



South Kohala Coastal Partnership Communication Plan

Prepared for: Department of Land and Natural Resources
Division of Aquatic Resources
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I. South Kohala Conservation Action Plan

- A. Background**
- B. Purpose**
- C. Threats, strategies and conservation targets**
- D. Map of South Kohala priority site**
- E. Watershed management plans**
- F. Other plans**

II. South Kohala Coastal Partnership

- A. Working Groups**
- B. Stakeholder groups**
 - 1. Home owners, residents and community associations**
 - 2. Resorts**
 - 3. Landowners**
 - 4. Schools**
 - 5. Resource Councils**
 - 6. Government officials**

III. Projects in the South Kohala Priority site

- A. Project list (2013-2014)**
- B. Volunteer opportunities**

IV. Communication strategies

- A. Communication within the South Kohala Coastal Partnership**
- B. Communication matrix**
- C. Media**
- D. Interactions methods**

V. Appendix

- A. Past, Current and Future Efforts in the Habitat Blueprint Area**
- B. Fast Facts & Talking points**
- C. Meeting locations in South Kohala**
- D. Grant opportunities**
- E. References**

I. South Kohala Conservation Action Plan

A. Background

The Leeward side of the Big Island is known for its white sandy beaches and coral reef that attract both visitors and residents to snorkel, dive, fish and experience the rich history of this popular destination area. The area once was a diverse dry land ecosystem and productive fish habitat and coral reef ecosystem, all of which are facing threats of conservation concern. The region includes a variety of ecosystems and areas of particular management concerns including Watershed, Anchialine pool systems, dry land forest and coral reef ecosystems. Additional threats include but are not limited to drought, fires, invasive species, human impacts, aging sewage systems, etc.

The South Kohala district is one of the fastest growing areas on the Big Island and development is continuing to increase. Beaches in this area experience high recreational use. The area encompasses a range of uses including commercial, residential, military and resorts and is also rich in cultural history. It contains a wide variety of historical sites in the area including agriculture lands, archeological sites, and traditional fishing areas, gathering sites and Hawaiian fish ponds.

Communities in South Kohala and West Hawai'i are engaged in various projects and interested in coastal and marine habitat preservation, restoration, and natural resource management. The South Kohala area was designated as a priority site by the State and NOAA's Coral program. Communities are partnering with organizations and agencies to host regular malama 'aina, coastal marine debris clean ups, invasive species removal efforts, and various projects that fall within the strategies of the Conservation Action Plan and Watershed management plans for the area.

The South Kohala Conservation Action Plan (SKCAP) was completed in 2012 and the South Kohala Coastal Partnership is moving forward with the implementation of projects to address the top 3 threats of the area that include invasive species, land based sources of pollution and unsustainable fishing practices. The Conservation strategies include: Community Partnerships, Community Co-managed Areas, Fisheries Management, Sediment Reduction, Invasive Species, and Additional threat analysis. The plan and summary is available online: <http://www.southkhalacoastalpartnership.com/south-kohala-conservation-action-plan.html>

B. Purpose

South Kohala's conservation targets are in jeopardy. In the words of a planning team member who grew up at Paniau in the 1950's, "For every fish you see here today, I've seen seven." Implementation of CAP strategies will seek to shift this baseline in a positive direction. This work will honor the wishes of South Kohala kūpuna and community members who do not wish to see their traditions and the places they care about degrade and disappear before their eyes. The primary goal of the South Kohala Conservation Action Plan is to have a restored healthy, abundant, resilient South Kohala coastal system, cared for and cherished by an island community guided by the values and traditions of South Kohala. The ultimate goal of the SKCP Communication Plan is to identify and implement strategic strategies to engage local stakeholders to foster support and stewardship of coastal and marine habitats and the identified conservation targets.

C. Threats, strategies and conservation targets

The South Kohala Conservation Action Plan identifies the six major conservation targets: coastal and marine food resources, coastal wetlands, community kinship and stewardship, coral reef ecosystems, native reef herbivores, and native reef predators. The SKCAP identifies strategies to mitigate threats, maintain or improve the health of the targets.

Strategy: COMMUNITY PARTNERSHIPS

Why? Agencies cannot manage without community support and communities need agency capacity. Management, guided by the deep connections that still exist in South Kohala, and supported by diverse partnerships, is resilient and effective in the long term.

Objective: Active communities engaged in managing all six target coastal resources throughout the South Kohala region and incorporating kinship into their approach by 2015.

Strategy: COMMUNITY CO-MANAGED AREAS

Why? Co-management of natural resources at a local scale is a proven effective strategy for socially-beneficial long-term sustainability of coastal and marine life, and is consistent with traditional Hawaiian management systems.

Objective: Work with communities to establish at least one community co-managed area in South Kohala with strong community support by 2015, and initiate at least two additional areas by 2020.

Strategy 3: FISHERIES MANAGEMENT

Why? Effective management is needed to ensure that take does not degrade marine life or habitat. Recovery of resource fish and fish habitat requires development of and compliance with sound rules.

