

City of Santa Cruz

Santa Cruz County

Site Description

The City of Santa Cruz, lying on the northern side of Monterey Bay, was granted approximately 411 acres of Public Trust lands in 1969. These lands, which extend from Lighthouse Point on the west to the tip of the Santa Cruz Harbor Jetty on the east, are made up of 385 acres of submerged seabed and 26 acres of beaches. With the only physical structure within the granted land area being the Santa Cruz Municipal Wharf, much of the City's granted lands have been left in their natural state—beaches, sea cliffs, and the mouth San Lorenzo River make up the majority of the grant. The city's grant supports a variety of Public Trust resources and uses, including public access, recreation, commerce and tourism, navigation, and habitat conservation. The wharf alone currently supports 19 businesses in its various buildings and acts as a coastal access point. Many of these coastal resources will be threatened by the potential impacts of sea level rise, such as rising tides, coastal storm flooding, and erosion. In its effort to prepare for these impacts, the City of Santa Cruz is working to develop a landscape-scale plan and a monitoring/triggers/threshold program that will direct implementation in a strategic and cost-effective manner.

Coastal Hazards considered:
tidal inundation, 100-year storm, shoreline change/
erosion



Granted Land Type:
Jurisdiction with
Recreational Amenities

Public Trust Uses

Primary Uses: Recreation

Secondary Uses: Commerce,
Fisheries



Modeling system used for mapping:
In-house model

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

Vulnerable Public Trust Resources

Built Facilities	Santa Cruz Municipal Wharf
Natural Assets	Bluffs and cliffs, Cowell's Beach, Main Beach, and Seabright Beach, surf breaks from Steamer Lane to Cowells, river mouth

Other Economic Vulnerabilities

All financial impacts are for the City of Santa Cruz’s entire coastal hazard zone and not just for the granted land area, besides specific details given about the costs of wharf maintenance and adaptation.



Santa Cruz Wharf (photo courtesy of Integral Consulting)

Proposed Adaptation and Mitigation Measures

Policy Adaptation Strategies

Review and update annually Emergency Operations Plan. Work with the city’s Office of Emergency Services to manage the early warning system for evacuation of areas susceptible to flooding, tsunami inundation, seiches, or dam failure. The Fire and Planning and Building Departments will review new development design, circulation and access to ensure that development provides for minimum emergency response times and that emergency vehicles always have safe and expedient passage. Update the city’s Local Coastal Program. Comply with the National Flood Insurance Program.

The city of Santa Cruz actively participates in multiple climate change action collaborations and used surf break degradation as an indicator of future revenue losses, but every aspect of the city—its economic prosperity, social and cultural diversity, scenic beauty and historical character—is threatened by potential impacts of sea level rise.

Natural or Nature-Based Adaptation Strategies

Continue with a program to minimize the alteration of floodplains, stream channels and natural protective barriers that accommodate overflow. Increasing native biodiversity and maintaining terrestrial littoral transport processes along coastal bluffs of West Cliff and Natural Bridges. Dune stabilization projects at Twin Lakes State Beach.

Building and Infrastructure Strategies

Protect and preserve the coastline and city infrastructure through the permit review process. Encourage and support the protection of cultural, historic and architecturally significant structures to preserve neighborhood and community character as defined in the General Plan.

Anticipated Costs of Sea Level Rise (millions)*

	Current	2030 (4 in.)	2050 (28 in.)	2100 (63 in.)
Assets at Risk or Repair and Replacement Costs			\$2.175	\$15.8
Losses in Non-Market Value				
Cost of Adaptation	Cost of wharf improvements through 2100: \$15.9			

* P. 33; Repair and replacement costs—for wharf improvements.