permit are assignable. When the permittee(s) transfer any interest in any property either on which the activity is authorized to occur necessary to achieve full compliance of one or more conditions to this permit, the permittee(s)/transferors and the transferees shall execute and submit to the Commission a permit assignment form acceptable to the Executive Director transferring permittee’s rights, duties and obligations contained in this permit to the assignee(s) with respect only to the property interest transferred to assignee(s). An assignment shall not be effective until the assignees execute and the Executive Director receives an acknowledgment that the assignees have read and understand the



permit and agree to be bound by the terms and conditions of the permit, and the assignee(s) are accepted by the Executive Director as being reasonably capable of complying with the terms and conditions of the permit.

- 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. **Build Project must be Consistent with 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 its 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 its 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 its 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. **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.
- N. **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.
- O. **In-Kind Repairs and Maintenance.** Any in-kind repair and maintenance work authorized herein shall not result in an enlargement of the authorized structural footprint and shall only involve construction materials approved for use in San Francisco Bay. Work shall occur during periods designated to avoid impacts to fish and wildlife. The permittee(s) shall contact Commission staff to confirm current restricted periods for construction.