Objective: Implement fisheries management actions that ensure healthy coastal resources through supporting pono (responsible and appropriate) fishing practices, and increase compliance by 50% by 2020.

Strategy 4: SEDIMENT REDUCTION

Why? Land-based pollution negatively impacts coral reef habitat. Sediment delivered from South Kohala streams smothers coral and blocks sunlight needed for coral growth and survival, causing mortality and loss of habitat for coastal and marine life.

Objective: Implement priority projects to reduce sediment and measurably improve the condition of priority coastal targets in at least one priority coastal area by 2015.

Strategy 5: INVASIVE SPECIES

Why? Invasive species have the potential to displace native species and alter entire eco-systems. Prevention is more cost effective than management, but both are important tools for keeping native ecosystems intact and healthy for the people who depend upon them.

Objective: Prevent new introductions and manage existing non-native and invasive species to restore/maintain ecosystem function for 50% of managed priority anchialine pools, fishponds, and reefs by 2020.

Strategy 5: ADDITIONAL THREAT ANALYSIS

Why? CAP is an iterative process and managers understand that new threats emerge constantly. If emerging threats are planned for in advance, managers will be prepared. Early management is often most cost-effective.

Objective: Understand and quantify effects of specific additional threats on CAP targets by 2020.

D. Map of South Kohala priority site

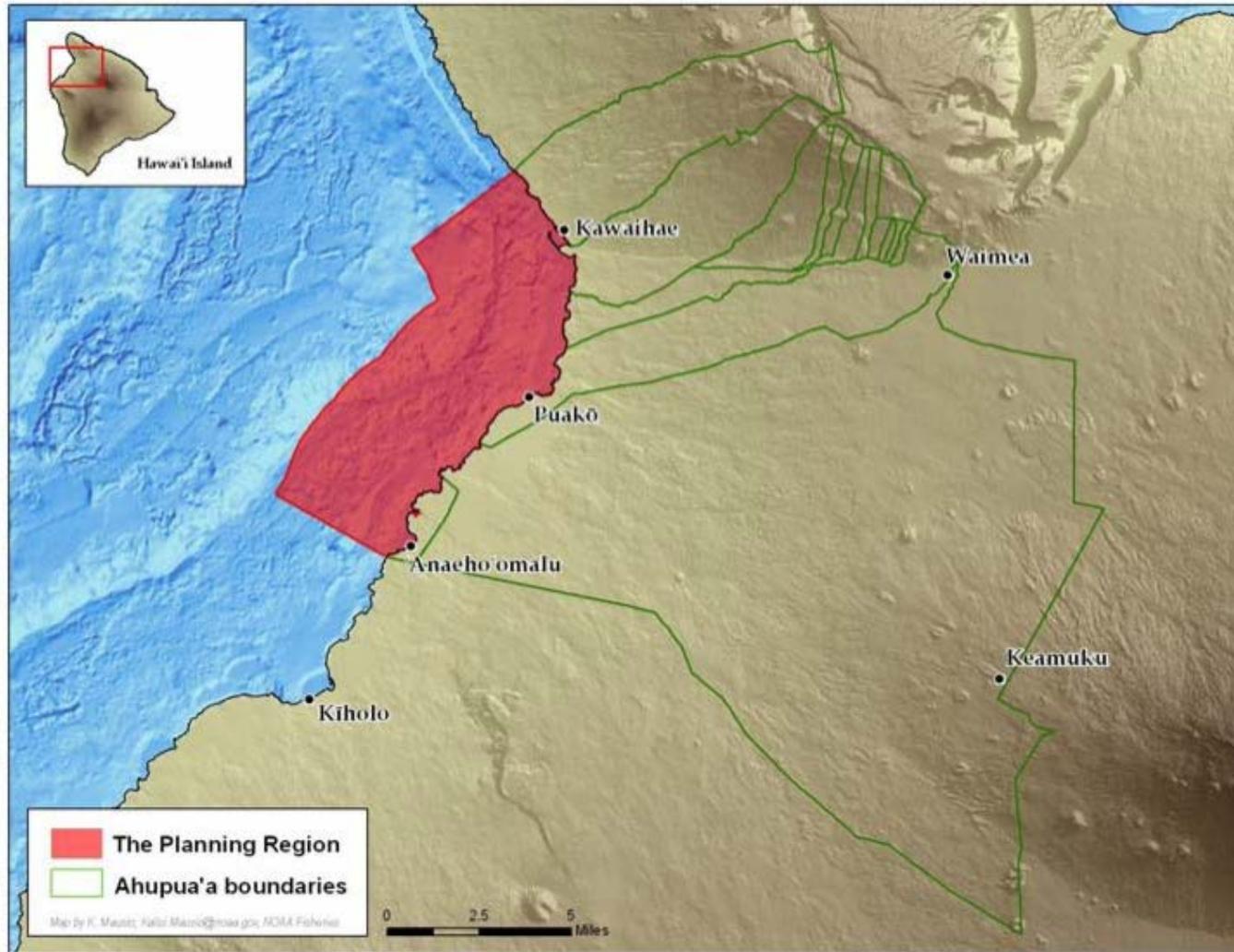


Figure 1: The South Kohala Priority area spans 24 of coastline from the northern boundary of the Kawaihae ahupua'a to south of Anaeho'omalu and includes the connected ahupua'a boundaries to include upland areas.

