

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

October 21, 2011

Application Summary

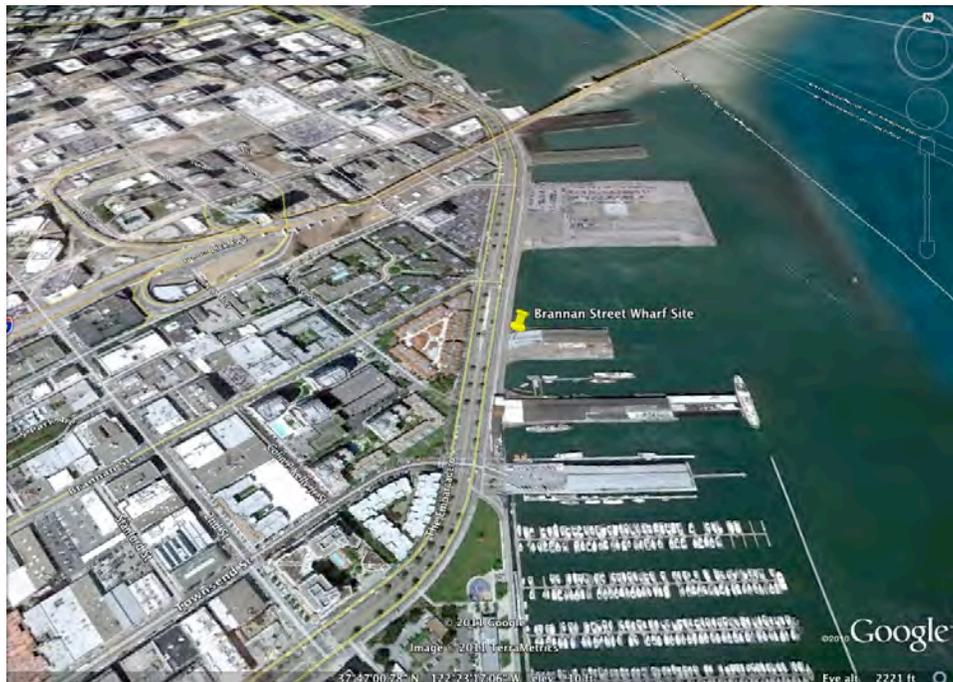
(For Commission consideration on November 3, 2011)

Number: BCDC Permit Application No. 2010.001.00
Date Filed: September 19, 2011
90th Day: December 18, 2011
Staff Assigned: Ming Yeung (415/352-3616 mingy@bcdc.ca.gov)

Summary

Applicant: The Port of San Francisco ("Port")

Location: The area formerly occupied by Piers 34 and 36, between Piers 30-32 and 38, along the San Francisco waterfront, between Brannan and Townsend Streets, in the City and County of San Francisco (Exhibits A and B).



Making San Francisco Bay Better

Project: The proposed project involves constructing the Brannan Street Wharf, a 58,700-square-foot pile-supported park over the Bay with public launch ramp and gangway, located in an area formerly occupied by Piers 34 and 36, and reconstructing a 4,400-square-foot segment of the Embarcadero Promenade. The project would be constructed in two phases (Exhibit C).

Phase 1: The Port would construct a 51,700-square-foot portion of the Brannan Street Wharf that includes a lawn area, a plaza, site furnishings, and interpretive displays ("Phase 1"). Phase 1 of the wharf structure would be supported by approximately 220 new piles, would cover approximately 51,700 square feet of Bay surface area, and displace 381 cubic yards of Bay volume.

Phase 2: In Phase 2, the Port would construct an addition to the north end of the wharf constructed in Phase One by demolishing the existing bulkhead wharf structure near the former Pier 34 (known as Bulkhead Wharf Section 11a), strengthening the existing seawall with riprap and re-constructing a 4,400-square-foot portion of the Embarcadero Promenade and a 4,100-square-foot addition to the Brannan Street Wharf (Exhibit C). The north wharf addition would be supported by approximately 37 piles, cover 8,500 square feet of Bay surface area, and displace 1,863 cubic yards of Bay volume. During Phase 2, the Port would also construct a 2,400-square-foot public boat launch float, anchored by four steel guide piles and connected to the wharf by a 500-square-foot aluminum gangway, and a 1,250-square-foot shade structure on the southeastern portion of the new wharf. The float and gangway would cover 2,900 square feet of Bay surface area and displace 15 cubic yards of Bay volume.

Depending on funding, additional improvements would include steel rather than a concrete public boat launch float, and stainless steel instead of galvanized and painted steel railings along the water's edge.

The entire 58,700-square-foot Brannan Street Wharf, float and gangway and 4,400-square-foot reconstructed Embarcadero Promenade would provide public access, resulting in a total of 58,700 square feet of new public access and 4,400 square feet of improved public access at the site.

Issues Raised:

The staff believes that the application raises four primary issues: (1) whether the project is consistent with the *San Francisco Waterfront Special Area Plan*; (2) whether the project is consistent with the Commission's fill policies, including safety of fills and sea level rise; (3) whether the project is consistent with the

Commission's public access and scenic views policies; and (4) whether the project is consistent with the Bay Plan policies on natural resources, including fish, other aquatic organisms and wildlife, and water quality.

Background

The proposed project site is located along the San Francisco waterfront in the Rincon Point – South Beach area of the South of Market district. The 156,000-square-foot (3.6-acre) project site fronts The Embarcadero, between Brannan and Townsend Streets, and is located approximately four blocks south of the San Francisco Oakland Bay Bridge and four blocks from the I-280 freeway touchdown in the South Beach neighborhood (Exhibits A and B). To the north of the project site are Piers 30-32, a 13-acre pier currently used for parking, special events and back-up cruise ship calls, and to the south is Pier 38, currently used to berth recreational yachts, and as a marine support center. To the south of Pier 38 are Pier 40 and the South Beach Harbor, a 700-berth public marina. Piers 30-32 will likely be used for team base support during the 34th America's Cup Event in 2012 and 2013.

