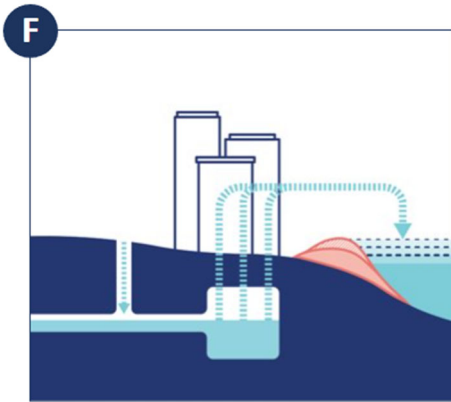


# STRATEGY F - HIGHER SEA LEVEL RISE - MANAGE THE WATER

Creates an active system for managing flooding by heavily relying on machinery

## Draft Waterfront Adaptation Strategies

The Port of San Francisco, in partnership with the U.S. Army Corps of Engineers and San Francisco city agencies, has developed seven Draft Waterfront Adaptation Strategies based on over five years of public engagement. Draft Adaptation Strategies are ready for public feedback, with a goal of reaching a Draft Waterfront Adaptation Plan (Tentatively Selected Plan) by summer 2023. Learn more at [sfpport.com/wrp/waterfront-adaptation](https://sfpport.com/wrp/waterfront-adaptation).



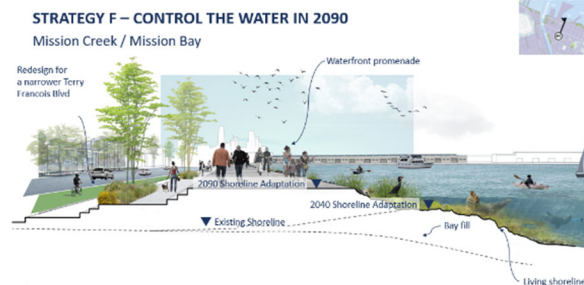
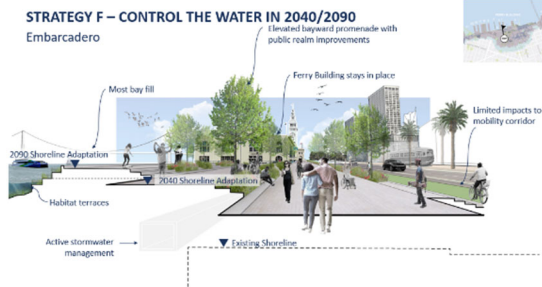
## Strategy F – Higher Sea Level Rise – Manage the Water

Strategy F creates an active system for managing flooding by heavily relying on machinery. This strategy addresses the flood risk associated with 3.5 feet of sea level rise in 2040 and up to 7 feet in 2090.

Strategy F would transform some parts of the waterfront to enable active flood response management via some land use changes and shoreline alignments and through construction of tide gates on Mission and Islais creeks. New tide gates and Mission and Islais creeks would keep coastal floodwaters out, creating engineered lagoons with pumps that could hold stormwater and groundwater to actively manage water. By 2090, Strategy F would require

floodproofing and accommodation on industrial and commercial land uses east of Illinois Street. No residential uses are changed. These areas would require flood monitoring and warning systems.

