

Cargo Way



SHORELINE TYPE:	SEISMIC RISK ¹ :	FLOOD RISK ² :	
Marsh: Filled land with natural shoreline slope supporting tidal habitat	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 Moderate to high due to age of bulkhead wharf structures		
Subsurface Profile: Not Assessed - likely non-engineered fill with known liquefaction hazard, on top of deep bay mud.	Unique Conditions: Severely deteriorated wharf at Pier 90 is highly vulnerable but not in use	100-yr Flood + 11" SLR	2024 - 2034
		High tide + 52" SLR	2073 - 2115

SUBAREA DESCRIPTION



Cargo Way is predominantly a maritime and industrial area that supports bulk cargo operations, concrete and construction material production, Port maintenance operations, recycling facilities, concrete crushing and recycling, and self-storage facilities. Two concrete batch plants receive sand and aggregate materials from the adjacent bulk cargo terminals at Pier 92 (and 94 located within the Cargo Way subarea) and are San Francisco's only concrete providers which is a critical asset to supply construction within the City. The subarea also contains the southern bank of Islais Creek and is connected to the north by two bridges.

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.

Cargo Way

Subarea 4-3



The southern shoreline of Islais Creek within this subarea has several shoreline types, including embankments with varying degrees of rock protection, engineered bulkheads and structures on piles, and bayfront marsh (Pier 94 wetlands).

The primary pathways of flooding are from overtopping of the engineered southern Islais Creek shoreline near the 3rd Street Bridge and the Illinois Street Bridge, and further east along Seawall Lot 352. Shoreline overtopping initially results in inundation contained within the subarea boundary; however, increasing water levels allow flooding to connect with Subarea 4-2 and subsequently Subarea 4-4. Flood risk reduction strategies in this subarea will eventually require coordination with the adjacent subareas.

COMMUNITY IDENTIFIED PRIORITIES:

Places

- Pier 92 Wetlands
- Fire Station 25

Since 2017, the Port has connected with tens of thousands of community members through the Waterfront Resilience Program. Public feedback collected about Cargo Way underscores the importance of maintaining industrial jobs available in the neighborhood through such facilities as the cement plants while protecting nearby wetlands. Additional community feedback highlighted housing as a top priority in the surrounding community. Further feedback highlights additional community priorities, including opportunities to: address sea level rise and enhance shoreline access.

Cargo Way




Subarea 4-3



FIRST FLOODING OF ASSETS



The chart below describes the vulnerability of specific assets within the Backlands 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, Islais Creek Park is exposed to flooding when the water rises 52 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

SEA LEVEL RISE		WATER LEVEL ABOVE CURRENT HIGH TIDE										
		0"	12"	24"	36"	48"	52"	66"	77"	84"	96"	108"
Today		●				○						
1 ft. SLR			●				○					
3 ft. SLR					●				○			
5.5 ft. SLR									●			○
Disaster Response												
	Debris Removal Staging Area											
	Fire Station 25											
Open Space and Ecology												
	Bay Trail											
	Fireman's Park											
	Gateway Park											
	Islais Creek Park											
	Islais Plaza											
	Pier 94 Wetlands											
	Intermodal Container Transfer											
	Pier 90 Maritime Maintenance Facility											
	Pier 92 Industrial and Cargo Ship Loading											

Cargo Way



Transportation												
	SF Bay Railroad											
	-	-										
Utilities												
	Booster Pump Station											
	-	-										



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 Cargo Way 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		
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