



# EMBARCADERO SEAWALL EARTHQUAKE SAFETY BOND 2018

## LIAISON UPDATE REPORT

Fourth Report Through September 2023

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### Executive Summary

On November 6, 2018, the citizens of San Francisco passed Proposition A with 82.7% voter approval, authorizing a \$425 million General Obligation Bond known as the Embarcadero Seawall Earthquake Safety Bond (Seawall Bond) to support the Waterfront Resilience Program (Resilience Program; WRP)<sup>1</sup>.

The WRP has a total estimated cost of \$10-20 billion with a 30-year implementation timeline. The \$425 million Seawall Bond will partially fund the WRP, including funding improvements for earthquake safety of the Embarcadero Seawall, near-term flood protection improvements, and planning for additional long-term resilience.

Prior to the approval of the Seawall Bond, in June 2018, the United States Army Corps of Engineers (USACE) awarded San Francisco a “new start” study appropriation to commence a General Investigation feasibility study, which would consider and recommend potential project alternatives to reduce coastal flood risk along the San Francisco waterfront (the Flood Resiliency Study). A waiver was approved in November 2021, increasing the study time from 36 to 86 months and increased the study cost from \$6 million to \$16 million.

In February 2019, Executive Director Elaine Forbes formed the Port’s Waterfront Resilience Program. The Waterfront Resilience Program includes the Seawall Program, the Flood Resiliency Study and related resilience planning and implementation efforts for the Port’s entire 7 ½ miles of waterfront property.

On March 12, 2019, the Port Commission approved Resolution 19-08, authorizing the first issuance of the Seawall Bond for up to \$50.0 million, including issuance costs, to support the planning and preliminary design phases of the Seawall Program. After a delay due to a legal challenge that ultimately was appealed to the California Supreme Court – which denied review of an appellate decision in favor of the City – Bonds were issued pursuant to Resolution No. 323-19 and Resolution No. 324-19, both adopted by the Board of Supervisors on July 16, 2019, and approved by the Mayor on July 26, 2019. On June 2, 2020, the City issued \$49.7 million in taxable general obligation bonds at an interest rate of 0.7% and a final maturity date of June 15, 2021.

This first bond sale supported management, planning and overall program development, and partially funded preliminary design of early projects of the Embarcadero Seawall Program. Specifics of this work include site surveys, comprehensive geotechnical investigation and laboratory testing of soils, earthquake risk assessment of the seawall and associated infrastructure, seismic and flood risk assessment including sea level rise, alternatives development and evaluation (conceptual level design, engineering, cost estimating, constructability), advancing environmental analysis (NEPA/CEQA) and permitting, advancing preliminary design of Seawall Bond projects, and extensive stakeholder and community engagement.

This work also included bond-funded matching funds for the Flood Resiliency Study with USACE. The \$16 million Flood Resiliency Study is cost shared 50/50 with USACE and will analyze flood risks to the Port’s entire jurisdiction from Fisherman’s Wharf to Heron’s Head Park.

The Port has identified 23 Embarcadero Early Projects based on its extensive risk assessment work, including the Embarcadero Seawall Multi-Hazard Risk Assessment and the joint Disaster Response Exercise conducted with the Department of Emergency Management. These projects were evaluated and prioritized using criteria developed with community input. Embarcadero Early Projects respond to community priorities by:

- **Prioritizing** life safety and emergency response.
- **Enhancing** and sustaining economic and ecological opportunities.
- **Supporting** an adaptable and equitable waterfront.
- **Ensuring** public access to the waterfront and historic places.
- **Protecting** and preserving historic and maritime resources.

In late 2022, the Port developed scopes of work and budgets for a second bond sale to fund the advancement of the Program. In January 2023, the Port requested approval from the Port Commission and Board of Supervisors of a second bond sale and corresponding appropriation of \$42.0 million, which includes cost of issuance, accountability, and General Obligation Bond Oversight Committee (GOBOC) costs. This bond sale was approved by the Port Commission (Resolution No. 23-05), San Francisco Board of Supervisors (Resolution No. 031-23), and signed Mayor London Breed on February 09, 2023.

