



MEMORANDUM

TO: Members, Capital Planning Committee

FROM: Elaine Forbes, Port of San Francisco, Executive Director

SUBJECT: Port of San Francisco, Proposed November 2018 General Obligation Bond Measure for the Seawall Earthquake Safety and Disaster Prevention Program

DATE: April 11, 2018

The Port of San Francisco (Port) is requesting Capital Planning Committee (CPC) consideration and approval of its **request for a \$425,000,000 General Obligation Bond (GO Bond)** to support Phase I of the Port's Seawall Earthquake Safety and Disaster Prevention Program (Seawall Program). This GO Bond will fund planning, development, preliminary design, environmental approvals, final design and construction to address the Embarcadero Seawall's most immediate life-safety requirements over the next eight years. Should two-thirds of San Francisco voters approve the proposed GO Bond measure, the Port expects to complete the first phase of the Seawall Program in 2026. The 2018 Seawall Earthquake Safety Bond (Seawall Bond) will include strict standards of accountability, fiscal responsibility and transparency and will not increase property tax rates beyond their fiscal year 2006 levels.

BACKGROUND

The State of California constructed the Embarcadero Seawall (Seawall) a century ago to develop a deep water port in San Francisco. The Seawall, which created over 500 acres of new land between San Francisco Bay and 1st Street, also sustains three miles of San Francisco waterfront, stretching from Fisherman's Wharf to Mission Creek. The Seawall supports historic piers, wharves, and buildings, including the Ferry Building. It underpins the historic Embarcadero Promenade, iconic tourist destinations, recreation and park facilities, restaurants and local businesses, bringing an estimated 24 million people to the waterfront annually. The Seawall also supports key utility networks and infrastructure for the Bay Area Rapid Transit, Muni and ferry transportation networks. Additionally, the Seawall serves as a critical area for emergency response and recovery and provides flood protection to downtown San Francisco. All told, the Seawall enables \$24.6 billion of economic activity and protects \$102.1 billion of property value.

In 2014, the City's Lifelines Council completed an Interdependency Study that identified the Embarcadero Seawall as one of the City's five most critical lifeline safety assets. Lifelines are defined as utilities that provide essential infrastructure services to the community and include water, wastewater, power, communication and transportation. The study concluded that the Seawall would be at risk of failure in an earthquake and recommended that the Port improve Seawall seismic safety while concurrently addressing sea level rise due to climate change. The report also recommended that the Port conduct a more detailed multi-hazard risk assessment to refine analysis of the Seawall's vulnerabilities and inform project prioritization and design criteria.

In response to the Interdependency Study, the Port conducted preliminary seismic and flooding analyses in 2016. A broad, screening-level seismic analysis found that the Seawall is highly vulnerable to widespread damage from a major earthquake. Work to map flooding showed that the Seawall is also vulnerable to overtopping from storm events and high tides, with increasing flood risk as sea levels rise in the coming decades.

SEAWALL PROGRAM

The Port has engaged CH2M Hill/Arcadis as the project engineer for the Seawall Earthquake Safety and Disaster Prevention Program and is conducting a multi-hazard risk assessment to evaluate the combined risks of earthquakes and flooding to the Embarcadero Seawall and the neighborhoods and infrastructure that it protects. In the near-term the Port and CH2M are finalizing a program schedule and planning geotechnical investigations to gather enhanced information to support development of project alternatives.

Faced with a needed investment of up to \$5 billion over 30 years and recognizing the different timeframes for seismic and sea level rise risks, the Port is developing a program of phased implementation. The Seawall Program will include at least three phases:

- **Phase I:** Near-Term Actions to address life-safety and emergency response and recovery, planning, for actions to be taken from 2017-2026
- **Phase II:** Mid-Range Plans to advance seismic and flood projects that will provide greater reliability and stability of the waterfront, for actions to be taken in 2026-2050
- **Phase III:** Long-Term Vision, for actions to be taken in 2050-2100

Phasing the program enables the Port to construct the most urgent safety improvements now while planning for longer range risks, opportunities, and constraints. The Port has adopted an aggressive schedule to complete repairs in the most vulnerable areas of the Embarcadero waterfront as soon as possible. Phase I project construction is scheduled to start in 2022 with completion by 2026. The schedule incorporates time for a robust stakeholder and public engagement process, including review and input, regulatory compliance, engineering design, and construction. Phasing the Seawall Program also will allow the City and the Port to continue to develop an array of sources to fund the full program need. Approval of the Seawall Bond, will help the Port to complete program development, permitting, design, and construction of near-term actions, budgeted at \$500 million.