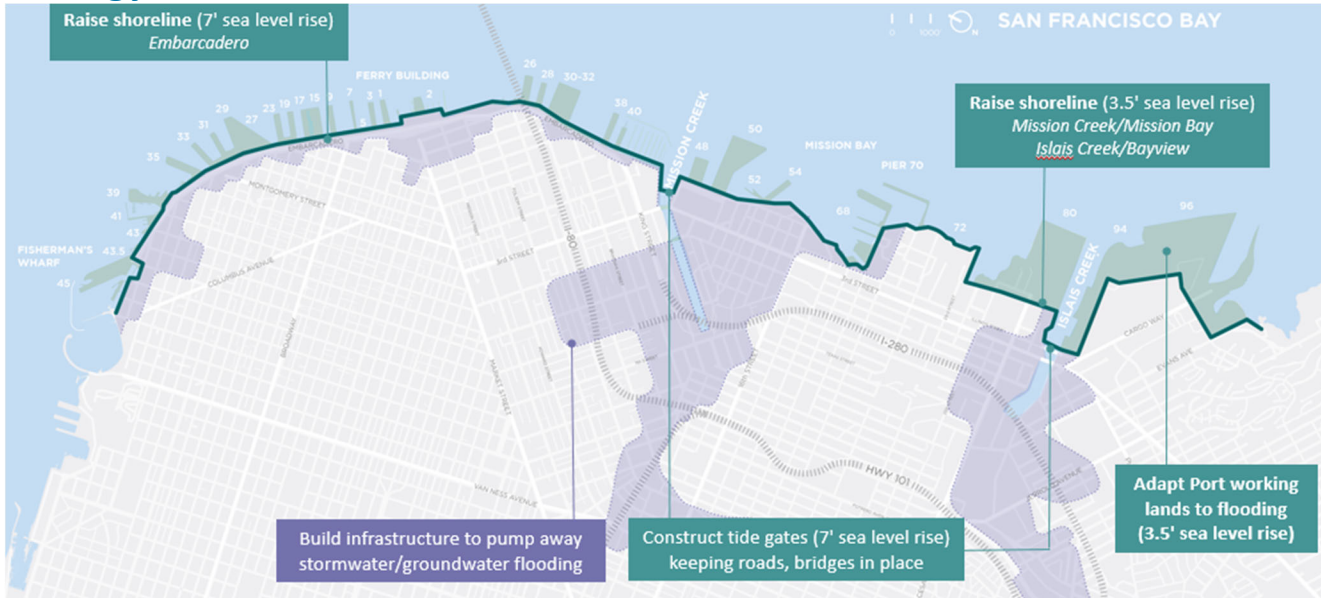
This strategy emphasizes the public’s feedback that we develop innovative solutions to comprehensively plan for future flooding due to climate change. Nature-based solutions and natural features would be maximized along the shoreline, including features that can reduce flood risks, and features that can enhance Bay ecology and habitat.



# STRATEGY F - HIGHER SEA LEVEL RISE - MANAGE THE WATER

Creates an active system for managing flooding by heavily relying on machinery

## Strategy F Flood Defenses in 2040



## Strategy F 2040 Flood Defenses Across the Waterfront

### Islais Creek / Bayview

- Elevate bay shorelines to defend against 3.5 feet of sea level rise.
- Construct a tide gate across Islais Creek east of Illinois Street to defend against up to 7 feet of sea level rise and manage flooding. Tide gates are structures across a waterway that can be closed to reduce flood risk during storm events or extreme high tides. It would be built east of Illinois Street bridge to limit coastal flooding and create a lagoon to capture stormwater and prevent stormwater and groundwater flooding. The water level in this constructed lagoon could be lowered ahead of major storms, to make room for stormwater and prevent flooding.
- The tide gate would mean that the roads, bridges, and shoreline edges of the inner portion of Islais Creek would not have to be raised.
- Port operations and working lands would be raised and adapted to 3.5' of sea level rise. Buildings and infrastructure would be kept in place, including Port operations and jobs.

### Mission Creek / Mission Bay

- Elevate the bay shoreline to defend against 3.5 feet of sea level rise.
- Construct a tide gate across Mission Creek east of Third Street to defend against up to 7 feet of sea level rise and manage flooding. Tide gates are structures across a waterway that can be closed to reduce flood risk during storm events or extreme high tides. It would be built east of the Third Street Bridge (Lefty O'Doul Bridge) to limit coastal flooding and create a lagoon to capture stormwater and prevent stormwater and groundwater flooding.
- The tide gate would mean the roads, bridges, and shoreline edges of the inner portion of Mission Creek would not have to be raised.