The project site consists of the existing Pier 36 shed building and pier structure, the marginal wharf joining the pier to the Embarcadero, a portion of the seawall, and the adjacent waters of San Francisco Bay. To allow for the construction of the Brannan Street Wharf, the U.S. Army Corps of Engineers, pursuant to a Consistency Determination C2011.004.00 issued on September 20, 2011, was authorized to remove the Pier 36 shed building and pier structure, remnants of an associated wharf extension at the end of the pier, and sections of the marginal wharf joining the pier to the Embarcadero (totaling approximately 150,000 square feet and 2,556 cubic yards of Bay fill). Pier 34 was removed in 2001 and resulted in approximately 89,600 square feet of Bay open water (Exhibit D).

The *San Francisco Waterfront Special Area Plan* (SAP), as amended through July 2000, requires the construction of the Brannan Street Wharf, a major waterfront park in the area of Piers 34 and 36, to serve the South Beach neighborhood, San Francisco, and the region. The SAP requires the park to be a minimum of 57,000 square feet in size, extend at least 600 feet along the Embarcadero, establish a unique activity center, provide a respite between the adjacent, more intensively developed areas, and to accommodate a variety of passive recreational activities serving as a local and regional destination. The water area created by the removal of Piers 34 and 36 beyond the Brannan Street Wharf is required by the SAP to be a new permanent open water basin.

According to the SAP, one phase of the Brannan Street Wharf (the northern portion in the area of Pier 34 and north) is to be completed within five years of the Port's issuance of a certificate of occupancy for the major reuse of Piers 30-32, or a comparable major development, and

the rest is to be completed within 15 years, if necessary grants or other funding are available, or within 20 years, if necessary grants or other funding are not available. On November 22, 2005, the Commission approved the development of Piers 30-32 for a mixed-use cruise ship terminal (BCDC Permit No. 5-03), which included residential development on Seawall Lot 330, a site outside of the Commission’s permit jurisdiction. The residential project required approval of State legislation to allow the development to proceed (Chapter 489, Statutes of 2001). The legislation also required that the Brannan Street Wharf be completed sooner than is required in the SAP, consistent with the timetable set forth in Section 5(d) of the legislation. Although, the development of Piers 30-32 never occurred, the residential component on Seawall Lot 330 was developed. The Port, in the “Brannan Street Wharf Agreement” with BCDC, signed on February 4, 2004, and in its Resolution No. 03-28, adopted a policy that it would commence construction of the Brannan Street Wharf as soon as practicable after it obtained all necessary entitlements and sufficient funds to allow for the construction, regardless of the terms of the legislation linking construction of the Brannan Street Wharf with the construction of the Cruise Terminal Project at Piers 30-32. This commitment, however, was predicated on the San Francisco Cruise Terminal, LLC, being the developer of the Brannan Street Wharf and developing Piers 30-32 as a cruise terminal to also generate funds for the Brannan Street Wharf.

Since the cruise ship terminal project at Piers 30-32 was not developed, there are insufficient funds to complete the Brannan Street Wharf as designed and contemplated. Therefore, the project will be constructed in two phases to provide the Port an opportunity to secure funding needed to complete the park project. Additional improvements may be constructed depending on funding availability.

Project Description

**Project
Details:**

The applicant, the Port of San Francisco (the “Port”), describes the project as follows:

Phase I:

In the Bay:

1. Repair approximately 765 feet of concrete bulkhead seawall by sealing and patching spalls in the concrete surface (Bulkhead Wharf Sections 11 and 12);
2. Alter approximately 633 feet of concrete seawall by removing the top several feet to accommodate the new Brannan Street Wharf deck and flattening an approximately 525-foot-long section of five-foot-wide concrete art ribbon along the Embarcadero Promenade;
3. Construct, use and maintain an approximately 51,700-square-foot portion of the Brannan Street Wharf on decking supported by approximately 220 piles (87, 24-inch-diameter steel piles and 133, 24-inch-diameter concrete piles); and

4. Construct, use and maintain an approximately 23,500-square-foot, 400-foot-long raised lawn area within the Brannan Street Wharf area, and install tables, chairs, benches, litter receptacles, drinking fountain, lighting, an interpretive exhibit and other public access improvements.

Phase 2:

In the Bay:

1. Remove approximately 8,200 square feet and 84 supporting piles of the existing bulkhead wharf, including a 4,400-square-foot portion that currently serves as The Embarcadero Promenade (Bulkhead Wharf Section 11(a));
2. Strengthen approximately 195 feet of concrete bulkhead seawall by removing approximately 520 cubic yards of bay mud and placing approximately 1,800 cubic yards of rock revetment along the base of the wall, extending bayward approximately 50 feet and covering approximately 8,500 square feet of the Bay floor;
3. Construct, use and maintain an approximately 4,100-square-foot north addition to the Brannan Street Wharf and reconstruct, use and maintain an approximately 4,400-square-foot portion of the Embarcadero Promenade, supported by approximately 37 piles (29, 24-inch-in-diameter steel piles and 8, 24-inch-in-diameter concrete piles);
4. Flatten an approximately 95-foot-long section of five-foot-wide concrete art ribbon along the repaired Embarcadero Promenade; and
5. Install, use and maintain an approximately 2,400-square-foot concrete or steel small craft float, and a 500-square-foot gangway, supported by four, 36-inch-diameter steel guide piles.

Bay Fill:

The proposed project (Phases 1 and 2) would result in a total of 63,400 square feet (1.45 acres) and 1,687 cubic yards of Bay fill. During Phase 1, approximately 51,700 square feet of pile-supported fill for the Brannan Street Wharf and 381 cubic yards of solid fill for 220 piles to support the Wharf would be placed. During Phase 2, approximately 8,200 square feet and 572 cubic yards of solid fill would be removed through the removal of Bulkhead Wharf Section 11(a). An additional 8,500 square feet of pile-supported fill would be placed for the north wharf addition supported by 37 piles and displacing 63 cubic yards of Bay surface area. Approximately 1,800 cubic yards of riprap would be placed covering approximately 8,500 square feet of Bay bottom along the seawall. In addition, approximately 2,400 square feet of floating fill for the public float, 500 square feet of pile-supported fill for the gangway connecting the float to the Wharf and 15 cubic yards of solid fill for four new piles to support the gangway would be placed in Phase 2.

