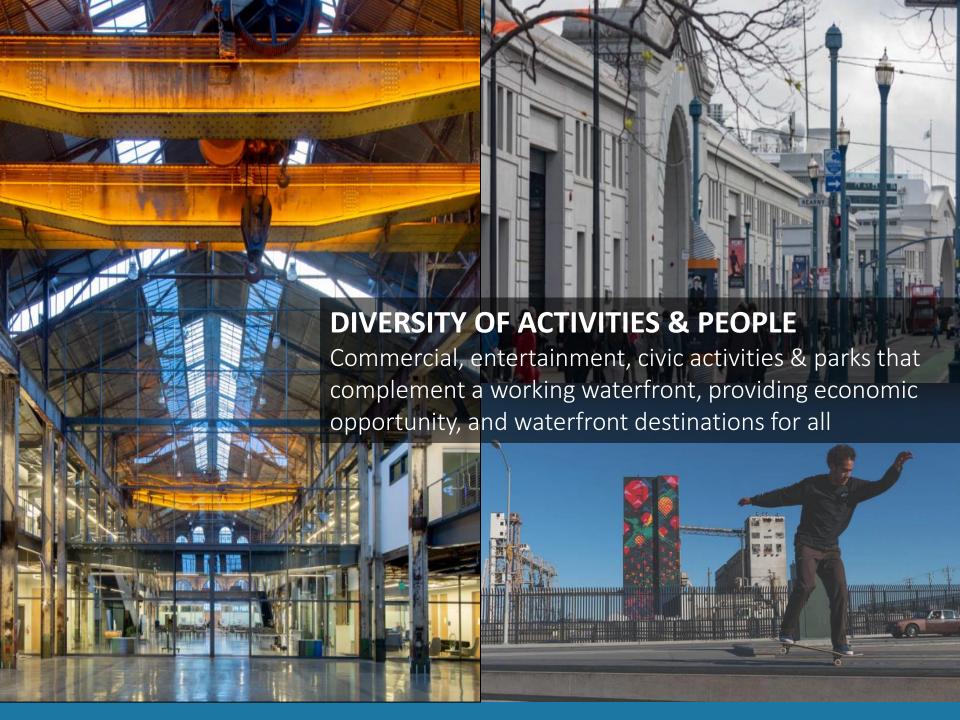




A WORKING MARITIME PORT

Preserve the Port's diverse maritime portfolio for the needs of cargo shipping, cruise shipping, ferry and excursion boats, water taxies, fishing industry, ship repair, recreational boating and water-dependent activities





WATERFRONT PARKS & OPEN SPACE

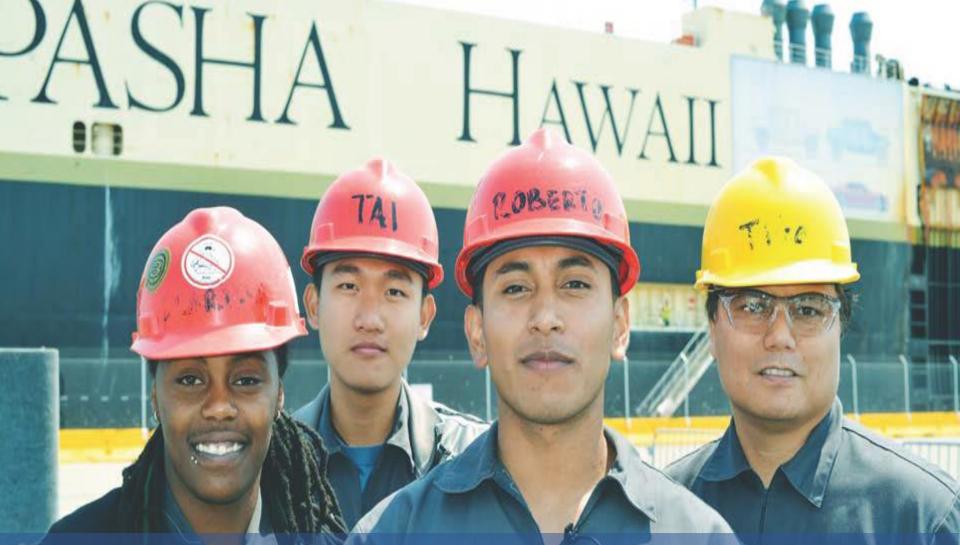
Complete, enhance, and enliven the network of parks, public access, and natural areas along the San Francisco waterfront and Bay shoreline for everyone to use and enjoy