This second bond sale is supporting the preliminary and final design phases of projects to reduce life safety, disaster response and early flood risks (Embarcadero Early Projects), continued work on strategies to reduce coastal and combined flood risk (Waterfront Adaptation Strategies or Strategies), and ongoing efforts to advance the San Francisco Waterfront Coastal Flood Study General Investigation (Flood Study) with the United States Army Corps of Engineers (USACE) and the San Francisco Waterfront Storm Risk Management Study General Investigation (Flood Study) with USACE. The Flood Study is cost shared 50/50 with USACE and will analyze flood risks to the Port's entire jurisdiction from Fisherman's Wharf to Heron's Head Park. The Port will appropriate non-bond funding to support Flood Study work in areas beyond the scope of the Embarcadero Seawall.

Please refer to the following report for further details. Visit the Waterfront Resilience Program website at <https://sfport.com/wrp> for a link to this Annual Report and future reports.

## Waterfront Resilience Program Summary

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

In 2015, the Port established the Waterfront Resilience Program to ensure that the entire 7½ mile waterfront, and its important regional and citywide assets, are resilient in the face of hazards such as earthquakes, flooding, and sea level rise due to climate change. The Resilience Program includes several initiatives to increase the resilience of the waterfront:

- **Embarcadero Seawall Program:** A City sponsored effort, that the Port is entrusted to implement, to reduce seismic and flood risk along the waterfront from Fisherman's Wharf to Mission Creek. In November 2018, voters of the City and County of San Francisco voted overwhelmingly to support Proposition A, the San Francisco bond initiative to provide \$425 million to upgrade and repair a portion of the 100-year-old Embarcadero Seawall. The overall repair is estimated to cost up to \$5 billion; this figure will be revised when the Program team produces cost estimates. The Port presented 23 Proposition A funded [Embarcadero Early Project](#) recommendations to the Port Commission in December 2021. The total rough order of magnitude estimate to deliver all projects ranges from \$650 million to \$3 billion. The WRP has completed the needs assessment reports for six Embarcadero Early Projects and is commencing alternatives analysis. The second issuance of the Seawall Bond will continue to fund the planning and predesign phases of Embarcadero Early Projects and final design of projects to be selected in 2023.

- **USACE / Port of San Francisco Waterfront Flood Resiliency Study:** USACE awarded the Port of San Francisco a “New Start” in 2018 which authorized a General Investigation of flood risk along the San Francisco Bay waterfront. As a result, the Port and USACE are studying flood risk along San Francisco’s bayside shoreline, from Aquatic Park to Heron’s Head Park. The approximately seven-year USACE Flood Resiliency Study will identify vulnerabilities and recommend strategies to reduce current and future flood risks for consideration for federal investment and implementation at a funding ratio of 2/3 federal, 1/3 local.
- **Waterfront Adaptation Strategies:** The WRP has developed Draft Waterfront Adaptation Strategies in partnership with multiple City departments (Office of Resilience and Capital Planning, San Francisco Municipal Transportation Agency, San Francisco Planning Department, San Francisco Public Utilities Commission, and San Francisco Public Works) and with the USACE. The Draft Waterfront Adaptation Strategies provide a range of options for the City to create a resilient, sustainable, and equitable waterfront for the next 100 years. The Strategies are options to reduce flood and seismic risk along the Port's entire waterfront jurisdiction, from Heron's Head Park to Fisherman's Wharf, through a combination of phased large and small projects, new policies, such as flood defenses, structure elevation, floodproofing, city infrastructure adaptations (e.g., wastewater and stormwater management, transportation system), flood-resilient building codes, and land use changes.
- **Draft Waterfront Adaptation Plan:** Building off the Draft Waterfront Adaptation Strategies, the WRP is working with USACE to develop the Draft Waterfront Adaptation Plan. This plan will combine the best elements of each of the strategies to address seismic and flood risk along the entire 7.5-mile stretch of the Port’s jurisdiction.