E. Watershed management plans

There are two existing watershed plans for the priority area: Wai'ul'ula watershed management plan and Pelekane Watershed management plan.

The Pelekane Bay Watershed developed in 2005 provides detailed information on the 12,225 acres. The watershed is on the Department of Health DOH 2004 Section 303 (d) List of impaired waters due to soil erosion from the watershed that has impaired the water quality of Pelekane Bay. Due to the creation of the Kawaihae harbor the original outlets of the watershed have been blocked and circulation patterns were disrupted. The sediment and resulting turbidity have posed concern for changes in biota associated with water quality thus, repetitive sampling has occurred in the area. The Department of Health has recorded in the Pelekane beach estuary waters non-compliant with almost 18 times more turbidity levels than the allowable State water quality standards. The nutrient levels measured north and south of the Pelekane beach area were also not compliant with the water quality standards for turbidity and nitrates.

The terrain in the Pelekane Bay Watershed is rough, with steep slope and normally dry gulches with large areas of hydrophobic soils that contribute to the erosion and surface runoff. The streams in the area were once perennial but now only flow in times of extreme or continuous rainfall events often very localized. The lower portion of the watershed receives very little rain and drought conditions with approximately 5-20 inches of rainfall a year. Seven rain gauges are monitored at various locations.

Fire is major threat to the restoring and maintaining the health of the watershed and the dominate highly flammable Fountain grass increases the fire hazard and erosion potential. The dominate land use in this watershed is for agriculture with major landowners including Queen Emma Foundation, Parker Ranch, DLNR, DHHL, and some smaller landowners. Landowners are working with Natural Resource Conservation Service, Hawai'i Wildfire Management Organization, Mauna Kea Soil and Water Conservation District and Kohala Watershed Partnership to address the management goals and recommendations in the watershed plan.

The Wai'ula'ula Watershed spans along the southern border of the Pelekane Watershed and is over 18,000 acres. The streams flow more frequently than the Pelekane Watershed, creating important habitat for the native aquatic species. The Kawaihae bay nearshore waters provide an important nursery for native stream fishes and marine fisheries. This watershed contains significant urban and agriculture land and water usage. The primary tributaries are the Waikoloa and Keanu'i'omano streams that join at about 1,400 feet to form Wai'ula'ula that enters the ocean in Kawaihae Bay. Rainfall

ranges from 7 to 120 inches along the elevation gradient of the watershed, with localized storms generally during winter months and rapid increase in stream flows and occasional flooding in downtown Waimea. While the water quality of the streams and coastal waters are still considered good the goal to remain proactive with maintaining a healthy watershed. Biological surveys have documented 4 of the 5 native stream o'opu fish. None of these amphidromous fish have been federally listed, the 'o'opu alamo'o is considered a potential candidate species.

The majority of the land use in this watershed is for agriculture 69.4% with 21.2% conservation lands, 8.2% Urban and 0.5% Rural. Waimea is the main population and commercial development center and Mauna Kea Beach Resort that includes high end homes, hotel, golf course and restaurants is located near the mouth of the watershed.

F. Other plans

- Ala Kahakai National Historical Trail Comprehensive Management Plan, http://www.nps.gov/alka/parkmgmt/upload/alka_cmp_low-resolution.pdf
- Community Wildfire Protection Plan for Northwest Hawai'i Island, <http://Hawaiiwildfire.org/hwmo-products.html>
- South Kohala Community Development Plan <http://www.Hawaii-county.gov/south-kohala-cdp>

II. South Kohala Coastal Partnership

The South Kohala Coastal Partnership is a dynamic partnership committed to implementation of the conservation strategies guided by the shared vision. Over seventy – six members participated, fully reviewed and prioritized conservation strategies and priority conservation targets; the group now includes over 100 representatives from over 75 organizations and agencies.

The South Kohala Coastal Partnership consist of the core working group, planning group and advisory group that participated in the development of the SKCAP as well as additional participants that joined the partnership after the finalization of the SKCAP.