URBAN DESIGN, MINDFUL OF THE PAST, LOOKING TO THE FUTURE

- New developments of exemplary quality
- Visual and physical connections
- Preserving the waterfront's rich history
- Respecting neighborhood character



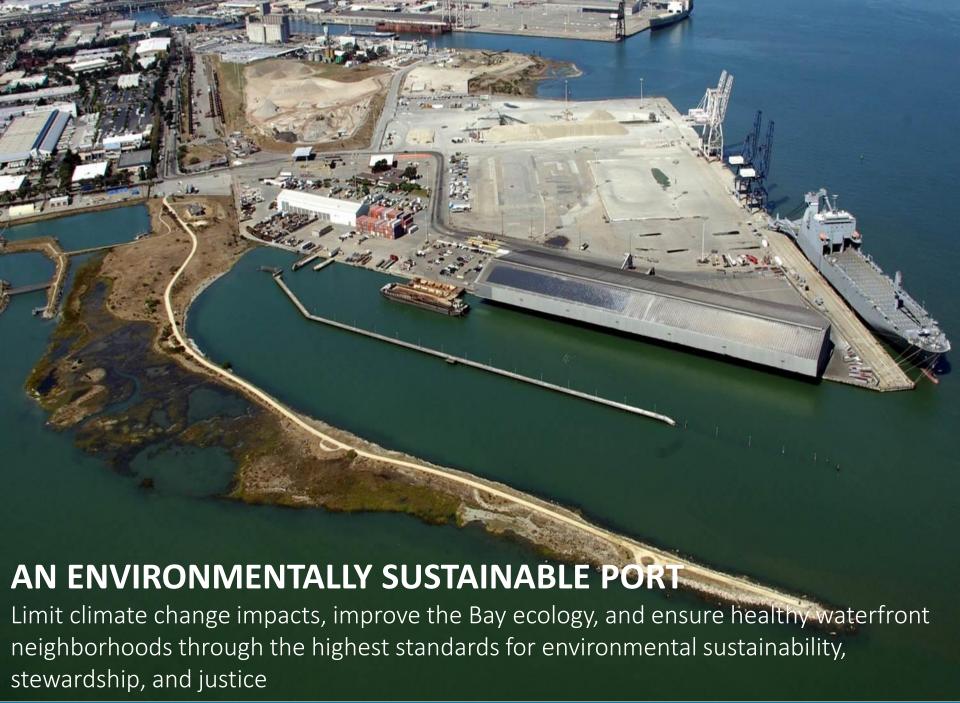
A FINANCIALLY STRONG PORT WITH ECONOMIC ACCESS TO ALL

New investment to stimulate waterfront revitalization and support a financially secure Port, equitably providing new jobs, revenues, public amenities, and other benefits to San Francisco and California citizens



TRANSPORTATION & MOBILITY FOR PEOPLE & GOODS

Manage the waterfront to support multiple modes of safe and sustainable transportation that serves workers, neighbors, visitors, and Port maritime and tenant operations





A RESILIENT PORT

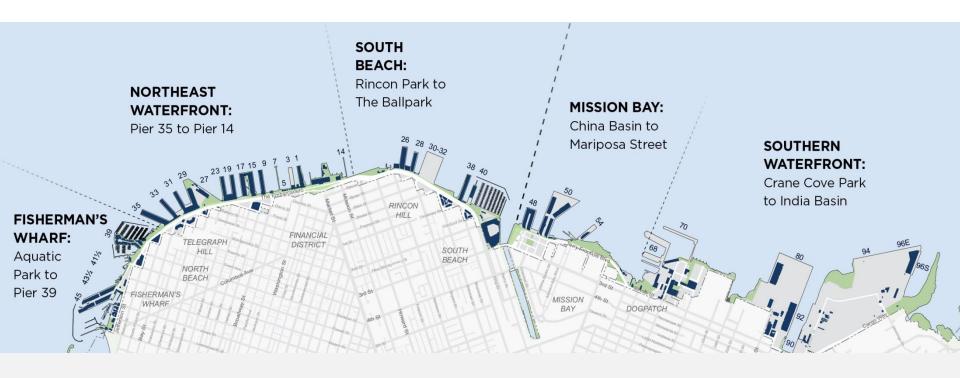
Strengthen Port resilience to hazards and climate change effects while protecting community, ecological, and economic assets and services, with a focus on unique historic, maritime, and cultural assets