**Other resilience work:** In addition to these efforts, the Resilience Program has supported other areas of work to make the 7 ½ mile waterfront more resilient:

- A Floodproofing the Piers study assessed the options available to adapt the piers to be resilient to elevated sea levels.
- The Southern Waterfront Seismic Vulnerability Study will use existing geotechnical information in the Port’s Southern Waterfront to assess earthquake risk to Port facilities in the area.
- The Islais Creek Adaptation Study, a joint effort by the Port, the San Francisco Municipal Transportation Agency and City Planning, examined sea level rise and flood risk in the Islais Creek/Bayview neighborhood, with a focus on transportation assets.
- The Resilience Program also represents the Port with participation in citywide and regional adaptation and resilience efforts led by others.

The Port has appropriated non-bond funding to support work in areas beyond the scope of the Embarcadero Seawall and the Army Corps of Engineers Flood Resiliency Study.

## Waterfront Resilience Program Status

The Waterfront Resilience Program is currently in its Preliminary Design phase. Through work done to date, the Resilience Program developed adaptation strategies for geographic areas along the entire 7.5

miles of waterfront in the Port’s jurisdiction, which the team is currently using to develop a Draft Waterfront Adaptation Plan (“Draft Plan”).

In the first half of 2023, the Program team undertook advanced planning with USACE to develop a Tentatively Selected Plan (TSP) for future coastal flood defenses that protect multiple, interdependent critical infrastructure systems from earthquakes and flooding. The Program is currently in the final stages of analysis for the Draft Plan and will publish the TSP for public comment in January 2024.

Provided that the plan meets federal requirements that the benefits of the plan exceed its costs, USACE will present the Final Plan to the U.S. Congress for potential federal funding. If Congress approves the Final Plan, Congress will fund up to 65% of the resulting project, providing potentially billions of dollars in federal investment in San Francisco’s waterfront.

The Final Plan recommended to Congress in 2025 may differ from the Port and the City’s preferences to address a higher rate of sea level rise and include additional community and seismic benefits (which collectively will inform a “Locally Preferred Plan”). The additional cost of these benefits will not be cost-shared with USACE – San Francisco will need to identify funding for 100% of the cost differential between the Recommended Plan and a Locally Preferred Plan.

### **Embarcadero Early Projects**

From strategies devised for the Northern Waterfront (South Beach, Ferry Building, Northeast Waterfront, Fisherman’s Wharf), the Program team has developed a list of 23 Embarcadero Early Projects that will:

- Reduce life safety risks identified during the Embarcadero Seawall Multi-Hazard Risk Assessment (MHRA),
- Reduce disaster response risks identified through the Port-San Francisco Department of Emergency Management sponsored disaster response task conducted in August 2021, and
- Address existing high-consequence flood risks identified through the Flood Study.

These projects were identified through a northern waterfront adaptation strategy planning process over the course of 2020-21; the Embarcadero Early Projects were developed to respond to the unique conditions and analysis of earthquake and flood hazards analysis in each of the areas that define the Northern Waterfront.





(Above: Blue = Proposition A Predesign; Green = Advance through Geographic Strategy; Purple = Coordination with Long-Term Tenants, Capital Programs and City Agencies)

The Port is recommending up to 16 Embarcadero Early Projects to advance through the Seawall Bond, with plans to advance the remaining projects by pursuing additional funding sources and partnerships. Through June 2023, the WRP has completed needs assessment reports and advanced alternatives analysis for the following seven projects:

- Wharf J9 Replacement & Resilient Shoreline Project (2): This proposed project, located in the outer lagoon section of Fisherman’s Wharf, will replace a failing wharf and seawall with a new earthquake resilient and adaptable structure. This new seawall and wharf structure will provide berthing for the fishing industry, including ADA accessible off the boat fish sales, and provide earthquake and flood protection for adjacent buildings and infrastructure located near the shoreline. The Project is in pre-design with Alternatives Analysis expected to be complete in late 2023. A companion project is currently in detailed design with the intent to fabricate and install the J9 float & gangway in late 2024, to provide much needed support to the fishing industry prior to construction of the wharf replacement in 2026.
- Pier 15 Bulkhead Wall & Wharf Earthquake Safety Retrofit Project (11): This proposed project, located at Pier 15 which is home to the Exploratorium, is intended to improve earthquake safety by retrofitting the at-risk bulkhead wall and wharf. The rock seawall here, which sits over thick bay mud and retains liquefiable fill in The Embarcadero, is likely to shift bayward in an earthquake risking the bulkhead structure that sits over it. Strengthening the ground below and behind the rock seawall is a major undertaking that is expected to be a part of an area wide future adaptation move. This project improves earthquake safety by retrofitting the existing bulkhead to better ride out these movements and provide safe egress to and from the Pier. Pre-design is underway with Alternative Analysis expected to be complete in fall 2023.
- Pier 9 Bulkhead Wall & Wharf Earthquake Safety Retrofit Project (12): This proposed project, located at Pier 9 which is maritime business including WETA and the SF Bar Pilots, is intended to improve earthquake safety by retrofitting the at-risk bulkhead wall and wharf. The rock seawall

