

Definitions

The following terms are used throughout the Plan, and it is important to understand their definitions and use for planning.

The State-recognized **sea level rise exposure area (SLR-XA)** is defined as the Hawai'i Climate Change Mitigation and Adaptation Commission's recognized planning target or threshold for sea level rise exposure. Currently, the recognized planning threshold is 3.2-feet of sea level rise. The planning threshold may change over time based on best available scientific information. Mark: The NOAA intermediate estimate is 3.9 feet by 2100.

The **Erosion Hazard Line** is defined as the County of Maui's recognized planning target or threshold for coastal erosion. The County's recognized planning threshold for coastal erosion is 3.2-feet of sea level rise as identified in the Hawai'i Sea Level Rise Viewer (Coastal Erosion, <https://www.pacioos.hawaii.edu/shoreline/slr-hawaii/>). The planning threshold may change over time based on best available scientific information.

Cross-cutting topics:

- Climate change and Resilience
- Cultural Resources
- Hazards
- Historic Preservation
- Infrastructure
- Land Use
- Environment
- Emergency Services
- Other Services and Facilities

Policies

Climate Change and Sea Level Rise

2.3.1 | To minimize impacts from future coastal erosion to development, new permanent structures must be located landward of the State-recognized sea level rise exposure area (SLR-XA) with coastal erosion, except a minimum buildable area must be provided. This restriction does not apply to structures needed as part of an approved beach restoration project or cultural project such as loko i'a. and which must be evaluated on a case-by-case basis. Mark: rewrite for better clarity

Cal:
Remove this, replace with a request for funding to study the impacts of managed retreat

MVA: Ma'alaea property owners must be allowed to protect their building structures until such time that managed retreat is the only option, which the County Planning Department itself represents as 30 or more years in the future (if its assumptions are correct).

Deferred because Tara said d is not enforceable

2.3.2 | For redevelopment and new developments within the SLR-XA, developers must:

- a. Proactively coordinate with the Maui County Planning Department and adjacent or nearby property owners to understand possible collective relocation options for at-risk structures; Mark: taking into account time available before structural damage can occur, the age of the building, the substrate beneath the structure and at the mauka end of the property, and the availability of land mauka of the existing property
- b. Incorporate results of coordination into development plans by siting any new planned structures out of harm's way;
- c. Not hold the County of Maui and State of Hawai'i liable for any and all future costs associated with maintaining or protecting the property developed within the SLR-XA, including costs associated with retreat, hazard mitigation, and cleanup costs to maintain the health of the nearshore marine environment from material debris originating from the ocean or from the structures' own deterioration or failure; and
- d. Recognize that permit approvals from the County of Maui will be conditioned to prohibit future shoreline hardening for their property or project.

Cal: remove c and d

2.3.3 | Protect the public access to and preservation and restoration of ecological function of wetlands, shorelines, beaches, and dunes by preserving waterfront land within the SLR-XA as undeveloped space, greenways, stormwater management facilities, or parks wherever possible.

2.3.4 | Support amendments to the Maui Island Plan and Community Plan, and changes in Zoning for new development in Mā'alaea on land mauka of Hauoli Street and the SLR-XA for affected existing makai development retreating inland because of impacts from sea level rise or other coastal hazards. Rob note: mauka of Hauoli Street is outside the Maui Island Plan growth boundaries

Mark: I can't see any logic in allowing new developments to occur makai of the EHL knowing with 90 - 100% probability that these structures will be underwater by 2100 and likely much earlier.

Cal: remove this

2.3.5 | Support coastal retreat of South Maui structures currently located in the shoreline setback area and the SLR-XA.

2.3.6 | Encourage redevelopment and new development related to strategic relocation and increased resilience in preparation for and in response to climate change or natural disasters.

2.3.7 | Avoid development or redevelopment within Special Flood Hazard Areas (SFHA).

2.3.8 | Support expansion of community-supported renewable energy deployment, including small-scale community options, all of which include plans for maintenance and disposal that do not burden County landfills and decommissioning at the end of the project's intended use.

Vernon: Sand should not be moved between moku without consulting the community

Fire and Emergency Management

2.3.9 | Require all development to incorporate defensible space around its perimeter and provide ongoing maintenance as per recommendations of the Maui Fire Department.

2.3.10 | Improve the resilience of the transportation system to natural hazard events and climate change-related hazards such as sea level rise, flooding, and wildfires, including the development of additional roadways in and out of South Maui to improve safe evacuation during hazard events.

Rob note: 2016 - https://dlnr.hawaii.gov/forestry/files/2018/04/2016_SouthMauiCWPP_HWMO.pdf

2.3.11 | Consult and apply as appropriate the goals, objectives, and actions of the South Maui Community Wildfire Protection Plan and the Maui County Multi-Hazard Mitigation Plan Update.

Rob note: 2020 - Says almost none of the 2015 actions have been implemented, most "Progress has yet to be made on this action" "11 Establish an alternative route to and from West Maui for use during disasters....September 2020 - October 2025!" <https://www.mauicounty.gov/ArchiveCenter/ViewFile/Item/27524>

2.3.12 | Encourage the development of fire breaks and bioswales that can be used for recreational paths and greenways around existing communities, and between new and existing communities.

2.3.13 | Require new buildings that serve as emergency shelters to be built to hurricane standards and support existing buildings that currently serve as emergency shelters to be retrofitted to Enhanced Hurricane Protection Area standards.

Water

2.3.14 | Require new developments to install landscaping that reduces water use, with drought-resistant and micro-climate appropriate design and plants emphasizing native species. Use water catchment systems to support irrigation, and gray water where allowed by the State Department of Health.

2.3.15 | Support the protection, preservation, and management of South Maui's water sources including aquifers, recharge areas, and watersheds.

Mark: I think strategic swales on contour used to slow, spread and soak stormwater can recharge aquifers, mitigate brownwater runoff events, can also be used to grow trees such as wiliwili that create a fire break, stabilize the soils, capture and store carbon, and reduce the heat-island effect. With simple design changes in our community we can provide a multitude of problem solving functions with a single project.

Mark: As previously stated, using simple design modifications like swales on contour can provide a home-owner with stormwater management and aquifer recharge, revegetation with shading and cooling benefits and food production. Add dry-toilet systems to reduce one third of household water usage, onsite graywater treatments systems to treat another third of water use to be reused and infiltrated back into the aquifer, and applying rainwater capture to supplement potable and non-potable water needs. These regenerative designs need to be taught to builders and incentivized with creative Maui County policies. DOH needs to learn about and approve demonstrated and proven graywater and blackwater regenerative solutions.

Wastewater

2.3.16 | New developments in South Maui, including projects developed under Chapter 201H, Hawai'i Revised Statutes, and Chapter 2.96 and 2.97, MCC, must connect to County or private recycled water distribution systems when available; if recycled water infrastructure is not readily available, developments shall be designed to allow for future connections. *Mark: first maximize efficiency and eliminate water use where appropriate then address recycling the water that is used*

2.3.17 | Support the use of gray water and recycled water in County parks and community gardens.

2.3.18 | Support amendments to the Maui Island Plan and Community Plan, and changes in Zoning, for the acquisition of land outside of the SLR-XA for the construction of a new wastewater collection system and treatment options to serve the Mā'alaea area.

2.3.19 | Support the transition of the Mā'alaea area away from the use of wastewater injection wells to a new system that increases treatment and provides better options for reuse or disposal of wastewater.

Mark: Strongly recommend exploring dry toilet systems to eliminate up to 40,000 gal per year per household, with some very sophisticated systems, including multi-family dwellings that turn their waste into a revenue stream with composting.