PARTNERING FOR SUCCESS

Deepen Port partnerships and community engagement to increase public understanding of Port and community needs and opportunities to facilitate completion of improvements that achieve Waterfront Plan goals



WATERFRONT PLAN SUBAREA OBJECTIVES



Waterfront Plan sets objectives and lists acceptable uses to guide Port strategic efforts in the Port's five different waterfront subareas





HISTORIC PIERS REHABILITATION PROGRAM







Rebecca Benassini, Port Real Estate & Development

EMBARCADERO HISTORIC DISTRICT: Putting Ideas into Action



- Open more piers to maritime and public trust uses
- Time is of the essence; accelerate historic rehabilitation
- Test market response to Emb. Hist. Dist.
 Policies
- Incorporate resilience and SLR adaptation





EMBARCADERO HISTORIC DISTRICT PUBLIC TRUST

The Port is dedicated to maintaining the integrity of the Embarcadero Historic District's nationally recognized historic maritime structures

The public trust objectives provide the framework for evaluating rehabilitation projects:

- Repairs and historic rehabilitation that meet Federal historic preservation standards
- Seismic and life safety repairs, flood and sea level rise adaptation
- Maritime and public access (trust) uses
- Public-oriented and trust uses inside piers
- Revenues to finance improvements and other Port needs
- Length of lease term as determined to amortize improvement costs











HISTORIC PIER REHABILITATION PROGRAM

- The Port and its partners have led successful projects to rehabilitate facilities, including:
 - Ferry Building
 - Pier 1.5, 3, 5 (Pacific Waterfront Partners)
 - The Exploratorium
 - James R. Herman Cruise Terminal
- Historic pier rehabilitation provides a policy-based route to building on these successful projects in other pier facilities.
 - Requires investment in capital, repairs, seismic upgrades, and flood protection
 - Delivers more public-oriented uses
 - Financed by mixed-use programs, including high-revenue uses like office
- Primary goal: reopen more Embarcadero Historic District structures to the public and to meet Port Public Trust objectives



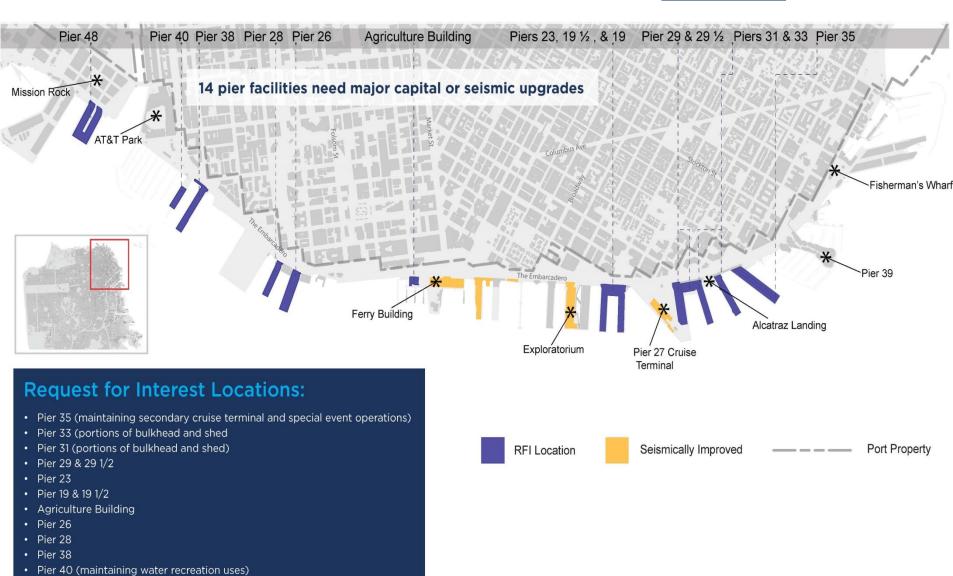








MARKET TESTING: NON-BINDING REQUEST FOR INTEREST, OCT 2018



Pier 48 (in connection with Mission Rock Project)

