



Fact Sheet: Protection of Public Trust Resources in the Face of Sea Level Rise

The public's right to use California's waterways for navigation, fishing, boating, natural habitat protection, and other water-oriented activities is protected by the common law Public Trust Doctrine. In coastal areas, public trust lands include both tidelands and submerged lands, from the shore out three nautical miles into the Pacific Ocean as well as lands that have been filled and are no longer underwater. Now, as accelerating sea level rise threatens the coastline, the state must begin to anticipate changes to public trust resources, uses, and needs. This fact sheet summarizes options for addressing these new challenges as described in the policy report *Protection of Public Trust Resources in the Face of Sea Level Rise* by the UC Santa Barbara Ocean and Coastal Policy Center.

Tidelands are dynamic

The physical location of tidelands is dynamic. This is because in many places the boundary is determined by the intersection of the mean high and low sea level elevations with the physical shoreline at the time of observation. In the typical sandy beach environment, these lines will move back and forth with the accretion and erosion of sand from the shore, hence the notion that the mean high tide line is *ambulatory*. In many cases, public tidelands will maintain their basic characteristics if allowed to naturally migrate inland apace with sea level rise.

Shoreline development can impact tidelands

As tidelands migrate inland along developed shorelines, they will begin to be impacted by development in various ways. First, the direct placement of new development on or over public tidelands is always a concern, regardless of projected sea level rise. Sea level rise also portends increasing encroachment of existing development onto public tidelands. Shoreline development that may have originally been located on uplands, or only slightly on tidelands, will have increasing impacts on the nature and extent of public tidelands as the sea rises. Development on tidelands leads to:

1. Direct loss of tidelands
2. Conversion of open tidelands underneath structures
3. Blockage of lateral tideland beach access
4. Reduced supply of beach sand to tidelands

Sea level rise impacts

Accelerating sea level rise will likely lead to more disputes regarding the location of property boundaries along the shoreline as lands that were previously landward of the mean high tide line become subject to the state's ownership and protections of the Public Trust. These disputes, in turn, will affect determinations regarding what kinds of structures and uses may be allowed or maintained in areas that, because of sea level rise, are already seaward of the mean high tide line, are likely to become seaward of the mean high tide line in the future, or would be seaward of the mean high tide line if it were not for artificial alterations to the shoreline.

Shoreline Development, Malibu



Shoreline Development, Ventura County



UC Santa Barbara Ocean and Coastal Policy Center Recommendations

Protecting the Public Trust as seas rise

The California State Lands Commission (CSLC), California Coastal Commission (CCC), other state agencies with relevant jurisdiction or property interests, and local governments have a responsibility to consider and protect against impacts to public trust resources, uses, and needs on California's outer coast. Below are recommended actions that can help the state prepare for impacts on the public trust as seas rise.

Develop information on changing MHTL

The current planning and regulatory standards for identification of the mean high tide line will not capture the information needed to protect the public trust in an era of accelerating sea level rise. A "zone of concern" approach to identify tidelands can better represent the inherently dynamic public trust lands (i.e., ebbing and flowing with the tides, seasons, and physical shoreline changes). Projecting this zone of concern into the future, matching the expected lifespan of proposed development, can help address sea level rise. Agencies can also better protect the public trust from climate change impacts by using the best available science, pursuing technical advances in monitoring the MHTL, and using moving averages of sea level epochs to keep pace with sea level rise. Information requested in filing requirements and lease applications can help build the understanding necessary for agency decision making.

Formalize Public Trust consideration in agency processes

By making a "Public Trust" finding in shoreline planning and regulatory actions under a consistent analytical framework, updating Local Coastal Programs to reflect new public trust-related standards and procedures, and through legal agreements, agencies can formalize how they are protecting public trust resources, uses, and needs. The CCC might also consider updating its regulations to clarify the differences between the mean high tide and the mean high water line, and other definitional components to facilitate the protection of inland-moving, ambulatory tidelands.

Consider precautionary policy approaches

Applying a rolling easement or deed restriction to the tideland zone of concern that restricts future development and uses, to be dedicated to (or monitored by) the CSLC is one potential approach to preserve tidelands as seas rise. Another option is to increase development setbacks to assure that development does not encroach on public tidelands for the approved life of a development.

Increase agency coordination

CCC should work with CSLC to identify development that may already or soon will be located on Public Trust lands. Both agencies should identify existing permits and leases and seek to synchronize their terms to the extent feasible. Coordination should include consideration of both procedural/timing terms (e.g., coordinate permit/lease terms for purposes of extension and/or lease renewal), and substantive terms, such as concerning impact avoidance and mitigation.

Public Trust Analytic Framework

1. Identify baseline Public Trust conditions
2. Under different sea level rise scenarios
 - Analyze the tideland zone that matches the life of the development
 - Analyze potential impacts to tidelands
3. Analyze allowable uses and potential impairment of Public Trust resources
4. Evaluate alternatives, conditions, and mitigation measures to avoid, minimize, or mitigate impacts of allowable uses on or adjacent to tidelands.

Hypothetical Projected Tideland Zone of Concern, Oxnard

