

File No. 180454

Committee Item No. 3

Board Item No. \_\_\_\_\_

### COMMITTEE/BOARD OF SUPERVISORS

#### AGENDA PACKET CONTENTS LIST

Committee: Budget & Finance Committee

Date May 31, 2018

Board of Supervisors Meeting

Date \_\_\_\_\_

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Completed by: Linda Wong Date May 25, 2018  
 Completed by: Linda Wong Date \_\_\_\_\_

1 [General Obligation Bond Election - Seawall and Other Critical Infrastructure - \$425,000,000]

2  
3 **Ordinance calling and providing for a special election to be held in the City and County**  
4 **of San Francisco on Tuesday, November 6, 2018, for the purpose of submitting to**  
5 **San Francisco voters a proposition to incur the following bonded debt of the City and**  
6 **County: \$425,000,000 to finance the construction, reconstruction, acquisition,**  
7 **improvement, demolition, seismic strengthening and repair of the Embarcadero**  
8 **Seawall and other critical infrastructure, and related costs necessary or convenient for**  
9 **the foregoing purposes; authorizing landlords to pass-through 50% of the resulting**  
10 **property tax increase to residential tenants in accordance with Administrative Code,**  
11 **Chapter 37; finding that the estimated cost of such proposed project is and will be too**  
12 **great to be paid out of the ordinary annual income and revenue of the City and County**  
13 **and will require expenditures greater than the amount allowed therefor by the annual**  
14 **tax levy; reciting the estimated cost of such proposed project; fixing the date of**  
15 **election and the manner of holding such election and the procedure for voting for or**  
16 **against the proposition; fixing the maximum rate of interest on such bonds and**  
17 **providing for the levy and collection of taxes to pay both principal and interest;**  
18 **prescribing notice to be given of such election; affirming the Planning Department's**  
19 **determination under the California Environmental Quality Act, and finding that the**  
20 **proposed bond is in conformity with the eight priority policies of Planning Code,**  
21 **Section 101.1(b), and with the General Plan; consolidating the special election with the**  
22 **general election; establishing the election precincts, voting places, and officers for the**  
23 **election; waiving the word limitation on ballot propositions imposed by Municipal**  
24 **Elections Code, Section 510; complying with the restrictions on the use of bond**  
25 **proceeds specified in California Government Code, Section 53410; incorporating the**

1 provisions regarding the Citizens' Bond Oversight Committee in Administrative Code,  
2 Sections 5.30-5.36; and waiving the time requirements specified in Administrative  
3 Code, Section 2.34.

4  
5 NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.  
6 **Additions to Codes** are in *single-underline italics Times New Roman font*.  
7 **Deletions to Codes** are in ~~*strikethrough italics Times New Roman font*~~.  
8 **Board amendment additions** are in double-underlined Arial font.  
9 **Board amendment deletions** are in ~~strikethrough Arial font~~.  
10 **Asterisks (\* \* \* \*)** indicate the omission of unchanged Code  
11 subsections or parts of tables.

12 Be it ordained by the People of the City and County of San Francisco:

13 Section 1. Findings.

14 a. The Embarcadero Seawall (the "Seawall"), which serves as the foundation of the  
15 northern waterfront, is one of San Francisco's oldest pieces of infrastructure.

16 b. Constructed by the State of California over one hundred years ago, the Seawall  
17 supports San Francisco's historic piers, wharves, local businesses, maritime uses, iconic tourist  
18 destinations, recreation facilities, and restaurants, which bring an estimated 24 million people  
19 to the waterfront annually.

20 c. The Seawall also supports key lifeline utility networks and infrastructure, including  
21 the Bay Area Rapid Transit (BART), Muni Metro, and ferry transportation networks.

22 d. The Seawall serves as a critical emergency response, evacuation and recovery  
23 area and provides flood protection to downtown San Francisco ("City") neighborhoods. All told,  
24 the Seawall protects over \$100 billion of assets and economic activity.

25 e. Recent analysis by the City and the Port of San Francisco (the "Port") found that  
the Seawall will likely suffer significant damage during a major earthquake, causing widespread  
harm to the Embarcadero; historic buildings and piers; critical transportation, utility, and

1 emergency response infrastructure; and the residents, workers, and visitors who depend on  
2 them. A major earthquake would likely cause the Seawall to move towards the bay, potentially  
3 by as much as five feet. This seismic risk is compounded by the accelerating risk of flooding,  
4 which occurs today during high tides and larger storm events.

5 f. The Seawall is named as a critical infrastructure priority in the City's Lifelines  
6 Interdependency Study published in 2014, and the Bond (as defined below) is planned for the  
7 November 2018 election as part of the General Obligation Bond Program in the City's FY 2018-  
8 27 Capital Plan.

9 g. The Embarcadero Roadway encircles downtown San Francisco. After a major  
10 seismic event, up to 250,000 people are expected to exit downtown towards the waterfront.  
11 The Embarcadero must provide access to first responders, safe locations for people exiting  
12 downtown, and routes for transporting emergency supplies and equipment.

13 h. To address earthquake and flood risks to the Seawall, the Port is leading the  
14 Seawall Earthquake Safety and Disaster Prevention Program ("Seawall Program"), a program  
15 that will invest a projected \$2-5 billion over the next three decades to protect the San Francisco  
16 waterfront from imminent seismic risk and increasing flood risk due to sea level rise.

17 i. This Board of Supervisors (this "Board") recognizes the need to improve the  
18 earthquake safety and performance of the Seawall and other critical infrastructure, provide  
19 near-term flood protection improvements, and plan for long-term resilience and sea level rise  
20 adaptation along this important stretch of the City's waterfront.

21 j. The Seawall Earthquake Safety Bond (the "Bond") will provide funding to the  
22 Seawall Program and other critical infrastructure (as described below in Section 3).

23 k. The Bond sets up a financing mechanism to be used for certain kinds of work,  
24 and specific projects at specified locations will not be determined until additional design and  
25

1 budget development, as well as further planning and environmental review processes, are  
2 complete.

3 I. This Board now wishes to describe the terms of a ballot measure seeking approval  
4 for the issuance of general obligation bonds to finance all or a portion of the City's Seawall and  
5 other critical infrastructure needs as described below.

6 Section 2. A special election is called and ordered to be held on Tuesday, November  
7 6, 2018, for the purpose of submitting to the electors of the City a proposition to incur bonded  
8 indebtedness of the City for the project described in the amount and for the purposes stated:

9 "SAN FRANCISCO SEAWALL EARTHQUAKE SAFETY BOND, 2018. \$425,000,000 of  
10 bonded indebtedness to finance the cost of: repairing and upgrading the City's 100 year old  
11 Embarcadero Seawall; strengthening the Embarcadero; protecting transit infrastructure and  
12 utilities that provide water, wastewater, power and telecommunications to residents and  
13 businesses; and to pay related costs, subject to independent citizen oversight and regular  
14 audits, all to protect San Francisco's waterfront, BART and Muni tunnels, buildings, historic  
15 piers, and roads from earthquakes, flooding and rising sea levels; and authorizing landlords to  
16 pass-through to residential tenants in units subject to Chapter 37 of the Administrative Code  
17 (the "Residential Rent Stabilization and Arbitration Ordinance") 50% of the increase in the real  
18 property taxes attributable to the cost of the repayment of the bonds."

19 The special election called and ordered shall be referred to in this ordinance as the  
20 "Seawall Earthquake Safety Bond Special Election."

21 Section 3. PROPOSED PROGRAM. All contracts that are funded with the proceeds  
22 of bonds authorized hereby shall be subject to the provisions of Chapter 83 of the Administrative  
23 Code (the "First Source Hiring Program"), which fosters construction and permanent  
24 employment opportunities for qualified economically disadvantaged individuals. In addition, all  
25 contracts that are funded with the proceeds of bonds authorized hereby shall be subject to the

1 provisions of Chapter 14B of the Administrative Code (the "Local Business Enterprise and Non-  
2 Discrimination in Contracting Ordinance"), which assists small and micro local businesses to  
3 increase their ability to compete effectively for the award of City contracts. To the extent  
4 permitted by law, eligible costs for the proposed program include all costs associated with  
5 Seawall Program development and planning, including planning for future sea level rise  
6 adaptation, pre-design, design, engineering and other soft costs; and construction  
7 management. The proposed program can be summarized as follows:

8 a. EARTHQUAKE PROJECTS. Several construction options are available to  
9 improve Seawall seismic reliability. All or a portion of these options may be implemented  
10 together, individually, or sequenced over time. A portion of the Bond may be allocated to:

- 11 1) Ground strengthening and liquefaction remediation
- 12 2) Constructing a new Seawall
- 13 3) Bulkhead wall, wharf and pier retrofits and replacements
- 14 4) Bulkhead building retrofits and seismic joints
- 15 5) Critical facility retrofits and replacements
- 16 6) Utility replacements, relocations and bypasses
- 17 7) Matching funds for public and private sources or
- 18 8) Other life safety improvements.

19 b. FLOOD PROTECTION PROJECTS. The Port will co-design flood mitigations with  
20 seismic improvements and will evaluate the applicability, effectiveness, risks, and costs of the  
21 short and mid-term seismic reinforcements and flood mitigations to Seawall reaches. Among  
22 the projects a portion of this Bond may be allocated to are the following:

- 23 1) Flood walls and barriers
- 24 2) Changes to surface grading
- 25 3) Flood proofing

1           4)    Enhanced foundation for future adaptation or

2           5)    Other flood control improvements.

3           c.    MITIGATION AND ENHANCEMENT PROJECTS. The Port will decide whether  
4 to include enhancements for both the urban landscape and the bay environment based on the  
5 scale and location of the site-specific seismic and near-term flood risk reduction methods and  
6 the cost-benefit ratio of these infrastructure investments. A portion of the Bond may be allocated  
7 to:

8           1)    Public access enhancements

9           2)    Transportation/mobility improvements

10          3)    Environmental benefits or

11          4)    Other public benefits.

12          d.    CITIZENS' OVERSIGHT COMMITTEE. A portion of the Bond shall be used to  
13 perform audits of the Bond, as further described in Section 15.

14          e.    ART ENRICHMENT. Consistent with Section 3.19 of the San Francisco  
15 Administrative Code and to the extent permitted by law, up to 2% of Bond proceeds may be  
16 used to 1) fund educational and interpretative art to inform the public about the Seawall and  
17 earthquake and flood risks to the City's waterfront, and 2) fund other art enrichment, in either  
18 case on Port property as approved by the Port Commission in consultation with the Arts  
19 Commission.

20           Section 4.    BOND ACCOUNTABILITY MEASURES.

21           The Bond shall include the following administrative rules and principles:

22           a.    OVERSIGHT. The proposed bond funds shall be subjected to approval processes  
23 and rules described in the Charter and Administrative Code. Pursuant to Administrative Code  
24 Section 5.31, the Citizens' General Obligation Bond Oversight Committee shall conduct an  
25

1 annual review of bond spending, and shall provide an annual report of the bond program to the  
2 Mayor and the Board of Supervisors.

3 ///

4 b. TRANSPARENCY. The City shall create and maintain a Web page outlining and  
5 describing the bond program, progress, and activity updates. The City shall also hold an annual  
6 public hearing and reviews on the bond program and its implementation before the Board of  
7 Supervisors, the Port Commission, the Capital Planning Committee, and the Citizens' General  
8 Obligation Bond Oversight Committee.

9 Section 5. The estimated cost of the bond financed portion of the project described in  
10 Section 2 above was fixed by the Board by Resolution No. \_\_\_\_\_, in the amount of  
11 \$425,000,000. Said resolution was passed by two-thirds or more of the Board and approved by  
12 the Mayor. In such resolution it was recited and found by the Board that the sum of money  
13 specified is too great to be paid out of the ordinary annual income and revenue of the City in  
14 addition to the other annual expenses or other funds derived from taxes levied for those  
15 purposes and will require expenditures greater than the amount allowed by the annual tax levy.

16 The method and manner of payment of the estimated costs described in this ordinance  
17 are by the issuance of bonds of the City not exceeding the principal amount specified.

18 Such estimate of costs as set forth in such resolution is adopted and determined to be  
19 the estimated cost of such bond financed improvements and financing, as designed to date.

20 Section 6. The Bond Special Election shall be held and conducted and the votes  
21 received and canvassed, and the returns made and the results ascertained, determined, and  
22 declared as provided in this ordinance and in all particulars not recited in this ordinance such  
23 election shall be held according to State law and the Charter and any regulations adopted under  
24 State law or the Charter, providing for and governing elections in the City, and the polls for such  
25 election shall be and remain open during the time required by such laws and regulations.



1           Section 7. The Bond Special Election is consolidated with the General Election  
2 scheduled to be held in the City on Tuesday, November 6, 2018. The voting precincts, polling  
3 places, and officers of election for the November 6, 2018 General Election are hereby adopted,  
4 established, designated, and named, respectively, as the voting precincts, polling places, and  
5 officers of election for the Bond Special Election called, and reference is made to the notice of  
6 election setting forth the voting precincts, polling places, and officers of election for the  
7 November 6, 2018 General Election by the Director of Elections to be published in the official  
8 newspaper of the City on the date required under State law.

9           Section 8. The ballots to be used at the Bond Special Election shall be the ballots  
10 used at the November 6, 2018 General Election. The word limit for ballot propositions imposed  
11 by Municipal Elections Code Section 510 is waived. On the ballots to be used at the Bond  
12 Special Election, in addition to any other matter required by law to be printed thereon, shall  
13 appear the following as a separate proposition:

14           "SAN FRANCISCO SEAWALL EARTHQUAKE SAFETY BOND, 2018. "To protect San  
15 Francisco's waterfront, BART and Muni tunnels, buildings, historic piers, and roads from  
16 earthquakes, flooding and rising sea levels by: repairing and upgrading the City's 100 year old  
17 Embarcadero Seawall; strengthening the Embarcadero; protecting transit infrastructure and  
18 utilities that provide water, wastewater, power and telecommunications to residents and  
19 businesses; shall the City of San Francisco issue \$425,000,000 in bonds, subject to  
20 independent citizen oversight and regular audits?"

21           Each voter to vote in favor of the issuance of the foregoing bond proposition shall mark  
22 the ballot in the location corresponding to a "YES" vote for the proposition, and each voter to  
23 vote against the proposition shall mark the ballot in the location corresponding to a "NO" vote  
24 for the proposition.

1           Section 9.    If at the Bond Special Election it shall appear that two-thirds of all the voters  
2 voting on the proposition voted in favor of and authorized the incurring of bonded indebtedness  
3 for the purposes set forth in such proposition, then such proposition shall have been accepted  
4 by the electors, and bonds authorized shall be issued upon the order of the Board.  Such bonds  
5 shall bear interest at a rate not exceeding applicable legal limits.

6           Section 10.  For the purpose of paying the principal and interest on the bonds, the Board  
7 shall, at the time of fixing the general tax levy and in the manner for such general tax levy  
8 provided, levy and collect annually each year until such bonds are paid, or until there is a sum  
9 in the Treasury of the City, or other account held on behalf of the Treasurer of the City, set apart  
10 for that purpose to meet all sums coming due for the principal and interest on the bonds, a tax  
11 sufficient to pay the annual interest on such bonds as the same becomes due and also such  
12 part of the principal thereof as shall become due before the proceeds of a tax levied at the time  
13 for making the next general tax levy can be made available for the payment of such principal.

14           Section 11.  This ordinance shall be published in accordance with any State law  
15 requirements, and such publication shall constitute notice of the Bond Special Election and no  
16 other notice of the Bond Special Election hereby called need be given.