52 EXPRESSIONS OF INTEREST* RECEIVED



PORT REQUIRES PRIVATE CAPITAL PARTNERS FOR PIER PROJECTS

Risks to Historic District

- Deterioration
- Flooding
- Earthquake

Very costly rehabilitation

- Converting warehouse to uses which invite public in & more dense workplaces
- Addressing risks



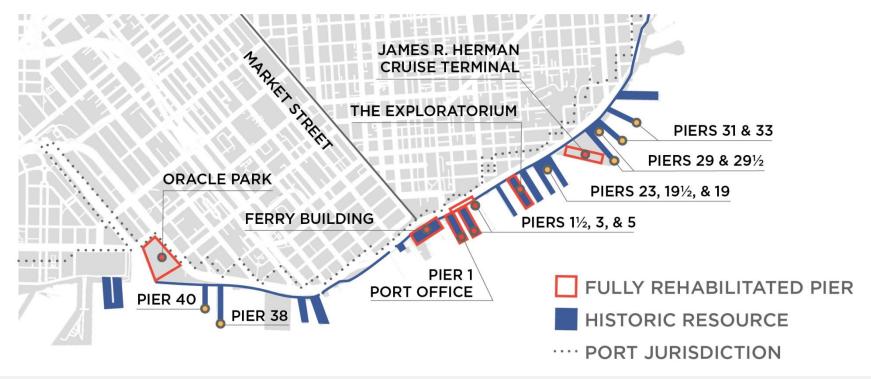








HISTORIC PIER REHABILITATION PROGRAM



RFP to seek development partners to open more piers to the public and pursue economic, maritime, cultural, and public improvements

RFP #1: Piers 38 & 40 RFP #2: Piers 19, 23, & 29-31

6 successful historic rehabilitation projects

16 facilities yet to be repaired and improved





EMBARCADERO HISTORIC DISTRICT PUBLIC TRUST OBJECTIVES

A strategy for economically feasible pier leases and projects

Public Trust Objectives

- Historic preservation
- Seismic/life safety
- Public access
- Generate Port revenue for improvements to other Port facilities.
- Public-oriented uses

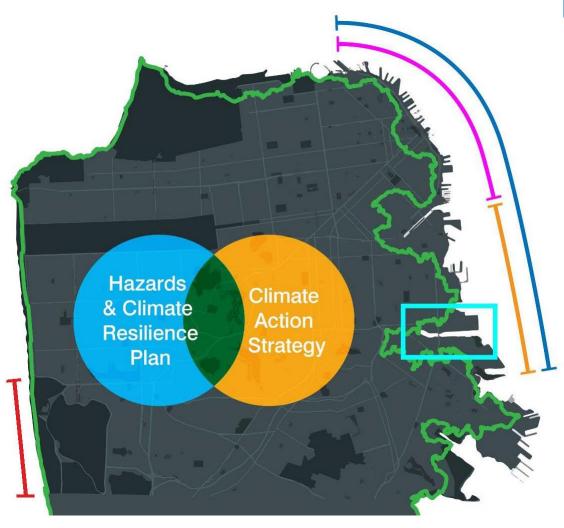
Financially Feasible Projects with:

- Seismic upgrades
- Historic Rehabilitation
- Trust & public-oriented uses
- Revenue generation uses





CITYWIDE RESILIENCE EFFORTS



CITYWIDE PLANS AND STRATEGIES

- Sea level Rise Action Plan
- Hazards & Climate Resilience Plan
- Climate Action Strategy

