

Crescent City

Del Norte County

Site Description

Crescent City is situated on a low-lying portion of the Pacific coast in northern California. In 1868, the state granted Crescent City 194 acres of sovereign land. The city controls land and tideland properties seaward of the 1948 ordinary high-water mark, bounded by the Redwood Highway to the north, Crescent City Harbor District granted lands boundary to the east, Lighthouse Way breakwater to the south, and Front Street to the North. The grant area supports recreational activities, with a campground, community pool, cultural center, and various park related assets. The grant area also contains the city's wastewater treatment plant. A notable natural resource within the grant is Elk Creek estuary. This estuary has been highly altered from its natural state by encroaching development, tideland fill, and harbor sedimentation. Shorelines within the grant area were created by fill shortly after the 1964 tsunami and ongoing harbor sedimentation. The entirety of the shoreline is armored with a combination of riprap and concrete rubble. These areas currently protected by shoreline armor are not projected to be vulnerable until 2100, except along Elk Creek and the Shoreline RV Campground, which are expected to be inundated by approximately 2075. The land grant area is protected by four manmade breakwaters and one shoreline breakwater groin structure. Crescent City is vulnerable to extreme coastal events combined with rising seas.

Coastal Hazards considered:
sea level rise, tsunamis, inundation, flooding



Granted Land Type:
Smaller Harbor/Marina

Public Trust Uses

Primary Uses: Recreation
Secondary Uses: Commerce, Safety & Navigation, Environmental Stewardship



Modeling system used for mapping:
NOAA

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

Vulnerable Public Trust Resources

Built Facilities	B Street pier, beachfront levee, beachfront park, cultural center, harbor trail, Kidtown & Dog Park, Lighthouse Way breakwater, Northcoast Marine Mammal Center, Shoreline RV Campground, swimming pool, wastewater treatment plant
Natural Assets	Elk Creek Estuary

Other Site Vulnerabilities

The 2100 sea level rise projection of 6 feet will directly impact all of the city's assets on the eastern half of the grant. The Elk Creek Estuary will be inundated during much of the tide cycle and the tidal impacts will extend inland along the Elk Creek drainage north of the Redwood Highway and beyond the limits of the city's granted lands. This inundation would result in significant damage to the existing city assets with these areas and extend the coastal processes of shoreline scour further inshore than the current established shoreline.



Proposed Adaptation and Mitigation Measures

Protect

Elevate, extend, and armor levee on east and west sides of Elk Creek. Develop and implement a program to capture perishable data after significant events to support future migration efforts, including the implementation and maintenance of the hazard mitigation plan.

Accommodate

Replace and elevate B Street Pier. Elevate and strengthen Lighthouse Way Breakwater. Elevate pedestrian bridge over Elk Creek. Elevate sections of the Redwood Highway. Beach renourishment northwest of Lighthouse Way Breakwater. Develop a debris management plan.

Retreat

Limit new development in mapped hazard area. Where appropriate, support retrofitting, or purchase or relocate structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazards.

Crescent City is economically vulnerable to impacts from sea level rise and other extreme storm and tidal events. The founding industries of the region, logging and fishing, have been in decline for decades, and the city is losing population and tax revenue. The 1964 tsunami caused widespread adverse effects to the former thriving downtown commercial shopping district, and the area is said to have never recovered. These factors mean it is less likely to have the resources to prepare and respond to hazards like flooding. The region is shifting to a more tourism-driven economy, and therefore the protection of the waterfront and its amenities is vital.

Anticipated Costs of Sea Level Rise (millions)*

	Current	2030 (12 in.)	2050 (24 in.)	2100 (72 in.)
Assets at Risk or Repair and Replacement Costs	n/a	\$40.6	\$48.7	\$188.1
Losses in Non-Market Value	n/a	\$78/year, decreasing through time		
Cost of Adaptation	n/a	\$11	\$34	\$493

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