17           Section 12.  The Board, having reviewed the proposed legislation, makes the following  
18 findings in compliance with the California Environmental Quality Act, California Public  
19 Resources Code Sections 21000 et seq., the CEQA Guidelines, 15 California Administrative  
20 Code Sections 15000 et seq., and San Francisco Administrative Code Chapter 31 (collectively,  
21 "CEQA"):  The Planning Department has determined that the actions contemplated in this  
22 ordinance comply with CEQA.  Said determination is on file with the Clerk of the Board of  
23 Supervisors in File No. 180454 and is incorporated herein by reference.  The Board affirms this  
24 determination.  
25

1 Section 13. The Board finds and declares that the proposed Bond is in conformity with  
2 the priority policies of Section 101.1(b) of the San Francisco Planning Code and consistent with  
3 the City's General Plan, and adopts the findings of the Planning Department, as set forth in the  
4 General Plan Referral Report dated May 24, 2018, a copy of which is on file with the Clerk of  
5 the Board of Supervisors in File No. 180454 and incorporates such findings by reference.

6 Section 14. Under Section 53410 of the California Government Code, the bonds shall  
7 be for the specific purposes authorized in this ordinance and the proceeds of such bonds will  
8 be applied only for such specific purposes. The City will comply with the requirements of  
9 Sections 53410(c) and 53410(d) of the California Government Code.

10 Section 15. The Bonds are subject to, and incorporate by reference, the applicable  
11 provisions of Administrative Code Sections 5.30 – 5.36 (the "Citizens' General Obligation Bond  
12 Oversight Committee"). Under Section 5.31, to the extent permitted by law, one-tenth of one  
13 percent (0.1%) of the gross proceeds of the Bonds shall be deposited in a fund established by  
14 the Controller's Office and appropriated by the Board of Supervisors at the direction of the  
15 Citizens' General Obligation Bond Oversight Committee to cover the costs of said committee.

16 Section 16. The time requirements specified in Section 2.34 of the Administrative Code  
17 are waived.

18 Section 17. The appropriate officers, employees, representatives, and agents of the  
19 City are hereby authorized and directed to do everything necessary or desirable to accomplish  
20 the calling and holding of the Bond Special Election, and to otherwise carry out the provisions  
21 of this ordinance.

22 Section 18. Documents referenced in this ordinance are on file with the Clerk of the  
23 Board of Supervisors in File No. 180454 which is hereby declared to be a part of

24 ///

1 this ordinance as if set forth fully herein.

2

3 APPROVED AS TO FORM:  
4 DENNIS J. HERRERA,  
City Attorney

5

6 By:

Kenneth David Roux  
Kenneth David Roux  
Deputy City Attorney

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**LEGISLATIVE DIGEST**

[General Obligation Bond Election - Seawall and Other Critical Infrastructure - \$425,000,000]

**Ordinance calling and providing for a special election to be held in the City and County of San Francisco on Tuesday, November 6, 2018, for the purpose of submitting to San Francisco voters a proposition to incur the following bonded debt of the City and County: \$425,000,000 to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening and repair of the Embarcadero Seawall and other critical infrastructure, and related costs necessary or convenient for the foregoing purposes; authorizing landlords to pass-through 50% of the resulting property tax increase to residential tenants in accordance with Administrative Code, Chapter 37; finding that the estimated cost of such proposed project is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require expenditures greater than the amount allowed therefor by the annual tax levy; reciting the estimated cost of such proposed project; fixing the date of election and the manner of holding such election and the procedure for voting for or against the proposition; fixing the maximum rate of interest on such bonds and providing for the levy and collection of taxes to pay both principal and interest; prescribing notice to be given of such election; affirming the Planning Department's determination under the California Environmental Quality Act and finding that the proposed bond is in conformity with the eight priority policies of Planning Code, Section 101.1(b) and with the General Plan; consolidating the special election with the general election; establishing the election precincts, voting places, and officers for the election; waiving the word limitation on ballot propositions imposed by Municipal Elections Code, Section 510; complying with the restrictions on the use of bond proceeds specified in California Government Code, Section 53410; incorporating the provisions regarding the Citizens' Bond Oversight Committee in Administrative Code, Sections 5.30-5.36; and waiving the time requirements specified in Administrative Code, Section 2.34.**

Existing Law

General Obligation Bonds of the City and County of San Francisco may be issued only with the assent of two-thirds of the voters voting on the proposition.

Ballot Proposition

This ordinance authorizes the following ballot proposition to be placed on the November 6, 2018 ballot:

**SAN FRANCISCO SEAWALL EARTHQUAKE SAFETY BOND, 2018.** To protect San Francisco's waterfront, BART and Muni tunnels, buildings, historic piers, and roads from earthquakes, flooding and rising sea levels by: repairing and upgrading the City's 100 year old Embarcadero Seawall; strengthening the Embarcadero; protecting transit infrastructure and

utilities that provide water, wastewater, power and telecommunications to residents and businesses; shall the City of San Francisco issue \$425,000,000 in bonds, subject to independent citizen oversight and regular audits?

The ordinance fixes the maximum rate of interest on the Bonds, and provides for a levy and a collection of taxes to repay both the principal and interest on the Bonds. The ordinance also describes the manner in which the Bond Special Election will be held, and the ordinance provides for compliance with applicable state and local laws.

#### Background Information

The Board of Supervisors found that the amount of money specified for this project is and will be too great to be paid out of the ordinary annual income and revenue of the City, and will require expenditures greater than the amount allowed therefor by the annual tax levy.

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**CITY AND COUNTY OF SAN FRANCISCO**  
**BOARD OF SUPERVISORS**  
**BUDGET AND LEGISLATIVE ANALYST**

1390 Market Street, Suite 1150, San Francisco, CA 94102 (415) 552-9292  
FAX (415) 252-0461

May 24, 2018

**TO:** Budget and Finance Committee

**FROM:** Budget and Legislative Analyst



**SUBJECT:** May 31, 2018 Special Budget and Finance Committee Meeting

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1, 2 & 3	18-0462	General Obligation Bonds - Seawall and Other Critical Infrastructure - \$425,000,000
	18-0461	Amended Ten-Year Capital Expenditure Plan-FYs 2018-2027 - Increase Proposed Seawall Bond to \$425,000,000
	18-0454	General Obligation Bond Election - Seawall and Other Critical Infrastructure - \$425,000,000 ..... 1

<p><b>Items 1, 2 and 3</b>  <b>Files 18-0454, 18-0461 &amp; 18-0462</b></p>	<p><b>Department:</b>                  Port Commission (Port)</p>
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**EXECUTIVE SUMMARY**

**Legislative Objectives**

- The proposed ordinance (File 18-0454) and resolutions (Files 18-0461 and 0462) (1) call for a ballot proposition on the November 6, 2018 San Francisco ballot to incur bonded debt of \$425,000,000 to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening, and repair of the Embarcadero Seawall; (2) amend the FY 2018-27 Capital Plan to increase the proposed Seawall Bond amount from \$350,000,000 to \$425,000,000; (3) determine the public interest and necessity of the project; (4) find that the cost is too great for the ordinary revenues and require incurring bonded indebtedness; (5) affirm the Planning Department’s determinations under the California Environmental Quality Act; and (6) find the proposed bond in conformity with the priority policies of the Planning Code and the General Plan, and waive established time limits.

**Key Points**

- The Embarcadero Seawall, which is over 100 years old, protects San Francisco’s waterfront, transportation infrastructure, and business activity. The Port of San Francisco (Port) determined that the Seawall would likely be significantly damaged in a major earthquake, a risk increased by flooding due to sea level rise. The Embarcadero is both a key evacuation route and access route for first responders in the event of a disaster. Phase 1 of the Seawall Program, which includes seismic improvements, flood protections, and mitigation and enhancement measures, is estimated to cost approximately \$500,000,000 through 2027. The Port is unable to fund this through its typical revenues.
- The proposed ordinance and resolutions would place a proposition on the November 6, 2018 San Francisco election ballot to incur \$425,000,000 of bonded debt for the Seawall program. The remainder of the Seawall program would be funded by various Federal, State, and City sources. The California State Constitution requires two-thirds voter approval for the City to issue General Obligation bonds.

**Fiscal Impact**

- The General Obligation bonds, if approved by voters, would provide \$425,000,000 of revenue to the Port for Phase 1 of the Seawall Program. Repayment of the bonds, including interest, would require approximately \$730,400,000 of debt service over 25 years. Using FY 2017-18 assessments, property taxpayers would each pay an average of approximately \$13.23 annually per \$100,000 of assessed value to repay the bonds.

**Recommendation**

- Approval of the proposed ordinance and resolutions is a policy decision for the Board of Supervisors.



## MANDATE STATEMENT

According to Article 16, Section 18(a) of the State of California Constitution, no county, city, town, township, board of education, or school district, shall incur any indebtedness or liability for any purpose exceeding in any year the income and revenue provided for such year, without the approval of two-thirds of the voters of the public entity voting at an election to be held for that purpose. Section 9.105 of the City's Charter provides that the Board of Supervisors is authorized to approve the issuance and sale of General Obligation bonds in accordance with State law or local procedures adopted by ordinance.

City Administrative Code Section 2.34 requires that a resolution of public interest and necessity for the acquisition, construction or completion of any municipal improvement be adopted by the Board of Supervisors not less than 141 days before the election at which such proposal will be submitted to the voters. These time limits may be waived by resolution of the Board of Supervisors.

## BACKGROUND

The Embarcadero Seawall, which is over 100 years old, supports San Francisco's piers, wharves, businesses, tourist destinations, recreational amenities, and key infrastructure, including Bay Area Rapid Transit, Muni Metro, and ferry networks. The Seawall also provides flood protection to downtown San Francisco, protecting over \$100 billion of assets and economic activity.

Analysis conducted by the Port of San Francisco (Port) determined that the Seawall would likely be significantly damaged in a major earthquake. The risk is compounded by increased likelihood of flooding due to sea level rise. The Embarcadero is both a key evacuation route and access route for first responders in the event of a disaster. The Seawall is named as a critical infrastructure priority and as part of the General Obligation Bond Program in the City's FY 2018-27 Capital Plan. Phase 1 of the Seawall Program, which includes seismic improvements, flood protections, and mitigation and enhancement measures, is estimated to cost approximately \$500,000,000 through 2027.

Due to the project scale, the Port is unable to fund the Seawall Program through its operating revenues. In addition to anticipated funding from the United States Army Corps of Engineers (USACE), the State of California, and various City departments, the Port estimates that issuance of \$425,000,000 of General Obligation bonds is needed to fund the Seawall Program. The City's Capital Planning Committee at their April 16, 2018 meeting recommended a November 2018 ballot measure to authorize \$425,000,000 in General Obligation bonds to reconstruct the Seawall.

## DETAILS OF PROPOSED LEGISLATION

The proposed ordinance (File 18-0454) and resolutions (File 18-0461 and 18-0462) would:

- i. Place a proposition on the November 6, 2018 San Francisco election ballot to incur \$425,000,000 of bonded debt for the Seawall Program;

- ii. Authorize landlords to pass through 50 percent of the property tax increase to residential tenants;
- iii. Amend the FY 2018-27 Capital Plan to increase the proposed Seawall Bond from \$350,000,000 to \$425,000,000 to fund Phase 1 of the Seawall Program;
- iv. Find the Seawall Program is in the public interest and necessity and that the estimated project cost is too large to be funded by ordinary revenues and will require bonded indebtedness;
- v. Affirm the Planning Department’s determination under the California Environmental Quality Act (CEQA);
- vi. Find that the proposed bond conforms with the eight priority policies of the Planning Code and the General Plan; and
- vii. Waive the time requirements of Administrative Code Section 2.34.

The California State Constitution requires two-thirds voter approval for the City to issue General Obligation bonds. If the bonds are approved and issued, the Citizen’s General Obligation Bond Oversight Committee would annually review expenditures to ensure that funds are used appropriately. An overview of possible uses of funds is shown in Table 1 below.

**Table 1: Possible Uses of Bond Funding**

Investment Category	Possible Uses
<b>Project Implementation</b>	<ul style="list-style-type: none"> <li>• Program development, planning, and pre-design</li> <li>• Design, engineering, and other soft costs</li> <li>• Construction management</li> </ul>
<b>Earthquake Improvements</b>	<ul style="list-style-type: none"> <li>• Ground strengthening and liquefaction remediation</li> <li>• Bulkhead wall, wharf, and pier retrofits and replacements</li> <li>• Bulkhead building retrofits and seismic joints</li> <li>• Pier building retrofits</li> <li>• Critical facility retrofits and replacements</li> <li>• Utility replacements, relocations, and bypasses</li> <li>• Matching funds for public and private sources</li> <li>• Other life safety improvements</li> </ul>
<b>Flood Protection Measures</b>	<ul style="list-style-type: none"> <li>• Flood walls and barriers</li> <li>• Surface grade changes</li> <li>• Flood proofing</li> <li>• Planning for future adaptation</li> <li>• Enhanced foundation for future adaptation</li> <li>• Other flood control improvements</li> </ul>
<b>Mitigation &amp; Enhancement</b>	<ul style="list-style-type: none"> <li>• Public access enhancements</li> <li>• Transportation and mobility improvements</li> <li>• Environmental benefits</li> <li>• Other public benefits</li> </ul>

**FISCAL IMPACT**

The ballot measure authorized by the proposed ordinance and resolution, if approved by voters, would provide \$425,000,000 in bond proceeds to the Port to fund Phase 1 of the Seawall program. According to Mr. Vishal Trivedi, Controller's Office Financial Analyst, bonds would likely be issued in three separate sales over an approximate five-year period, and structured as 20 year bonds. Interest and principal payments are estimated to be \$730,400,000 over 25 years. Based on the citywide total assessed value of properties in FY 2017-18, property taxpayers would each pay an average of approximately \$13.23 per \$100,000 of assessed value annually, over the course of 25 years. For residential rental properties, one half of the property tax assessment to repay the bonds may be passed on to tenants.

City policy, defined in the 2018-27 Capital Plan, requires that the issuance of new General Obligation bonds will not increase the property tax rate above FY 2005-06 levels. According to Mr. Trivedi, if the voters approve the proposed \$425,000,000 in new General Obligation Bond authority, the City's property tax rate for all outstanding General Obligation Bond authority is expected to be maintained within the FY 2005-06 policy constraints.

According to Ms. Katharine Petrucione, Port Chief Financial Officer, the Port will be unable to provide a detailed project list until CEQA analysis is performed. An approximate sources and uses of funds for the total \$500,000,000 Seawall Program Phase 1 is shown in Table 2 below.