Seismic improvements that the Seawall Bond will fund may include: a) strengthening the ground below the Seawall, b) improving the ground landside of the Seawall, c) constructing a new Seawall, d) strengthening or replacing bulkhead walls, wharves and piers located along the Embarcadero Promenade, and e) relocating or replacing critical utilities. The Port anticipates targeting initial improvements to limited sections of the waterfront, prioritizing life-safety and emergency response investments.

The Port, in close collaboration with the City, will develop plans for subsequent phases of the Seawall Program during Phase I. This work will be informed by Phase I visioning and project prioritization, as well as the Port's Waterfront Land Use Plan Update.

DEVELOPING A GENERAL OBLIGATION BOND

In 2016, the Office of Resilience and Capital Planning convened a Seawall Finance Working Group (SFWG) to analyze potential financing strategies and prepare a set of recommendations for the City and the Port to pursue to fund improvements to the Seawall. In an effort to reflect the diversity of the services that the Seawall supports, the SFWG included 11 members representing eight different City agencies, as well as a private sector expert in public finance strategy. The group considered multiple funding sources and identified General Obligation Bond funding as a key financing tool for the Seawall Program. The Capital Planning Committee subsequently included a GO Bond for the Seawall in the City's 10-Year Capital Plan and the Port is now collaborating with CPC staff to place the Seawall Bond on the ballot for the November 2018 election.

The Port has prepared a GO Bond Report (see Attachment) that is being submitted for approval by the Capital Planning Committee (CPC). The report provides information regarding the history of the

Embarcadero Seawall and current earthquake and flood risks, the proposed Seawall Program, and a plan to expend GO Bond funds on a capital program that addresses the most urgent earthquake and flood risks. The CPC must recommend approval of the GO Bond Report to the Board of Supervisors before the Port may introduce a GO Bond ordinance and a related Resolution of Public Interest and Necessity to the Board of Supervisors.

GENERAL OBLIGATION BOND SCHEDULE

The Port provided an informational presentation of the proposed General Obligation Bond to the CPC on March 5, 2018.

The Port received approval from the Port Commission on April 10, 2018 to submit the Bond Report to CPC and recommend that CPC and the Board of Supervisors take all necessary action to approve the Seawall Earthquake Safety General Obligation Bond measure and place it on the November 6, 2018 ballot.

The Port is currently seeking CPC approval of the Bond Report and the GO Bond Ordinance and related Resolution of Public Interest and Necessity and recommend approval to the Board of Supervisors.

If approved, the Port will move forward with the following schedule for the GO Bond:

- May 15, 2018 – Board of Supervisors (last day for introduction of GO Bond ordinance)
- November 6, 2018 – City and County of San Francisco General Election

PROGRAM FUNDING DETAILS

As shown in **Figure 1**, Phase I of the Seawall Program consists of four stages, including 1) the Vulnerability Study (separately funded), 2) Planning, 3) Preliminary Design and Environmental Approvals, and 4) Final Design and Construction, with a total estimated cost of \$500 million.

Figure 1: Proposed Project Schedule, Phases and Funding Need (\$ millions)

PROGRAM PHASE	PLANNED ACTIVITIES	PHASE YEARS (FY)	FY SPENDING	CUMULATIVE COST
Vulnerability Study	Vulnerability Study	15/16	\$ -	\$ -
Planning	Project Management & Stakeholder Engagement	16/17	\$ 0.28	\$ 0.28
	Planning Services	17/18	\$ 6.71	\$ 6.98
	USACE CAP 103	18/19	\$ 8.89	\$ 15.87
Preliminary Design	Project Management & Stakeholder Engagement	19/20	\$ 12.54	\$ 28.41
	Environmental Approvals	20/21	\$ 12.95	\$ 41.37
	Preliminary Design USACE CAP 103	21/22	\$ 72.80	\$ 114.17
Final Design and Construction	Project Management & Stakeholder Engagement	22/23	\$ 90.47	\$ 204.64
	Final Design	23/24	\$ 90.46	\$ 295.10
	Design Support Services	24/25	\$ 90.38	\$ 385.48
	Construction Management	25/26	\$ 90.42	\$ 475.90
	Construction	26/27	\$ 24.10	\$ 500.00

