

## MAIN HAWAIIAN ISLANDS

Hawai'i has some of the highest marine endemism recorded anywhere on Earth and about 85 percent of the United States' coral reefs. Hawai'i's reefs face significant global and local threats including climate change, overfishing and water pollution from land-based sources.

The Coral Reef Alliance (CORAL) has more than a decade of experience working in Hawai'i. CORAL's work in the Main Hawaiian Islands focuses on our **Clean Water for Reefs** Initiative, with an emphasis on preventing land-based pollution from entering the ocean. Water pollution from sewage and stormwater runoff causes severe damage to coral reefs, poses risks to human health and threatens the tourism industry.

CORAL's vision for the Main Hawaiian Islands is an **ADAPTIVE REEFSCAPE** — a network of healthy reefs that can adapt to climate change because it is diverse, connected and large. Clean water is critical to improving coral reef health and ensuring the future adaptation of coral reefs.

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### HIGHLIGHTS

- 2006** — CORAL begins working in Hawai'i with an initial focus on sustainable marine recreation
- 2009** — Over 350 tourism professionals are trained in sustainable marine recreation and more than 50 reef etiquette signs are installed across Hawai'i
- 2009** — The Kahekili Herbivore Fisheries Management Area is established in West Maui thanks to the support of CORAL and partners
- 2010** — CORAL expands its work to address water pollution because of the significant threat it poses to coral reefs
- 2014** — CORAL launches the Clean Water for Reefs Puakō project to replace cesspools in Puakō with improved wastewater treatment infrastructure
- 2015** — Maui County Department of Public Works begins integrating reef-friendly landscaping design into ordinances and permitting processes
- 2016** — Seventeen shoreline property owners on Maui Island invest over \$19 million in reef-friendly landscaping
- 2016** — CORAL forms an expert knowledge sharing group in West Maui to design and implement a stream restoration plan

# OUR WORK MAKES A DIFFERENCE

## CORAL HAS BEEN WORKING IN HAWAI'I FOR OVER A DECADE.

We work in **TWO PRIORITY SITES** in Hawai'i – West Maui and Puakō, Hawai'i Island – which together form the beginnings of a Hawaiian **Adaptive Reefscape**.

On Hawai'i Island, our **Clean Water for Reefs** Initiative aims to address wastewater pollution in the Puakō community. Inadequately treated wastewater from cesspools and septic tanks flows directly into the groundwater and ends up in the ocean – causing serious damage to corals, negatively affecting marine wildlife and posing risks to human health. CORAL has been working closely with the Puakō community, local government officials, scientists and other nonprofit organizations to replace cesspools with updated wastewater treatment infrastructure. A Preliminary Engineering Report recommended that the community build an onsite wastewater treatment facility. We are working with community members and other stakeholders to turn this vision into a reality.

In West Maui, our **Clean Water for Reefs** Initiative focuses on preventing sediment and nutrient pollution from reaching the ocean and

degrading reefs. High levels of nutrients and sediments can kill corals by smothering them, reducing their access to sunlight and promoting coral disease. We take a “ridge to reef” approach to restoring the natural function of an *ahupua'a* (watershed) to filter stormwater and absorb nutrients, sediments and other chemicals. At the shoreline, we provide guidance to shoreline property owners, the tourism industry and Maui County on how to implement reef-friendly landscaping that naturally filters stormwater before it reaches the ocean. Further inland (midslope), we work with farmers, Hawaiian communities, local nonprofits, private businesses and the government to restore streams, which capture and stabilize sediments and nutrients so that they don't flow into the ocean.



## MEASURABLE RESULTS

A study published in 2015 by the **Hawai'i Division of Aquatic Resources** looked at fish biomass in the **Kahekili Herbivore Fisheries Management Area** in West Maui and found that **within just five years** of fishery closure, parrotfish biomass increased by **138 percent** and surgeonfish biomass increased by **42 percent**.



CORAL REEF  
ALLIANCE

UNITING COMMUNITIES TO SAVE CORAL REEFS

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