here, which sits over thick bay mud and retains liquefiable fill in The Embarcadero, is likely to shift bayward in an earthquake risking the bulkhead structure that sits over it. Strengthening the ground below and behind the rock seawall is a major undertaking that is expected to be a part of an area wide future adaptation move. This project improves earthquake safety by retrofitting the existing bulkhead to better ride out these movements and provide safe egress to and from the Pier. Pre-design is underway with Alternative Analysis expected to be complete in fall 2023.

- Ferry Building Seawall & Substructure Earthquake Reliability Project (15): The Ferry Building is San Francisco's most iconic and beloved waterfront building and a critical area for disaster response and recovery operations including bringing in first responders and staging mass evacuation by water. This proposed project will improve the earthquake reliability of the area through a series of structural retrofits, ground improvements, and new or reconfigured facilities that can better support disaster response operations and reduce the risk of damage and loss of the historic facility. These investments, along with initial flood protection investments (see Downtown Coastal Resilience Project), will be tied to an overall adaptation strategy that keeps the Ferry Building a vibrant part of San Francisco's culture for generations to come. Pre-Design is underway with Alternatives Analysis expected to be complete in spring 2024.
- Downtown Coastal Resilience Project (formerly the Pier 5 to 22½ Near Term Coastal Flood Risk Reduction Project) (17): This proposed project will improve flood protection along an at-risk section of waterfront between Broadway and Harrison Streets. This ¾-mile stretch, adjacent to Downtown, is the former Yerba Buena Cove, an area of thick bay mud that has settled over the years and is now experiencing overtopping of the seawall in King Tides and storms. Important transit assets, including BART and MUNI light rail, pass through this zone and are at risk from extreme storm coastal flooding today. The project is exploring a range of flood defense alignments and systems along with targeting seismic strengthening and opportunities to improve public realm and habitat including living seawall treatments. Pre-design is underway with Alternatives Analysis expected to be complete in late 2023.
- Pier 24-1/2 to 28-1/2 Bulkhead Wall & Wharf Earthquake Safety Project (18): This proposed project will improve earthquake safety along a 900-foot stretch of the Seawall near the Bay Bridge. This stretch of Seawall, while founded on better soils, consists of a very tall concrete bulkhead and wharf this is at risk of collapse in an earthquake, jeopardizing the Promenade and isolating the Piers. The project is developing structural retrofit options that improve earthquake safety as well as exploring major strengthening and replacement options that can be foundational for overall resilience. Pre-design is underway with Alternatives Analysis expected to be complete in late 2023.
- Pier 35-½ Emergency Fire Water System, Fire Boat Manifold EQ Reliability Project (22): This proposed project will improve earthquake safety by increasing the reliability of the Emergency Fire Water System which is critical to fight fires following earthquakes. The Port is working with the SFPUC and SFFD to support relocating an existing AWSS Fireboat Manifold to a more accessible waterfront location and to provide a more earthquake reliable berth for the fireboat to pump into the AWSS system. Concepts include targeted wharf and ground improvements under the Seawall to full bulkhead and wharf replacement. Pre-design is underway with Needs Assessment now complete. Alternatives Analysis is expected to start in fall of 2023.

