



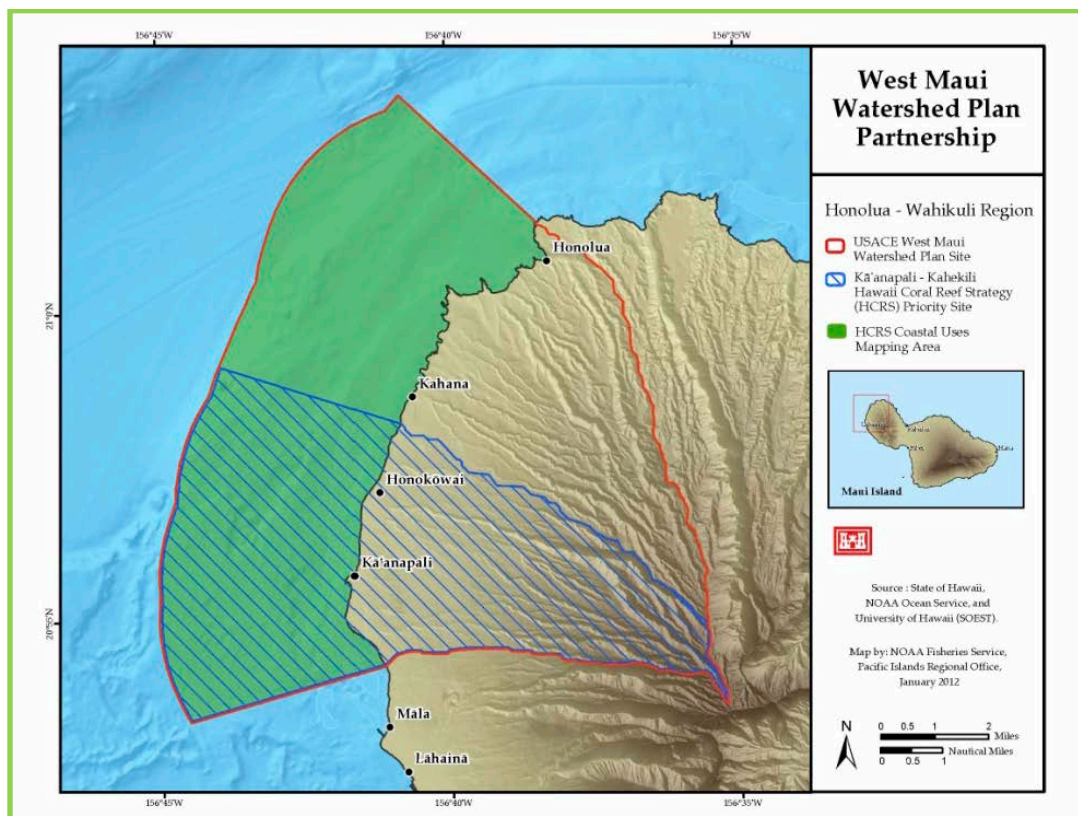
Regional Sediment Management Program

Honolulu District: West Maui Regional Sediment Management



Description

The West Maui Region, located on the island of Maui (see location map below), incorporates a thin coastal margin backed by steep mountainous terrain that has been vastly altered by agricultural and urban development. Increased siltation within the near shore waters associated with the loss of forest land, historical agriculture practices, stream channelization, and rapid development has impacted the coral reef health. Shoreline erosion threatens upland development consisting of large-scale resorts, hotels, condominiums, single-family homes, businesses and roadways. Shoreline hardening is being proposed along a number of parcels. The Hawaii Regional Sediment Management (RSM) non-federal sponsor, the State of Hawaii Department of Land and Natural Resources (as well as the County of Maui), is looking for more natural solutions to the problem. The federally authorized West Maui “Ridge to Reef” Initiative (see location map below) engages various federal, state and county agencies in the implementation of a strategy to reduce the threats of land-based pollution to coral reefs in West Maui. Collaboration and coordination of Hawaii RSM investigations in the West Maui Region and the work being conducted through the West Maui R2R Initiative will be optimized to enhance the utility of the products being developed.



Location Map. The West Maui RSM Region coincides with the extent of the West Maui R2R Initiative.

Issue/Challenges To Address	Shoreline erosion is currently threatening upland development within a number of sub-cells in the West Maui Region. Condominiums, roadways, and critical infrastructure (built 30 to 50 years ago) are experiencing significant damage during storm events. Individual permits are being submitted for construction of seawalls (and other shoreline hardening structures) as small-scale emergency measures to reduce coastal storm damages. A regional framework will provide insight into identification of suitable methods of preserving the coastal environment and sustaining the region’s sense of place.
Successes Lessons Learned Expected Products	N/A N/A <ul style="list-style-type: none"> • Water circulation and wave transformation model results • Regional sediment budget • Identification of potential RSM initiatives in the region • RSM Technical Note documenting study findings • Web site update on findings and lessons learned
Stakeholders/Users	USACE Honolulu District, State of Hawaii Department of Land and Natural Resources’ Offices of Conservation and Coastal Lands Shoreline and County of Maui. In addition, the National Oceanic and Atmospheric Administration, U.S. Department of Agriculture – Natural Resources Conservation Service, U.S. Environmental Protection Agency, National Fish and Wildlife Foundation, State of Hawaii Department of Health, West Maui Mountains Watershed Partnership, and Kaanapali Makai Watch are all providing assistance as part of the West Maui R2R Initiative to improve the health of West Maui’s reefs. RSM stakeholder participation will be encouraged through a workshop to determine RSM needs and opportunities within the region.
Projected Benefits	Advancing the state-of-knowledge of regional coastal processes in Hawaii and improvement of sediment management in the West Maui Region. Coastal modeling data will be used to develop a conceptual regional sediment budget. Technical Notes will be prepared that document methodology used and results of the West Maui regional sediment budget analysis. Potential RSM projects will be identified within the region.
Leveraging Opportunities	There are multiple stakeholders in the West Maui R2R Initiative that could potentially fund additional RSM efforts in support of reef sustainability. The County of Maui may also choose to fund extensions of RSM efforts in the West Maui Region in order to identify sustainable offshore sand sources.
Points of Contact	USACE Honolulu District. Project Manager: Nani Shimabuku, lorayne.p.shimabuku@usace.army.mil , 808-835-4030 Technical Lead: Thomas D. Smith, P.E., thomas.d.smith@usace.army.mil , 808-835-4141
Participating Partners	The non-federal sponsor is the Department of Land and Natural Resources’ Office of Conservation and Coastal Lands.