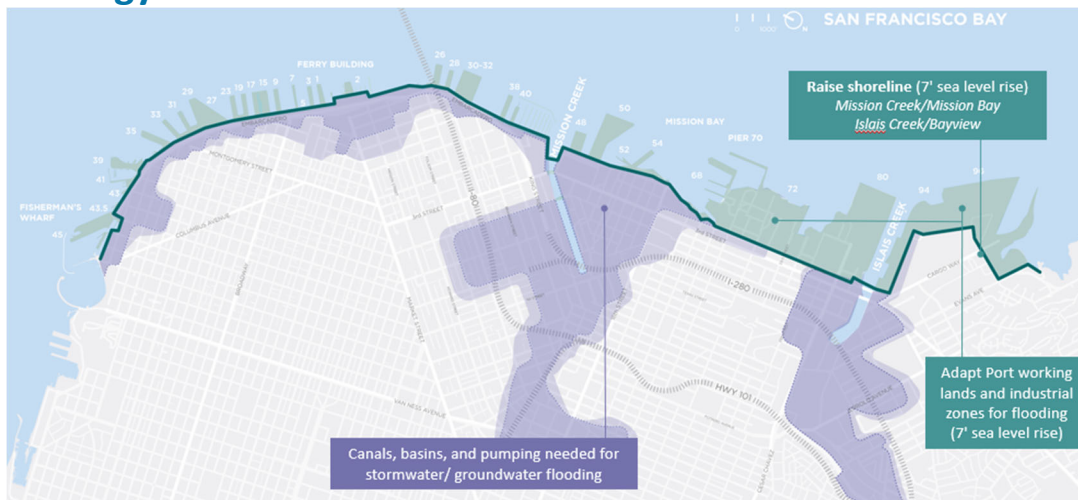
# STRATEGY F - HIGHER SEA LEVEL RISE - MANAGE THE WATER

Creates an active system for managing flooding by heavily relying on machinery

## Embarcadero

- Build a coastal flood defense system to defend against 7 feet of sea level rise.
- Strategy F would maintain the Ferry Building at its existing location and elevation, as the shoreline would be elevated bayward of the Ferry Building.
- Strategy F would include a generous pedestrian promenade on two levels and would not require roadway narrowing on the Embarcadero.
- Reconfigure northbound lanes only of the Embarcadero roadway to meet the elevated promenade.
- The shorelines would be extended into the Bay with some bay fill to provide adaptation space, make room for sewer infrastructure and limit impacts to the roadway.
- Build pump stations to manage stormwater and groundwater flooding.

## Strategy F Flood Defenses in 2090



## Strategy F 2090 Flood Defenses Across the Waterfront

### Islais Creek / Bayview

- Build coastal flood defense along Illinois Street and Amador Way, connecting to the tide gate, to defend against 7 feet of sea level rise.
- Raise and adapt Port working lands and vulnerable industrial zones to withstand 7 feet of sea level rise.

### Mission Creek / Mission Bay

- Build a coastal flood defense along Illinois Street and Terry Francois Boulevard, connecting to the tide gate, to defend against 7 feet of sea level rise.
- As land in Mission Bay subsides and sea levels rise, it would become a neighborhood below sea level. A flood management district would be created that includes canals, basins, and pumping for stormwater and groundwater. The district would manage tidal gates and lagoons to minimize coastal and stormwater flooding to the district.

### Embarcadero

- Shoreline adaptations would be built to defend against up to 7 feet of sea level rise in 2040, so no long-term actions would be needed.

# STRATEGY F - HIGHER SEA LEVEL RISE - MANAGE THE WATER

Creates an active system for managing flooding by heavily relying on machinery

## Overview of All Seven Draft Waterfront Adaptation Strategies

Adaptation Strategies are different ways for the City to create a resilient, sustainable, and equitable waterfront for the next 100 years. Each one is a combination of construction projects and policy changes that will guide such decisions as where, when, and how high to build flood defense and how and when to adapt key buildings and infrastructure to ensure continued operations of City services.

Draft Waterfront Adaptation Strategy Summary				
Strategies		+1.5' Sea Level Rise	+3.5' Sea Level Rise	+7' Sea Level Rise
A – No Action	No Action			
B – Nonstructural Option	Nonstructural Option	✓	✓	✓
C – Lower Sea Level Rise	Lower Projected Sea Level Rise	✓		
D – Lower Sea Level Rise – Adaptable		✓	✓	
E – Hold the Line	Higher Projected Sea Level Rise	✓	✓	✓
F – Manage the Water		✓	✓	✓
G – Align with Watersheds		✓	✓	✓

## The Port Wants to Hear from You!

Public feedback on the Draft Waterfront Adaptation Strategies will inform further strategy development, with a goal of reaching a Draft Waterfront Adaptation Plan (Tentatively Selected Plan) by summer 2023.

There is no single approach to adaptation that will meet the needs of San Francisco along the entire waterfront. The different risks, topography, and historic development of the waterfront means that we will need to use a combination of approaches. The intent is not to choose one but to use the best ideas from all of them to create a Draft Waterfront Adaptation Plan.

Visit [sfport.com/wrp/our-waterfront](https://sfport.com/wrp/our-waterfront) for more information about upcoming community events.