Celebrating Five Years of the KHFMA

(Kahekili Herbivore Fisheries Management Area)

Background

Land-based pollution fed algae, causing it to grow excessively

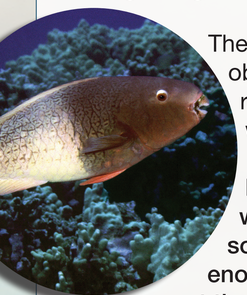

Photo by Keoki Stender

The amount of algae observed on the reef at Kā‘anapali was alarming

Herbivores were overfished so there weren't enough of them to eat the algae

Algae smothered corals causing coral decline

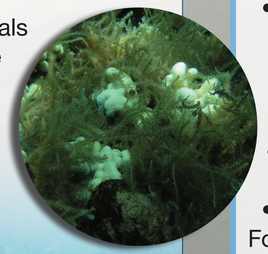

Photo by Russell Sparks

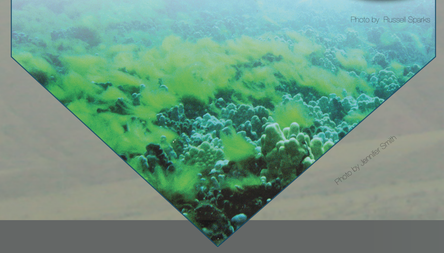

Photo by Jennifer Smith

KHFMA Established

The KHFMA protects key herbivores that eat algae

Photo by Russell Sparks

The KHFMA protects the area beginning just south of Keka'a Point (Black Rock) and extending two miles north to Honokowai Beach Park

Within these boundaries:

- Fishing for herbivores such as uhu (parrotfish), surgeonfish, or nenue (chubs or rudderfish) is prohibited
- Collection of urchins is not allowed
- Feeding fish is prohibited

For more, visit www.kahekilimarinereserve.com

Photo by Russell Sparks and Keoki Stender

Supporting Initiatives

To ensure success of the KHFMA, projects were started to address other threats to the reef, in addition to fishing. These include:

- Monitoring water quality regularly
- Continuing research on fish numbers and reef health
- Encouraging recycled water use to reduce the amount of injected wastewater
- Installing rain gardens and other landscaping efforts that reduce polluted stormwater runoff

Photo by CORAL staff

Progress Thus Far

There are more fish and bigger fish found on the reef

There is an increase in coralline algae, an important base material for new coral to grow on

The West Maui Ridge to Reef Initiative has installed rain gardens and other solutions to prevent polluted stormwater runoff from entering the ocean

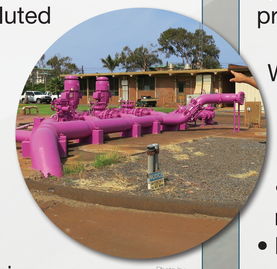

Photo by CORAL staff

Maui County is taking steps to expand the recycled water infrastructure

The West Maui Kumuwai Campaign has conducted outreach focusing on individual stewardship actions

Photo by CORAL staff

Next Steps

We are still in the beginning of this coordinated effort to protect the reef at Kā‘anapali. Coral is slow growing, and reef recovery takes decades to occur.

West Maui's reefs are still showing signs of degradation and decline such as dead zones and coral disease, but the people who live and play in this special place are committed to protecting them.

We must work together to:

- Reduce stormwater pollution
- Reduce injected wastewater pollution
- Increase access and use of recycled water
- Protect herbivores

Above photo by Russell Sparks

Left photo by Darla White

Thank you for your support by leaving the herbivores on the reef. The more herbivores, the better!

Photo by CORAL staff

1990s-2000s | **2009** | **2010-2013** | **2014**

Thank You to All Partners Involved!

U.S. Fish & Wildlife Service — Department of the Interior

Coral Reef Alliance

DAR — Hawaii Division of Aquatic Resources

Ka'anapali Makai Watch

West Maui Kumuwai

West Maui Ridge 2 Reef Initiative

National Fish and Wildlife Foundation — NFWF

Harold K.L. Castle Foundation

NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

Photo by CORAL staff