

San Francisco Port Commission

City and County of San Francisco

Site Description

The City and County of San Francisco, through the San Francisco Port Commission, was granted sovereign tide and submerged lands in 1968 through legislation referred to as the Burton Act. Since the enactment of the Burton Act, the Legislature has amended the port's statutory trust grant through more than 20 statutes. Today, the port manages 8 miles of waterfront lands, commercial real estate, and maritime piers from Hyde Street on the north to India Basin in the southeast. The waterfront acts as a gateway to a world-class city and encompasses major landmarks and assets such as Fisherman's Wharf, Pier 39, the Ferry Building, Oracle Park, and Pier 70. With future sea level rise, more than 6 percent of San Francisco's land could be inundated by temporary or permanent flooding. Through proactive, thoughtful adaptation planning, the port can minimize and meet challenges to make San Francisco a more resilient city in the face of immediate and long-term threats of sea level rise.

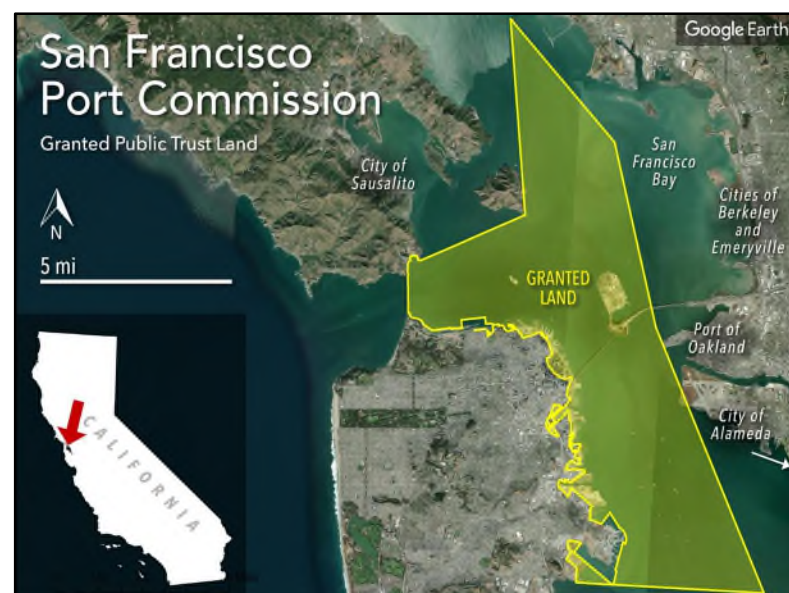


Granted Land Type:
Large Port

Public Trust Uses

Primary Uses: Commerce, Navigation

Secondary Uses: Fisheries, Recreation, Environmental Stewardship



Coastal Hazards considered:
tidal inundation, storms (2-, 5-, 10-, 25-, 50-, and 100-year), king tides

Modeling system used for mapping:
ART

Sea level rise scenarios/elevations
[LINK TO FULL ASSESSMENT](#)

Vulnerable Public Trust Resources	
Built Facilities	Piers (13), Mission Creek Harbor, seawalls, Pier 52 Boat Launch, Agua Vista Park Pier, Islais Creek North (PUC Promenade), Islais Creek South (Islais Landing), Bayview Gateway, Heron's Head Extension, San Francisco Bay Railroad, Intermodal Container Transfer Facility
Natural Assets	Parks (6), Mission Creek Shoreline Garden, Pier 94 wetlands

Other Economic Vulnerabilities

To help inform preliminary decision-making around prioritizing critical seawall improvements, the port completed high-level preliminary estimates in 2017 to assess the economic value at-risk from a seawall breach resulting from a natural disaster, including sea level rise scenarios. These initial estimates showed significant variation; some very preliminary findings suggest direct sea level rise impacts to port facilities could reach \$9.1 billion for a total water level of MHHW + 66 inches. With recent advances in climate change science now available, a comprehensive reexamination of projected cost impacts is now under way as the port and city continue bolstering its adaptation strategies. The San Francisco Port Commission uses sea level rise projections of 12, 24, and 84 inches for the years 2030, 2050, and 2100, respectively. (Cost information was not presented in the report for the years 2030, 2050, and 2100.)

Proposed Adaptation and Mitigation Measures

The Port's adaptive planning framework allows the Port to act now to address risks to life safety and emergency response, while adapting over time to address additional seismic and increasing flood risk to envision a future San Francisco Waterfront that is resilient to conditions projected for 2100 and beyond. The framework is also designed to allow the Port to be responsive to community priorities, changes in science, and funding and partnership opportunities.

Policy Adaptation Strategies

The Port is engaged in many planning endeavors that include policy development and updates. The Waterfront Resilience Program is the main strategy and includes the following The Embarcadero Seawall Program, Waterfront Resilience Program Communications and Engagement Plan, and Citywide Resilience Coordination.

Natural or Nature-Based Adaptation Strategies

Nature-based strategies are being incorporated into other development projects. One example is the India Basin Waterfront Parks and Trails Project to create a new 1.8-acre public park and rehabilitate two existing open spaces, India Basin Shoreline Park (5.6 acres), and India Basin Open Space. The proposed development will adapt to sea level rise by grading, elevating its waterfront riprap and seawall, and designing floodable shoreline open space.

Building and Infrastructure Strategies

The majority of the port's measures to address sea level rise are development projects, including Pier 70 development, redevelopment of the Potrero Power Station, and The Embarcadero Seawall Program that will strengthen the seawall and create a more resilient waterfront.



San Francisco Port Commission – Embarcadero.

Port Structure Vulnerability

More than 55 percent of the piers begin to flood at Sea Level Rise Scenario 4 (MHHW + 4 feet), and although the structures can recover from temporary flooding, damage can occur, and the use of space is disrupted. Any permanent flooding would require adaptation or abandonment of the asset. Specific piers have essential infrastructure that would have impacts beyond the location such as the city's recycling facility or major San Francisco Bay Railroad connections. As flooding becomes more frequent and widespread, access to some facilities, particularly substructures, may grow more unreliable, maintenance and operations costs would increase, as would costs of disruption and physical damage.