




MEMORANDUM

TO: Members, Capital Planning Committee

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

SUBJECT: Port of San Francisco, Proposed Fiscal Year 2016-17 General Fund Request for the Seawall Resiliency Project

DATE: April 13, 2016

The Port of San Francisco is requesting Capital Planning Committee consideration and approval of its **\$7,700,000 request for General Fund support** for the Port's Seawall Resiliency Project. These funds will supplement **\$2,900,000 in Port funding**, for a **total proposal of \$10,600,000**. The Port's funding consists of \$2,000,000 from the Fiscal Year (FY) 2016-17 capital budget, as presented to and approved by the Capital Planning Committee on March 14, 2016, and \$900,000 in currently appropriated project funding. This \$10,600,000 will fund certain initial costs of the Program Development, Preliminary Design and Environmental phase of a total estimated \$500,000,000 project to address immediate life-safety requirements over the next eight years.

BACKGROUND

Originally constructed in the late 19th Century, the City's Northern Waterfront Seawall provides flood protection to downtown San Francisco, and stabilizes hundreds of acres of filled land. The Seawall itself is an historic resource that also supports bulkhead and pier structures within the Port of San Francisco Embarcadero Historic District. Within this area are significant Port and City assets including historic architecture of the finger piers and bulkhead buildings, Ferry and Agriculture Buildings, Embarcadero Promenade and roadway, Downtown Ferry Terminal, Pier 27 Cruise Terminal, MUNI light rail, and key utility infrastructure, including the City's combined sewer system.

Given that Seawall was built prior to the development of modern engineering techniques to better address seismic risks and liquefaction, the Port initiated a vulnerability study to assess the condition of the Seawall and related infrastructure. The study revealed greater than previously identified seismic risk to the Seawall, which sits atop weak native soils, typically bay mud. The Study results predict that lateral spreading and settlement will occur along the entire 3½ miles of the Seawall during a major seismic event because the Seawall is predicted to move toward the Bay. This would result in damage to structures and infrastructure adjacent to the Seawall. Bulkhead wharves, utilities, the Embarcadero Promenade and Roadway, and Muni rail lines are particularly at risk to increased damage due to Seawall movement.

The study indicates that the economic value of Port structures in the Northern Waterfront is \$1.6 billion and that Port tenants generate \$2.1 billion per year in of economic activity. A repeat of the 1906 Earthquake is predicted to cause as much \$1 billion in damage and \$1.3 billion per year in disruption costs. In addition to those costs, the damage will negatively impact disaster recovery of the City and Region by impacting ferry service, maritime berthing, utility service, and transportation.

PROJECT DETAILS

As shown in **Figure 1**, the proposed Seawall Resiliency Project is comprised of four phases, including 1) the Vulnerability Study (separately funded and nearing completion), 2) Program Development¹, Preliminary Design and Environmental, 3) Final Design, and 4) Construction, with a total estimated cost of \$500 million. This overall project cost is an increase from the Port’s original estimate of \$100 million. As the Port’s vulnerability study progressed, the extent of the risk and associated costs for mitigating impact rose. Specifically, hazards that were once thought to be isolated actually extend along the 3½ miles of the Seawall. Additionally, the mitigation techniques required for the repairs are significantly more expensive than initially anticipated.

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

Project Year	Fiscal Year	Project Phases	\$100 Million (Original)		\$500 Million (Updated)	
			Annual Spending	Cumulative Cost	Annual Spending	Cumulative Cost
0	FY 2015-16	1) Vulnerability Study	\$ -	\$ -	\$ -	\$ -
1	FY 2016-17	2) Program Development, Preliminary Design & Environmental, \$17.2 million	\$ 1.5	\$ 1.5	\$ 4.6	\$ 4.6
2	FY 2017-18		\$ 2.1	\$ 3.6	\$ 6.0	\$ 10.6
3	FY 2018-19		\$ 6.1	\$ 9.7	\$ 6.6	\$ 17.2
4	FY 2019-20	3) Final Design, \$32.8 million	\$ 5.1	\$ 14.8	\$ 16.4	\$ 33.6
5	FY 2020-21		\$ 5.4	\$ 20.2	\$ 16.4	\$ 50.0
6	FY 2021-22	4) Construction, \$450 million	\$ 39.9	\$ 60.1	\$ 161.0	\$ 211.0
7	FY 2022-23		\$ 39.9	\$ 100.0	\$ 145.1	\$ 356.1
8	FY F023-24		\$ -	\$ -	\$ 143.9	\$ 500.0
					Remaining Funding Requirement \$ 489.4	

* Shaded in italics indicates unfunded scope

Proposed Funding

The Port originally proposed \$9.7 million in total funding for the FY 2016-17 to complete Phase 2 of the project under the \$100 million scenario, including \$7.7 million from the General Fund and \$2.0 million from the Port. However, as a result of the increase to the overall project cost, estimated funding needs for Phase 2 of the project increased by \$7.5 million, from \$9.7 million to \$17.2 million. Rather than increase the current funding request, the Port proposes a funding plan of \$10.6 million that does not fully fund Phase 2, but will support the project for the next two fiscal years. As detailed in **Figure 2**, the Port will fund the \$0.9 million increase with available Port project funding that was originally appropriated in FY 2015-16 to complete additional infrastructure inspections through the vulnerability study.

Figure 2: Proposed Funding

	Port Funds	General Fund	Total Sources
FY 2015-16 Budget	\$ 900,000	\$ -	\$ 900,000
FY 2016-17 Proposed	\$ 2,000,000	\$ 7,700,000	\$ 9,700,000
Total Funding	\$ 2,900,000	\$ 7,700,000	\$ 10,600,000

¹ Program Development includes additional examination of technical and economic impacts; tenant, community and stakeholder outreach; clear definition of goals; pilot projects to define technical feasibility; and detailed ranking and prioritization of mitigation options.

Plan of Finance

In order to address the remaining \$489.4 million funding requirement, the Port will collaborate with the Mayor's Office, the Capital Planning Program and other City partners develop a plan of finance for the remaining resource needs of the project. Notably, a City team, comprised of key participants from the Port, the Mayor's Budget Office, the Controller's Office of Public Finance and the Capital Planning Program, will receive technical assistance over the next 18 months through a public infrastructure accelerator program to examine financing tools that may be applied to this project. Additionally, Port staff has started working with the Army Corps of Engineers to evaluate the federal interest in improving the seawall infrastructure and Port staff is pursuing grant opportunities.

CONCLUSION

The Seawall Resiliency Project is a critical step towards improving the infrastructure along the City's northern waterfront so that it is better equipped to withstanding the devastating effects of a major earthquake. While the plan of finance for the \$500 million project has not yet been established, this funding request will initiate a process to create a more resilient waterfront.