**Table 2: Sources and Uses of Seawall Program, Phase 1**

<b>Sources</b>	<b>Amount</b>
General Obligation Bonds	\$425,000,000
Port Capital	8,000,000
San Francisco Municipal Transportation Agency	1,000,000
Planning Department	1,000,000
USACE	10,000,000
State Sources*	55,000,000
<b>Total Sources</b>	<b>\$500,000,000</b>

<b>Uses</b>	<b>Amount</b>
Port Staff Costs	\$9,215,893
Public Outreach	1,695,270
USACE <sup>1</sup>	6,262,550
Planning/Engineering	38,477,718
Final Design	43,700,000
Construction	355,591,891
<i>Subtotal</i>	<i>\$454,943,321</i>
Contingency (10%)	45,056,678
<b>Total Uses</b>	<b>\$500,000,000</b>

*\*State sources pending legislative action*

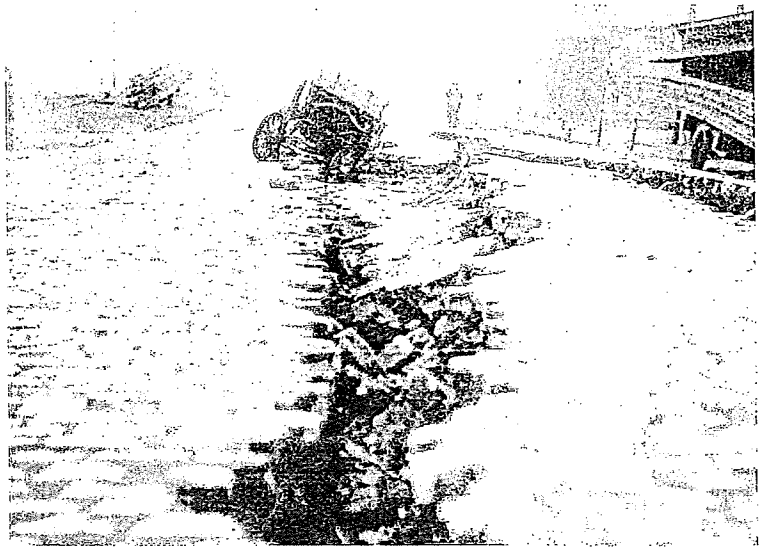
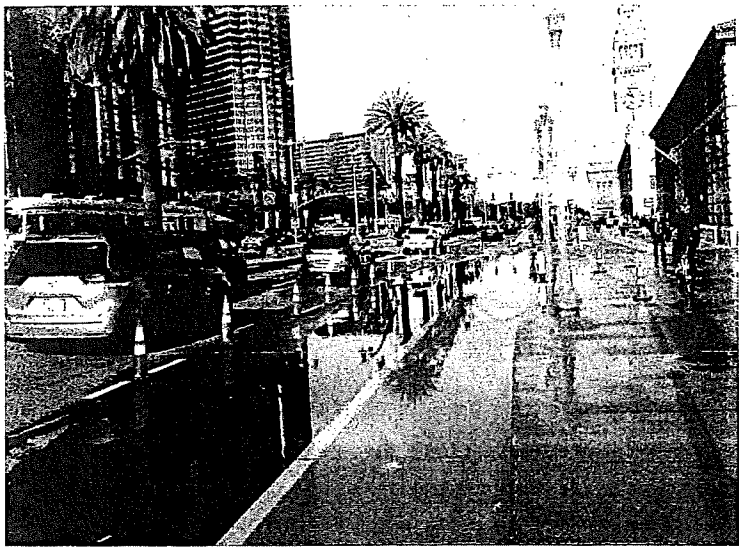
### **POLICY CONSIDERATION**

Approval of the proposed resolution (File 18-0462) requires two-thirds or more of the Board of Supervisors approval and approval by the Mayor. In addition, approval of this \$425,000,000 General Obligation Bond would require approval by at least two-thirds of San Francisco voters.

### **RECOMMENDATION**

Approval of the proposed ordinance and resolution is a policy decision for the Board of Supervisors.

<sup>1</sup> According to Ms. Petrucione, USACE is currently evaluating the feasibility of implementing a flood protection project along the Embarcadero. A decision on the project, which would use both USACE and Port funds, is expected in Fall 2018.



# SEAWALL EARTHQUAKE SAFETY BOND REPORT

April 2018



[sfseawall.com](http://sfseawall.com)



[@portofsanfrancisco](https://www.facebook.com/portofsanfrancisco)



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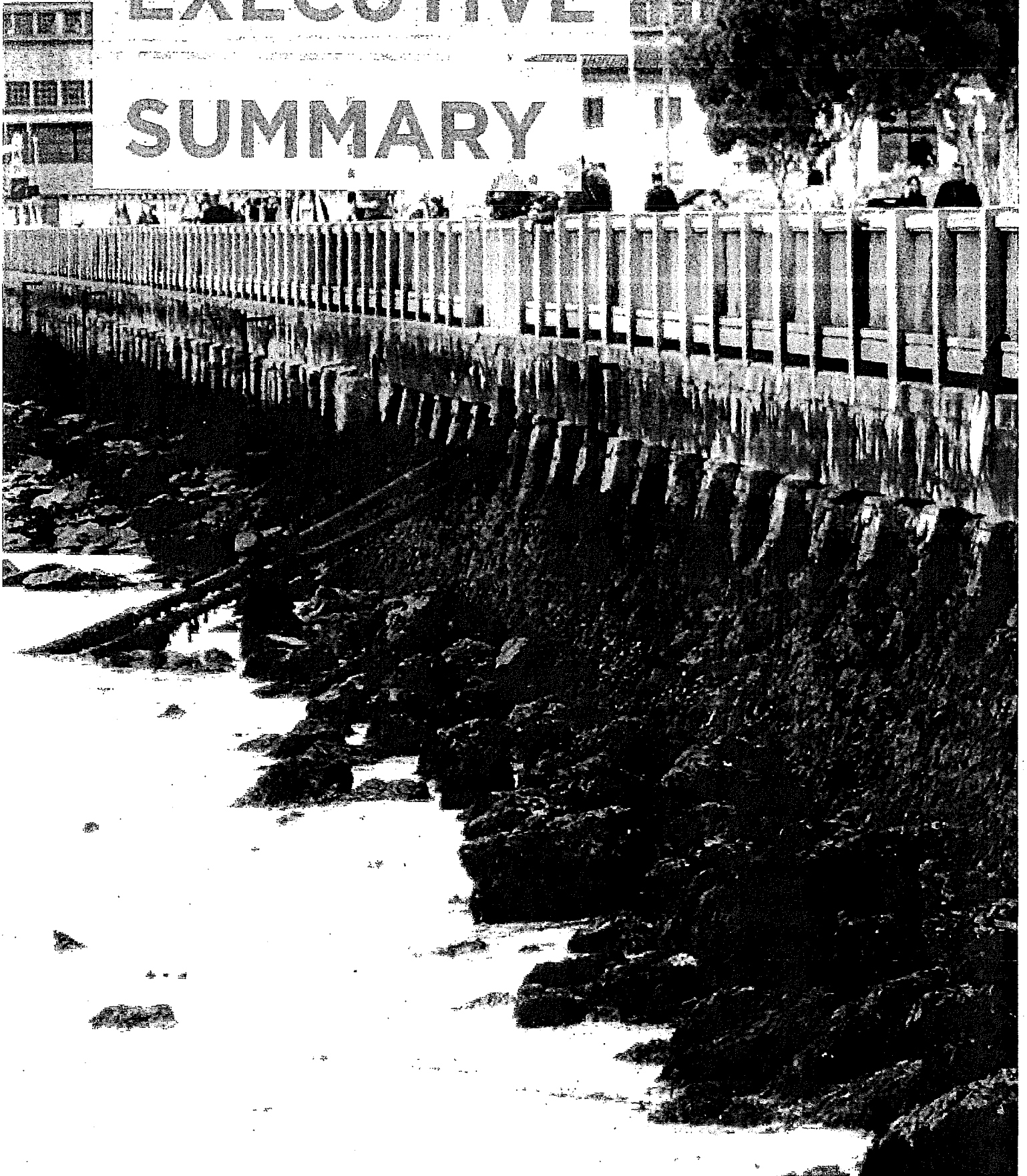
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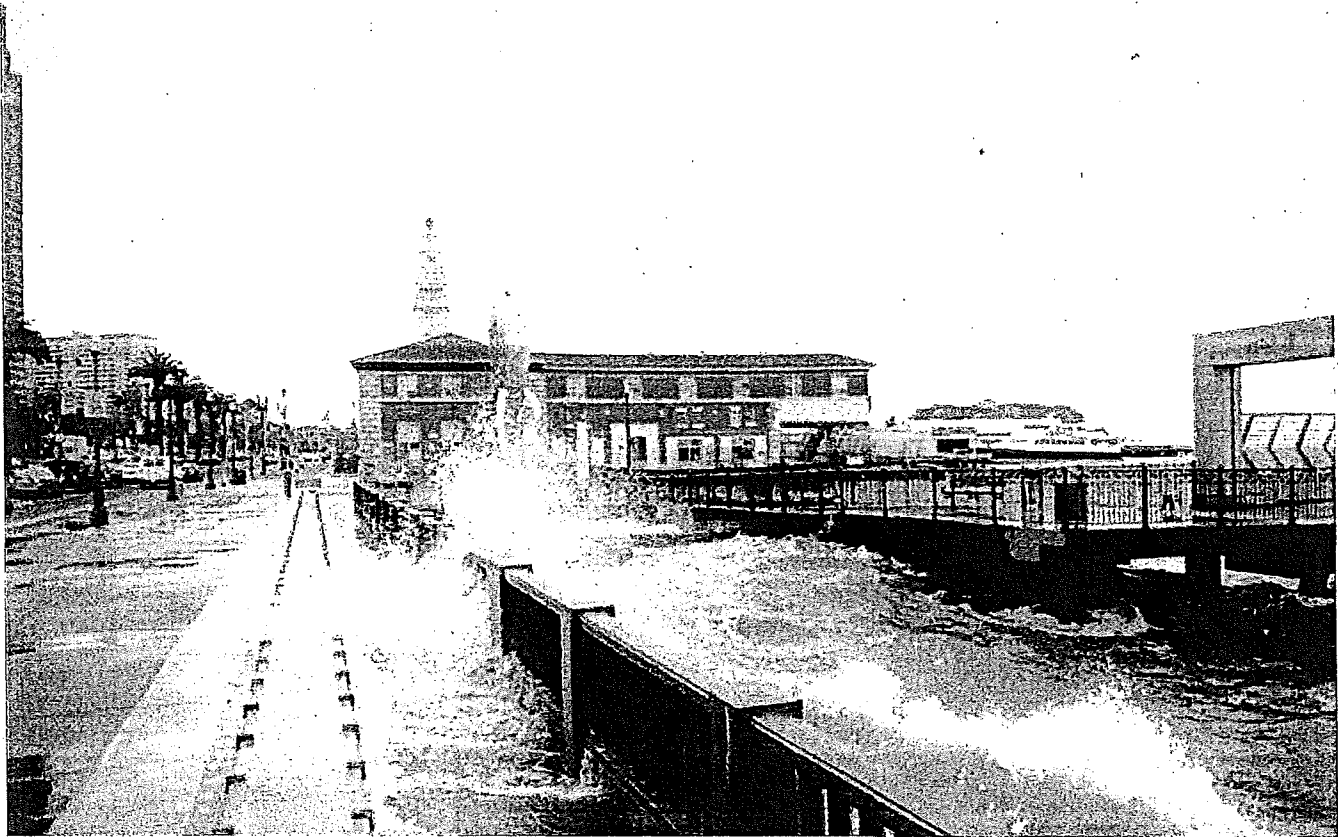
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**EXECUTIVE**

**SUMMARY**







All of today's activity along the northern waterfront of San Francisco is made possible by the Embarcadero Seawall. The Seawall must be improved in order to withstand the next major earthquake and prepare San Francisco for increasing flood risk as sea levels rise.

Spanning three miles from Fisherman's Wharf to Mission Creek, the Seawall is one of San Francisco's oldest pieces of infrastructure. Constructed over 100 years ago by the State of California, the Seawall helped create over 500 acres of new land between San Francisco Bay and 1st Street.

The Seawall serves as the waterfront's foundation. It supports San Francisco's historic piers, wharves, local businesses, maritime uses, iconic tourist destinations, recreation facilities, and restaurants, which bring an estimated 24 million people to the waterfront annually. The Seawall also underpins key lifeline utility networks and infrastructure, including the Bay Area Rapid Transit (BART), Muni Metro, and ferry transportation networks. Additionally, the Seawall supports critical emergency response, evacuation, and recovery facilities and provides flood protection to downtown San Francisco neighborhoods. All told, the Seawall protects over \$100 billion of assets and economic activity.

Recent analysis by the City of San Francisco (City) and the Port of San Francisco (Port) indicates that the Embarcadero Seawall will likely suffer significant damage during a major earthquake, causing widespread harm to the Embarcadero; historic buildings and piers; critical transportation, utility, and emergency response infrastructure; and the residents, workers, and visitors who depend on them. This seismic risk is compounded by the accelerating risk of flooding due to rising sea levels and subsidence. Today nuisance flooding impacts the Embarcadero and major storms pose flood risk to the Muni and BART underground transit systems.

The City, acting through the Port of San Francisco, launched the San Francisco Seawall Earthquake Safety and Disaster Prevention Program (Seawall Program), to improve earthquake safety and performance of the Embarcadero Seawall, provide near-term flood protection improvements, and plan for long-term resilience and sea level rise adaptation along the northern stretch of the City's waterfront. The first phase of the Seawall Program will address the most critical life-safety upgrades to the Seawall and is estimated to cost \$500 million. The proposed \$425 million Seawall Earthquake Safety Bond (Seawall Bond) will fund the majority of this work and leverage other funding sources including state, federal, and private funds.



The goals of the Seawall Program are to:

- Act quickly to improve disaster preparedness
- Reduce earthquake damage and disruption
- Improve flood resilience
- Enhance the City and the bay
- Preserve historic resources
- Engage the community

Seawall Bond funding will be used to develop the overall Seawall Program and to design and construct improvements that address the most significant seismic and flood risks to the most vulnerable and critical life-safety and emergency response assets along the Embarcadero. Construction of initial projects is scheduled for completion by the end of 2026. Possible improvements include strengthening the ground below and landside of the Seawall, constructing new Seawall segments, strengthening or replacing bulkhead walls and wharves along the Embarcadero Promenade, and relocating or replacing critical utilities.

The Port will develop and evaluate alternatives using criteria established with input from stakeholders and the community using a transparent and open process. To ensure that initial construction projects focus on the most critical life-safety and flood risk locations along the Seawall, the Program will include:

- Detailed seismic risk assessment of the Seawall and codependent infrastructure with an emphasis on life safety considerations.
- Detailed flood risk assessment with consideration of the most current sea level rise science and guidance.
- Close coordination with disaster and emergency response planners to assess facilities for importance to post disaster response and recovery operations.
- Close coordination with lifeline utility providers and codependent asset owners to assess system wide impacts caused by seawall failures.

The Seawall Bond will include strict standards of accountability, fiscal responsibility, and transparency. Annual public review before multiple public bodies, bond accountability reports, seismic peer review, and public updates will ensure policy compliance and transparency in the Program's delivery.

# ACCOUNTABILITY

The Seawall Bond will include strict standards of accountability, fiscal responsibility, and transparency. In addition to California state bond requirements, the City will undergo a comprehensive public oversight and accountability process. As the City has not yet identified specific projects it will use transparent and responsible oversight procedures for project selection and prioritization.

