

Nearshore Marine Monitoring on Kauai's Southern Coast

Pre-proposal by:
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Purpose:

The purpose of this project is to increase ecological data about Kauai's south nearshore marine environment for future land and ocean management guidance.

Objective:

The project objective is to complete a 12-month baseline reef monitoring study on nearshore marine reefs below three key areas of stream and estuarine discharge.

Areas to be studied:

The three locations below watersheds to be studied are Lawai (DAR Watershed code 23004) as a control, Waikomo (23002) and Mahaulepu (23011). The human impacts at Waikomo and Mahaulepu are extensive but not studied. In view of land use changes at these watershed areas, we believe that a series of baseline reef monitoring is essential. There is a lack of scientific data and no record or knowledge about the near shore marine environment off these estuarine stream areas along Kauai's south shore where a preponderance of population impacts the aquatic communities.

Partnership:

We plan to partner and have tentative agreements with several profit and non-profit entities that are beneficial to a comprehensive overall view for this baseline monitoring.

- [Kaua'i Sea Rider Adventures](#) and [DBA Kaua'i Reef Conservation](#) for vessel and commercial use permits are already in place
- [Waterkeepers Alliance](#) an International organization valued for community efforts for clean fishable water
- [State of Hawaii Division of Aquatic resources](#), DLNR Education Specialist
- [Surfrider Foundation](#) and [Kaua'i Blue Water Task Force](#) who publish water quality studies
- [National Tropical Botanical Garden](#) for access to private beach and stream/ estuarine surveys already completed
- [Na Kilo Aina Intertidal Monitoring](#)
- [www.Reef.org](#) for current, standardized reef monitoring methodology and online data interface

Procedure:

The objectives will be accomplished by training 24 local divers and citizen scientists in the standardized survey methodology. These reef eco divers will complete three fish and invertebrate studies at each site four times per year. They will monitor one location per month for a 12-month period rotating locations to document seasonal changes. The information would be compiled and entered into a shared database. A year-end report of documented data would be provided to Hawaii's legislature, through a public venue and be compared to future surveys.

Conclusion:

This project will benefit current and future stakeholders and policy makers so that they can make educated decisions concerning the aquatic communities and fish habitat of Kaua'i. The impact of humans on the south shore is of primary concern to the managing of our resources and aquatic habitats. The Hawaii marine fish ecosystems are all connected to the fresh water that supplies vital nutrients for coral and algae. We believe this ties into the mission of Hawaii Fish Habitat Partnership by gaining knowledge necessary for fish habitat conservation goals.