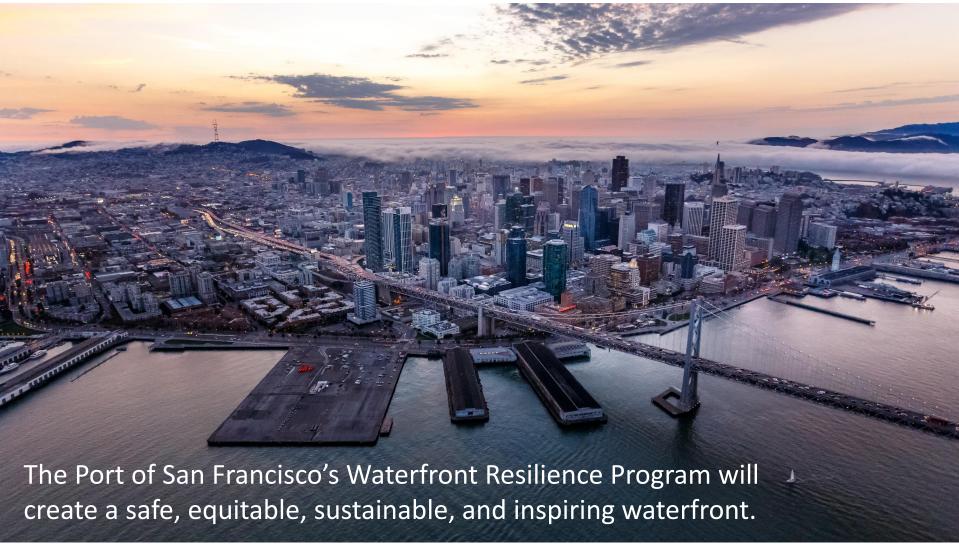
SHORELINE ASSESSMENTS AND PROJECTS

- Southern Waterfront Seismic Vulnerability Assessment
- Embarcadero Seawall Program
- USACE/Port Flood Study
- Islais/Southeast Mobility Adaption Strategy
- Ocean Beach Implementation





PORT OF SAN FRANCISCO'S WATERFRONT RESILIENCE PROGRAM





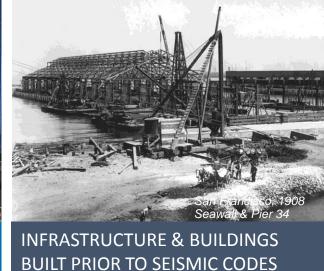


PRIMARY HAZARD SAN FRANCISCO'S EARTHQUAKE RISK **KNOWN ACTIVE FAULTS IN THE SAN** FRANCISCO BAY **REGION** LIKELIHOOD OF AT LEAST ONE EARTHQUAKE GREATER THAN A GIVEN MAGNITUDE (M) IN THE SAN FRANCISCO BAY REGION BETWEEN 2014-2043 EARTHQUAKE MAGNITUDE M > 7.5M > 6.0M > 6.7M > 7.098% **72**% 51% 20% TIMELINE OF MAGNITUDE 5.5 AND GREATER EARTHQUAKES IN THE SAN FRANCISCO BAY REGION 1850–2014. 72% Historically San Andreas likelihood of a quiet and Hayward major period Faults are earthquake since 1906 highest risks by 2043 Waterfront Resilience Program

PRIMARY HAZARD THE PORT'S UNIQUE EARTHQUAKE RISK







LIQUEFACTION

SHORELINE STABILITY & LATERAL SPREADING

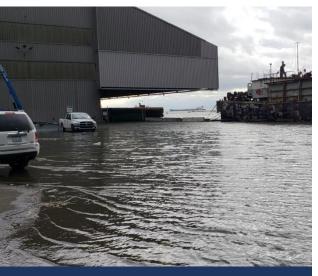
- Un-Engineered Fill placed over Young Bay Mud
 - Amplifies ground shaking increasing damage in smaller earthquakes
 - Susceptible to Liquefaction
- Unstable Shoreline Edge
 - Lateral Spreading & Settlement hundreds of feet behind shoreline
- Infrastructure and buildings built prior to seismic standards





PRIMARY HAZARD:

COASTAL FLOOD RISK & SEA LEVEL RISE



INTERMITTENT AND LOCALIZED FLOODING TODAY



SLR IS INCREASING FLOOD RISK TO CRITICAL ASSETS



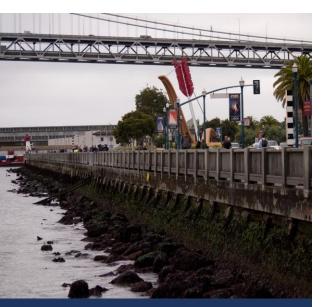
TIDAL FLOODING

- San Francisco faces increasing flood risk due to sea level rise and subsidence of fill
- Some shoreline areas already experience regular flooding during King Tides
- A 100 year flood event today would create significant disruption to critical assets and services
- San Francisco's shoreline will flood more frequently, and new areas will begin to experience flooding in the coming decades