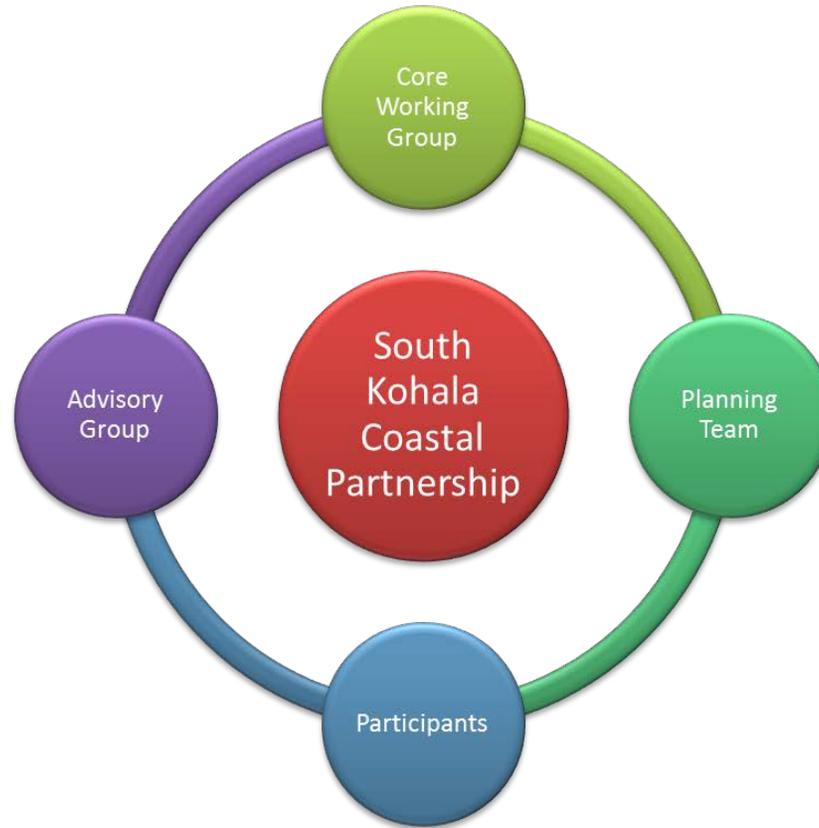


Figure 2 - The South Kohala Coastal Partnership includes representatives from the SKCAP working group, advisory group, planning team and participants (and other stakeholder groups) that support the implementation of the SKCAP.

A. Working groups

This multi-agency and multi-stakeholder collaboration (Table 1) and participation has been essential in the development of effective, locally-supported conservation strategies to enhance and protect the coral reef resources of the priority site.

Core team description

The South Kohala Coastal Partnership core team includes representatives from the State of Hawai'i, Department of Land and Natural Resources (DLNR), Division of Aquatic Resources (DAR); National Oceanic and Atmospheric Administration (NOAA), Coral Reef Conservation Program (CRCP), Ala Kahakai National Historic Trail, National Park Service; NOAA, Hawaiian Island Humpback Whale National Marine Sanctuary (HIHWNMS), Natural Resource Conservation Service (NRCS), United States Department of Agriculture (USDA), The Nature Conservancy, Hawai'i Marine Program and Mauna Kea Soil and Water Conservation District (MKSWCD).

Planning team

The planning team composed of local experts and stakeholders helped to identify critical threats, develop the indicators for each target and evaluate their impacts with initial strategies and measurable objectives in the SKCAP.

Advisory group

The advisory group that represents the broader South Kohala Community and additional experts active in the region participated in the SKCAP by identifying targets, threats and stakeholders.

Coral reef working group

B. Other stakeholder groups

In addition to the organizations and agencies involved with the SKCP several additional stakeholder groups and individual participants are identified to include: Home owners/residence/associations, landowners, resorts, schools, resource councils/action teams and government officials. The communities and organizations are considered part of the larger South Kohala Coastal Partnership participant group that is guided by the SKCAP and that will help provide sustainable on the ground support and participation in implementation projects and activities.

A knowledge, attitudes and perceptions survey of coastal users took place from 2012-2013 in the priority area and identified additional participants that would like to be involved and stay updated on activities. It is important that to include

coastal users in the communication plan to help reduce user conflict and for the overall social and biological management success of projects.

Table 1- Organizations that contributed to the SKCAP and supporters of the South Kohala Coastal Partnership
Ala Kahakai National Historical Trail Association, National Park Service
Big Island Invasive Species Committee
Coastal Zone Management Program
Conservation International
Coral Reef Alliance
Coral Reef Task Force
Coral Reef Working Group
County of Hawai'i
Department of Health – Polluted Runoff Control Program
Department of Land and Natural Resources
Department of Transportation
Division of Aquatic Resources
Division of Conservation and Resources Enforcement
Division of Forestry and Wildlife
DW Ainalea Developments
Environmental Protection Agency
Experimental Program to Stimulate Cooperative Research
Eyes of the Reef
Federal Emergency Management Agency
Hawai'i Cooperative Fisheries Research Unit
Hawai'i Community Stewardship Network
Hawai'i Institute of Marine Biology
Hawai'i Invasive Species Council
Hawai'i Island Reef Monitoring Initiative
Hawaiian Island Humpback Whale National Marine Sanctuary

