

Makai Research Needs

Partnering with Communities



EMILY FIELDING

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The Nature Conservancy Hawai'i and Palmyra



CONSERVATION AND SCIENCE PROGRAMS WORKING TO:

- ✓ BUILD NATURE'S
RESILIENCE
- ✓ ADVANCE CLIMATE
SOLUTIONS
- ✓ CONNECT MAUKA TO
MAKAI
- ✓ RESIST EXTINCTIONS

Our Vision

THRIVING CORAL REEFS AND COASTAL ECOSYSTEMS
SUPPORT 'ĀINA MOMONA

- Place-based management
- Reef fisheries
- Reef resilience
- Coastal resilience
- Sediment and wastewater

It Starts with RESPECT

A close-up photograph of two hands, one from a darker-skinned person and one from a lighter-skinned person, gently holding a dark, jagged, and textured rock. The background is a soft, out-of-focus landscape, possibly a beach or a field, with warm, golden light suggesting sunset or sunrise.

RELATIONSHIPS

ETHICS

SINCERITY

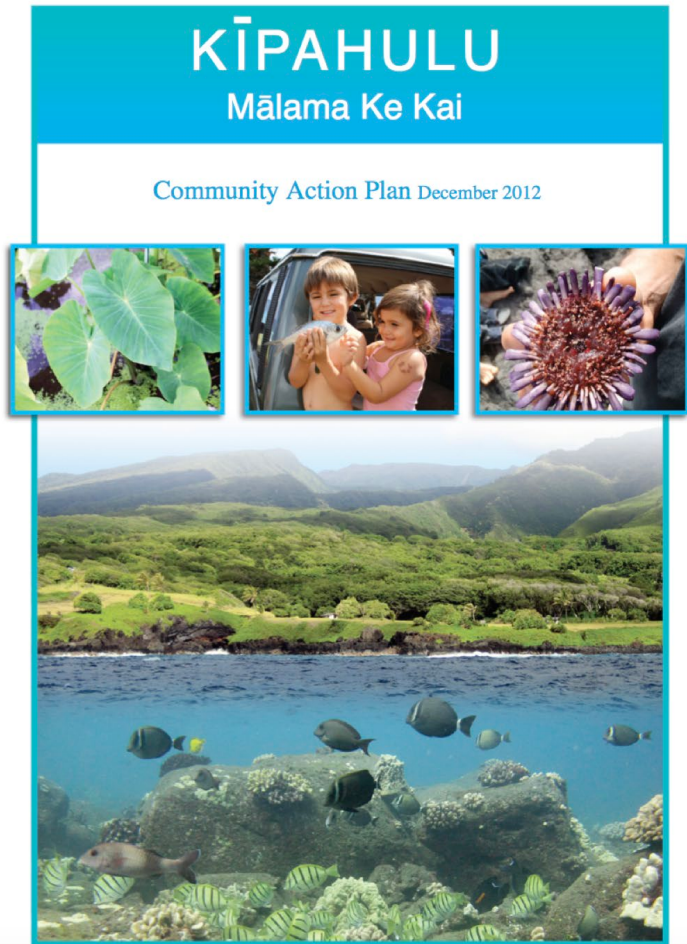
PATIENCE

EMPATHY

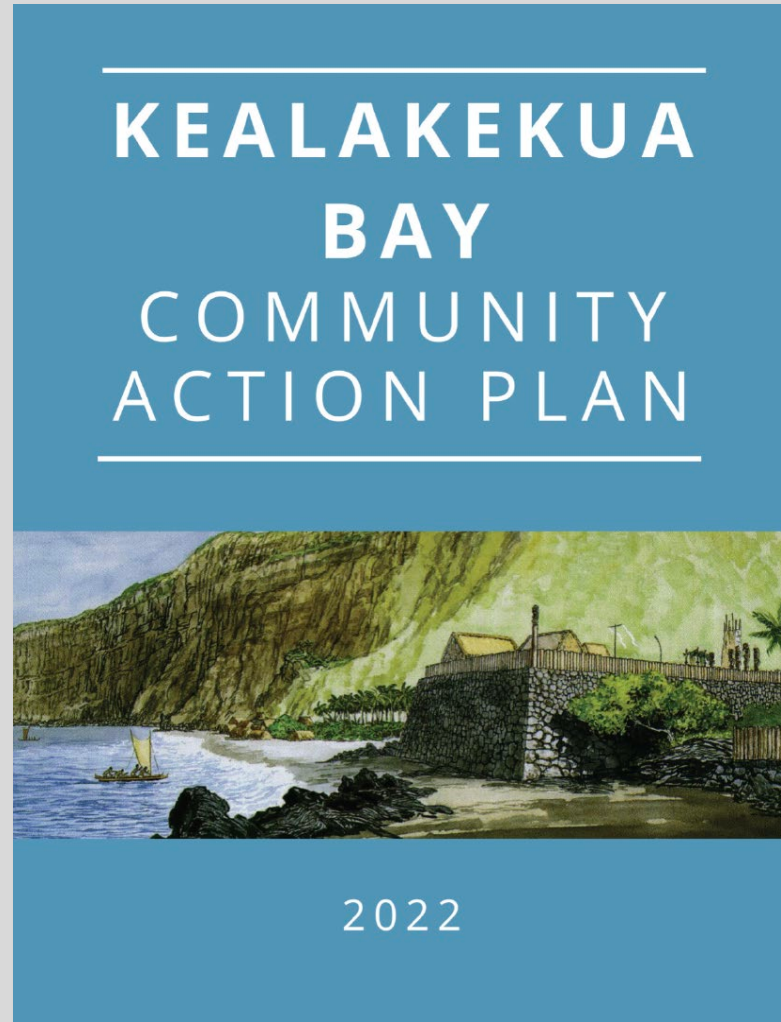
CREDIBILITY

TRUST

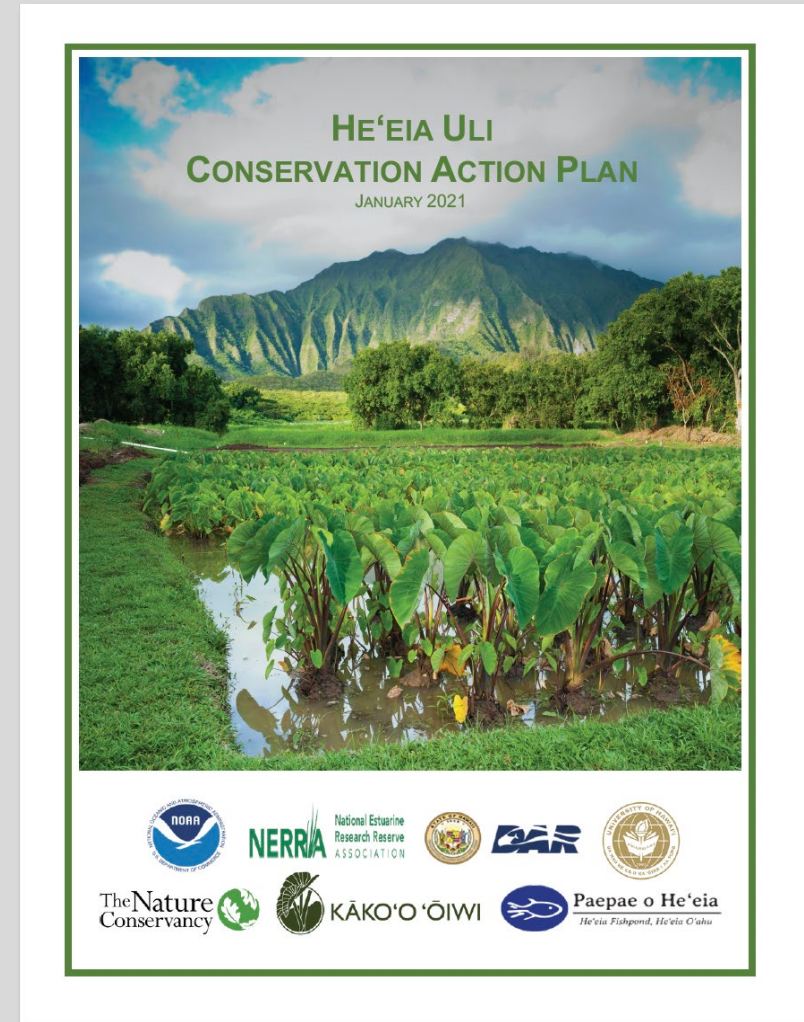
Community-Led Conservation Planning



mauinui.net



Immanetwork.org



ccnetglobal.com

Protect Intellectual Property and Relationships



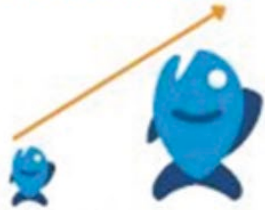
Place-Based Fisheries Planning



FISHPATH

FishKit

Growth Rate



How fast does the fish grow?

Average Max Size



How large does the fish grow?

Natural Mortality Rate



How fast does the fish normally die?

Length at Maturity



What is the length at reproductive maturity?