The following principles apply to all related programs funded through the Seawall Bond:

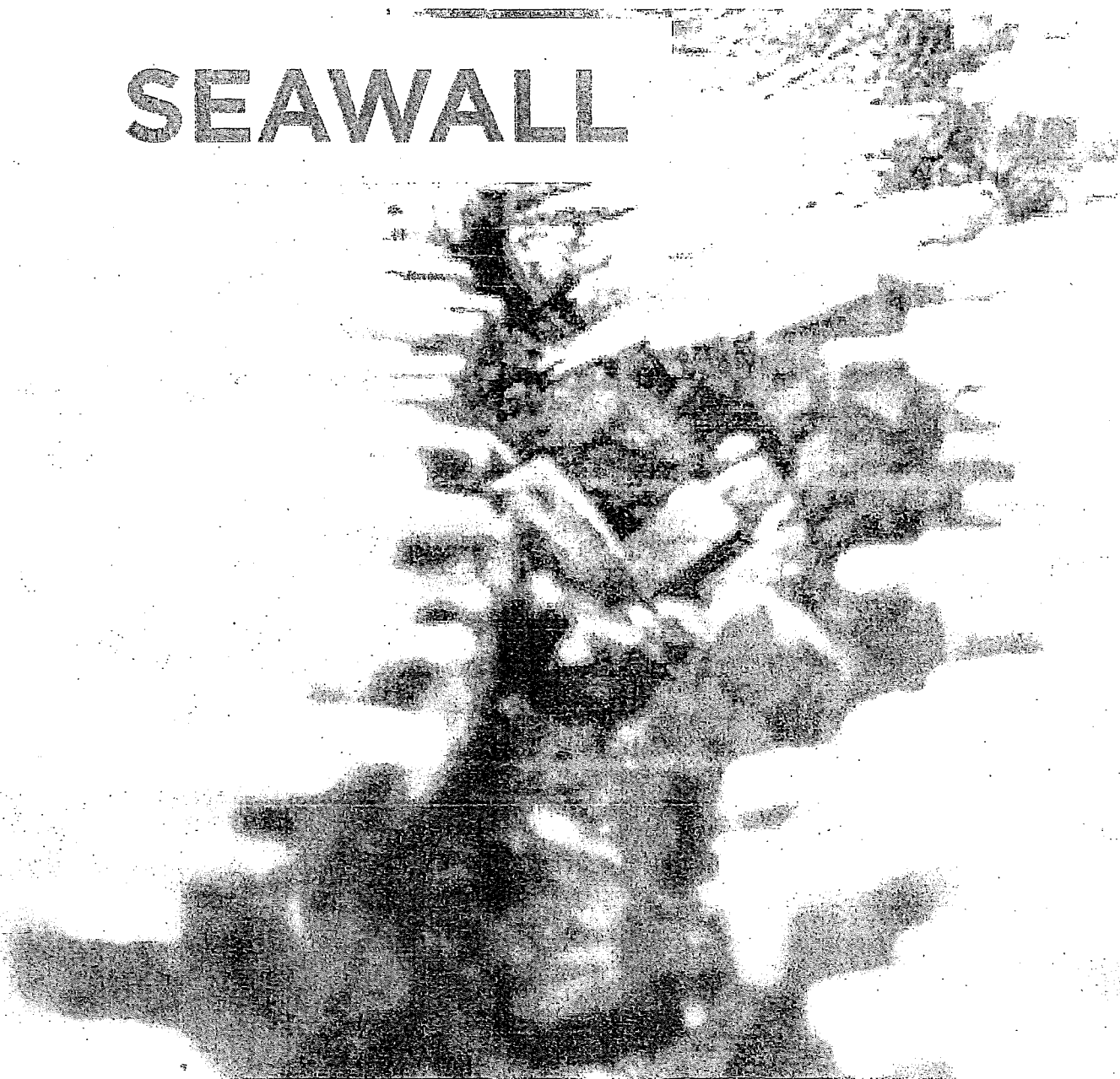
- **Policy Compliance:** Compliance with the City's policy to constrain property tax rates at or below 2006 levels
- **CGOBOC Audits:** The City's Citizens' General Obligation Bond Oversight Committee (CGOBOC) is responsible for auditing the implementation of the Seawall Bond per the Administrative Code (Section 5.30 to 5.36). Should CGOBOC determine that any funds were not spent in accordance with the express will of the voters, they are empowered to deny subsequent issuances of bond funds.
- **Annual Public Review:** The proposed bond funds are subject to the approval processes and rules described in the San Francisco Charter Administrative Code. The bond will be subject to annual public reviews before the Capital Planning Committee and Board of Supervisors.
- **Bond Accountability Reports:** Per the Administrative Code (Section 2.70 to 2.74), 60 days prior to the issuance of any portion of the bond authority, the Port will submit the Seawall Bond Financial Plan, in the form of a bond accountability report, to the Clerk of the Board, the Controller, the Treasurer, the Director of Public Finance, and the Budget Analyst describing the current status and description of each project and whether it conforms to the express will of the voters.
- **Seismic Peer Review:** A seismic peer review panel composed of academic and industry-leading experts in the fields of earthquake, geotechnical, and structural engineering will provide independent technical oversight of approaches and decisions.
- **Transparency:** Transparent selection criteria and rules, including objective means of prioritizing projects through use of criteria that are identified in the bond and clear rules for funding and scope.
- **Public Updates:** The Port will create and maintain a dedicated website outlining and describing the Seawall Bond program, progress, activity updates and bond budget, and will include project names and estimated construction schedules once projects have been determined.

ABOUT

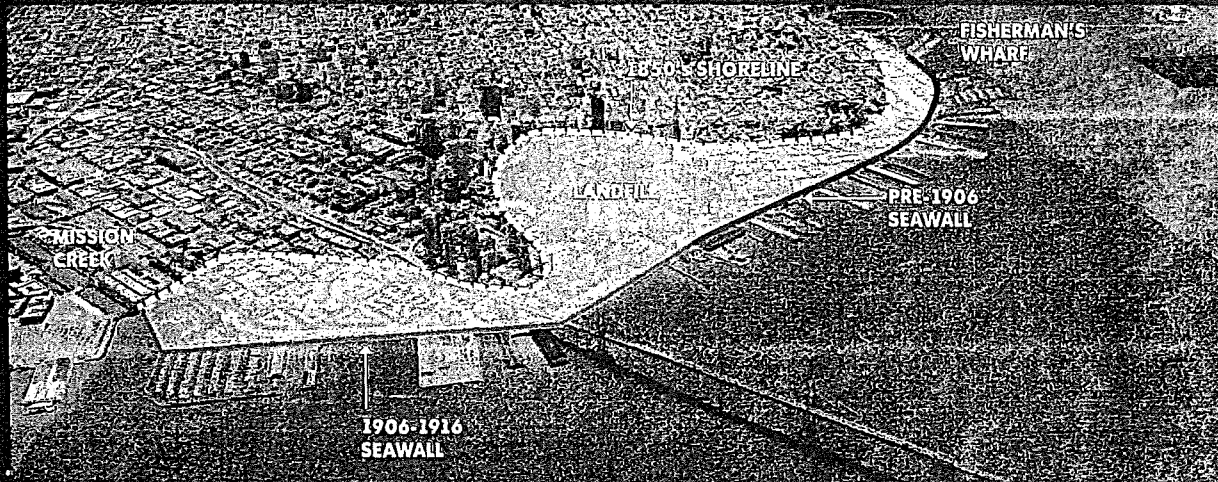
THE

EMBARCADERO

SEAWALL



# THE SEAWALL CREATED 500+ ACRES OF NEW LAND



The Seawall makes possible all buildings, infrastructure, and activity along the northern waterfront—extending back to 1st Street.

## San Francisco's Invisible Support

The Seawall's position underpinning the waterfront adjacent to the bay renders it largely invisible. The Embarcadero Seawall was built by dredging a trench through the mud, filling that trench with rock and rubble, capping the fill with a timber pile bulkhead wall and wharf, and then filling the tidal marshland area behind the Seawall. The Seawall acts as a retaining wall, stabilizing the filled land behind it. In addition to establishing and supporting the waterfront, the Seawall protects the City from flooding in the event of storm events and extremely high tides.

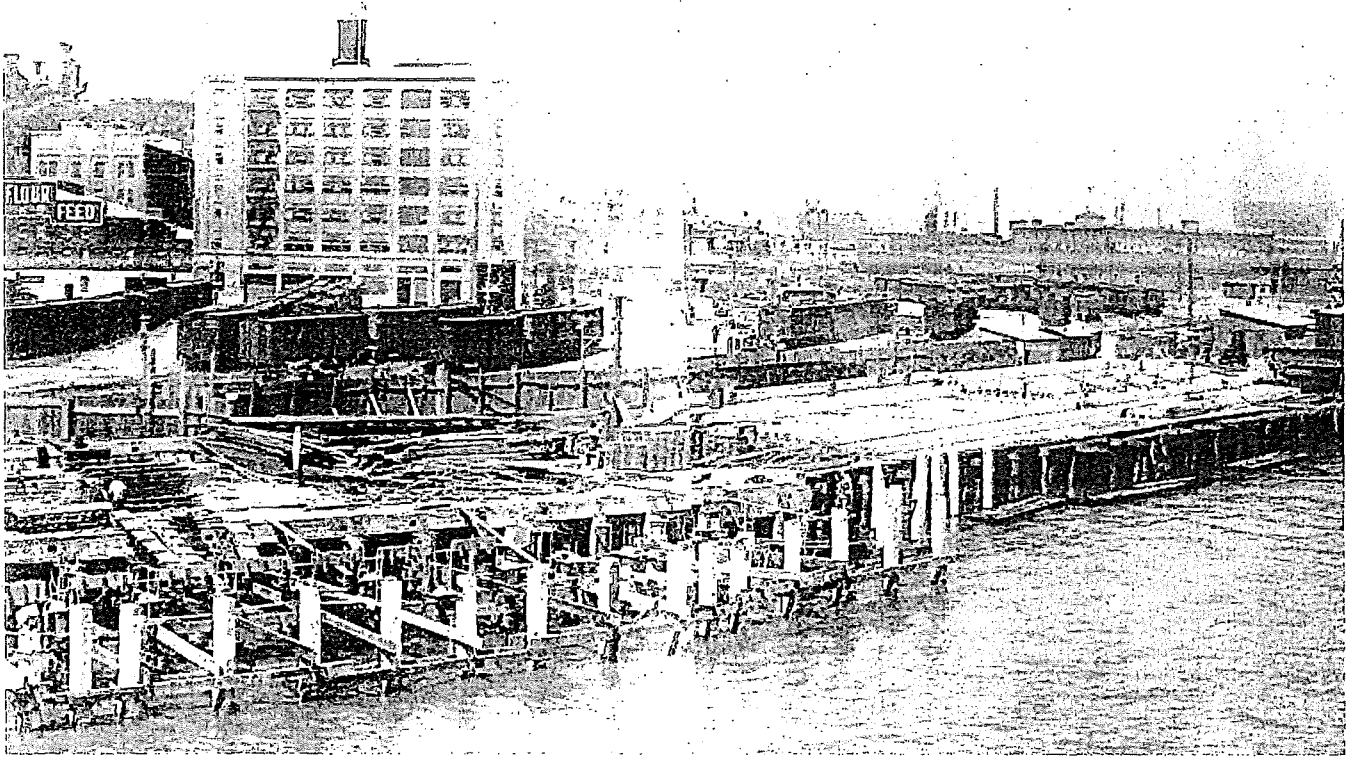
This vital but unseen piece of San Francisco infrastructure needs help. The Embarcadero Seawall was designed and constructed before the advent of modern engineering and the development of techniques that address seismic forces and soil liquefaction. Investigation by the Port shows that the Seawall has aged and settled and no longer offers the same level of protection it did when new.

The Seawall supports key utility networks and infrastructure, including the BART, Muni and ferry transportation systems and serves as a critical emergency response, evacuation and recovery area for the City and the region. If this critical

piece of infrastructure were to fail, everyone in the Bay Area could be at risk. Downtown San Francisco and the Financial District could flood, damaging BART and Muni and creating service disruptions that strand hundreds of thousands of people and disproportionately affect the City's most vulnerable populations. A third of all BART riders and half of Muni's riders are characterized as low-income. Both systems enable large numbers of economically diverse workers to commute to their jobs across the Bay Area.

In addition to transit system failures, damage to the Seawall could cause utility systems to fail, disrupting power, sewer, water and communications service to residents and businesses. The City could also lose access to infrastructure necessary for emergency response and post-disaster evacuation. All told, San Francisco could suffer billions of dollars in property damage, economic disruption, and lost tax revenue in the event of a disaster affecting the Seawall.

Though it may be difficult to imagine today, San Francisco's waterfront was once a relatively quiet place. Just eleven ships dropped anchor in San Francisco Bay between April 1847 and April 1848. Conceived by the State of California



## History & Today's Risks

In the 1870s and completed in the 1910s, the Embarcadero Seawall transformed three miles of shallow tidelands into a world-class deep water port that propelled San Francisco's development and prosperity.

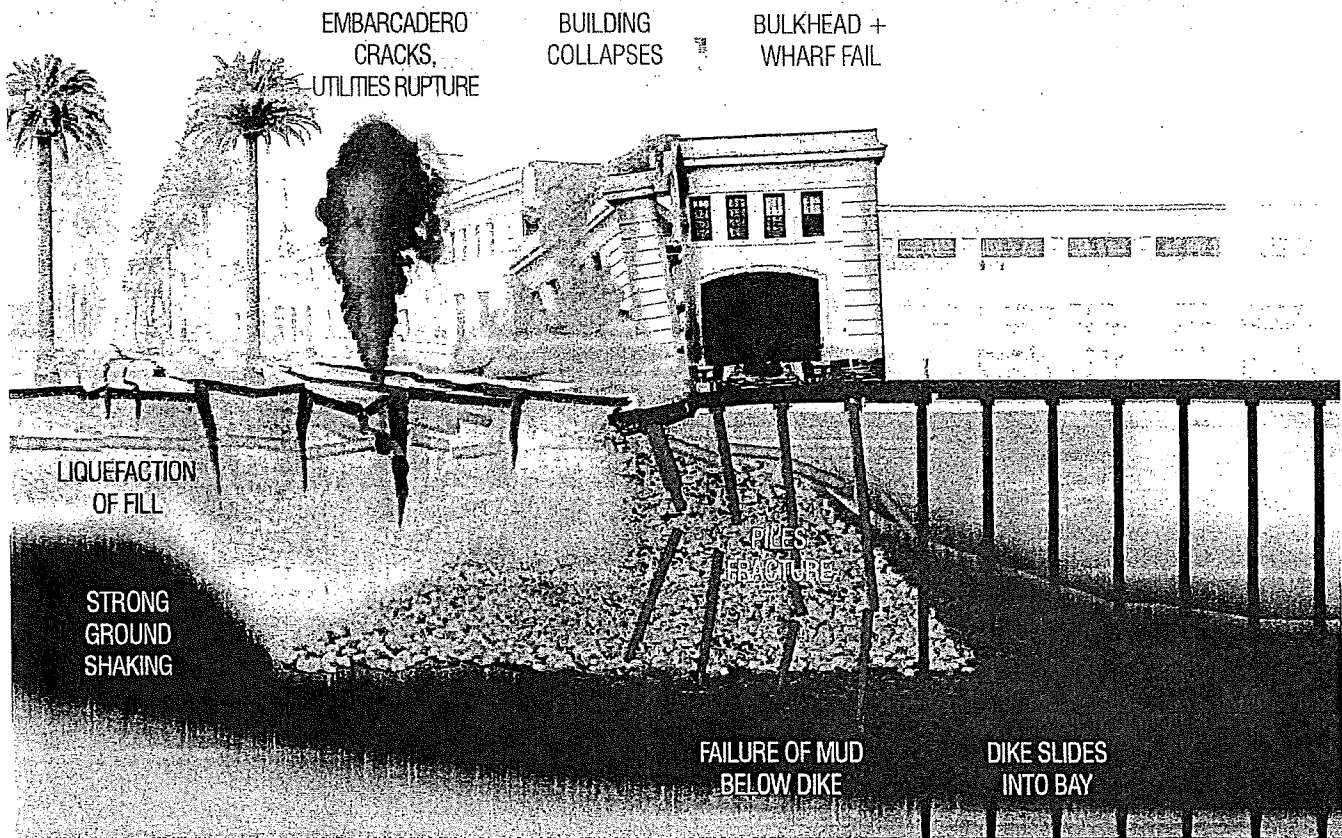
The San Francisco waterfront took shape during Seawall construction with the development of pile-supported bulkhead wharves and buildings and piers extending out into the bay. During this period, the City also completed other key projects that would come to define San Francisco, including the Ferry Building, erected in 1898. Many of the facilities built along and on top of the Seawall during this period make up the Embarcadero Historic District which has been on the National Register of Historic Places since 2006.

The Embarcadero waterfront is now an essential part of San Francisco's identity, and provides a home to businesses both large and small, the National Historic District, a thriving maritime and tourism industry, the City's Financial District, a regional transportation network hub, and parks and open spaces.