Hawai'i Preparatory Academy
Hawai'i Wildlife Fund
Hawai'i Wildfire Management Organization
Hualālai Resort
Hui Aloha Kīholo
Joint Institute for Marine and Atmospheric Research
Kailapa Community Association
Kanu o ka 'aina New Century Charter School
Ka'ūpūlehu Marine Life Advisory Council
Keep Puakō Beautiful
Kohala Coast Resort Association
Kohala Watershed Partnership
Kukui Planning Company
Liquid Robotics
Malama Kai
Mauna Kea Soil and Water Conservation District
Mauna Lani Resort
Mauna Lane Sea Adventures
Na Kalai Wa'a
National Fish and Wildlife Foundation
National Oceanic and Atmospheric Administration (NOAA)
National Park Service
Natural Resource Conservation Service
NOAA – Coral Reef Conservation Program
NOAA – Kona Integrated Ecosystems Assessment
NOAA – National Marine Protected Area Center
NOAA – Pacific Islands Fisheries Science Center
NOAA – Pacific Services Center
Office of Conservation and Coastal Lands

Pacific Island Climate Change Collaborative
Pacific Islands Ocean Observing System
Pacific Islands Regional Office
Parker School
PATDI Inc.
Puakō Community Association
Puakō Makai Watch
Puakō Science Committee
Queen Emma Lands
South Kohala Community Development Plan Action Team
South Kohala Reef Alliance
Sustainable Resources Group Intr’l Inc.
The Kohala Center
The Nature Conservancy
University of California at Berkeley
University of Hawai’i at Hilo
University of Hawai’i at Hilo Keaholoa STEM program
University of Hawai’i at Manoa
University of Hawai’i Sea Grant College Program
US Army Corps of Engineers
US Department of Agriculture
US Fish and Wildlife Service
US Geological Survey
Waikoloa Dry Forest Initiative
Waikoloa Village Association
Waimea Community Association
Waimea Outdoor Circle
Waimea Preservation Association
Waimea Trails and Greenways

West Hawai'i Fisheries Council
West Maui Ridge to Reef Initiative

Community description

South Kohala residences include both part time and full time residents. The main coastal residential areas are located in Kawaihae, Puakō, Kīholo, Ka'ūpūlehu and the Resorts. This leeward area has the highest concentration of resorts on the Big Island; the Kohala Coast Resort Association includes: Fairmont Orchid, Hapuna Beach Prince Hotel, Hilton Waikoloa Village, Mauna Kea Beach Hotel, Mauna Kea Resort, Mauna Lani Bay Hotel & Bungalows, Mauna Lani Resort, Waikoloa Beach Marriott Resort & Spa, and Waikoloa Beach Resort in the South Kohala district. Residential communities in upper watershed include Waikoloa and in the Wai'ula'ula watershed include Waimea, there are over five public and private schools and larger populated residential and commercial areas.

The coastal communities of West Hawai'i have recently agreed to share information and support through establishing a Coastal Communities Management Network that will meet at least bi-annually to discuss ways to collaborate and share information on marine management efforts. The first meeting took place in Kawaihae Harbor for two days, with representatives from five different locations spanning from the North part of the island in North Kohala to South in Milolii.

1. Home owners/residence/associations

Communities in South Kohala and West Hawai'i are engaged in and interested in coastal and marine and natural resource management. Active communities are partnering with organizations and agencies to host regular malama 'aina, coastal clean ups, invasive species removal efforts, and various projects that fall within the strategies of the SKCAP and Watershed management plans for the area. The coastal communities include Kailapa Community Association of Kawaihae, Kohala Coastal Resort Association, Puakō Community Association and South Kohala Reef Alliance. Residence in the upper watershed include communities of the Waikoloa Village Community Association and Waimea Community Association.

Kailapa Community Association: Current president and contact Diane Kanealii dkanealii02@gmail.com. Concerns of the community include erosion from goats, invasive plant species, water quality, coastal and marine food

resources. The communities of Kailapa and Kawaihae have participated in Lawaia Ohana Fish Camps which bring local families together to discuss fisheries management, conduct coastal fish and invertebrate surveys, collect spawning and life history data, share and practice traditional fishing knowledge and voyaging techniques, provide education and demonstrations on species in the area. Goals: coastal and marine monitoring, reduce impacts from goats, revegetate areas with native plants, and to build a community center.

Puakō Community Association (PCA): There are 200 homes in the Puakō Community Association www.Puako.org with community association meetings the first Wednesday of each month at 6:30, Current President: Peter Hackstedde. The Puakō Community has worked with various researchers and organizations to monitor and manage coastal and marine projects. The existing projects include: Puakō Makai Watch program, Keep Puakō Beautiful beach clean up activities, Ocean Environment and Education Stations, Reef Teach and fire fuel break management projects. The local issues include but are not limited to Lack of sewage system in Puakō and Waialea Bay and aged septic and cesspools, no reef nursery areas fully protected from fishing, need sediment basin in Puakō for storm/flood events, difficulty enforcing fishing rules and shoreline use, funding, coast access and management/facilities, rubbish bins, kiawe control, replanting natives, invasive species and fire control.

