



# Coastal Water Monitoring – Tool Kit (C-Water Kit)

## PROJECT DESCRIPTION

University of Hawaii Sea Grant and collaborators are developing the *Coastal Water Monitoring Tool Kit (C-Water Kit)*. The C-Water Kit project will provide coastal communities in and around the South Kohala region with the appropriate tools and training they need to measure and monitor water quality parameters. One output of this project includes the development of an online database that will organize collected data that can be utilized by stakeholders. The project will provide training opportunities for coastal community associations, organizations and school groups on how to collect water quality data that will be used in assessing the effectiveness of current projects as well as determine future management strategies.

## PROJECT GOALS AND OBJECTIVES

The goal of this project is to increase community understanding and awareness in South Kohala about land-based threats that impact coastal water quality and coral reef ecosystems.

The four objectives associated with this project are:

1. Develop two coastal community tool kits that can be loaned out to communities, schools and organizations in South Kohala. These tool kits will include a standard operating procedure (SOP) manual for utilizing the tool kits.
2. Improve community awareness of coastal threats related to water quality. To achieve this objective we will provide training to communities, organizations and schools in the collection of water quality data with an understanding of acceptable ranges for each parameter measured.
3. Develop an online database that can be utilized by various stakeholders.
4. Utilize water quality data to assess the effectiveness of various conservation projects on reducing nutrient loading in and around coastal communities in South Kohala. This assessment could assist with improvements and or development of new management strategies.

The proposed tool kits will include a variety of water quality testing supplies and resources that will provide these communities who that are not currently equipped or trained to measure and monitor their coastal water quality. In each kit we will provide a manual on standard operating procedures for testing water quality parameters and a guide

to uploading data to the online database. Training opportunities will be offered by the UH Sea Grant extension agent to these communities and will help standardize water quality monitoring techniques being implemented along the South Kohala coastline. These kits will also be made available to various field studies by public, private, and university students and teachers throughout the South Kohala region. Practical hands on training of various sampling and water quality testing techniques will help educate students and give them a visual aid in better understanding how elevated levels of nutrients are impacting our coastal community ecosystems.

The effectiveness of these kits will be documented through the amount of users and the data entered into the data base. Pre- and post- surveys will be given to first time users of the kits to determine elevated stakeholder understanding and awareness of water quality and its implications on marine ecosystem health.

#### **BENEFITS & ANTICIPATED OUTCOMES**

- Two coastal community tool kits equipped with water quality monitoring tools that can be loaned out to communities, schools and organizations in South Kohala.
- Coastal communities, organizations and schools trained in water quality monitoring techniques and actively engaged in coastal water quality monitoring.
- An online database accessed and used by various stakeholders.
- Improved community understanding and awareness of water quality and its importance on marine ecosystem health.

#### **UPDATES & PARTNER INFORMATION**

PACIOOS has offered to share the data on their online Voyager data portal.

Liquid Robotics is currently testing the possibility to collect nearshore water quality data with the Wave Gliders and will provide this additional data to the community for STEM outreach and collecting information to help with South Kohala Coastal Partnership community management efforts.

#### **FOR MORE INFORMATION CONTACT**

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