In 2014, the City's Lifelines Council completed an Interdependency Study that identified the 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 report 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 the effects of 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 this 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.



## Earthquakes

The Embarcadero Seawall faces immediate earthquake risks. The United States Geological Survey (USGS) estimates that there is a 72 percent chance of a 6.7 or greater magnitude earthquake striking the Bay Area in the next 25 years. The Seawall was built prior to the development of modern engineering and an understanding of seismic forces and liquefaction. The City now knows that the bay fill used to create the land behind the Seawall is susceptible to liquefaction during earthquakes. The Port's analysis found that in a major earthquake, the Embarcadero Seawall will slide bayward, potentially by as much as five feet, due to the pressure of the liquefied soils behind it and the failure of weak bay mud below it. This movement will likely damage the Embarcadero Roadway and Promenade and utilities and regional transportation infrastructure, and cause localized failure of wharves and the bulkhead buildings at the heads of piers. Such damage to the Embarcadero may impede evacuation and disaster response (Interdependency Study, April 2017).

## Flooding

The Embarcadero Seawall is already experiencing localized flooding due to higher water levels and settlement in certain areas. The shoreline from Pier 22 to Pier 9 includes some of the lowest shoreline elevations in San Francisco and these areas flood during king tides and storm events. The current 100-year flood event would send the bay over the current height of the Embarcadero Seawall and into the BART and Muni tunnels.

Data from the San Francisco tidal gauge shows that the San Francisco Bay has risen over eight inches since 1900. Most of the bay shoreline, including San Francisco, consists of filled land that was elevated just high enough so that it would not flood. As a result, much of the shoreline is low relative to the bay and will experience more flooding over larger areas of land at longer durations as sea levels rise.

To address risks to the Embarcadero Seawall, the Port of San Francisco must understand the water levels associated with different storm, tide and sea level rise activity. Identifying the threshold water levels for the Seawall will allow the Port and the City to develop actions to protect against current, temporary flooding and acute events that occur less frequently, while planning for higher water levels that will occur more frequently as sea levels rise.

The Seawall Program will identify these flood event thresholds for the Embarcadero Seawall. Based on existing assessments, the Port must consider three thresholds:

- The current and near-term flood risk which causes localized and temporary, short duration flooding and more significant flooding during an extreme event, will be the focus of initial flood protection projects and will address approximately 12 to 24 inches of flood risk.
- The next threshold for flood risk, approximately 24 to 36 inches, extends both the reach and the duration of flooding along the area protected by the Embarcadero Seawall. This water level will require additional measures, possibly including adapting and extending the reach of the previous flood protection measures, flood proofing buildings and living with more frequent closures of the Embarcadero Roadway and Promenade. Seawall Program mid-range planning will identify strategies and actions to address these water levels, adapting the actions taken in the first phase of the Program, expanding the affected areas and introducing new approaches to address the evolving risk.
- At approximately 36 to 48 inches of additional water, a significant portion of the Embarcadero Seawall is overtopped and the reach and duration of the flooding is much more extensive. The types of solutions necessary to address the level of flooding will likely include landscape scale solutions rather than the collection of flood measures described above. The vision phase of the Seawall Program will provide an opportunity to identify future options for addressing these higher water levels and determine the actions the City and the Port will take later in the Program.

## What's at Stake

### Critical Infrastructure

The Embarcadero Seawall supports an array of essential lifeline utilities including power, communication and water services, as well as significant sewer facilities including wastewater storage outfall structures, wastewater pumping stations, and auxiliary water intake valves and pumping stations. These assets provide critical City infrastructure supporting not just the waterfront and the Financial District but the entirety of northern San Francisco (Interdependency Study, April 2017). If the Embarcadero Seawall were to fail, these lifelines would likely be significantly damaged, causing substantial public health, safety, economic and societal impacts to the City and the region.

## Emergency Response

The City has designated the Embarcadero Roadway as a lifeline corridor for emergency evacuation and recovery. In a disaster, the waterfront will support evacuation and delivery points for ships, fuel depots, and areas to supply food, water, sanitation, and coordination of city-wide emergency response. Significant aspects of the City's emergency plan depend on the stability of the waterfront and, in turn, the Embarcadero Seawall.

Following a major earthquake, the Embarcadero Roadway and waterfront will serve as an evacuation route, linked to Department of Emergency Management, Fire Department and Neighborhood Emergency Response facilities. The Embarcadero Roadway is one of the City's Priority Routes as defined by the Public Works Department and the Department of Emergency Management. As a major arterial, the Embarcadero is a vital route for first responders.

Additionally, if a catastrophic earthquake closes bridges, highways, and BART, the region will rely on water transportation at the Port to move large numbers of people into and out of the City. Ferry landings and boat docks along the waterfront will provide evacuation points for people leaving the City and landing areas for disaster service workers and emergency equipment and supplies. In addition, Port parks, open spaces, and parking lots will be used for staging people and materials.

The City's emergency planners expect to use open space along the Port as recovery areas. Immediately following an earthquake, these areas may be necessary for evacuation tents, triage zones, regional emergency responder offloading, and ferry queuing. Longer-term recovery may require staging areas for debris storage, and supplies. Improving the seismic safety of the Seawall will make it more likely that these areas adjacent to the Embarcadero will provide the City with critical spaces for emergency response and recovery.

### Regional Transit Hub

The Embarcadero Seawall supports a regional transportation network, moving a significant number of local and regional residents and commuters. Approximately 1.1 million people enter the City each weekday, including 440,000 who arrive by boat at the Ferry Building or through the Transbay Tube on BART. In addition, the Muni Metro system registers over half a million daily boardings on routes that terminate downtown. The Muni Metro relies on its subway infrastructure to help transport hundreds of thousands of people on a daily basis from San Francisco's southern and



western neighborhoods to their jobs downtown. In addition to the risk from an earthquake, the Port and the United States Army Corps of Engineers have determined that the BART and Muni transportation networks are currently at risk of disruption from flooding during high tides and larger storms. Should this combined transit capacity be damaged by flooding the Bay Area would come to a standstill.

## Economic Engine

The Port of San Francisco is home to nearly 400 businesses which provide employment to San Franciscans and workers from around the Bay Area. In addition to the jobs on the Port, one out of every eight jobs in the Bay Area is located in downtown San Francisco. In 2017, the Port commissioned a study to estimate the total economic activity and property value at risk from a breach in the Embarcadero Seawall (BAE Urban Economics, May 2017). The study measured economic value including physical assets such as public facilities and private property, business activities, and tax revenues. The study concluded that the Seawall protects over \$100 billion of assets and economic activity and found that property destruction from Seawall failure would disrupt neighborhoods and businesses, result in reduced wages and business revenues and reduce tax revenues to local, state and federal governments.

## Recreation

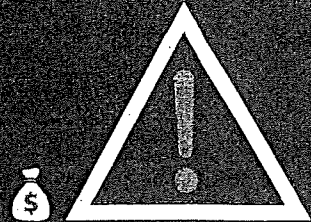

The Embarcadero Promenade is one of San Francisco's most heavily used bicycle, pedestrian and recreational corridors. The Embarcadero offers both commuter and recreational bicycling opportunities with bicycle counts between 700 and 900 riders during the evening commute. The Embarcadero Seawall also supports numerous parks and open spaces providing outdoor experiences to Bay Area residents and tourists alike. Maritime uses, recreation, restaurants and food vendors, businesses, commercial fishing, tourism, transportation, and the natural environment converge along the Embarcadero Seawall drawing people from around the City, the region and the world.

**\$102.1B OF TOTAL ECONOMIC ACTIVITY AND \$24.6B OF PROPERTY VALUE IS AT RISK FROM FAILURE OF THE SEAWALL**

The value of assets at risk is

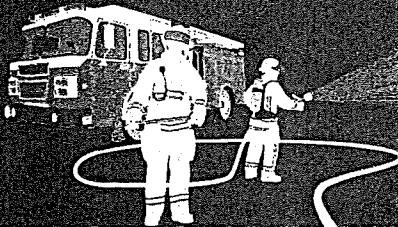
**10-40x greater**

than the investment needed to strengthen the Seawall.

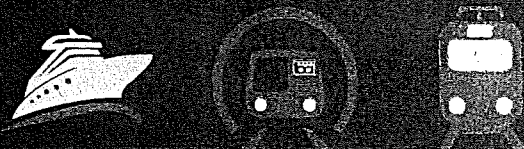
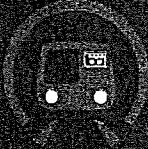




**THE SEAWALL IS A CRITICAL PART OF THE CITY'S NETWORK OF EMERGENCY RESPONSE**

In the event of a major earthquake, the waterfront must be available for emergency response access. Ensuring the seismic reliability of the Seawall will allow the City to respond to a major disaster.



**THE SEAWALL IS KEY TO REGIONAL TRANSPORTATION**

**440,000** people arrive daily by boat at the Ferry Building or through the Transbay Tube on BART

In addition, the Muni Metro system registers over **half a million** daily boardings on routes that terminate downtown.

**THE SEAWALL SUPPORTS ONE OF THE MOST POPULAR BIKING CORRIDORS IN SAN FRANCISCO**

and provides both a commuter and recreational bicycling opportunity. Bicycle counts show **700 to almost 900** riders use the Embarcadero during the evening commute.



An aerial, black and white photograph of San Francisco, California. The image shows the city's waterfront, including the Embarcadero and the bay. Several large, multi-story buildings are visible, along with a prominent structure that appears to be a ship or a large building on the water. The city's grid pattern is visible in the foreground, and the overall scene is a high-angle, wide shot of the urban landscape.

**THE**

**SAN FRANCISCO**

**SEAWALL**

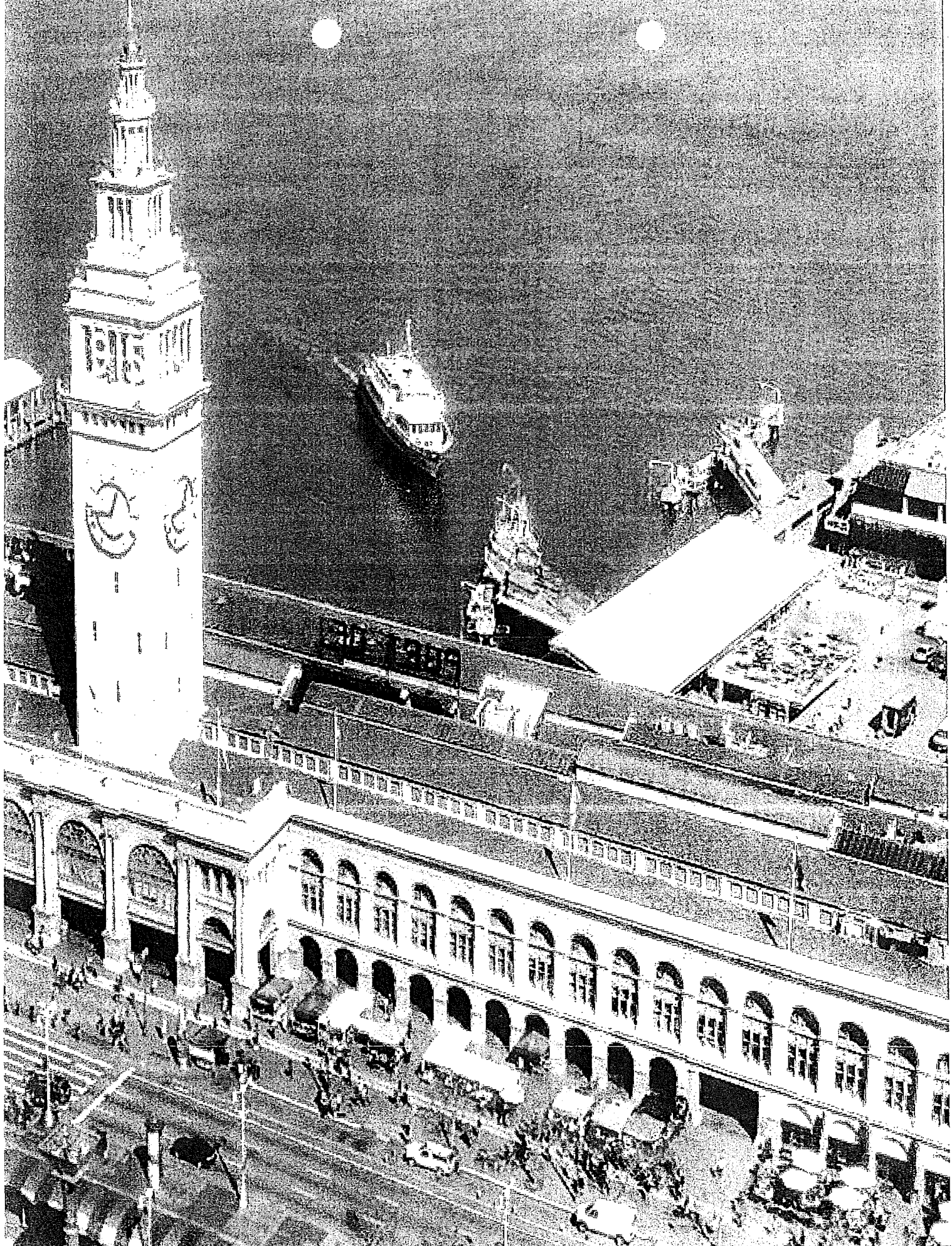
**EARTHQUAKE**

**SAFETY AND**

**DISASTER**

**PREVENTION**

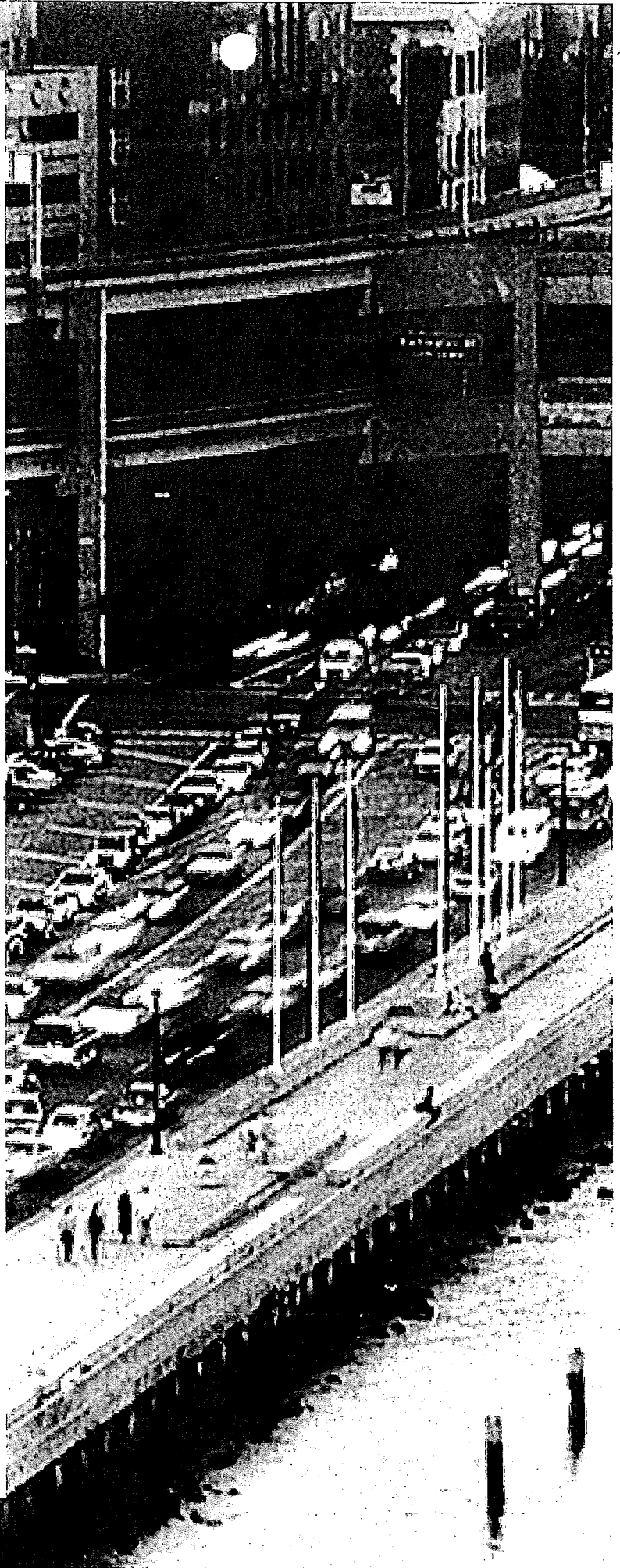
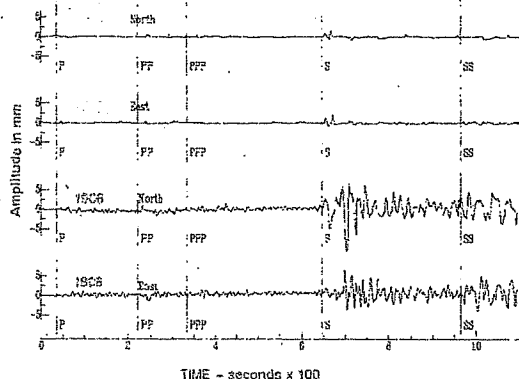
**PROGRAM**