The initial cost estimates for delivering all 23 Embarcadero Early Projects range from \$650 million to \$3 billion and represents more projects than can be delivered solely with Seawall Bond funding. Project budgets will be developed as projects advance through predesign, providing information for determining which Embarcadero Early Projects get funded first. By using the Seawall Bond to fund a portion of this advanced planning, project definition, and predesign of projects, the Port will position the Program to leverage other public and private sources of funding.

Embarcadero Early Projects include efforts to strengthen the Embarcadero Seawall in targeted areas. In some cases, these are interim fixes, and in others they are a first step toward future adaptation. Creating a resilient Embarcadero will take decades, but these projects are an important first step as the Port develops resilience strategies for the entire 7.5 miles of waterfront.

## Community and Stakeholder Engagement

The Draft Waterfront Adaptation Strategies development process builds off 5+ years of public outreach and engagement. Since 2017, the Port has connected with tens of thousands of people through robust community and stakeholder engagement efforts to advance work on the Embarcadero Seawall Program and Waterfront Resilience Program. This engagement has included outreach to community members, businesses and merchants, advisory committees, non-profit groups, and others. Community input has helped the WRP develop its guiding vision, principles, goals, and evaluation criteria. The community has also shared what waterfront assets are key priorities as the WRP takes action to reduce seismic and flood risks.

In developing the Draft Strategies for public review, the Port conducted additional outreach and engagement, including a city-wide survey and focus groups with leaders of community-based organizations (“CBOs”) and Port Advisory Committee members. The survey reached nearly 1,000 people across the waterfront and city and feedback indicated an openness to explore the many types of adaptation approaches (including more transformative options), a desire to preserve and expand the connection between the City and the waterfront, and concerns about feasibility, cost, and disruption impacts. Community members were interested in learning specifics about where along the waterfront each precedent could/would be used.

The Port held five focus group meetings since mid-August to get feedback on the Draft Adaptation Strategies along with how best to communicate such complex material. Feedback from focus group attendees was integral to updating our communications strategies, including simplifying content, clarifying what happens in 2040 and 2090, and focusing on each Strategy’s challenges and opportunities. Key themes that arose from the survey and focus groups were consistent with WRP community feedback to-date, including:

- Increasing space for open space/parks/diversity of uses
- Prioritizing nature/habitat
- Prioritizing accessibility to the waterfront
- Limiting disconnection with the waterfront
- Mitigating displacement/equity concerns
- Aesthetic concerns

Additional key themes for future communications and engagement include:



- Feasibility (political, geographical, maintenance and otherwise)
- Clarifications on cost and length of construction time and disruption to neighborhoods
- Exploration of workforce impacts and job creation possibilities
- City-wide response to sea level rise – communicating what happens beyond the Port’s jurisdiction

From mid-October to December of 2022, the Port invited public feedback on the Draft Strategies to inform development of the Draft Plan. The Port engaged the public using a variety of traditional and innovative public outreach and engagement methods, including:

- Digital Survey via StoryMaps
- Community Workshops (digital and in-person)
- CBO Presentations via Focus Group Participants
- Walking Tours
- Waterfront Community Mixer in District 10
- Community Partner Feedback Conversations
- A public education campaign via earned media, social media, community presentations, and web content.

Public outreach and engagement on the Draft Strategies included a total of 16 public engagement events with over 500 participants, 3,000 webpage views, and over 170,000 people who viewed content related to the Draft Strategies, including social media ads.

Outreach focused on ensuring Southern Waterfront residents were aware of and in attendance at events. Broad citywide outreach was effective, resulting in 41% of registered participants to events coming from non-Port-waterfront adjacent neighborhoods throughout San Francisco. People identifying as Black/African American represented 14% of registered participants and people identifying as Asian/Pacific Islander represented 18%. The percentage of people identifying as Latino/a who registered for events (3%) was lower than engagement in previous rounds.

We heard the following general comments and feedback:

- Flooding around homes and work, impacts to community safety, and disruption to transportation or waterfront access were top concerns.
- Community members support a strategy that defends against higher projected rates of sea level rise.
- Nature-based approaches and improved public access to the waterfront are a high priority.
- Overall, there was no strong preference for any one strategy over another.
- Common concerns included concerns about equity and environmental justice, technical practicalities, and questions about cost and feasibility.

