


City of Newport Beach

Orange County

Site Description

The City of Newport Beach manages tidelands, submerged lands, and filled tidelands from the Newport Bay entrance channel to areas inside the Newport Harbor and up the coast towards the east Santa Ana River Jetty. It was also granted Big Canyon Park, located in Upper Newport Bay. The coast between the river and the harbor entrance consists of sandy beaches with coastal structures, including the groin field between 28th Street and 56th Street in West Newport Beach, two public piers, and the ocean jetties of the harbor entrance. The harbor has 17 miles of bulkhead wall, six islands with residential development, more than a dozen mooring sites, and over 1,100 docks for commercial, private, marina, and recreational boaters. Between Newport Pier and the harbor entrance is Balboa Peninsula, a relatively low and flat 3-mile long sand spit, with sandy beaches and coastal foredunes that are backed by low-lying residential and commercial development.

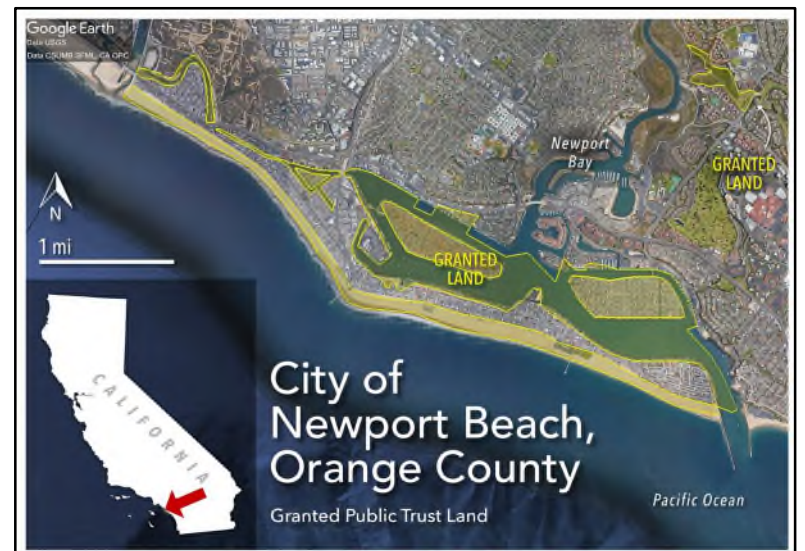


Granted Land Type:
Small Harbor/Marina
with Recreational
Amenities or Natural
Assets

Public Trust Uses

Primary Uses: Commerce,
Recreation

Secondary Uses: Navigation,
Environmental Stewardship



Modeling system used for mapping:
CoSMoS

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

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

Vulnerable Public Trust Resources

Built Facilities	Docks (>1,100), mooring areas, lifeguard facilities, parking lots, roads, pedestrian paths, restrooms, groins, bulkhead walls, riprap, Balboa Pier, Newport Pier, West Harbor entrance jetty, East Harbor entrance jetty, Harbor entrance channel, Lido Channel, commercial infrastructure, stormwater infrastructure, wastewater infrastructure, parks, Semeniuk Slough
Natural Assets	West Newport Beach, Balboa Peninsula Beach, Big Corona Beach, Little Corona Beach

Other Economic Vulnerabilities

Single-family residential homes represent the largest potential financial/economic losses, with more than half of the total estimated losses at all sea level rise scenarios. In addition, many commercial properties will be impacted, notably the Balboa Bay Yacht Club and Resort. The losses in non-market value are also significant and will increase substantially over time. By 2030 (0.8 feet of sea level rise), the total loss is \$22.7 million; it increases to \$40 million with 1.6 feet of sea level rise, and \$105 million with 4.9 feet of sea level rise.



Proposed Adaptation and Mitigation Measures

Protect

One adaptation strategy proposed is to protect coastal resources within tidelands with a seawall or bulkhead wall. This strategy is only effective insofar as sufficient dry beach is present between the sea and the tidelands asset being protected. Beach nourishment is proposed for West Newport Beach, Balboa Peninsula, and Big Corona Beach. Beach nourishment is considered a “soft protection” strategy and is temporary by design—the added beach width will begin dispersing soon after placement, and the length of time the dry beach remains at a site will vary.

Accommodate

There are no accommodation strategies currently planned; however, they may be considered in the future.

Retreat

A managed retreat approach involving relocation of vulnerable resources would offer benefits to the community by mitigating impacts of coastal squeeze (beach loss) for a sea level rise scenario of 4.9 feet. Many of the resources and amenities would either need to be removed from this area entirely or would require site-specific adaptation measures to be more resilient to the evolving shoreline erosion hazards.

Public Access

With sea level rise of 0.8 feet and a 100-year storm, access and roadways along the harbor side of the Peninsula are vulnerable to coastal flooding, including the Bay Front Boardwalk on Balboa Island and the Edgewater Avenue Boardwalk on the Peninsula. With sea level rise of 4.9 feet and a 100-year storm, flooding extends inland on the Peninsula and impacts the Oceanfront Boardwalk. In fact, with sea level rise of 4.9 feet and a 100-year storm, most all public access routes in and outside of the study area could be affected by future sea levels and shoreline conditions if no mitigation and adaptation measures are taken.

Anticipated Costs of Sea Level Rise (millions)*

	Current	2030 (9.6 in.)	2050 (19.2 in.)	2100 (58.8 in.)
Assets at Risk or Repair and Replacement Costs		\$13.3	\$27	\$37.1
Losses in Non-Market Value		\$22.7	\$39.9	\$104.8
Cost of Adaptation		\$2.2	\$4.4	\$24.5

*Costs were provided for 0.8, 1.6, and 4.9 feet. For the purposes of AB 691, these are interpreted as near-term (year 2030), mid-term (year 2050), and long-term (year 2100) sea level rise. Repair/Replacement/Maintenance from Table 6-3 and Flooding Costs from Table 6-4; Non-Market Value from Table 6-12.