## If the Embarcadero Seawall Survived 1906 and 1989, Why Are We So Worried Now?

San Francisco is one of the most seismically active areas in the world. The last major earthquake in San Francisco was the 1906 Earthquake which caused nearly 60 seconds of strong ground shaking. While significant, the 1989 Loma Prieta Earthquake, by comparison, was a minor event. With an epicenter located sixty miles away, it subjected the City to about 15 seconds of moderate shaking. Most of the Seawall and the infrastructure it protects did not exist in 1906 and has not been tested by a strong earthquake. Of the portions that did exist in 1906, evidence indicates that the Seawall settled and slid several feet toward the bay. The Loma Prieta Earthquake damaged some portions of the Seawall and caused some liquefaction in the Embarcadero, but ground shaking was not strong enough to cause Seawall failure. An earthquake similar to 1906 would severely test the Seawall and the infrastructure it protects.

Comparison of 1906 and Loma Prieta records at Gottingen, Germany



Seismic improvements to the Embarcadero Seawall will require local, state, and federal partnerships to develop, permit and fund. The Port estimates that immediate life-safety upgrades to the Seawall will cost \$500 million and that long-term infrastructure enhancements will cost up to \$5 billion and take up to 30 years to implement. To date, the City has invested nearly \$10 million in project planning.

Given the estimated funding need and generational nature of the Seawall Program, the Port will phase program implementation and anticipates that it will undertake at least three phases of work to the Seawall. The Seawall Earthquake Safety Bond will address Phase I.

## Schedule for Construction of Seawall Safety Improvements

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

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

- **Phase I:** Near-Term Actions to be funded by the Seawall Bond to address life-safety and emergency response and recovery, planning and actions, estimated between 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 estimated between 2026-2050
- **Phase III:** Long-Term Vision, for actions estimated between 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 Port to continue to develop an array of sources to fund the full program need.

With approval of the Seawall Bond, the Port will be able to complete program development, permitting, design, and construction of near-term actions, budgeted at \$500 million.



## Phase II and III: Mid-Range Plans and Long-Term Vision

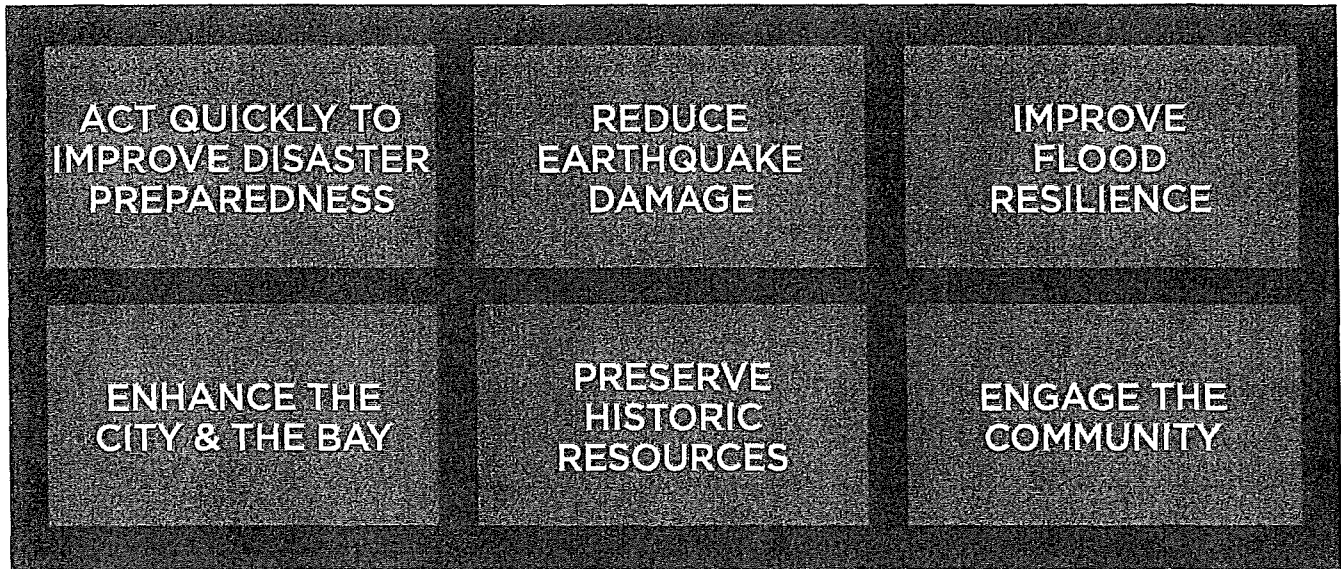
- **Mid-Range Plans:** Focused on enhancing the use and enjoyment and safety of the iconic Embarcadero waterfront.
  - » Complete seismic and flood protection improvements to the Embarcadero Seawall.
  - » Coordinate construction of related utility and transit improvements with Seawall improvements.
  - » Secure additional federal, state, local and private funding for project implementation.
- **Long-Term Vision:** Climate change and sea level rise will require a bold new vision for the waterfront as adapting the current iconic infrastructure will become increasingly difficult and costly. Recently updated State Sea Level Rise guidance indicates that this new vision will likely need to be implemented by the end of this century. However, the timing of the increased flood risks will change as science evolves. The Seawall Program will create a framework to allow the City to evaluate options for long-term visions as it makes near and mid-term decisions. This framework will include:
  - » A process to work with city, regional, regulatory and expert stakeholders to consider future visions of the waterfront that balance issues of society and equity, environment, economy and safety and a framework for regularly updating and adapting these visions as the context and character of the waterfront change and the water levels rise.
  - » Continue to engage in the science of climate change and sea level rise; monitor conditions related to observed and measured changes in water levels, as well as the condition of the Port's and City's assets and services. Adapt and adjust action timelines based on projections.
  - » Secure additional federal, state, local and private funding.

## Phase I: Near-Term Actions

- Detailed engineering risk assessment, development of program planning, decision-making and implementation framework, alternatives development, and stakeholder engagement.
- Definition of the overall program (up to \$5 billion) and Phase I improvements budgeted at \$500 million.
- Phase I improvements will be focused on the most critical infrastructure for disaster response and life-safety.
- Phase I will include earthquake safety improvements and associated flood protection improvements which will also result in enhancements to the urban and natural environments.
- Earthquake safety improvements may include ground strengthening, structural retrofits and replacements, and utility replacements/relocations.
- Flood protection improvements may include raising the Seawall, fixed and deployable barriers, movable gates, flood proofing of facilities; re-grading, and relocation of sensitive infrastructure.
- To create a stable foundation that may be adapted to future sea level rise, the Port will use the recent update to the State's sea level rise guidance released by the Ocean Protection Council.
- Depending upon the characteristics and locations of the earthquake safety and flood protection improvements, urban and environmental enhancements may include new public access, bicycle and pedestrian improvements, and water quality and habitat enhancements.
- Development of future phases of the Seawall Program that include prioritized improvements to continue to address the most critical seismic and flood risks.

# Seawall Program Goals

The Port and its stakeholders have identified six initial goals for the program:



The Port's first goal for the Seawall Program is to act quickly. The Port's analysis clearly demonstrates immediate seismic and flooding risks to the Embarcadero Seawall. In light of this information and understanding the significant value of the utility, transportation and economic infrastructure that the Seawall protects, the City and the Port have launched Phase I of the Seawall Earthquake Safety and Disaster Prevention Program.

## Estimated Project Schedule, Phases and Funding Need (\$ millions)

PROGRAM PHASE	PHASE YEARS	PLANNED ACTIVITIES	ANNUAL SPENDING	CUMULATIVE COST
<b>Vulnerability Study</b>	15/16	Vulnerability Study	\$0.0	\$0.0
<b>Planning</b>	16/17	Project Management & Stakeholder Engagement	\$0.3	\$0.3
	17/18	Planning Services	\$6.7	\$7.0
	18/19	USACE CAP 103	\$8.9	\$15.9
<b>Preliminary Design</b>	19/20	Project Management & Stakeholder Engagement	\$12.5	\$28.4
	20/21	Environmental Approvals	\$13.0	\$41.4
	21/22	Preliminary Design USACE CAP 103	\$72.8	\$114.2
<b>Final Design and Construction</b>	22/23	Project Management & Stakeholder Engagement	\$90.5	\$204.6
	23/24	Final Design	\$90.5	\$295.1
	24/25	Design Support Services	\$90.4	\$385.5
	25/26	Construction Management	\$90.4	\$475.9
	26/27	Construction	\$24.1	\$500.0

# The San Francisco Seawall Earthquake Safety Program G.O. Bond

INVESTMENT CATEGORY	EXAMPLE MEASURES TO BE INCLUDED AND EVALUATED
<b>Project Implementation</b>	<ul style="list-style-type: none"> <li>• Program Development, Planning &amp; Pre-Design</li> <li>• Design, Engineering &amp; Other Soft Costs</li> <li>• Construction Management</li> </ul>
<b>Earthquake Improvements</b>	<ul style="list-style-type: none"> <li>• Ground Strengthening &amp; Liquefaction Remediation</li> <li>• Bulkhead Wall, Wharf &amp; Pier Retrofits &amp; Replacements</li> <li>• Bulkhead Building Retrofits and Seismic Joints</li> <li>• Pier Building Retrofits</li> <li>• Critical Facility Retrofits &amp; Replacements</li> <li>• Utility Replacements, Relocations &amp; Bypasses</li> <li>• Matching Funds for Public &amp; Private sources</li> <li>• Other Life Safety Improvements</li> </ul>
<b>Flood Protection Measures</b>	<ul style="list-style-type: none"> <li>• Flood Walls &amp; Barriers</li> <li>• Surface Grade Changes</li> <li>• Flood Proofing</li> <li>• Planning for Future Adaptation</li> <li>• Enhanced Foundation for Future Adaptation</li> <li>• Other Flood Control Improvements</li> </ul>
<b>Mitigation &amp; Enhancement</b>	<ul style="list-style-type: none"> <li>• Public Access Enhancements</li> <li>• Transportation/Mobility Improvements</li> <li>• Environmental Benefits</li> <li>• Other Public Benefits</li> </ul>

San Francisco's Ten Year Capital Plan for Fiscal Year 2018-2027 includes a proposed \$425 million General Obligation Bond for the November 2018 ballot to support the Seawall Earthquake Safety and Disaster Prevention Program. The bond will require two-thirds voter approval and will not raise tax rates. The Seawall Bond will fund Phase I of the Seawall Program, focusing on life-safety seismic enhancements, emergency preparedness and near-term flood risk. As the City, acting through the Port, makes these improvements to the Seawall, it will also be laying the groundwork to prepare for long-term resilience and sea level rise over time.

The proposed Seawall Bond will allow the City to begin infrastructure improvements to the Seawall. This bond will partially fund planning, development, preliminary design, environmental approvals, final design and construction to address the Embarcadero Seawall's immediate life-safety risks over the next ten years. Phase I of the Seawall Program will also include development of a framework for subsequent phases of the program, building upon the investigation, analysis, community and stakeholder outreach

and financial planning completed in Phase I. This work will identify additional projects to enhance seismic reliability and flood resilience in Phases II and III of the program.

## Bond Projects

The Port, in consultation with the City and other stakeholders and experts, will select the locations and construction methods for immediate Seawall life-safety improvements using the results of the multi-hazard risk assessment that is designed to reduce risk and enhance reliability in a cost-effective manner, maximizing the available construction dollars. Near-term investments likely to be funded by the bond include earthquake improvements, flood protection measures, and mitigation and enhancement projects, as well as core project implementation tasks like planning, design, and construction management.

The multi-hazard risk assessment that the Port is currently conducting will inform a more detailed understanding of risks and potential damages to the Embarcadero Seawall,



particularly as related to disaster preparedness. Through this evaluation, and with input from the public and regulatory agencies on topics of land use, society and equity, economy, environmental and urban design, the Port will identify initial Seawall improvements for near-term construction to be funded by the bond. The bond funding will address the most significant seismic and current and near-term flood risks to the most vulnerable and critical life-safety and emergency response assets.

## Potential Seismic Projects

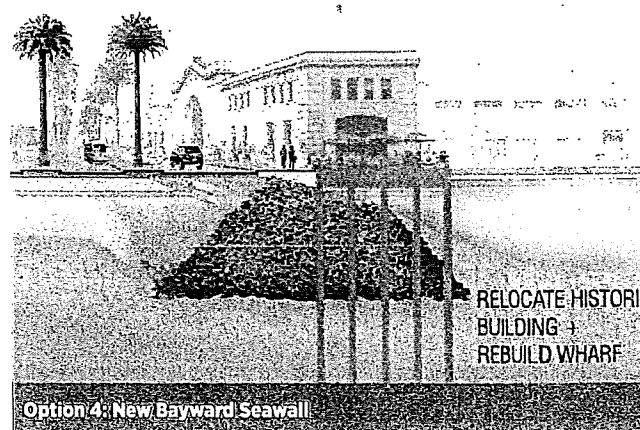
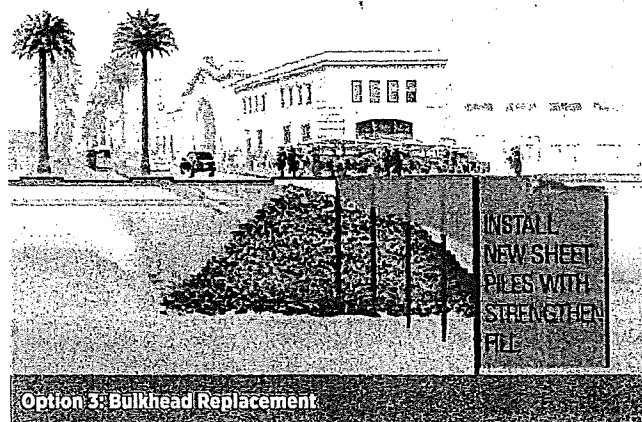
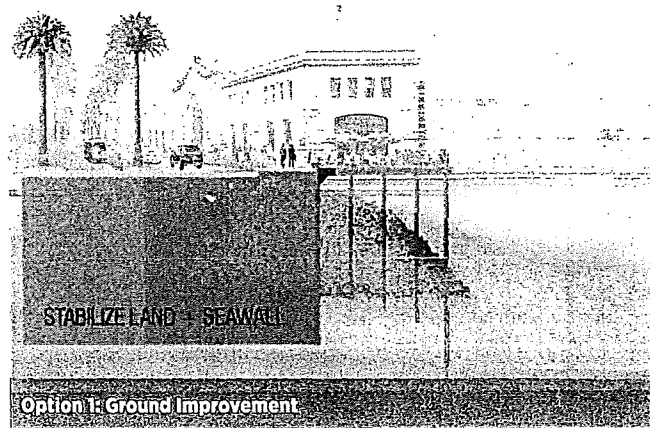
Several construction options are available to improve Seawall seismic reliability. These options may be implemented together, individually, or sequenced over time. Potential approaches to seismically reinforce the Seawall include:

- **Ground improvements:** Improving the soil conditions on the landside of the Seawall, or through/beneath the Seawall. Ground improvements would reduce the risk of liquefaction.
- **Seawall Replacement:** Construction of new Seawall segments, using modern seismic design. Seawall replacement would withstand the risk of liquefaction.
- **Structure Improvements:** Strengthening or replacing bulkhead walls and wharves to withstand seismic movement.
- **Utility Relocation or Replacement:** Relocating or replacing critical utilities that are currently protected by the Seawall.