The removal of Pier 34 in 2001 resulted in the removal of approximately 89,600 square feet of pile-supported and 840 cubic yards of fill. The removal of Pier 36 and the bulkhead wharf sections authorized in Consistency Determination C2011.004.00 to the U.S. Army Corps of Engineers' (USACE) will result in the removal of a total of 150,000 square feet (3.44 acres) of Bay fill: approximately 133,000 square feet of pile-supported fill from the historic outline of Pier 36, 17,000 square feet of pile-supported fill from the marginal wharf, and 2,556 cubic yards of solid fill from the removal of approximately 847 piles (Exhibit D).

With the removal of Pier 34, Pier 36 and Bulkhead Wharf Section 11(a), the proposed project would reduce the total amount of pile-supported fill and solid fill at the site and would increase Bay open water by approximately 176,500 square feet (4.05 acres).

Prior Fill Removal		
	Pile-Supported (sf)	Solid (cy)
Pier 34 (Removed in 2001)	(89,600)	(840)
Pier 36 (to be removed in 2012)	(150,000)	(2,556)
Total	(239,600)	(3,396)

Brannan Street Wharf Fill Totals			
	Removed	New	Total Net Fill
Phase 1			
Pile-Supported (sf)	0	51,700	51,700
Solid (cy)	0	381	381
Sub Total (sf)	0	51,700	51,700
Sub Total (cy)	0	381	381
Phase 2			
Pile-Supported (sf)	(8,200) ¹	9,000	800
Solid (sf) [riprap]	0	8,500	8,500
Floating (sf) [boat dock]	0	2,400	2,400
Solid (cy) [piling and riprap]	(52) ¹	1,878	1,306
[bay mud]	(520) ¹	0	
Sub Total (sf)	(8,200)¹	19,900	11,700
Sub Total (cy)	(572)¹	1,878	1,306
Total Project			
Solid, Pile-Supported and Floating (sf)	(8,200)	71,600	63,400
Solid (cy)	(572)	2,259	1,687

¹From removal of Bulkhead Wharf Section 11(a)

**Public
Access:**

There is currently no required public access at the site. The approximately 30-foot-wide Embarcadero promenade is located just west of the project site. A series of five-foot-wide concrete "art ribbon" blocks are located along this stretch of the promenade ranging between 10 feet and 50 feet long and totaling 620 feet in length (Exhibit E). At full build-out, a total of 58,700 square feet (1.35-acres) of new public access along 1,062 feet of shoreline would be provided. The proposed public access would include: (1) the approximately 55,800-square-foot (1.28-acres) Brannan Street Wharf, that includes an approximately 23,500-square-foot, 400-foot-long raised lawn area ("Brannan Green"), an approximately 7,000-square-foot paved and stepped area ("Brannan Plaza") connecting the Brannan Green with the Embarcadero Promenade with seating, lighting and an interpretive exhibit or public art feature, and an approximately 15-foot-wide waterside walkway with seating, lighting and a shade-structure; and (2) an approximately 2,900-square-foot gangway and public float for small-craft launch, located on the south side of the Brannan Street Wharf, marked at its entry by the historic Pier 36

sign (Exhibits C and F). In addition, approximately 4,400 square feet of the Embarcadero Promenade would be rebuilt and the five-foot-wide concrete art ribbons along a 620-foot-long stretch would be flattened to be flush with the sidewalk.

Based on funding, additional components of the project may include the construction of a steel float in lieu of concrete, and the use of stainless steel in lieu of galvanized and painted steel along the waterside walkway.

Type of Public Access	Square Feet	Acres	Shoreline Length (feet)
Phase 1			
New	51,700	1.19	896
Improved	0	0	0
Sub Total	51,700	1.19	896
Phase 2			
New	7,000	0.16	166
Improved	4,400	0.09	195
Sub Total	11,400	0.25	361
Total Project			
Total	63,100	1.44	1,257

Schedule and Cost:

Demolition of the Pier 36 shed building, pier structure, and marginal wharf areas by the USACE is expected to begin in January 2012 and be completed in May 2012. The Port proposes to begin construction on the Brannan Street Wharf in June 2012 and complete Phase 1 of the proposed project within one year, in time for the 34th America's Cup races in 2013. Phase 2 would be completed within 5 years (by June 2017), or sooner if funding is secured for its completion. The Port estimates the total project cost to exceed \$25 million.

Staff Analysis

- A. **Issues Raised:** The staff believes that the application raises four primary issues: (1) whether the project is consistent with the *San Francisco Waterfront Special Area Plan*; (2) whether the project is consistent with the Commission's fill policies, including safety of fills and sea level rise; (3) whether the project is consistent with the Commission's public access and scenic views policies; and (4) whether the project is consistent with the Bay Plan policies on natural resources, including fish, other aquatic organisms and wildlife, and water quality.
1. **San Francisco Waterfront Special Area Plan.** The *San Francisco Waterfront Special Area Plan* (Waterfront SAP) identifies two public plazas within the Northeastern Waterfront to be constructed as part of the Port's public benefits package – the Brannan Street Wharf and the Northeast Wharf Plaza. The Waterfront SAP requires the Brannan Street Wharf serving the South Beach neighborhood to be a minimum of 57,000 square feet and to extend at least 600 feet along the Embarcadero, bayward of and not including Herb Caen Way within the area of Piers 34 and 36. The SAP requires removing Piers 34 and 36 to create new permanent open water beyond the Brannan Street Wharf and estimates that pier removal and park construction will result in a net fill reduction of approximately 140,000 square feet. The policies of the Waterfront SAP require the Brannan Street Wharf to reflect the character and needs of the South Beach neighborhood and visitors to the area, establish a unique activity center, provide a respite between adjacent, more intensively developed areas, accommodate a variety of passive recreational activities, and serve as both a local and regional destination. Uses considered in the program for the Park include informal small play fields (e.g., volleyball), tot lots or other facilities for children, viewing areas, picnic areas, and other uses consistent with a recreational park.