WATERFRONT RESILIENCE PROGRAM ADAPTATION FRAMEWORK



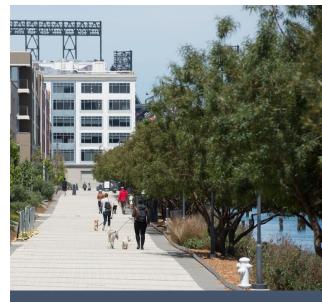
STRENGTHEN ELEMENT

Objective: Immediately implement highest priority disaster response and life safety projects along the Embarcadero Seawall.



ADAPT ELEMENT

Objective: Reduce remaining seismic and increasing flood risks, respond to changing priorities, and provide a framework for the Port to adapt over time.



ENVISION ELEMENT

Objective: Develop visions that can respond to higher water levels, changes in priorities and science, resulting in a waterfront that is resilient to 2100 and beyond.





PORT OF SAN FRANCISCO'S WATERFRONT RESILIENCE WORK







EMBARCADERO SEAWALL PROGRAM OVERVIEW



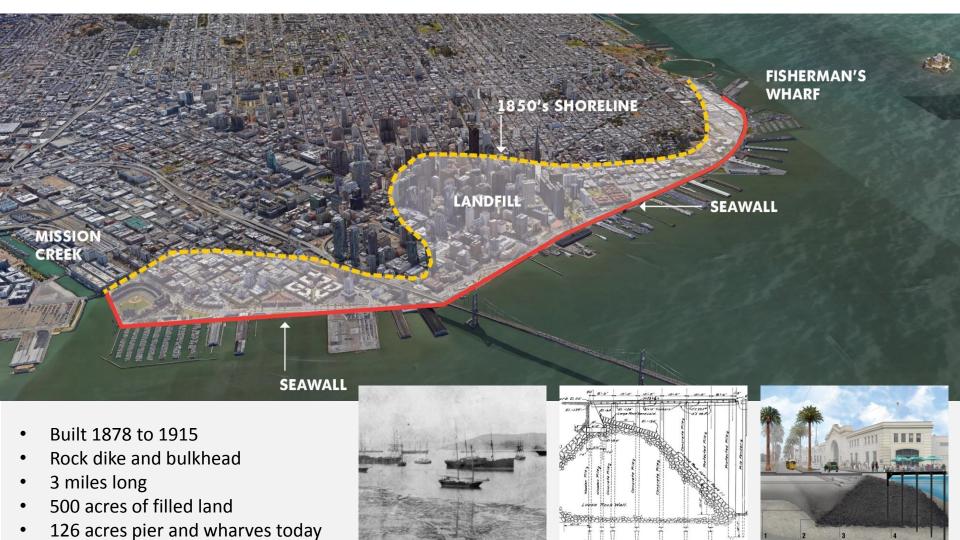
SEAWALL PROGRAM OVERVIEW

- Priority is protecting life safety and emergency response from seismic events
- Approximately \$5 billion over 30+ years
- Funding and financing from City, state, federal, and private
- Address as much flood risk as possible and create a foundation for addressing future flood risk
- Adaptive Program framework
- Robust engagement and outreach





