

# City of Morro Bay

*San Luis Obispo County*

## Site Description

The City of Morro Bay's Public Trust grant spans the coastline from Morro Dunes in the north to the eastern edge of Morro State Park in the south, and extends three miles offshore. The coastline here is characterized by a mix of coastal wetlands and mudflats, sandy beaches and dunes, and some coastal bluffs. This area includes the prominent Morro Rock and the northern region of Morro Bay, home to a large population of sea otters. Other land uses supported by the City's grant include beach and dune recreation areas, critical infrastructure (transportation, communication, and wastewater facilities), and The Embarcadero Waterfront, which is a tourism hub for the city.

The city of Morro Bay is susceptible to coastal hazards such as inundation, flooding, and bluff/dune erosion associated with extreme waves and water levels, resulting in adverse impacts on many of Public Trust uses outlined above. With a thoughtful and effective approach to adaptation, beginning with the planning process, impacts from sea level rise can be reduced, resulting in a more resilient coastal community.

### Coastal Hazards considered:

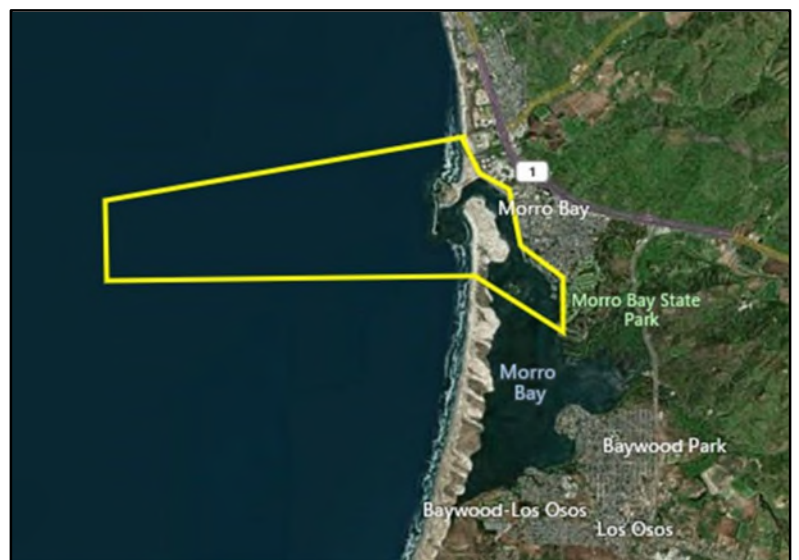
tidal inundation, 100-year storm, wave run-up, river flooding, bluff/dune erosion



**Granted Land Type:**  
Small Harbor/Marina  
with Recreational  
Amenities or Natural  
Assets

## Public Trust Uses

*Primary Uses:* Recreation, Fishing  
*Secondary Uses:* Conservation



**Modeling system used for mapping:**  
In-house model

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

Vulnerable Public Trust Resources	
Built Facilities	The Embarcadero Waterfront, transportation infrastructure (Highway 1), wastewater and storm drainage facilities, desalination plant, telecommunications infrastructure, Fire Stations 53 and 54, education facilities, fishing industry infrastructure (docks, piers, offloading hoists)
Natural Assets	Morro Rock and Morro Rock Beach, Morro Sand Dunes, Heron Rookery Natural Preserve, Eelgrass habitat, Morro Bay Sandspit and Salt Marsh

# Other Economic Vulnerabilities

The losses in non-market value are estimated from previous studies of the value spent per beachgoer per day at California beaches, applied to the estimated 250,000 beach visitors that Morro Bay receives annually. In the city's 2018 Sea Level Rise Adaptation Strategy Report, Table 3-3 includes adaptation costs of construction and maintenance are estimated for a variety of options, such as revetments and dunes, but there is not enough detail given to include overall costs in this summary.



## Proposed Adaptation and Mitigation Measures

### **Protect**

Improve existing Highway 1 revetment or build sand dunes atop existing Highway 1 revetment; extend existing sand dunes southward to include protection of Morro Rock parking lot.

### **Accommodate**

Elevate Highway 1 on a bridge; improve and reconfigure underdeck utilities on fixed docks along The Embarcadero Waterfront to be more resilient to sea level rise; improve floating dock design along The Embarcadero Waterfront; improve or elevate storm drains. Raise entire Embarcadero Waterfront.

### **Retreat**

Shift alignment of Highway 1 eastward, retreat Morro Rock parking lot.

The Embarcadero Waterfront supports various commercial uses, including Morro Bay's commercial fishing industry, a small but vital part of the city's economy. Commercial fishing was a priority for Morro Bay beginning with the building of the harbor during World War II by the Department of the Navy.

While much of the waterfront and supporting facilities have significant elevation, extreme sea level rise estimates (i.e., 10 feet) would result in a host of vulnerabilities. Improvements to underdeck utilities, floating docks, and storm drains, or complete elevation of waterfront land, piers, and associated facilities, would ensure protection under future sea level rise conditions.

## Anticipated Costs of Sea Level Rise (millions)\*

	Current	2030 (12 in.)	2050 (24 in.)	2100 (66 in.)
<b>Assets at Risk or Repair and Replacement Costs</b>				
<b>Losses in Non-Market Value</b>	<b>\$6.125–\$12.5 per year</b>			
<b>Cost of Adaptation</b>				

\* Replacement cost from Table 4, p.14; non-market value Table 5, p.15; value of exposed assets Table 6, p.15.