- *DIGITAL APP*
- *AUGMENTS TRADITIONAL ECOLOGICAL KNOWLEDGE*

*“LIKE HAVING A
FISHERIES BIOLOGIST
IN YOUR BACK POCKET”*

— App User

Place-Based Research and Monitoring



ASSESS CHANGE
OVER TIME

© Alana Yurkanin/TNC

Famed Fresh Water Sources of Kealakekua Bay



LEARN FROM THE
PAST

Ka'awaloa Ahupua'a

Awili: mixture of kai and wai currents

Hāli'ilua: naturally purified, physical and spiritual cleansing

Kealakekua/Kīloa Ahupua'a

Waiulu: spring forth, gushing; used for growth, great source of potable water

Waiakekua/Waiakeakua: sacred water, deified

Waipuna'ula/Kalamakumu/Kalama'umi/Kalamakowali Ahupua'a

Wai'awa'awa: murky water, appears like the water in a kanoa (kava bowl)

Wai'ula: caused by the abundance of limu kohu that grew in the area

Kalamakapa/Kalamawai'awa'awa Ahupua'a

Waiamau: constant steady flowing water source

Waile'a: soothing, pleasing, healing



UNDERSTAND
PERSPECTIVES

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Reef Resilience

coris.noaa.gov/activities/maui_reef_resilience/
coris.noaa.gov/activities/resilience_tech/

