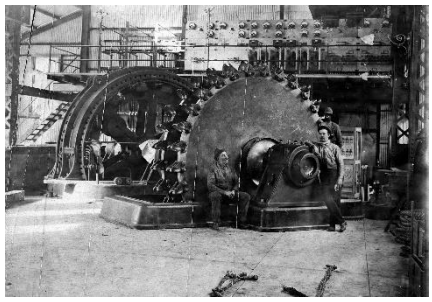
Subarea Profile

Pier 70

Subarea 3-5



SHORELINE TYPE:	SEISMIC RISK[1]:	FLOOD RISK[2]:	
Engineered & Partially Armored: Armored: Filled land retained by partial concrete and rock revetments. Former shipyard facilities dominate a large portion of the hardened shoreline	**Shoreline Instability:** Not Assessed - likely Moderate to High	**Tipping Point Elevation:**	47" above high tide
	Liquefaction Risk: Not Assessed - likely Moderate to High	**Coastal Flood Events**	**Timing**
	Shoreline Structure Vulnerability: Not Assessed - potentially High due to age of structures		
Subsurface Profile: Not Assessed - likely non-engineered fill, moderate to shallow rock near Potrero Hill	**Unique Conditions:** Older shipyard with mix of shoreline structures including pile supported bulkheads, sheet pile bulkheads and floating drydocks, Historic Building 6 and wharf structure	100-yr Flood + 7" SLR	2038 - 2052
		High tide + 48" SLR	2079 - 2127

SUBAREA DESCRIPTION

The Pier 70 subarea carries a strong maritime and industrial heritage, with most of the buildings and structures located near Pier 70 itself included in the Union Iron Works Historic District. About half of the subarea is industrial and half is residential. The Pier 70 project will rehabilitate historic resources, provide new shoreline open space, and allow for new residential and commercial development. It also includes plans to continue the historic ship repair operations.

The entire shoreline within this subarea is hardened, either through piers or engineered shoreline protection (rock armoring).

[1] Evaluation of seismic risk in areas outside of the Embarcadero Seawall Program are based on engineering judgement and will be updated once the Southern Waterfront Seismic Vulnerability Assessment is complete in Spring 2021.

[2] The timing of coastal flood events that will cause significant flooding in this subarea is provided as a range of dates based on the sea level rise projection scenarios provided by the California Ocean Protection Council (OPC) per the Likely and 1-in-200 chance of occurrence projections.

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The primary flooding pathway is overtopping along the shoreline. Flooding initially occurs from overtopping of the shoreline at Pier 68 where the new Crane Cove Park is planned. With higher Bay water levels, overtopping will occur along the entire subarea shoreline, first along Port's Seawall Lot 349, followed by Pier 70, then the shoreline adjacent to the old power plant. Once overtopping along Pier 68 and Seawall Lot 349 occurs, the adjacent inland areas will be impacted but inundation will mostly be contained east of Illinois Street. Flooding within this subarea will comingle with flooding in the adjacent Subareas 3-4 and 4-1.

COMMUNITY IDENTIFIED PRIORITIES:	
Places • Historic Pier 70 • Lift Station • Crane Cove Park	Since 2017, the Port has connected with tens of thousands of community members through the Waterfront Resilience Program. Public feedback collected about Pier 70 underscores the importance of maintaining the maritime industry through such functions as vessel landings, providing for multiuse development, including housing. There was also interest in the redevelopment of the piers. Further feedback highlights additional community priorities, including opportunities to enhance public green space, preserve and adapt historic resources, and improve housing and transit access.

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FIRST FLOODING OF ASSETS

The chart below describes the vulnerability of specific assets within the Pier 70 subarea to flooding. These assets will be exposed to coastal flooding when the water level in the Bay reaches a certain height above the current high tide. The heights at which each asset is exposed to flooding is indicated with the shaded cells in the table. Over time and due to sea level rise these water levels can occur due to large storm events such as a 100 year flood of daily high tides. For example, the Bay Trail is exposed to flooding when the water rises 84 inches above current high tide, which could occur due to a 100 year flood with 3 ft. of sea level rise or as during daily high tide with 5.5 ft. of sea level rise.

● High Tide ○ 100 Year Flood ▭ Shaded cells indicate the water levels at which assets are exposed to flood

		WATER LEVEL ABOVE CURRENT HIGH TIDE										
SEA LEVEL RISE		**0”**	**12”**	**24”**	**36”**	**48”**	**52”**	**66”**	**77”**	**84”**	**96”**	**108”**
Today		●				○						
1 ft. SLR			●				○					
3 ft. SLR					●				○			
5.5 ft. SLR								●				○
Disaster Response												
	Assembly Area (planned)								▭	▭	▭	▭
	-	-										
Open Space and Ecology												
	Bay Trail									▭	▭	▭
	Crane Cove Park (planned)	N/A (Flood information not available at this time)										
	Espirit Park											>
Maritime												
	Large Vessel Shipyard							▭	▭	▭	▭	▭
	Pier 68							▭	▭	▭	▭	▭
	Pier 70									▭	▭	▭
Transportation												
	Muni T-Line											>
	Third Street											>
Utilities												
	Potrero Hill Substation											>
	Tennessee Street Pump Station											>

	Twentieth Street Pump Station											
Critical Facilities												
	Old Potrero Police Station											>
	-	-										

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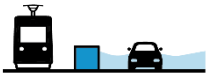
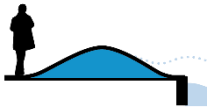
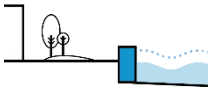
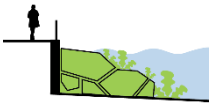
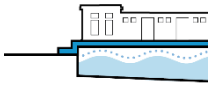
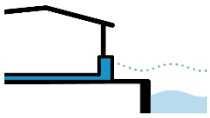
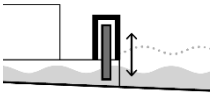
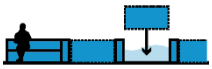
FUTURE POTENTIAL MEASURES UNDER CONSIDERATION IN THIS SUBAREA:

FLOOD MEASURES:

Physical Infrastructure		Ecological Infrastructure	
 Floodwalls	 Levees	 Ecological Marine Structures	 Ecological Features
 Seawalls	 ~~Breakwaters~~	 Aquatic Habitat	 Ecological Shorelines
 Raised Marine Structures	 Building Adaptations		
 ~~Tide Gates~~	 Deployables		

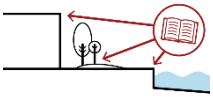
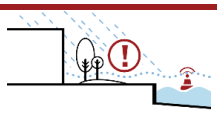
SEISMIC MEASURES:

Southern Waterfront Seismic Vulnerability Assessment

Further information about the potential seismic hazards and vulnerability of Pier 70 will be included in the Southern Waterfront Seismic Vulnerability Assessment. This assessment will not be at the same level as the recently completed Multi-Hazard Risk Assessment (MHRA) under the Embarcadero Seawall Program. It will be used as part of the Port's work to better understand the waterfront risks of the entire 7.5 miles in its jurisdiction.

FLOOD AND SEISMIC MEASURES:

Policy and Emergency Preparedness

 Policies and Zoning	 Emergency Preparedness		