

City of Eureka

Humboldt County

Site Description

The City of Eureka was originally granted sovereign waterfront lands in trust in 1857. The City's tidelands include approximately 2,890 acres of submerged lands, and approximately 1,000 acres of adjacent shoreline/upland. Uses on the granted tidelands include mariculture, commercial fishing, and recreational boating docks, piers, and marinas, as well as natural resource areas.

Without the ability to maintain and/or reinforce/expand existing dikes, levees, and other natural and artificial shorelines, much of the tideland area will likely be completely inundated by 2050. In many areas, this also means that onshore/upland supportive services will no longer be viable, and those operations that provide and support commercial fishing, visitor-serving uses, and economic resources will cease. In the interim, the city is also working to define areas where shorelines could be expanded, and additional public trust lands could be provided. The majority of information about sea level rise impacts to public trust resources and adaptation strategies comes from studies and plans developed for other purposes such as the Local Coastal Program and General Plan update.

Coastal Hazards considered:
tidal inundation, 100-year storm

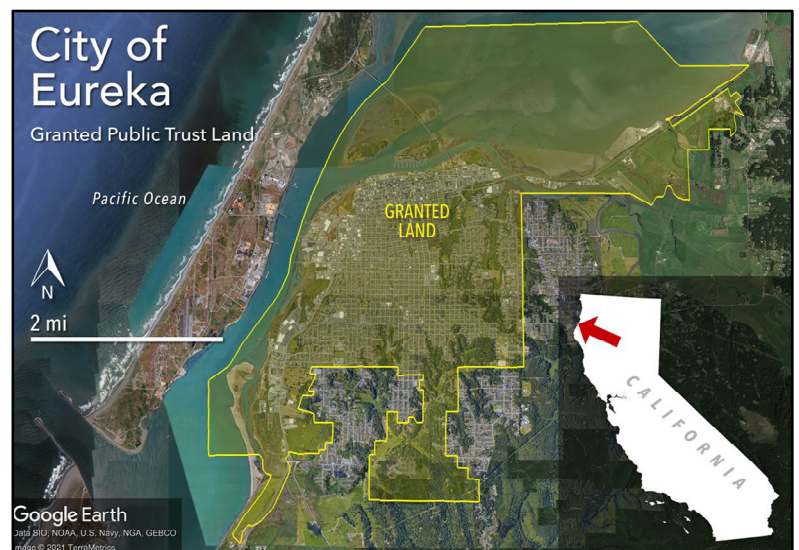


Granted Land Type:
Smaller Harbor/Marina
with Recreational
Amenities or Natural
Habitat

Public Trust Uses

Primary Uses: Safety & Navigation,
Fisheries, Commerce

Secondary Uses: Recreation,
Environmental Stewardship



Modeling system used for mapping:
Northern Hydrology and Engineering
(based on North Spit tidal gauge)

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

Vulnerable Public Trust Resources	
Built Facilities	Utilities (wastewater, drinking water, storm water, energy, communications, solid waste), docks, commercial and industrial buildings, public parks, trails, open un-treated contaminated sites
Natural Assets	ESHAs—Marine wetlands (378 acres inundated by 2100), Dunes (47 acres inundated by 2100)

Economic Vulnerabilities

The anticipated costs of sea level rise were not provided in this assessment. However, the City of Eureka and County of Humboldt have conducted economic analyses of coastal dependent industrial land use needs, and other needs for the city's tideland areas. These analyses, as well as an economic development policy paper, informed the city's General Plan 2040, adopted in 2018. The City of Eureka used sea level rise projections of 10.8, 22.8, and 64.8 inches for 2030, 2050, and 2100, respectively.

Proposed Adaptation and Mitigation Measures

Protect

Build, enlarge, or maintain a dike/levee along the existing shoreline. Create a wide multipurpose levee along the existing shoreline that provides opportunities for integrated development and elevate land surface behind levee with fill material. Implement tidal barriers. Create a living shoreline using new salt marsh fortified with logs and artificial reef. Create new landmass in the Bay for habitat, recreation, development, and recreation.

Accommodate

Maintain Eureka's boardwalk and working waterfront piers and docks by retrofitting piers to accommodate periodic flooding; modifying structures to dampen tidal impacts; rebuilding and raising above projected sea level rise elevation; maintaining the piers and docks for as long as practical and safe, and then removing structure. Elevate street behind shoreline by integrating structural and non-structural adaptation measures along the line of defense (a street, trail, or other topographic feature).

Retreat

There are several studies under way to analyze the potential for managed retreat along discreet portions of its waterfront.

The above strategies are introduced in Addendum #1 of the [City of Eureka Sea Level Rise Adaptation Planning Report and Final Adaptation Plan](#).



Eureka, California. Photo courtesy of NOAA 200th Anniversary Postcards from the Field.



Figure 15 from Humboldt Bay Shoreline Inventory, Mapping and Sea Level Rise Vulnerability Assessment. Building on Eureka Bay. Photo: A. Laird.

Partnerships

The city has a number of partnerships with other local, regional, state, and federal agencies to study sea level rise and plan for adaptation. For example, the city partnered with CalTrans and Humboldt State University on the recent 2019 study Caltrans Eureka-Arcata Corridor: Sea Level Rise Vulnerabilities and Adaptation Solutions. This study informs adaptation planning currently under way by identifying a range of adaptation options to improve unsafe portions of the corridor.