

**California Natural Resources Agency Bonds & Grants Office
General Fund Specified Grant Projects**

San Francisco Seawall Earthquake Safety and Disaster Prevention Program

PROGRAM SUMMARY

The City and Port of San Francisco have launched the San Francisco Seawall Earthquake Safety and Disaster Prevention Program (Seawall Program), to improve seismic performance, provide near-term flood protection improvements, and plan for long-term resilience and sea level rise adaptation along the Embarcadero Seawall from Fisherman's Wharf to Mission Creek.

The Seawall serves as the northern waterfront's foundation. It supports historic piers and wharves, local businesses, iconic destinations, recreation facilities, and more. The Seawall underpins 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.

The rebuild of the Embarcadero Seawall is estimated to cost up to \$5 billion and take several decades to complete. 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. 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.

During the Phase I planning phase, 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.

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