

## **Maunalua Bay Study Fact Sheet**



Maunalua Bay extends from Black Point to Koko Head, and is the focus of a community-based effort at recovering coastal resources of cultural, economic and ecological value. A new study will be launched to measure the impacts of runoff and sedimentation from the upper watersheds to the reefs of the bay and begin to develop a model for appropriate management activities to improve water quality and the health of the coral communities.

**What is a Watershed?** A watershed is a defined 'basin' area that collects rainfall and drains into a body of water. Sediments, pollutants and other debris are carried by flowing water and deposited into Hawaii's coastal areas, resulting in the degradation of water and bottom quality as well as the loss of habitat and associated species.

**Maunalua's Watersheds:** There are 9 sub-watersheds that drain into Maunalua Bay, and these differ in several characteristics including level of urbanization and "hardening," volume of water collected and stream attributes.

**Land-Sea Connections:** Traditional Hawaiian and Pacific Island practices took into account the linkages between land and sea, with a clear understanding of the need for upstream-downstream stewardship. The ahupua'a traditional Hawaiian land management system extended from ridge to reef and was an effective way of addressing the protection of island ecosystems as opposed to the western system that draws an artificial border separating land and sea for regulatory purposes. The future of Hawaii's coral reefs and coastal resources depends on integrating traditional practices and knowledge with modern science.

**Science Supporting the Bay:** Mālama Maunalua is coordinating efforts to engage researchers, resource managers and the community to address the decline of the health of Maunalua Bay in cooperation with The Nature Conservancy of Hawai'i, Mālama Hawai'i, the National Marine Fisheries Service Pacific Islands Regional Office, the Hawai'i Coral Reef Initiative and the University of Hawaii's Kewalo Marine Laboratory.

**Modeling Watershed Impacts:** Current and water quality meters will be deployed into the bay to support the modeling portion of the study and determine the primary sources of freshwater discharges, sediment and pollutants. They will identify the areas affected and establish a baseline to judge which measures are having the most positive impact in improving the bay's water quality.



### **For more information:**

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