In addition to the community and stakeholder engagement, and as part of the youth outreach strategy, the Port has collaborated with the San Francisco Unified School District (SFUSD) to increase visibility of the WRP program with high-school students. The WRP team created climate adaptation teaching modules that integrated high-school curriculum from science and environment studies classes and

communicated the WRP's sea level rise mitigation efforts . The Port engaged with 3 high schools, totaling 126 students:

- Abraham Lincoln High School (2 AP Environmental Science classes, 47 students)
- The Academy High School (2 Chemistry classes, 35 students)
- Philip & Sala Burton High School (2 classes, 44 students)

For Abraham Lincoln and The Academy schools, WRP staff led 5 in-classroom sessions per class, and a site visit. The classroom sessions at these schools occurred around the annual King Tides event on January 20, 2023. The timing provided a unique opportunity for students to experience the waterfront at higher-than-normal tides, which gave students a glimpse of the potential impacts of future sea level rise projections. For Philip & Sala Burton High School, their engagement was limited to a full-day site visit on February 16, 2023. Site visits included a tour of the area around the Ferry Building and hands-on activities for the students to understand the impacts and create awareness about sea-level rise, stormwater flooding, and earthquake risks.

### **Draft Waterfront Adaptation Strategies**

The Port, working with City agencies and USACE, have developed seven Draft Waterfront Adaptation Strategies (Alternatives). Each strategy varies in how it is applied to different parts of the waterfront. The Draft Strategies include:

- Strategy A NO ACTION: Takes no actions to reduce flood risks beyond projects that are already approved.
- Strategy B NONSTRUCTURAL OPTION: Moves people and assets away from the risk, uses nonstructural measures (such as floodproofing) to reduce risks, and allows water to go where it wants rather than constructing traditional structural solutions.
- Strategy C LOWER SEA LEVEL RISE: Adapts the shoreline to withstand 1.5' of sea level rise by 2040 using a combination of structural and nonstructural measures.
- Strategy D LOWER SEA LEVEL RISE - ADAPTABLE: Adapts the shoreline to withstand 1.5' of sea level rise by 2040, with the possibility of building higher by 2090.
- Strategy E HOLD THE LINE: Preserves a waterfront that looks and functions much as it does today by adapting the shoreline.
- Strategy F MANAGE THE WATER: Creates an active system for managing flooding by heavily relying on machinery.
- Strategy G ALIGN WITH WATERSHEDS: Advances shoreline adaptation while working with natural inland flooding patterns to floodproof some buildings and infrastructure and move others away from highest risk areas.

The seven Draft Waterfront Adaptation Strategies use different approaches to reduce the flood risk and increase flood resilience, while managing the complex combination of coastal, stormwater, and rising groundwater hazards. While each strategy is different, all strategies aim to:

- Reduce the risks from sea level rise and coastal flooding
- Improve life safety outcomes and the City's disaster response capabilities
- Bring other public benefits

- Consider storm surge and wave action associated with extreme storms

The Draft Strategies represent different approaches to addressing the same risks and to identify a cost-effective approach to risk reduction. The intent is not to choose one - rather, it is to use the best ideas from all of them to create a Draft Waterfront Adaptation Plan (Draft Plan).

The Port and USACE Flood Study team is evaluating metrics across four benefits categories, including:

- National Economic Development (NED)
- Regional Economic Development (RED)
- Other Social Effects (OSE), and
- Environmental Quality (EQ)

The Port is working with USACE to develop high-level cost estimates and evaluate the metrics under the four benefits categories for the Draft Strategies. Using this information, the Port and USACE will develop and select a Comprehensive Benefits Plan (CBP) that maximizes benefits across the four categories. The Port may also request a Locally Preferred Plan (LPP) that includes additional items not included in the CBP.

### **Draft Plan**

The CBP and LPP (Draft Plans) will select the best elements from each geographic area (Fisherman’s Wharf, Embarcadero, Mission Creek/Mission Bay, and Islais Creek/Bayview) from the Draft Strategies to optimize economic, social, and environmental benefits, and arrive at a cost-effective plan that delivers multiple benefits to San Francisco, our people, and our communities. They will look at initial actions and subsequent actions as sea levels continue to rise. The Draft Plans will be included in the Draft Report and further refined based on additional public feedback and technical evaluation. The Draft Report is expected to be released in early 2024.