On the waterside, the Waterfront SAP requires uses such as transient boat tie-ups, kayak and other handheld craft launch and landing areas and related, water-oriented recreation facilities in order to enliven the new park. The design of the park is required to be developed through a community planning process and: (1) reflect the park's location over the Bay; (2) provide viewing areas, seating and picnic areas; and (3) provide for other uses consistent with a recreational park, such as fountains, interpretive signs, a small amphitheater, sheltered areas for activities such as chess and checkers, fish cleaning facilities, public art, water stairs, and other site furnishings. In addition, the Waterfront SAP requires accessory commercial uses in the Park to be limited and clearly incidental to and supportive of park uses, such as food carts and small kiosks, concentrated within the existing marginal wharf areas to either side of the park so as not to interfere with recreational use of the park.

When fully built-out, the Brannan Street Wharf, including the public float and gangway would total 58,700 square feet and extend approximately 830 feet in length along the Embarcadero, which would be greater than the SAP's 57,000 square-foot area and 600-foot length requirements. In addition, the removal of Piers 34 and 36 and the construction of the new Wharf would result in a net fill reduction of 176,200 square feet, 36,200 square feet more than is required by the SAP. Thus, the proposed construction of the Brannan Street Wharf would result in a larger public access area and more fill removal than required in the SAP.

During 2001 and 2002, the Port and BCDC conducted a series of citizens advisory committee ("CAC") meetings and public workshops to engage the public and local citizens during the development of the concept design for the Wharf. The final design of the Brannan Street Wharf reflects the considerable public input received in these meetings and the character and needs of the South Beach neighborhood and visitors to the area.

The Wharf has been designed as a wedge-shaped pier running parallel to the Embarcadero promenade with its narrowest point adding about 10 feet near the edge of Piers 30-32 and as much as 140 feet at the south end of the removed Pier 36 (Exhibits C, E, F, and G). The Wharf would provide a variety of recreational and seating areas to establish a unique activity center, consistent with the Waterfront SAP. Brannan Green, a 23,500-square-foot and 400-foot long raised lawn area, would accommodate passive recreational activities, serve as an area for playfields and picnic areas, and provide a respite from the adjacent, more intensively developed areas. Brannan Plaza, a 7,000-square-foot paved and stepped plaza area connecting Brannan Green to the Embarcadero Promenade, would include seating, an interpretive exhibit (possibly an interpretive tidal column), and space for civic gatherings or for informal commercial small kiosks or food carts. An approximately 15-foot-wide waterside walkway would run along the Bayside of the Wharf, provide Bayside viewing opportunities, and include seating, shade-sheltered picnic/game tables, and lighting. In addition, as required by the Waterfront SAP, a public float for small-craft launch would be provided to enliven the new park, and would be consistent with the designation for launch sites in this area, which are included in the San Francisco Bay Water Trail Plan. In remaining open and uncluttered, the design of the Wharf reflects the park's location over the Bay. According to the applicant, the design recalls its San Francisco waterfront history by taking on the shape of Pier 36 in its original location and through interpretive exhibits, such as the use of the historic Pier 36 sign at the entryway to the public float (Exhibit G).

The Commission should determine whether the project would be consistent with the *San Francisco Waterfront Special Area Plan*.

2. **Fill.** The Commission may allow fill only when it meets the requirements identified in Section 66605 of the McAteer-Petris Act, which states, in part, that: (a) fill “should be limited to water-oriented uses (such as water-oriented recreation or public assembly) or “minor fill for improving shoreline appearance and public access”; (b) fill in the Bay should be approved only when “no alternative upland location” is available; (c) fill should be “the minimum amount necessary to achieve the purpose of the fill”; (d) “the nature, location, and extent of any fill should be such that it will minimize harmful effects to the Bay area, such as, the reduction or impairment of the volume, surface area or circulation of water, water quality, fertility of marshes or fish or wildlife resources, or other conditions impacting the environment...”; and (e) “fill should be authorized when the applicant has such valid title to the properties in question that he or she may fill them in the manner and for the uses to be approved.”
 - a. **Water-Oriented Use.** In 2000, the Bay Plan and the Waterfront SAP were amended to alter BCDC’s policies on fill removal and permitted uses on piers between China Basin and Pier 35, by setting aside the McAteer-Petris Act requirement that uses on piers in these areas must be water-oriented so long as projects in these areas are consistent with the SAP and their use is consistent with the public trust. Although the SAP sets aside the water-oriented test requirement in this location, all of the project’s proposed fill in the Bay would satisfy the water-oriented criteria of the McAteer-Petris Act in that the fill would create public access and improve shoreline appearance. The proposed solid fill, piles to support the Wharf and rip rap for shoreline protection, is necessary to create a permanent shoreline and to securely support the public access areas.
 - b. **Alternative Upland Location.** All of the proposed fill in the Bay would be for constructing a new waterfront park along the Bay shoreline. The design of the park is intended to increase access to and appreciation of the Bay for the public, and to replace deteriorated and dilapidated pier structures that currently pose a safety hazard. The project would improve connections along the Embarcadero Promenade and to the new Brannan Street Wharf. Thus, there is no alternative upland location for the project.
 - c. **Minimum Amount Necessary.** The project would result in a total of 63,400 square feet and 1,687 cubic yards of Bay fill. Of this, 58,700 square feet and 459 cubic yards would be for the construction of the Brannan Street Wharf and associated public float, and the remaining 4,700 square feet and 1,228 cubic yards would represent the amount needed to reconstruct a portion of the Embarcadero Promenade and place riprap for shoreline protection. The applicant states that the proposed solid fill would be the minimum amount necessary to repair the bulkhead and provide adequate shoreline protection. The remaining pile-supported fill would be for public access. Because Piers 34 and 36 would also be removed, the new Wharf would result in a significant net increase of Bay surface area and volume, consistent with the requirements of the Waterfront SAP.
 - d. **Effects on Bay Resources** (See also discussions below on Water Quality, and Fish, Other Aquatic Organisms, and Wildlife). The Bay Plan policies on water surface area and volume state that, “the surface area and volume of the Bay should be kept as large as possible in order to maximize active oxygen interchange, vigorous circulation, and effective tidal action” and that “water circulation in the Bay should be maintained, and improved as much as possible.” These policies also state that “any proposed fills, dikes or piers should be thoroughly evaluated to determine their effects on water circulation and then modified as necessary to improve circulation or at least to minimize any harmful effects.”