IDENTIFY
RESILIENT
CORALS

© Drew Sulock

WOODS HOLE
OCEANOGRAPHIC
INSTITUTION

IDENTIFY
CONDUCTIVE
CONDITIONS

5mi

5km

REPAIR AND
RESTORE

© TNC

Coastal Resilience

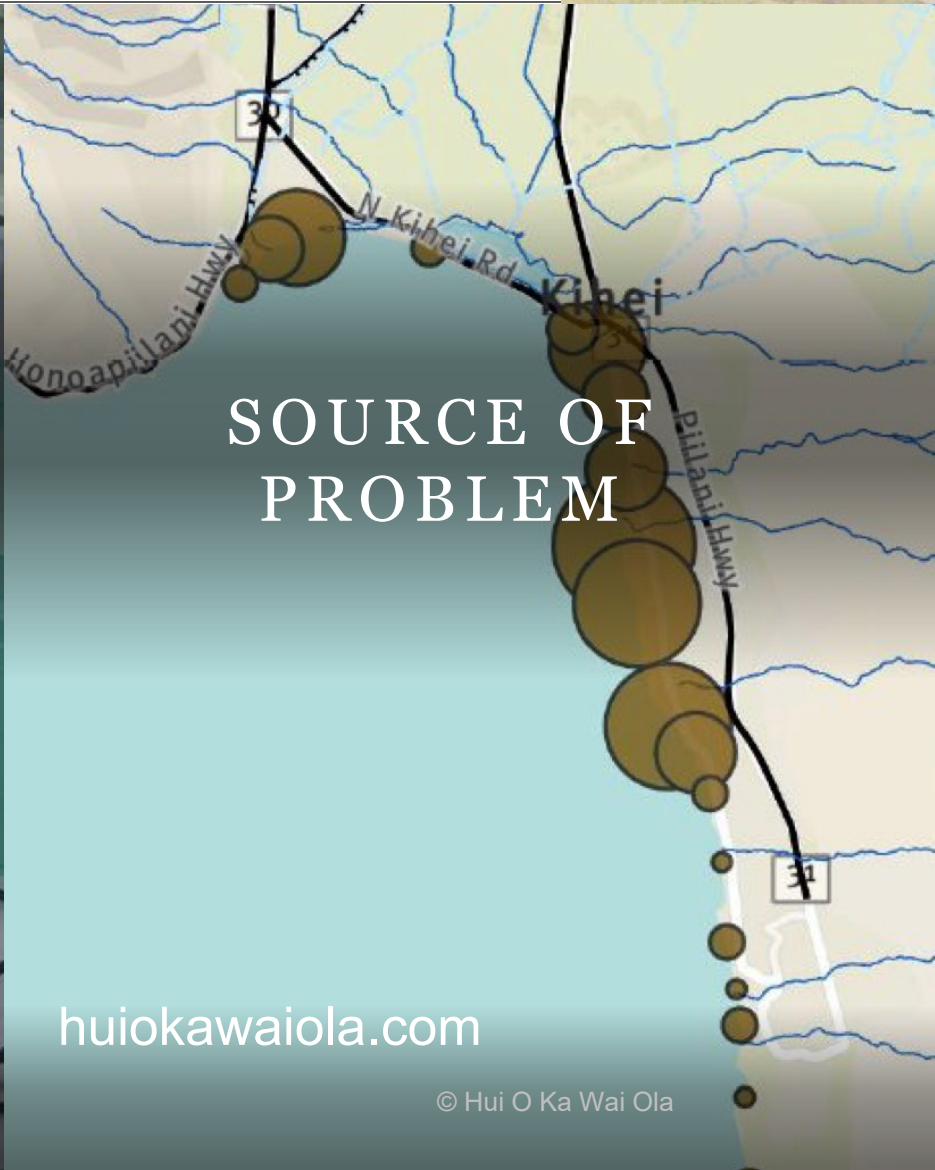


Sediment and Wastewater



PROBLEM AND
IMPAIRMENT
LEVEL

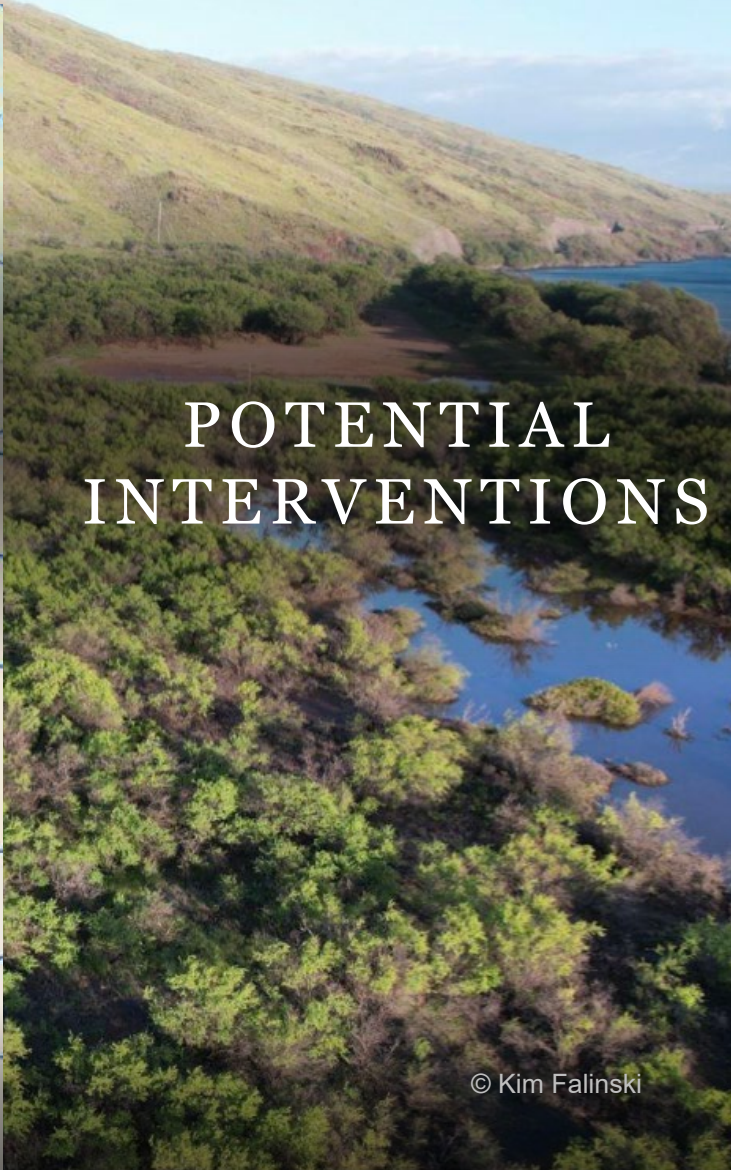
© Dana Reed



SOURCE OF
PROBLEM

huiokawaiola.com

© Hui O Ka Wai Ola



POTENTIAL
INTERVENTIONS

© Kim Falinski

Top Research Priorities and Gaps



- ✓ CORAL REEFS AND INTERTIDAL FISHERIES
- ✓ CORAL REEFS IN VIEW OF WARMING AND POLLUTION
- ✓ WASTEWATER POLLUTION
- ✓ COASTAL RESILIENCE
- ✓ APPLIED RESEARCH
- ✓ PATHWAYS TO CONNECT COMMUNITIES AND ORGANIZATIONS
- ✓ MATCH-MAKING EXPERTISE TO THE NEED

Mahalo



© Pauline Fiene

ADDITIONAL INFORMATION AT:

- ✓ CAPTURINGKNOWLEDGE.ORG
- ✓ MAUINUI.NET/MALAMA-I-KE-KAI
- ✓ CONSERVATIONSTANDARDS.ORG
- ✓ LMMANETWORK.ORG
- ✓ HUIOKAWAIOLA.ORG