Puakō Makai Watch is working to increase community knowledge of coral reefs, encourage compliance, and support responsible practice. The Puakō Makai watch booth: 1st and 3rd Saturdays 9-12 at Wailea Bay or Paniau – Ranger Randy, volunteer opportunity with Reef Teach training. Randy Clarke – 345-1345 www.Puako.org/makai.html Seasonal trends in use: winter- surfers, summer – snorkelers. Other events in Puakō include the Alex and Duke Derego Roi round up and ocean safety event, and community snorkel days.

Mauna Lani: The South Kohala Reef Alliance is based out of Mauna Lani and is organized by Mel Malinowski mel@reefalliance.org

Waikoloa Village Community Association: Waikoloa.org the president can be contacted via email president@wvagolf.com Annual event includes the Wiliwili festival coordinated by the Waikoloa Dry Forest Initiative.

Waimea Community Association: Meets 1st Thursday of every month at Waimea School at 5:15 PM.

Kohala Coast Resort Association: Fairmont Orchid, Hapuna Beach Prince Hotel, Hilton Waikoloa Village, Mauna Kea Beach Hotel, Mauna Kea Resort, Mauna Lani Bay Hotel & Bungalows, Mauna Lani Resort, Waikoloa Beach Marriott Resort & Spa, and Waikoloa Beach Resort

2. Large Land Owners, Ranchers & Managers

	Pelekane Watershed	Wai'ula'ula Watershed	Contact	Email
Parker Ranch	x	x	Keoki Wood	kwood@parkerranch.com
Queen Emma Foundation Land	X	X	Stuart Lau	slau@queens.org
FR Cattle/State lease		X	Freddy Rice	frcattlecompany@gmail.com
Department of Hawaiian Homelands	X	X	Jim Dupont	Jim.w.dupont@Hawaii.gov

*Other land owners can be identified with the Hawai'i County TMK maps http://qpublic9.qpublic.net/hi_Hawaii_search.php

3. Schools

Waimea Elementary
Waimea Middle PCS
Kanu o ka 'aina PCS*
Waikoloa Elementary
Waikoloa Middle
HPA*
Parker School
Waimea Country School
HI Montessori

*representatives participated in SKCAP planning process

4. Resource councils

West Hawai'i Fishery Council - From the website: <http://www.westHawaiiifisherycouncil.org/>

In 1998 the Hawai'i State legislature passed Act 306, which established the West Hawai'i Regional Fishery Management Area (WHRFMA) encompassing the near shore waters from Upolu Point (North Kohala) to Ka Lae (Southpoint in Ka'u) a shoreline distance of approximately 147 miles. The seaward boundary of the management area is marked by a water depth of 600 feet. This means that management strategies for this area will primarily effect near shore and reef fisheries. However, since pelagics such as rays and sharks are an essential factor in reef health, they are also included.

The overall purpose of Act 306 was to: Effectively manage fishery activities to ensure sustainability, enhance near shore resources and minimize conflicts of use in the WHRFMA. Act 306 also required that management decisions within the WHRFMA be made with substantial community involvement via facilitated dialogs with residents and resource users. To provide community involvement and input, the West Hawai'i Fisheries Council (WHFC) was formed in 1998 drawing on members and work of an antecedent group, the West Hawai'i Reef Fish Working Group. In order to accomplish the goals and tasks of the legislation, DLNR empowered the WHFC to serve as an advisory body and a primary source for formulating and recommending West Hawai'i management actions to DLNR.

The WHFC consists of stakeholders as well as additional non-voting, ex-officio resource people. The voting members represent a broad spectrum of community interest, user groups, and geographic locale. Ex-officio members have included UH Sea Grant, DAR, DOBOR, DOCARE, the Governor's Liaison, Whale Sanctuary Representative, National Park Service and OHA. The WHFC strives to fairly represent the stake holder community and membership is open to all interested community members with knowledge and experience in the marine environment or issues concerning fishery management. As of June 2012 the WHFC has had over 50 different members contributing more than 3000 volunteer hours. At least 1800 community members have attended one or more WHFC meetings.

Some of the accomplishments of the Council to date are:

- The WHFC established a network of ten Fish Replenishment Areas (FRAs) which prohibit aquarium fishing and fish feeding.