The removal of Pier 34 and the eventual removal of Pier 36 to construct the Brannan Street Wharf would provide a substantial increase in the water surface area of the Bay. The project would result in an increase in surface area of approximately 176,500 square feet. The majority of fill would be pile-supported and thus would minimize impacts on water volume and circulation.

- e. **Valid Title.** The City of San Francisco has legal ownership of the area where the proposed work would occur.
- f. **Safety of Fills / Sea Level Rise.** The Bay Plan policies on Safety of Fills state, in part, that “to prevent damage from flooding, structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by competent engineers” and that “to minimize the potential hazard to Bay fill projects and bayside development from subsidence, all proposed developments should be sufficiently high above the highest estimated tide level for the expected life of the project...” Policy 3 of the Safety of Fills section states, “To provide vitally-needed information on the effects of earthquakes on all kinds of soils, installation of strong-motion seismographs should be required on all future major land fills” and “...the Commission encourages installation of strong-motion seismographs in other developments on problem soils, and in other areas recommended by the U.S. Coast and Geodetic Survey, for purposes of data comparison and evaluation.”

The project was reviewed by the Commission’s Engineering Criteria Review Board (ECRB) at two public meetings where information on the effect of sea level rise on the project was presented and discussed. The applicant states that, “the Port of San Francisco is working with the City and County of San Francisco and other Bay Area agencies to strategize and plan for sea level rise” and “at this time, the Port has not identified a unified strategy to manage sea level rise and is reviewing new projects on a case by case basis.” The San Francisco Port Building Code requires that the Port consider 100-year Base Flood Elevations (BFEs), as determined by the Federal Emergency Management Association (FEMA), when planning development projects along the waterfront. The 100-year BFE is defined by FEMA as the “flood elevation having a 1% chance of being exceeded in a given year.” The current BFE (i.e., water level during a 100-year flood event) at the project site is approximately 11.73 feet Mean Lower Low Water (MLLW) datum. The elevation of the existing pier and seawall averages approximately 12 feet above MLLW, slightly above current BFE. The area is currently protected from Bay flooding by the great seawall, a rock dike topped with a concrete wall (Exhibit H). The inland area in the project vicinity is relatively flat with an elevation varying from 9.84 to 10.34 feet above MLLW. The Embarcadero Roadway elevation averages around 10.34 feet above MLLW (Exhibit H).

Given the elevation of the proposed new Wharf, the project would be vulnerable to inundation from 100-year flood events by 2050 (assuming a 16-inch sea level rise) and vulnerable to extreme tide events by 2075. The proposed project has a design life of approximately 75 years. By the end of the project design life in 2087 (assuming a 45-inch sea level rise), extreme high tides may result in tidal flooding lasting 1-2 hours and occurring several times per year.

The Port considered the project as serving two purposes: to provide a safe and useful public space over the Bay and, as part of the overall Embarcadero seawall, to continue to provide flood protection to the inland area. The Port reviewed several design strategies for addressing potential sea level rise at the project site including the following: (a) raising the deck by the predicted sea level rise during the project life; (b) providing a solid barrier around the Bay perimeter of the promenade; and (c) including provisions to raise the deck height in the future. The Port has stated

that since the project conforms to existing grade at the Embarcadero Promenade along the seawall and at the north and south ends, it is not possible to raise the bottom of the structural deck above the BFE.

The final strategy chosen includes: (a) designing the deck structure to resist forces from wave action; (b) providing finishes that can tolerate limited flooding; and (c) tilting the deck toward the Bay and providing a water edge railing with a short solid base, thus gaining 12 inches of additional protection along the length of the project, an elevation similar to the maximum predicted BFE at 2050 with 16 inches of sea level rise (38 years after project opening). In addition, the Brannan Green lawn area would sit an additional 18 inches above the surrounding grade to minimize damage from inundation of salt water from possible coastal flooding. The project has been designed so that a portion of the pile-supported public access area is higher in elevation than the roadway and surrounding areas. Since the entire area drains directly to the Bay, flooding and ponding would likely be worse inland of the site and would need to be addressed along this entire section of waterfront. The Port believes the strategy it has chosen to address sea-level rise for this project “provides maximum public benefit for the project by integrating with the current design of the Embarcadero Promenade and providing a structure that will be safe and usable for 99% of design-life days, and usable immediately after any coastal flooding recedes.”

At its first review of the project on December 10, 2009, the ECRB encouraged the Port to incorporate seismic instrumentation in the project. Based on their advice, the Port has developed a preliminary seismic instrumentation program that will be further developed and included as part of the project.

The Commission should determine whether the project is consistent with its law and policies regarding Bay fill, safety of fills and sea level rise.

3. **Public Access**

- a. **Maximum Feasible Public Access.** Section 66602 of the McAteer-Petris Act states, in part, that “...existing public access to the shoreline and waters of the...[Bay] is inadequate and that maximum feasible public access, consistent with a proposed project, should be provided.” In addition, the Bay Plan policies on public access state, in part, that “a proposed fill project should increase public access to the Bay to the maximum extent feasible...” and that “access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available.”