In addition to the Draft Plan, the Flood Study team is working to develop a Draft Integrated Feasibility Report and Environmental Impact Statement (EIS), a combined document that describes the planning process and why the TSP was selected, including cost-benefit analysis, and program-level impact analysis under NEPA. The Draft Report will be shared with the public for feedback in early 2024.

After the Draft Report and EIS are released to the public, there will be a formal 60-day comment period. The City will conduct additional public outreach and engagement along with the formal required outreach. The City will also commence programmatic environmental impact review per the California Environmental Qualities Act (CEQA) to enable future City actions related to the Draft Plan.

After robust public engagement starting in early 2024 and review of public, City agency, resource agency and USACE comments, there is an Agency Decision Milestone in Spring/Summer of 2024, which represents the USACE decision to prepare a recommendation for Congress on the recommended plan. This milestone may be an opportunity to seek formal City endorsement (e.g., by the Mayor and Board of Supervisors, or other Boards and Commissions).

## Budget, Funding, Expenditures

The Seawall Bond 2018 budget is \$425,000,000 and the total appropriation through September 2023 is \$88,695,000. The following is a summary of the budget and appropriation per component:

Components	Original Budget*	General Obligation Bond**				Encumbrance + Expenditures / Budget	Encumbrance + Expenditures / Appropriation
		Appropriations	Expenditures	Encumbrances	Balance		
Seawall Program Labor	18,800,00	15,400,000	7,400,000		8,000,000	39.4%	48.1%
United States Army Corps of Engineers (Flood Study) Planning / Engineering / Preliminary Design (Embarcadero Early Projects)	8,900,00	12,375,000	7,500,000	900,000	3,975,000	94.4%	67.9%
Detailed Design (Embarcadero Early Projects)	37,500,000	48,225,000	31,100,000	1,000,000	18,575,000	79.1%	61.5%
Other City Depts / Gov Agencies Design Support during Construction (Embarcadero Early Projects)	46,600,000	9,400,000	4,500,000	2,900,000	2,000,000	0.0%	0.0%
Pilot Projects Construction (Embarcadero Early Projects)	1,900,000	1,000,000	340,000		660,000	17.9%	34.0%
Oversight, Accountability & Cost of Issuance	8,400,000					0.0%	0.0%
Unappropriated Bond Sale Funds	40,000,000	920,000	500,000	200,000	220,000	1.8%	76.1%
	262,900,000					0.0%	0.0%
	-	1,375,000	875,000		500,000	-	63.6%
	-					0.0%	0.0%
<b>TOTAL</b>	<b>425,000,000</b>	<b>88,695,000</b>	<b>49,765,000</b>	<b>5,000,000</b>	<b>33,930,000</b>	<b>12.9%</b>	<b>61.7%</b>

\* Subject to change based on program schedule and needs

\*\* Appropriations, Expenditures, Encumbrances and Balance are based on F\$P amounts through September 2023.

The Accountability reports for the bond sales will be available on the Waterfront Resilience Program website at <https://sfport.com/wrp/library>

## Expenditures and Encumbrances

As of September 2023, the Seawall Bond 2018 expenditures and encumbrances are \$49,765,000 and \$5,000,000, respectively. The expenditures represent 61.7% of the total current appropriations.

## Attachment 1 – Contact Information

Contact	Title	Contact No.	E-mail
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## Attachment 2 – Schedule

Program Scopes of Work	2023				2024				2025	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>EMBARCADERO EARLY PROJECTS</b>										
Program Management of Project Delivery	Program Management - Delivery of Projects									
Pre-Design (Multiple Projects)	Pre-Design of Embarcadero Early Projects									
Detailed Design & Environmental (TBD)	Detailed Design & Environmental									
Bid/Award of Construction Contracts (TBD)	Bid/Award									
Construction (TBD)	Construction									

Projects that advance to Detailed Design and Construction to be determined at completion of Pre - Design