- The Council recommended amendments to the initial FRA rule to enhance enforcement and initiate the implementation of a sustainable, limited entry commercial aquarium fishery.
- The Council has worked with DLNR on the day-use mooring buoy program to site these buoys and inform communities of the value of such moorings to preserve our coral reefs.
- The Council developed rule amendments to provide limited *kupuna* harvesting of *wana* (sea urchins) within the Old Kona Airport Marine Life Conservation District (MLCD).
- The Council developed a set of gill net rule recommendations focused on limiting impacts of large-scale commercial netting while providing for subsistence netting. Six no- gill net refuges have been established as well as a Hawaiian cultural netting area (hand constructed, natural fiber nets only). The Council's approach served as a subsequent model for state-wide gill net management.
- The WHFC Youth Council distributed a petition for no-smoking at Kahalu'u Beach Park, wrote a Resolution (with the help of Councilperson Virginia Isbell) and got it passed by the County Council and then wrote an ordinance that was passed unanimously. Kahalu'u Beach Park is now the second beach in the state that is no-smoking.

At the end of 2013, the Board of Land and Natural Resources approved and Governor Abercrombie signed a significant package of rule amendments that WHFC had been working on for ten years. These issues relate directly to the mandates of Act 306 (re-designated as HAR §13-60.4) to ensure sustainability, enhance near shore resources and minimize conflicts of use on West Hawai'i's coral reefs. They are:

- Prohibition of SCUBA spearfishing within the WHRFMA
- Closure of an area fronting Ka'ohe (Pebble Beach), South Kona to aquarium collecting to reduce/eliminate longstanding user conflicts and resource concerns.
- Management of species of special concern. This includes eliminating the take of a number of vulnerable but ecologically and culturally important species and restricting aquarium harvesting to a limited number of species (40) which constitutes the vast majority (99%) of all fish species collected. In addition, size and/or bag limits for aquarium collectors are also proposed for three species (yellow tang, kole, and achilles tang) which have been identified as important components of the aquarium fishery.

Coastal Community Management Network - <http://kaikuleana.net/> Over 30 participants have participated in the meetings (at least bi-annually) with representatives from coastal communities along West Hawai'i from North Kohala. Communities include: Ho'okena, Miloli'i, Kona, Ka'ūpūlehu, Kīholo, Mauna Lani/Kalahipua'a, Puakō, Kailapa, and North Kohala. Goals of the meetings include: share projects, challenges, and successes and evaluate the potential for communities that are active in managing coastal and marine life to support each other.

5. Government Officials & Staff

- South Kohala Community Development Plan Action Committee – Representatives from each community of South Kohala meet once a month with County Planner. Site specific meetings monthly. Open to public. Josephine Tanimoto – Kawaihae, Joel Cohen, Kit Roehrig- Waimea, John Hoover – Puakō, John Mueller – Waikoloa, Roger Harris – District wide. southkohalaactioncommittee@gmail.com
- Hawai'i County Council - Margaret Wille District 9 (Waikoloa, North and South Kohala) mwille@co.Hawaii.hi.us, Legislative Assistant is Dave Hirt dhirt@co.hawaii.hi.us
- Karen Eoff, District 8 (Waikoloa) keoff@co.Hawaii.hi.us
- Representative Cindy Evans, repevans@capitol.Hawaii.gov and Teriitavae Perez t.perez@capitol.Hawaii.gov
- U.S. Senator Brian Schatz, local contact is George "Robby" Robertson lopekana@hawaii.rr.com
- Hawai'i Senator Malama Solomon District 4 sensolomon@capitol.Hawaii.gov
- Mayor Billy Kenoi cohmayor@co.Hawaii.hi.us
- County Planner Deputy Duane Kanuha, local planner is Deanne Bugado dbugado@co.hawaii.hi.us
- DLNR Chair William Aila dlnr@hawaii.gov
- DAR Administrator Frazier McGilvray, Frazier.McGilvray@hawaii.gov local planner is Emma Anders Emma.Anders@hawaii.gov

III. Projects in the South Kohala Priority site

A. Projects

Table 2 Projects funded with Hawai'i Coral Reef Conservation Program 2013- 2014

Project title	Contractor & Partners*	Contacts	Location	Conservation Strategies of SKCAP	Identified outcomes
Stream Corridor Assessment	Sustainable Resource Group Intrn'l Inc.	Kristin Duin, Andy Hood	Wai'ula'ula watershed	Sediment Reduction	1. Inventory and Assessment-map, 2. Erosion monitoring – plan 3. Riparian zone overlays – GIS maps, 4. Report - photo document, erosion plan, prioritize action
Implementation of the South Kohala Conservation Action Plan	UH Sea Grant & Division of Aquatic Resources	Sierra Tobiason	South Kohala Priority Site	ALL	1. Coordinate the implementation of South Kohala CAP and watershed plan projects, 2. Establish working group, 3. Informed and engaged stakeholders, 4. Track, manage and summarize projects, 5. Develop outreach materials and coordinate partner recognition events, 6. Conduct site visits, provide technical assistance and report back to the working group.
Ungulate exclusion and sediment reduction	Kailapa Community Association	Diane Kanealii	Kailapa, Kawaihae	Sediment Reduction	1. Reduce feral goat population in fenced area along Honokoa Gulch, 2. Decrease erosion and coastal sedimentation, 3. Install and monitor Erosion pins, 4. Establish native dry forest seed bank, 5. Outreach and publications
Understanding the impacts of land based nutrients on coral reef health	The Nature Conservancy, Hawai'i Institute of Marine Biology	Eric Conklin, Courtney Couch	Puakō area	Fisheries Management, Additional threat analysis	1. Water quality sampling, 2. Biological surveys, 3. Map of coral health 4. Report identified coral health in region and correlations with LBP, 5. Prioritize management actions to address sources of LBP.
Puakō Makai Watch	Puakō	George Fry III,	Wailea Bay	Fisheries	Increased signage, established