The project is located within the South Beach neighborhood of the SOMA district and is surrounded by multi-family residential buildings, pier structures, a marina and other open spaces, including Rincon Point Park to the north, the SF Giants ball-park and Mission Creek Park to the South. Pier 36, where the project would be constructed, is currently fenced and closed to the public because it is structurally unsound. The width of the Embarcadero Promenade at this location ranges from 30 to 32 feet, but the five-foot-wide concrete art ribbon that runs along approximately 620 feet of this stretch of the Promenade reduces the area available for walking, running, and bicycling (Exhibit E). The Pier 36 shed blocks views to the Bay and fencing prevents the public to access open water.

The project’s sole purpose is to improve public access. Along this section of waterfront, the Port would reconstruct a 195-foot-long section of the Embarcadero Promenade (Phase 2), flatten the art ribbons in this area, and provide a new approximately 30-foot-wide promenade along this stretch of waterfront to connect the City with the newly constructed Brannan Street Wharf. Upon full build-out (after Phase 2), the

Wharf would be a total of 58,700 square feet, and would provide a lawn area for passive recreation, a plaza area for civic events and gatherings, a waterside walkway for Bay viewing, and an Americans with Disabilities Act (ADA)-accessible small-craft float and gangway for Bay access.

The project may be constructed in several phases depending on funding (Exhibit C). During Phase 1, approximately 51,700 square feet of public access would be constructed, including Brannan Green, a portion of Brannan Plaza, and the waterside walkway. Within five years of permit issuance, or sooner if funding can be secured, Phases 2a and 2b would be constructed. Phase 2a would include construction of the north wharf addition, which includes 4,100 square feet of Brannan Plaza and 4,400 square feet of the Embarcadero Promenade. Phase 2b would include construction of the 2,900-square-foot float and gangway and a 1,250-square-foot shade structure. Depending on funding, additional alternatives and upgrades would be incorporated into the project, including providing stainless steel instead of galvanized and painted steel railing along the water's edge, and installing a steel instead of concrete float for small craft launching.

The project would create a local and regional park, a place for respite, an area to be near open water, and an opportunity to launch small craft and access the Bay. The Waterfront SAP designates the area in front of the Brannan Street Wharf as one of four open water basins along the waterfront and restricts the types of uses permitted in this area. Constructing the Brannan Street Wharf would allow the public to enjoy the open views of the Bay at this location, similar to Rincon Park to the north.

- b. **Barrier Free Access.** The Bay Plan policies state that public access improvements "should permit barrier free access for the physically handicapped to the maximum extent."

All proposed public access areas would be accessible, as defined by the Americans with Disabilities Act (ADA). The float and gangway were redesigned to be located perpendicular to the seawall and straight over the water to minimize the need for turns when carrying kayaks down the gangway. In addition, based on comments received during the design review process, Brannan Plaza and Brannan Green areas have been designed with a larger ADA-accessible ramped entrance on the north side and additional seating and seating types to accommodate various users.

- c. **Appearance, Design, and Scenic Views.** The Bay Plan policies on appearance, design, and scenic views state, in part, that "...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 that "local government should be encouraged to eliminate inappropriate shoreline uses and poor quality shoreline conditions."

The proposed project would construct a new public plaza in place of a condemned, deteriorated pier that is slowly falling into the Bay. The project would also repair portions of the Embarcadero Promenade currently fenced off from access and open up views of the Bay at the site. The construction of a new public plaza along this open water area would afford spacious views of Central San Francisco Bay and would improve the visual appearance of the shoreline.

The Commission should determine whether the proposed project is consistent with the Bay Plan policies regarding public access and appearance, design and scenic views.

4. Natural Resources Policies

- a. **Fish, Other Aquatic Organisms and Wildlife.** The Bay Plan policies on fish, other aquatic organisms and wildlife state, in part, that “the Commission should 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...and give appropriate consideration of (their) recommendations in order to avoid possible adverse impacts of a proposed project on fish, other aquatic organisms and wildlife habitat.”

The Final Environmental Impact Report (FEIR) for the proposed project, which was certified on June 16, 2011, found that impacts to threatened, endangered or protected species, either directly or through habitat modifications would be less than significant with mitigation. There are no wetlands, eelgrass beds, or mudflat habitat in the vicinity of the project site. The area lacks vegetation other than small weeds that are found within cracks in the deck of the existing Pier 36 shed and pier. Terrestrial wildlife habitat at the site is limited to bird perches and nesting sites on the roof of the Pier 36 warehouse, along the edges of the pier, and on remnant piles located at the east end of Pier 36. Pilings can provide potential habitat for epibenthic invertebrates (e.g. sponges, barnacles, clams) and substrate for spawning Pacific herring. The larval form of many bottom-dwelling animals drift during the early part of their life (making up a large part of plankton).

In an informal consultation with the U.S. Fish and Wildlife Service (USFWS), the USFWS concurred that the project would have no affect on Endangered Species Act (ESA)-listed species under its authority. The proposed project could however potentially affect the ESA-listed species, Essential Fish Habitat (EFH), and California Endangered Species Act (CESA)-listed species falling under the authority of the NOAA National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG). These include potential effects to Central California Coast (CCC) steelhead, green sturgeon, EFH and EFH-managed species as designated under the Pacific Groundfish, Coastal Pelagic, and Pacific Salmon FMPs, and the Longfin Smelt and Pacific herring.