UNDERSTANDING THE EMBARCADERO SEAWALL







USACE/PORT FLOOD STUDY OVERVIEW









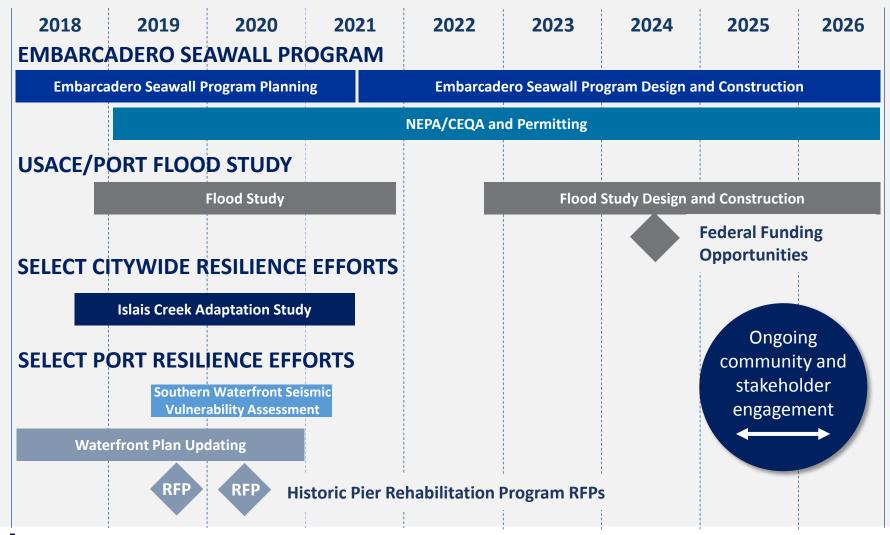
HIGHLIGHTS

- Federal funding and expertise
- Port is the local sponsor, seeking assistance since 2012
- Flood Study is entire Port jurisdiction + Aquatic Park
- Study ~5 years, ~\$20M
- Study Cost shared 50% federal /50% local

STUDY OVERVIEW

- Evaluate flood risk including storms and sea level rise
- 50 year economic (2080) and 100 year planning horizon (2120)
- Determine damages assuming no action, develop & evaluate broad range of plans to reduce flood risk.
- Culminates in a funding recommendation to Congress
- Design/construction of federal plan cost shared 65% fed/35% local
- Locally preferred plan can be selected, sponsor pays extra cost

WATERFRONT RESILIENCE PROGRAM TIMELINE







UPCOMING OPPORTUNITIES TO ENGAGE

OPPORTUNITIES TO ENGAGE

- Community meetings with engagement exercises
- Roadshows to keep stakeholders up-to-date
- Event outreach
- Digital engagement, including an interactive website and webinars
- Site tours (boat, bike, and walking)
- And much more...
- Have an idea for an opportunity to engage?
 Please let us know!







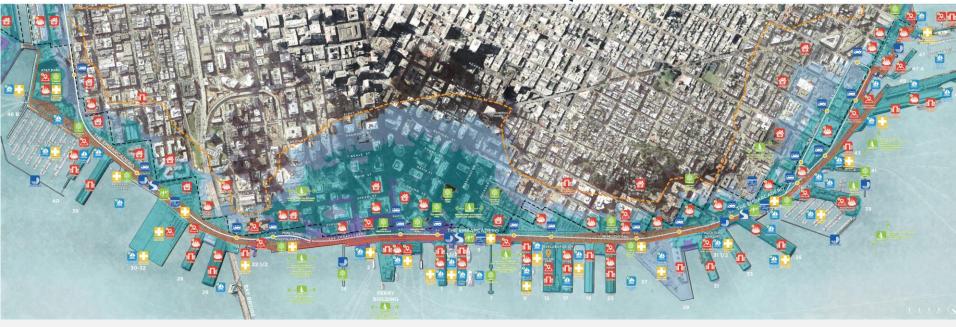
QUESTIONS? AND THANK YOU!







EMBARCADERO AREA ASSETS WITH FLOOD & SEAWALL EARTHQUAKE HAZARDS



The Port collected information on existing assets along the **Embarcadero Seawall with** City agencies, partners, and community stakeholders

INFRASTRUCTURE













URBAN AND CULTURAL







PARKS AND ECOSYSTEMS







MARITIME





DISASTER RESPONSE







MISSION CREEK/MISSION AREA **ASSETS & FLOOD HAZARD**



ASSET MAPPING

The Port and the Army Corps are collecting information on existing assets with City agencies, partners and community stakeholders

INFRASTRUCTURE









URBAN AND CULTURAL











MARITIME





PARKS AND ECOSYSTEMS



















BAYVIEW/ISLAIS CREEK AREA ASSETS & FLOOD HAZARD



ASSET MAPPING

The Port and the Army Corps are collecting information on existing assets with City agencies, partners and community stakeholders

INFRASTRUCTURE









URBAN AND CULTURAL











PARKS AND ECOSYSTEMS







MARITIME













