HAWAII ~coral reef~ STRATEGY

Stream Corridor Assessment

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PROJECT OVERVIEW

The South Kohala Conservation Action Plan (SKCAP) presents strategies to address threats to the coral reef ecosystems along 24 miles of marine and coastal habitats from Kawaihae to ʻAnaehoʻomalu Bay. This is a high priority management area of the Hawaiʻi Coral Reef Working Group.

A Stream Corridor Assessment (SCA) was conducted in Waiʻulaʻula Watershed to document the location, extent, and cause of sediment, nutrient, and toxicant-load contributions from erosion along the various channels of the stream and gulches, and adjacent lands. A SCA is a tool that can help identify specific stream and riparian areas that require restoration, and help prioritize critical areas. Identifying management actions to reduce erosion and stabilize erosion-prone streambanks will facilitate implementation of projects aimed at reducing delivery of sediment and associated pollutants to coral reefs.

The SCA is part of a larger group of projects in the South Kohala region aimed at increasing stakeholder awareness and understanding of erosion and ways to reduce sediment delivery to reefs.

PROJECT GOALS AND OBJECTIVES

Goal: Identify areas to target for installation of management practices to decrease erosion rates to reduce stress on nearshore waters and coral reefs.

Objective 1: Assess the condition of eroding streambanks in the agriculture, rural, and urban zones of Waiʻulaʻula Watershed.

Objective 2: Identify sites for installation and assignment of practice types for issues to be remediated.

Objective 3: Create erosion monitoring plan.

Objective 4: Install erosion pins and monitor sites.

Objective 5: Propose riparian zone overlays for consideration by Hawaii County.

Objective 6: Prioritize management actions for streambank stabilization and restoration based on field work and erosion monitoring.

Objective 7: Increase stakeholder's awareness and understanding of erosion and reducing sediment delivery to reefs.

RESULTS

- *Stream reaches in Waiʻulaʻula Watershed are geologically young, making it challenging to discern between instability due to natural channel forming processes and human impacts.*
- *Agricultural (grazing and crops) and urban land uses have an impact on the surface and ground water hydrology, including the timing and magnitude of surface runoff from storm events, its quality, and resulting land based pollutants.*
- *Thirty-one specific sites were identified as targets for remediation and prioritized for action: 18 low, 9 medium, and 4 high. Five already funded.*
- *A set of watershed management practices to address erosion control and water quality was identified.*

Sites with bare ground and erosion targeted for remediation

MANAGEMENT OUTCOMES

Next steps:

- Implement suggested remedial actions and best management practices.
- Continue erosion monitoring to assess effectiveness.
- Demonstrate links between installation of best management practices and improvements in stream and coastal water quality.
- Implement policy changes to provide for riparian and stream corridor buffers in agricultural & urban areas.