On September 16, 2011, NMFS issued a final Biological Opinion for the project that concluded that the project is not likely to jeopardize the continued existence of CCC steelhead or southern DPS green sturgeon and not likely to result in the destruction or adverse modification of critical habitat for CCC steelhead or green sturgeon. The Biological Opinion however anticipates take (loss) of CCC steelhead and southern DPS green sturgeon to occur as a result of project construction and therefore, includes an incidental take statement with non-discretionary terms and conditions. The mitigation measures and best management practices required by NMFS include using a vibratory hammer to install steel pilings for the majority of the pile driving (e.g. up to the last 10 feet) and then an impact hammer to achieve the final required depth. When using the impact hammer, NMFS requires that a “soft-start” technique be employed, whereby initial strikes of a piling with an impact hammer would not be performed at full force, but a significantly reduced force and slowly build to full force over several strikes. The Biological Opinion requires that unconfined bubble curtains be placed around steel piles to be placed in deeper water to reduce sound pressure levels prior to the start of construction and the Port to develop a NMFS-approved sound attenuation and monitoring plan with details on the methods used to monitor and verify sound pressure levels during pile-driving activities. According to NMFS, although the project will impact CCC steelhead and southern DPS sturgeon, the impacts will occur at the project site temporarily during the approximate one-year in-water work window and this area represents a very small portion of the

overall Central San Francisco Bay watershed. The project area will become available to CCC steelhead and green sturgeon again once the project is complete. Additionally, removing the creosote piles (associated with the removal of Pier 36) and reducing the amount of shadow fill will improve water quality conditions and likely lead to increases in forage items for fish. NMFS expects that the temporary loss of estuarine habitat in the project area during in-water construction will have insignificant impacts on the value of migration and rearing primary constituent elements (PCEs – sites for spawning, rearing and migration) in the project area and these impacts are unlikely to appreciably diminish the value of designated CCC steelhead and southern DPS green sturgeon critical habitat.

The project is also likely to result in temporary disturbance or harassment of small numbers of Pacific harbor seal, California sea lion, gray whale and Pacific harbor porpoise that are protected under the Marine Mammal Protection Act (MMPA), as a result of acoustic disturbance associated with the pile-driving activities. The applicant has requested an authorization for incidental take by harassment from NMFS of 138 harbor seals (2 per day), 69 California sea lion (1 per day), 69 harbor porpoises (1 per day) and 2 gray whales (2 annually). An incidental harassment authorization would be obtained from NMFS within 60 days of the date that the pile-driving activities would occur.

- b. **Water Quality Policies.** 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 as identified in the San Francisco Bay Regional Water Quality Control Board’s (RWQCB) Basin Plan and should be protected from all harmful or potentially harmful pollutants.” The policies, recommendations, decisions, advice, and authority of the State Water Resources Control Board and the Regional Board should be the basis for carrying out the Commission’s water quality responsibilities.” Finally, the Bay Plan policies on Water Quality state that “new 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; especially where water dispersion is poor and near shellfish beds and other significant biotic resources.”

The FEIR for the project found that with mitigation measures requiring implementation of best management practices related to equipment fueling and materials storage and handling, and a spill prevention control plan, the impact of the project on water quality would be reduced to less than significant.

On August 15, 2011, the Regional Water Quality Control Board (RWQCB) issued a Conditional Water Quality Certification (WQC) for the Pier 36/Brannan Street Wharf Project. The WQC requires the Port to employ mitigation measures to minimize the proposed project’s impact on water quality including, employing best management practices to prevent and clean up accidental releases of debris, fuel, oil, and other waste materials into waters of the state during demolition and construction, using only piles consisting of inert materials for construction, and using timber mats to catch debris. As mitigation for pollutant loads associated with post-construction stormwater runoff from the Brannan Street Wharf, the WQC requires that impervious areas be swept and shrubs be incorporated in the final landscape of the park. To mitigate for pollutant loads associated with pesticide and fertilizer applied to the

Brannan Green lawn, the WQC requires the applicant to submit and implement an Integrated Pest Management Plan that provides a sustainable approach to managing pests focused on the use of native or Mediterranean plants suited to San Francisco's climate.

In 2001, Pier 34 was removed resulting in approximately 89,600 square feet of new Bay open water. Removing Pier 36 (authorized by Consistency Determination C2011.004.00 to the Corps), would remove an additional 150,000 square feet of Bay fill, 447 concrete caisson piles and 400 remnant creosote-treated wood piles. Pilings provide substrate for the growth of marine invertebrates such as clams, mussels, barnacles and other species. Pilings treated with creosote have been shown to cause harm to hard-bottom, sediment dwelling benthic invertebrates. According to the WQC and the FEIR, the removal of the degraded creosote treated wood piles and dilapidated structures will reduce both the amount of fill and the amount of toxic compounds in the San Francisco Bay and will reduce the amount of shade over the water thereby resulting in a net benefit to fish habitat. The new Brannan Street Wharf would require installing 261 new pilings, all of which would be concrete or steel with no impact on water quality and providing new, healthy substrate for macroalgae, barnacles, anemone, and echinoderms within the project area.

The Commission should determine whether the project is consistent with its laws and policies regarding natural resources.

B. Review Boards

1. **Engineering Criteria Review Board.** On December 10, 2009, the Commission's Engineering Criteria Review Board (ECRB) reviewed the proposed project for its seismic and engineering design safety. The project would incorporate a historic seawall, built between 1907 and 1914, into the design of the new structure. During the review, the Board was concerned about the stability of the soil behind the seawall and the possible risk of liquefaction in an earthquake that could cause lateral displacement of the seawall and the rock dike underneath. The Board also questioned the type of piles that would be used to support the Wharf adjacent to the seawall and asked for more information regarding the project's response to sea level rise, including the potential risks of wave uplift pressures on the Wharf deck. At the end of the meeting, the Board did not agree with the engineering criteria of the project but recommended that the Port return to the Board to resolve questions posed at the meeting. The Board also encouraged that seismic instrumentation be incorporated in the project.

In preparing for a second ECRB review of the project, the Port submitted a statement to BCDC staff on March 9, 2010. The submittal included additional information on the soil stability issue and, in response to the ECRB's initial concerns, a redesign of the piles adjacent to the seawall, changing them from concrete to larger diameter steel pipe piles so that they would be more flexible and sustain more lateral load in the event of an earthquake and liquefaction event. The Port also provided more information on the project's vulnerability to sea level rise and on how the project would be designed to withstand wave uplifts, and stated that it would search for a funding source for the programming of seismic instruments in the project.

On March 25, 2011, the ECRB reviewed the project and the Port's March 9, 2010 response. The Board accepted the project's engineering safety criteria, contingent on: (1) the Port's written assurance that the historic seawall would be able to withstand an earthquake without being retrofitted; and (2) a commitment by the Port to seek funding for the seismic instrumentation program.