Proposed seismic solutions will be subject to peer review by a panel of external seismic and geotechnical experts to assess their performance and applicability. Using a vetted set of project criteria, the Port will evaluate these methods to assess their site-specific risk reduction, cost, regulatory acceptance, adaptability to sea level rise, level of construction disruption, and co-benefits. This process will be conducted with input from the public and regulators.

## Potential Flood Projects

As with seismic improvements, there are range of approaches to reduce flood risk. Flood mitigations could include both “hard solutions” such as raised seawalls, gates, deployable barriers, and “soft solutions” such as earthen berms and living shorelines. Modern seawall design provides an opportunity to ensure that public views and public access to the waterfront are retained or enhanced.



Alternatives for historic buildings and other Port properties could include “dry-proofing” to fully protect structures at risk of flooding, and “wet-proofing” to accommodate intermittent inundation. Examples of wet-proofing include moving critical electrical and plumbing equipment to upper stories and use of water-resistant flooring.

The Port will co-design flood mitigations with seismic improvements. Phase I of the Seawall Program will evaluate the applicability, effectiveness, risks, and costs of the short and mid-term seismic reinforcements and flood mitigations to Seawall reaches. The Port will consider these factors in the project selection criteria.

## Potential Urban and Ecosystem Improvement Projects

While Phase I projects will focus on reduction of seismic and near-term flooding risk to reduce life-safety and emergency response risks, Phase I improvements may also include opportunities to enhance both the urban landscape and the bay environment. The Port will decide whether to include such enhancements based on the scale and location of the site-specific seismic and near-term flood risk reduction methods and the cost-benefit ratio of these infrastructure investments.

Urban landscape and bay environmental benefits may include enhanced open space and elevated parks and plazas, localized soft features such as stormwater gardens, opportunities for improved pedestrian and bike safety, public art, greater public access and enhanced views to the water.

Ecosystem enhancements may include mitigation measures adjacent to the Seawall, along the southern shoreline, or collaborations with regional ecosystem enhancements. Examples of potential ecosystem enhancements proximate to the Seawall include “living walls” which provide additional marine substrate for the establishment of habitat, hard substrate restoration to enhance oyster habitat, protected wetlands, and tidepools. Together, enhanced public access and nearshore habitat enhancements could provide bay ecosystem educational opportunities to school children and families throughout the Bay Area.

There will be opportunity for ample public input into the Port’s selection of urban and ecosystem improvements.

## Project Prioritization

This G.O. Bond will fund construction of targeted improvements to enhance the life-safety seismic resilience and emergency response capabilities along the Embarcadero. The Port will select locations and construction methods for Phase I projects based on an engineering evaluation that will strive to reduce risk, enhance reliability and maximize available construction dollars.

The Seawall Program will be informed by a multi-hazard risk assessment designed to evaluate the combined risks of earthquakes and flooding to the Seawall and the neighborhoods that it protects. The Program will combine this engineering process with a prioritization process in partnership with stakeholders from City departments, the community and regional partners. The City and the Port have experience leading such efforts and will build off many years of work with a broad range of stakeholders.

To ensure Phase I construction projects focus on the most critical life-safety and flood risk locations along the Seawall, the project will:

- 1. Analyze risks:** Perform a multi hazard risk assessment, including analysis of potential loss of life and property damage, to inform impacts of seismic and flood scenarios.
- 2. Develop design criteria:** Design criteria will incorporate life-safety, seismic, flood, and disaster preparedness factors, consider urban design standards, and ensure compliance with land use policies, environmental and other regulatory requirements.
- 3. Develop and evaluate alternatives:** Options will be developed to reduce seismic and flood risk. The risk reduction benefits of alternatives will be evaluated, along with potential co-benefits.
- 4. Prioritize Phase I projects based on the evaluation:** Based on the evaluation of alternatives, projects will be recommended and prioritized. Port staff, in consultation with city, regional, regulatory, expert and community stakeholders, will recommend Phase I safety improvement projects to the Port Commission and will advance projects into design and construction after approval. The remaining projects will be incorporated into subsequent phases of the Seawall Program for future investment.
- 5. Design and construct Phase I projects:** Based on an approved Phase I recommendation, the initial safety improvements will advance into design and construction. Construction completion is targeted for 2026.

# SEAWALL PROGRAM: SAMPLE EVALUATION CRITERIA

## Life Safety

## Emergency Response

Implementation  
Timeframe

Risk  
Avoided

Community and  
Social Benefits

Environmental  
Benefits

## Minimize Disruption and Construction Impacts

The Port will compare project alternatives using evaluation criteria established with input from stakeholders and the community. Examples include whether the project meets life-safety goals, improves emergency response, can be completed in a timely fashion, avoids risk, provides community or environmental benefits and minimizes disruption to City residents, businesses and visitors. The evaluation criteria will guide the design process and project selection, steering the Seawall Program toward feasible, effective, and flexible solutions that achieve multiple benefits over time. The Port will continue to refine evaluation criteria as the Seawall Program progresses.

## Funding The Program

In 2016 the City Administrator convened a Seawall Finance Working Group (SFWG) with staff from key City departments to analyze potential strategies and prepare a set of funding recommendations for the City and the Port. Given the Seawall's vast need, the SFWG realized that the

City could not fund the Seawall Program through only local means and ultimately considered 48 different local, regional, state and federal funding sources. The group's final report, issued in July 2017, organized its recommendations into three areas: primary, secondary and supplementary funding sources.

The primary recommendations:

- A. General Obligation (G.O.) Bonds – currently proposed for the 2018 ballot.
- B. A Community Facilities District (CFD) to fund sea-level rise adaptations and seismic mitigation measures for the Seawall.
- C. Local Property Tax Increment Revenue generated from Infrastructure Finance Districts (IFDs) from new development 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 – introduced in the California State Assembly.
- E. State Resilience General Obligation (G.O.) Bond funding pursued through legislation at the State level.

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

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).

In accordance with the SFWG's recommendations, the Port is attempting to identify \$500 million in funding for Phase I of the Seawall Program, including a planned \$425 million General Obligation Bond. The City is also actively working with the U.S. Army Corps of Engineers and the State of California to identify additional program funding. The bond would comprise an important local match to any federal or state funding.

## 10-Year Capital Plan

Adopted through legislation by the Mayor and Board of Supervisors in 2005, the Capital Planning Committee was created to guide and prioritize capital needs citywide. The 10-Year Capital Plan (the Plan) is developed by the Capital Planning Committee and adopted annually by the Board of Supervisors prior to adoption of the annual City budget. The Plan prioritizes critical capital projects that impact the public's safety and well-being; places a strong emphasis on accountability and transparency; and most importantly, demonstrates the highest levels of fiscal restraint and responsibility. Since its inception, the top priorities of the Capital Plan have been the seismic improvement of City infrastructure, including the Zuckerberg San Francisco General Hospital, which voters approved in November 2008, and City public safety and emergency response facilities, which voters approved in 2010 and 2014.

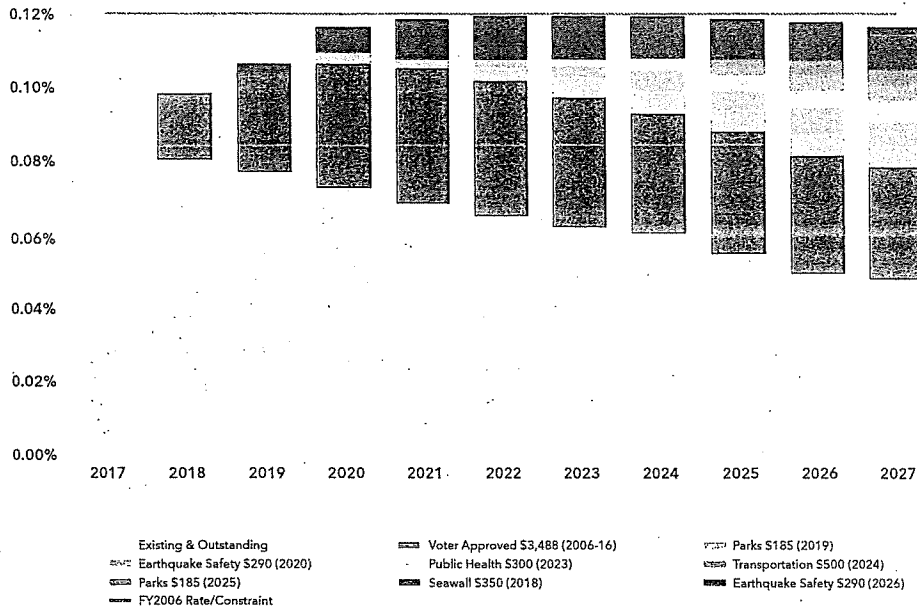
The City has invested significant General Fund dollars into the repair and rehabilitation of our capital assets over the years. However, the City cannot rely on annual funds alone to address these critical needs. Where annual funds are not adequate to pay the costs of major capital improvements, the Plan recommends using one of two sources of long-term debt financing: General Obligation (G.O.) bonds backed by property taxes upon approval by voters and General Fund debt programs backed by the City's General Fund upon approval by the Board of Supervisors and the Mayor. Both sources are appropriate means of funding capital improvements as they spread the cost of these facilities over their long useful lives and across the generations of San Franciscans that will reap their benefits.

The Capital Plan has adopted strict financial constraints on the use of long-term debt financing so as to not place an increased burden on future generations. Voter-approved G.O. bonds proposed by the Capital Plan are only proposed as the City retires existing debt from prior bonds. As the City pays off its obligations for other facilities, the City can initiate new capital projects without increasing property tax rates.

The Seawall Bond, therefore, will not increase property tax rates beyond their fiscal year 2006 levels.

For more information on the City's Capital Plan, please visit [onesanfrancisco.org](http://onesanfrancisco.org).

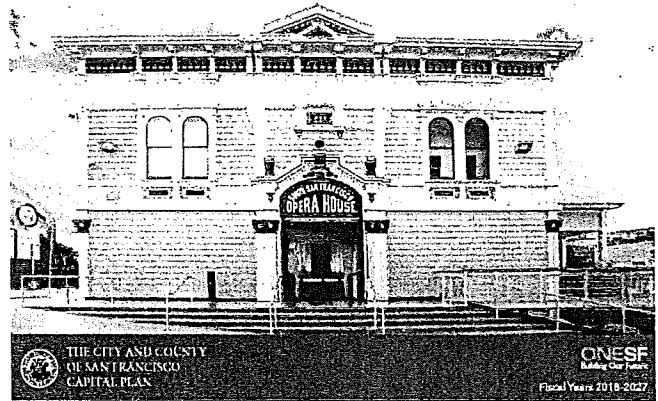
**Capital Plan G.O. Bond Program (Certified AV 8-1-16)  
FY2017 - 2027**



Note: Chart does not reflect passage of Measure C in November 2016, allowing use of Seismic Safety Loan Bond Program capacity for Affordable Housing projects

## Conclusion

The City cannot afford *not* to improve the Embarcadero Seawall and must act as quickly as possible. Any undertaking to improve the Seawall today would be dwarfed by the size and scope of a project to restore the City should the Seawall fail. The value of the assets at risk from Seawall failure is between 10 and 40 times greater than the \$2 to \$5 billion that the City must spend to strengthen the Seawall and address sea level rise. The proposed Seawall Bond supports good public policy, makes economic sense and will enable the City to avoid future disaster.



## Credits/Notes

All photos and renderings by the Port of San Francisco.







PORT OF SAN FRANCISCO  
Pier 1, The Embarcadero | San Francisco, CA 94111 | T: 415 274 0400





# SAN FRANCISCO PLANNING DEPARTMENT

## General Plan Referral

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

*Date:* May 24, 2018  
*Case No.* Case No. 2018-007023GPR  
2018 San Francisco Seawall Earthquake Safety Bond

Reception:  
415.558.6378

Fax:  
415.558.6409

*Block/Lot No.:* Various, Citywide  
*Project Sponsor:* San Francisco Port Commission  
Pier 1, The Embarcadero  
San Francisco, CA 94111

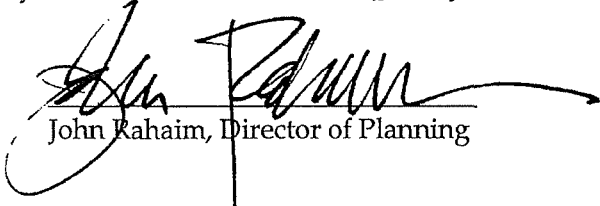
Planning  
Information:  
415.558.6377

*Applicant:* Diane Oshima  
San Francisco Port Commission  
Pier 1, The Embarcadero  
San Francisco, CA 94111  
(415) 274-0553  
Diane.oshima@sfgov.com

*Staff Contact:* Ben Caldwell – (415) 575-9131  
[ben.caldwell@sfgov.org](mailto:ben.caldwell@sfgov.org)

*Recommendation:* Finding the proposed 2018 San Francisco Seawall Earthquake Safety Bond, on balance, is in conformity with the General Plan

*Recommended  
By:*

  
John Rahaim, Director of Planning

### PROJECT DESCRIPTION

The Port of San Francisco is proposing a \$425 million General Obligation (GO) Bond for the November, 2018 ballot. The purpose of the GO Bond is to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening and repair of the Embarcadero Seawall and other critical infrastructure along the San Francisco waterfront. This General Plan Referral is for the Bond itself. If the bond is approved by the voters, subsequent bond-funded projects should be referred to the Planning Department to determine whether they require a General Plan referral(s), pursuant to Section 4.105 of the Charter and Sections 2A.52 and 2A.53 of the Administrative Code, or other authorization.

**ENVIRONMENTAL REVIEW**

The Planning Department has determined that the proposed amendment is not a project under CEQA per Guidelines Sections 15060(c) and 15378 because there is no direct or indirect physical change in the environment.

**GENERAL PLAN COMPLIANCE AND BASIS FOR RECOMMENDATION**

The proposed GO bond is, on balance, in conformity with the General Plan, as described in the body of this report. If the bond is approved and funds for seawall reconstruction-related projects become available, some projects may require project-level General Plan referrals, as required by San Francisco Charter §4.105 and § 2A.53 of the Administrative Code; Environmental Review; and/or other discretionary actions by the Planning Department.