Proposed Funding

The City proposes a \$425 million GO Bond to partially fund Phase I of the Seawall. As detailed in **Figure 2**, in addition to funding the Vulnerability Study (\$500,000), the Port and City have previously committed \$9.0 million in funding, including \$4.0 million from the City's General Fund. The Port has requested an additional \$5.0 million from the City's General Fund for FY 2018-19. The Port is proposing to supplement this General Fund support with \$1.1 million in Port Capital funds to support early geotechnical investigation of the Seawall and adjacent ground, and an additional \$4.0 million during construction. The \$9.0 million in General Fund support from the City's Revolving Fund will be reimbursed from the first bond issuance should the Seawall Bond pass.

Figure 2: Proposed Funding

	Fiscal Year	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Funding Sources												
Port Capital		\$2.9		\$1.1					\$2.0	\$2.0		
City Revolving Fund		\$1.0	\$3.0	\$5.0	(\$9.0)							
SFMTA Contribution		\$0.5	\$0.5									
Planning Dept Contribution		\$0.5	\$0.3	\$0.3								
2018 General Obligation Bond					\$110.0			\$190.0		\$125.0		
USACE				\$3.0	\$6.0	\$1.0						
State Sources												\$55.0*
Total Planned Sources		\$4.9	\$3.8	\$9.4	\$107.0	\$1.0	\$0.0	\$190.0	\$2.0	\$127.0	\$55.0	\$0.0
Cumulative Sources		\$4.9	\$8.7	\$18.1	\$125.1	\$126.1	\$126.1	\$316.1	\$318.1	\$445.1	\$500.0	\$500.0

*pending legislative action

Plan of Finance

The Seawall Finance Working Group concluded that the City could not fund the Seawall Program through only local means and analyzed 48 different local, regional, state and federal funding sources to develop potential program financing strategies. The group's final report, issued in July 2017, organized its recommendations into three areas: primary, secondary and supplementary funding sources.

The primary recommendations for the Port and the City to pursue are listed below. The full report can be found at sfseawall.com.

Primary Recommendations

- A. **General Obligation (GO) Bonds** – currently proposed for the November 2018 ballot.
- B. **A Community Facilities District (CFD)** to fund sea-level rise adaptations and seismic mitigation measures on the Seawall.
- C. **Local Property Tax Increment Revenue** generated from Infrastructure Finance Districts (IFDs) on new development parcels on Port property.
- D. **State Property Tax Increment Revenue** generated from IFDs from new development on Port property, to be pursued through legislation at the State level.
- E. **State Resilience General Obligation (GO) Bond** funding pursued through legislation at the State level.
- F. **U.S. Army Corps of Engineers Funding** at the federal level through the CAP 103 Program and a General Investigation (initiated in June 2017).

The proposal for a GO Bond measure for the November 2018 election in San Francisco is consistent with the SFWG's recommendations. Additionally, Port staff is actively pursuing funding from the other sources, including the US Army Corps of Engineers, creation of an Infrastructure Financing District to capture the state's share of tax increment and apply it to the project, and a request for \$50 million from the State's

General Fund in Fiscal Year 2018-19, to ensure adequate funding of this essential first phase of the Seawall Program.

CONCLUSION

The Seawall Earthquake Safety and Disaster Prevention Program is a critical effort toward improving the infrastructure that supports the City's northern waterfront. This proposed \$425 million investment will reduce the significant risk to life-safety in the event of an earthquake, support disaster response and recovery along the waterfront, improve current flood protection, and provide a stable foundation for future adaptation to sea level rise. An investment by the City today is a down payment on a program that will protect billions of dollars of economic and property value from the effects of future earthquakes and flooding.

Attachments:

- I. 2018 Seawall Earthquake Safety Bond Report