On July 29, 2011 the Port submitted a statement to BCDC staff responding to the Board's two concerns. The Port justified the retention, rather than replacement, of the historic seawall by providing an Independent Technical Review report, prepared by an outside consulting firm, Noble Consultants, Inc. for the USACE, which would be responsible for the Pier 36 demolition. The USACE concurred with the Port's analysis regarding the conditions of the seawall but recommended the use of inclinometer readers on the seawall to monitor displacement during demolition of Pier 36.

In informal correspondence and emails, the ECRB requested more information regarding the seismic stability of the seawall and assurances from the Port on life-safety conditions of the Wharf. The Port provided the ECRB with the information it sought in a statement on August 31, 2011, and the ECRB concluded that it was satisfied with the Port's assessment of the seawall and its risk. The ECRB also reviewed the preliminary location and program for seismic instrumentation and placement of inclinometers at the site. It recommended that the inclinometers be in place both during the Pier 36 demolition and also during wharf construction. Pursuant to the ECRB's recommendation, review and approval of a final seismic instrumentation and inclinometer plan and program would be required prior to construction.

2. **Design Review Board.** In 2001 and 2002, the Port conducted seven citizens advisory committee (CAC) meetings and three public workshops to develop a concept design for the Brannan Street Wharf through a public planning process. The CAC included representatives from the South Beach/Rincon Point Citizens Group, other residents, merchants, and a variety of groups representing a broad mix of local and regional viewpoints. The concept design was then reviewed at joint meetings of the Commission's Design Review Board and the Port's Waterfront Design Advisory Committee (WDAC) three times. The Design Review Board (DRB) and WDAC recommended a wedge-shaped design for the Brannan Street Wharf on December 9, 2002. On August 12, 2003, the Port Commission approved the concept design.

Refinements to the concept design were brought to the DRB and the WDAC on July 6, 2009. At this meeting, the DRB recommended that a shade study be prepared to evaluate the need for shade structures and the orientation of any recommended shade structures, the dock and gangway be straightened, the walkway south of the Brannan Green lawn area be widened, and sustainability standards be used where applicable. In addition, the DRB recommended that public comments be considered, including evaluating seating/seatwalls, creating a plaza space for public and performance art, and providing better accessibility to the site for the disabled. The DRB also suggested that the Pier 36 portal be narrower by eliminating side mesh panels that were incorporated in the design.

The Port modified the proposed project in response to the DRB's comments and the project was reviewed by the DRB again on September 14, 2009. Based on shade studies it prepared, the Port proposes to retain the design and orientation of the shade structures and has included this component of the project as a phased component based on the availability of funding. The floating dock and gangway were relocated along the south edge of Pier 36 and perpendicular to the seawall in order to reduce user-turning movements when carrying kayaks down the gangway and making the float more accessible for persons with disabilities. The walkway south of the Brannan Green lawn has been widened from 15 to 25 feet and the project will be evaluated per LEEDs new construction standards at each design phase with an effort to construct the most sustainable project possible. In response to public comments, additional seating and types will be incorporated into the project, subject to final plan review by BCDC staff, and the north end of the project has been reconfigured with a larger ADA-accessible ramp entrance. The Pier 36 portal was revised to eliminate the side mesh panels, create a narrower opening, while still retaining the refurbished historic Pier 36 sign. The DRB stated that it

liked the modifications to the project design and unanimously supported the placement of the float and the concept of incorporating a tidal column art piece. The DRB commented primarily on the design elements, including requesting that improvements such as pole lights, benches, chairs, canopy, and paving be simplified. The DRB also supported including shade structures, depending on the availability of funding.

In response to the DRB's comments, the applicant will work with Commission staff to develop a final design, with improvements subject to final plan review approval.

- C. **Environmental Review.** The City and County of San Francisco, the lead agency for the Brannan Street Wharf project, prepared, circulated, and, on June 16, 2011, certified a Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) for the Pier 36 demolition and Brannan Street Wharf construction projects.
- D. **Relevant Portions of the McAteer-Petris Act**
 - 1. Section 66602
 - 2. Section 66605
 - 3. Section 66632
- E. **Relevant Portions of the San Francisco Waterfront Special Area Plan**
 - 1. Geographic-Specific Policies, Northeastern Waterfront (Pier 35 to China Basin), Findings (page 18)
 - 2. Geographic-Specific Policies, Open Water Basins (page 24)
 - 3. Geographic-Specific Policies, Public Plazas (page 29)
 - 4. Plan Implementation Requirements (page 47)
- F. **Relevant Portions of the San Francisco Bay Plan**
 - 1. *San Francisco Bay Plan* Policies on Fish, Other Aquatic Organisms, and Wildlife (page 15)
 - 2. *San Francisco Bay Plan* Policies on Water Quality (page 17)
 - 3. *San Francisco Bay Plan* Policies on Water Surface Area and Volume (page 20)
 - 4. *San Francisco Bay Plan* Policies on Safety of Fills (page 31)
 - 5. *San Francisco Bay Plan* Policies on Public Access (page 57)
 - 6. *San Francisco Bay Plan* Policies on Appearance, Design and Scenic Views (page 61)
 - 7. *San Francisco Bay Plan* Policies on Fill for Bay-Oriented Commercial Recreation and Bay-Oriented Public Assembly on Privately-Owned or Publicly-Owned Property (page 73)
 - 8. *San Francisco Bay Plan* Policies on Filling for Public Trust Uses on Publicly-Owned Property Granted in Trust to a Public Agency by the Legislature (page 75)

Exhibits

- A. **Regional Map**
- B. **Project Vicinity Map**
- C. **Proposed Site Plan**
- D. **Piers 34 and 36 and Bulkhead Wharf Sections Removal Plan**
- E. **Existing Site Conditions and Photos**
- F. **Brannan Street Wharf Activity Zones and Seating**
- G. **Perspective Views**
- H. **Cross Section of New Wharf**