**COMMERCE AND INDUSTRY ELEMENT**

**OBJECTIVE 2**

**MAINTAIN AND ENHANCE A SOUND AND DIVERSE ECONOMIC BASE AND FISCAL STRUCTURE FOR THE CITY.**

**POLICY 2.1**

**Seek to retain existing commercial and industrial activity and to attract new such activity to the city.**

**POLICY 2.2**

**Seek revenue measures which will spread the cost burden equitably to all users of city services.**

*The Seawall GO Bond would provide capital funding for potential reconstruction and adaptation projects that would ensure the continued health and soundness of the city's economic base, a significant portion of which is located in an area that depends on the seawall's soundness and stability. The bond structure is intended to equitably spread the significant cost burden for replacing this critical piece of waterfront infrastructure to all users.*

**POLICY 5.5**

**Assure adequate funding for capital investments as well as operational expenses of the port.**

*The Seawall GO Bond will help ensure there is adequate funding for capital as well as operational expenses of the Port, by providing significant new capital investment funding for a major capital infrastructure need that is beyond the Port's ability to fund in its annual capital budget.*

**COMMUNITY SAFETY ELEMENT**

**OBJECTIVE 1**

**REDUCE STRUCTURAL AND NONSTRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.**

**POLICY 1.13**

Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings, and provide assistance to reduce those risks.

**POLICY 1.15**

Abate structural and non-structural hazards in City-owned structures.

**POLICY 1.16**

Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.

**POLICY 1.18**

Identify and replace vulnerable and critical lifelines in high-risk areas.

**POLICY 1.21**

Ensure plans are in place to support populations most at risk during breaks in lifelines.

*The Seawall GO Bond would help directly address the risks presented by one of the City's most vulnerable pieces of infrastructure, a critical lifeline on which millions depend. If approved, the bond would help ensure plans are in place to support populations most at risk if the seawall were to fail in a disaster. Potential bond projects could help protect some of the Port's most historically significant structures.*

**OBJECTIVE 2**

**BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.**

**POLICY 2.1**

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

**POLICY 2.11**

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

**POLICY 2.12**

Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

**POLICY 2.13**

**Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.**

**POLICY 2.19**

**Seek funding for preparedness projects.**

*The Seawall GO Bond would help educate the public about the risks presented by one of the City's most vulnerable pieces of infrastructure, and would directly fund important preparedness projects. It would provide capital funding for projects that would help assure the continued viability of the city's emergency routes, and its many waterfront rail, transit and water transportation networks and facilities, which serve as critical emergency transport.*

**ENVIRONMENTAL PROTECTION ELEMENT**

**OBJECTIVE 3**

**MAINTAIN AND IMPROVE THE QUALITY OF THE BAY, OCEAN, AND SHORELINE AREAS.**

**POLICY 3.2**

**Promote the use and development of shoreline areas consistent with the General Plan and the best interest of San Francisco.**

*The Seawall GO Bond would provide capital funding for reconstruction and adaptation projects that would help ensure that San Francisco's world-class bayfront and shoreline, including the Embarcadero, can continue to be maintained, used, protected, and improved for the benefit of its citizens for generations.*

**RECREATION AND OPEN SPACE ELEMENT**

**POLICY 1.4**

**Maintain and repair recreational facilities and open spaces to modern maintenance standards.**

**POLICY 1.10**

**Ensure that open space is safe and secure for the City's entire population.**

**POLICY 1.12**

**Preserve historic and culturally significant landscapes, sites, structures, buildings and objects.**

*The Seawall GO Bond would provide capital funding for reconstruction and adaptation projects that would help ensure that San Francisco's bayfront and shoreline open space will be well-maintained, safe, and secure for the City's entire population and visitors. It would protect important historic waterfront sites and buildings from damage that could ensue from the failure of the aged seawall in an earthquake.*

**PROPOSITION M FINDINGS – PLANNING CODE SECTION 101.1**

Planning Code Section 101.1 establishes Eight Priority Policies and requires review of discretionary approvals and permits for consistency with said policies. The Project is found to be consistent with the Eight Priority Policies as set forth in Planning Code Section 101.1 for the following reasons:

**Eight Priority Policies Findings**

The subject project is found to be consistent with the Eight Priority Policies of Planning Code Section 101.1 in that:

The proposed project is found to be consistent with the eight priority policies of Planning Code Section 101.1 in that:

1. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced.  
*The Bond will not displace or restrict access to any existing neighborhood-serving or restrict future opportunities.*
2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhood.  
*The Bond would have no adverse effect on the City's housing stock or on neighborhood character.*
3. That the City's supply of affordable housing be preserved and enhanced.  
*The Bond would have no impact on the City's supply of affordable housing.*
4. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.  
*The Bond would not impact commuter traffic or parking. The proposed bond, if approved, would help ensure the viability of BART and MUNI transit service in an earthquake, as well as protect BART and MUNI service and infrastructure from long-term climate change impacts. Specific projects that included any changes to the transportation network or transit service along the waterfront would be subject to separate authorization and approval.*
5. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for residential employment and ownership in these sectors be enhanced.  
*The Bond would not affect the existing economic base in this area. If approved, the Bond would help ensure the continued long-term economic viability of San Francisco's waterfront, including its*

*industrial and service sectors, by helping strengthen the aging seawall on which the physical viability of its waterfront-specific sectors rely.*

6. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

*The Bond directly supports achieving the greatest possible preparedness against injury and loss of life in an earthquake. If approved, it would improve the City's ability to respond to injuries caused by earthquakes and other emergencies by providing funding to begin directly addressing critical needs to one of its oldest, most important and most vulnerable pieces of infrastructure.*

7. That landmarks and historic buildings be preserved.

*The Bond would not affect landmarks or historic buildings. If approved, the Bond would help protect waterfront landmarks and historic buildings from an earthquake, major disaster, or the impacts of climate change. Specific projects that included any changes to landmarks or buildings of historic significance along the waterfront would be subject to separate authorization and approval.*

8. That our parks and open space and their access to sunlight and vistas be protected from development.

*The Bond would have no adverse effect on parks and open space or their access to sunlight and vista. Individual projects that could make changes to waterfront open space would be subject to separate General Plan Referral(s) and/or other City authorization and approval.*

<b>RECOMMENDATION:</b>	<b>Finding the Project, on balance, in-conformity with the General Plan</b>
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**Attachments:**

Final Seawall GO Bond Report 4.24.18

Seawall GO Bond Ordinance

2010419 Resolution Go Bond Seawall and Other Critical Infrastructure

Seawall GO Bond Legislative Digest

cc: Brad Benson, Port

BOARD of SUPERVISORS



City Hall  
Dr. Carlton B. Goodlett Place, Room 244  
San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 554-5227

May 11, 2018

File No. 180454 & 180462

Lisa Gibson  
Environmental Review Officer  
Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

Dear Ms. Gibson:

On May 1, 2018, Mayor Farrell introduced legislations for the following proposed Charter Amendments for the November 6, 2018, Election:

**File No. 180454**

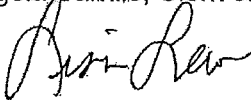
Ordinance calling and providing for a special election to be held in the City and County of San Francisco on Tuesday, November 6, 2018, for the purpose of submitting to San Francisco voters a proposition to incur the following bonded debt of the City and County: \$425,000,000 to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening and repair of the Embarcadero Seawall and other critical infrastructure, and related costs necessary or convenient for the foregoing purposes; authorizing landlords to pass-through 50% of the resulting property tax increase to residential tenants in accordance with Administrative Code, Chapter 37; finding that the estimated cost of such proposed project is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require expenditures greater than the amount allowed therefor by the annual tax levy; reciting the estimated cost of such proposed project; fixing the date of election and the manner of holding such election and the procedure for voting for or against the proposition; fixing the maximum rate of interest on such bonds and providing for the levy and collection of taxes to pay both principal and interest; prescribing notice to be given of such election; affirming the Planning Department's determination under the California Environmental Quality Act, and finding that the proposed bond is in conformity with the eight priority policies of Planning Code, Section 101.1(b), and with the General Plan; consolidating the special election with the general election; establishing the election precincts, voting places, and officers for the election; waiving the word limitation on ballot propositions imposed by Municipal Elections Code, Section 510; complying with the restrictions on the use of bond proceeds specified in California Government Code, Section 53410; incorporating the provisions regarding the Citizens' Bond Oversight Committee in Administrative Code, Sections 5.30-5.36; and waiving the time requirements specified in Administrative Code, Section 2.34.

File No. 180462

Resolution determining and declaring that the public interest and necessity demand the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening, and repair of the Embarcadero Seawall and other critical infrastructure and the payment of related costs necessary or convenient for the foregoing purposes; finding that the estimated cost of \$425,000,000 for such improvements is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require incurring bonded indebtedness; affirming the Planning Department's determination under the California Environmental Quality Act; finding the proposed bond is in conformity with the General Plan, and the eight priority policies of Planning Code, Section 101.1(b); and waiving the time limits set forth in Administrative Code, Section 2.34.

These legislations are being transmitted to you for environmental review.

Angela Calvillo, Clerk of the Board

*for*   
By: Linda Wong, Assistant Clerk  
Budget and Finance Committee

Attachment

c: Joy Navarrete, Environmental Planner  
Laura Lynch, Environmental Planner

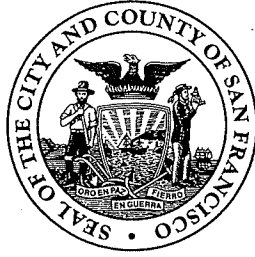
Not defined as a "project" under CEQA, because it is only the creation of a government funding mechanism and does not involve any commitment to any specific project, as defined in CEQA Guidelines Section 15378(b)(4).

**REVIEWED**

**By Joy Navarrete at 3:13 pm, May 23, 2018**



BOARD of SUPERVISORS



City Hall  
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San Francisco 94102-4689  
Tel. No. 554-5184  
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TDD/TTY No. 554-5227

## MEMORANDUM

TO: Andres Power, Liaison to the Board of Supervisors, Mayor's Office  
Jon Givner, Deputy City Attorney, Office of the City Attorney  
John Arntz, Director, Department of Elections  
LeeAnn Pelham, Executive Director, Ethics Commission  
Naomi Kelly, City Administrator, Office of the City Administrator  
Elaine Forbes, Executive Director, Port of San Francisco  
Scott Schroeder, Controller-Treasurer, Bay Area Rapid Transit  
Ed Reiskin, Executive Director, Municipal Transportation Agency  
Robert Collins, Executive Director, Rent Board  
Phil Ginsburg, General Manager, Recreation and Parks Department

FROM: *lw* Linda Wong, Assistant Clerk, Budget and Finance Committee  
Board of Supervisors

DATE: May 11, 2018

SUBJECT: CHARTER AMENDMENTS INTRODUCED  
November 6, 2018 Election

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The Board of Supervisors' Budget and Finance Committee has received the following Charter Amendments for the November 6, 2018, Election, introduced by Mayor Farrell on May 1, 2018. These matters are being referred to you in accordance with Rules of Order 2.22.4.

**File No. 180454**

**Ordinance calling and providing for a special election to be held in the City and County of San Francisco on Tuesday, November 6, 2018, for the purpose of submitting to San Francisco voters a proposition to incur the following bonded debt of the City and County: \$425,000,000 to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening and repair of the Embarcadero Seawall and other critical infrastructure, and related costs necessary or convenient for the foregoing purposes; authorizing landlords to pass-through 50% of the resulting property tax increase to residential tenants in accordance with Administrative Code, Chapter 37; finding that the estimated cost of such**

**proposed project is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require expenditures greater than the amount allowed therefor by the annual tax levy; reciting the estimated cost of such proposed project; fixing the date of election and the manner of holding such election and the procedure for voting for or against the proposition; fixing the maximum rate of interest on such bonds and providing for the levy and collection of taxes to pay both principal and interest; prescribing notice to be given of such election; affirming the Planning Department's determination under the California Environmental Quality Act, and finding that the proposed bond is in conformity with the eight priority policies of Planning Code, Section 101.1(b), and with the General Plan; consolidating the special election with the general election; establishing the election precincts, voting places, and officers for the election; waiving the word limitation on ballot propositions imposed by Municipal Elections Code, Section 510; complying with the restrictions on the use of bond proceeds specified in California Government Code, Section 53410; incorporating the provisions regarding the Citizens' Bond Oversight Committee in Administrative Code, Sections 5.30-5.36; and waiving the time requirements specified in Administrative Code, Section 2.34.**

**File No. 180462**

**Resolution determining and declaring that the public interest and necessity demand the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening, and repair of the Embarcadero Seawall and other critical infrastructure and the payment of related costs necessary or convenient for the foregoing purposes; finding that the estimated cost of \$425,000,000 for such improvements is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require incurring bonded indebtedness; affirming the Planning Department's determination under the California Environmental Quality Act; finding the proposed bond is in conformity with the General Plan, and the eight priority policies of Planning Code, Section 101.1(b); and waiving the time limits set forth in Administrative Code, Section 2.34.**

Please review and submit any reports or comments you wish to be included with the legislative file.

If you have any questions or concerns, please call me at (415) 554-7719 or email: [linda.wong@sfgov.org](mailto:linda.wong@sfgov.org). To submit documentation, please forward to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

c: Shahde Tavakoli, Mayor's Office  
Kyle Kundert, Ethics Commission


Lynn Khaw, Office of the City Administrator  
Lihmeei Leu, Office of the City Administrator  
Daley Dunham, Port of San Francisco  
Janet Martinsen, Municipal Transportation Agency  
Kate Breen, Municipal Transportation Agency  
Dillon Auyoung, Municipal Transportation Agency  
Viktoriya Wise, Municipal Transportation Agency  
Sarah Madland, Recreation and Parks Department

OFFICE OF THE MAYOR  
SAN FRANCISCO



MARK FARRELL  
MAYOR

180454

TO:  Angela Calvillo, Clerk of the Board of Supervisors  
FROM: Mayor Farrell  
RE: General Obligation Bond Election – Seawall and Other Critical  
Infrastructure - \$425,000,000  
DATE: May 1, 2018

Attached for introduction to the Board of Supervisors is an ordinance calling and providing for a special election to be held in the City and County of San Francisco on Tuesday, November 6, 2018, for the purpose of submitting to San Francisco voters a proposition to incur the following bonded debt of the City and County: \$425,000,000 to finance the construction, reconstruction, acquisition, improvement, demolition, seismic strengthening and repair of the Embarcadero Seawall and other critical infrastructure, and related costs necessary or convenient for the foregoing purposes; authorizing landlords to pass-through 50% of the resulting property tax increase to residential tenants in accordance with Administrative Code, Chapter 37; finding that the estimated cost of such proposed project is and will be too great to be paid out of the ordinary annual income and revenue of the City and County and will require expenditures greater than the amount allowed therefor by the annual tax levy; reciting the estimated cost of such proposed project; fixing the date of election and the manner of holding such election and the procedure for voting for or against the proposition; fixing the maximum rate of interest on such bonds and providing for the levy and collection of taxes to pay both principal and interest; prescribing notice to be given of such election; affirming the Planning Department's determination under the California Environmental Quality Act ("CEQA") and finding that the proposed bond is in conformity with the eight priority policies of Planning Code, Section 101.1(b) and with the General Plan,; consolidating the special election with the general election; establishing the election precincts, voting places and officers for the election; waiving the word limitation on ballot propositions imposed by Municipal Elections Code, Section 510; complying with the restrictions on the use of bond proceeds specified in California Government Code, Section 53410; incorporating the provisions regarding the citizens' bond oversight committee in Administrative Code, Sections 5.30-5.36; and waiving the time requirements specified in Administrative Code, Section 2.34.

Should you have any questions, please contact Andres Power (415) 554-5168.

1 DR. CARLTON B. GOODLETT PLACE, ROOM 200  
SAN FRANCISCO, CALIFORNIA 94102-4681  
TELEPHONE: (415) 554-6141

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