(project funding completed Sept. 2013 but continuing project)	Community Association (PCA), The Nature Conservancy, DOCARE	Randy Clarke, PCA		Management, Invasive Species, Additional threat Analysis	information booth, hired part time ranger and established volunteer group, sponsored roi round ups and coastal community management meetings, built community capacity through training programs, meetings, education and outreach.
Assessment of coral settlement distributions and environmental conditions	University of Hawai'i	Drs. Paul Jokiel, Ku'ulei Rodgers	South Kohala Priority site	Fisheries Management	1. Evaluation of past, present and future condition of the reef in Pelekane Bay and surrounding areas, 2. Document changes in the watershed using sedimentation data, historical data and water quality data, 3. Continue monitoring and quantify coral settlement, 4. Fish and benthic transects 5. Quantify water quality 6. Comprehensive report
Integrating Local Ecological Knowledge with a novel scientific tool to refine traditional community based Moon Calendars	University of Hawai'i, Kīholo and Kawaihae Communities	Dr. Friedlander, Eva Schemmel	Kīholo Bay	Fisheries Management	1. Identify local pono fishing practices, 2. Life history and histological data, 3. Spatial and temporal variation in reproductive characteristics, 4. Training and technical support to communities

* More project information and details are included in the Past, Current and Future efforts in the habitat blueprint focus area document (See Appendix)

B. Volunteer opportunities

The following are examples of opportunities to get involved in management and conservation projects in the greater Kohala area, Hawai'i Island, *Information prepared by Megan Lamson and updated by partners on a regular basis.*

Hui Aloha Kīholo: According to their website this, "Hui [includes] all those who are linked to Kīholo for cultural, community, ecological, sustenance, and spiritual reasons in an effort to steward Kīholo in perpetuity." They are actively recruiting volunteers for various projects along this beautiful coastline including anchialine pool restoration and 'auwai repairs as necessary. For more info contact U'ilani Macabio at macabio@Hawaii.edu or huialohaKiholo@Hawaii.rr.com or check out their website at www.huialohaKiholo.org

Keep Puakō Beautiful: This volunteer group that based out of Puakō is a branch of Keep Hawai'i Beautiful. They coordinate regular beach cleanup efforts in the region. For more info about this event and more, please contact Cynthia Ho at kpb@Hawaii.rr.com.

Kohala Watershed Partnership: A group that is committed to "Working together to protect and sustain the forest, the water, and the people of Kohala Mountain." They work on a variety of restoration projects in Kohala including one at Pelekane Bay, South Kohala. For more info about this or other fieldwork or volunteer opportunities, please contact them at info@kohalawatershed.org or Melora Purell at Coordinator@kohalawatershed.org or visit their website at www.kohalawatershed.org.

Makai Watch Puakō: Recently, the Puakō community has begun a Makai Watch program through the Puakō Community Association and with some planning support from The Nature Conservancy. Makai Watch is a community-based monitoring program in Hawai'i that is a partnership between the Department of Land and Natural Resources (DLNR) – Division of Aquatic Resources and various community, non-profit, and gov't agencies. Makai Watch groups seek to protect the coastal resources of their local community via fish/habitat monitoring, human-use monitoring, outreach/education booths and events, as well as resource violation reporting. For more info about volunteering in Puakō, please contact the coordinator, Randy Clarke at prkclarke@gmail.com.

Mālama Kai Foundation: "The Mālama Kai Foundation is a non-profit organization dedicated to ocean stewardship for current and future generations through community service and public education. Founded in January 1991, they raise and implement projects that help conserve Hawai'i's coastal and marine resources, and educate people about these resources." Their projects include installation of day-use moorings, and a K-12 outreach and education program in North Kohala called "Ocean Warriors". For more info, contact them at info@malama-kai.org or check out their website at www.malama-kai.org.

Pua Ka 'Ilima 'O Kawaihae Cultural Surf Park: "The non-profit corporation known as Pua Ka'ilima Cultural Surf Park Inc. was dedicated to develop and protect this area on 1.4 acres of coastline at the Kawaihae Breakwater. Funded not by taxpayers' money but rather with community and foundation support, the park will be developed to afford unrestricted ocean access, for local people and visitors in phases over the next several years. For more info on the surf park, or to

make a tax-deductible contribution towards its development, please call 808/885-3534” or visit their website at <http://www.surfpark.org/about.html>.

The Kohala Center: “The Kohala Center is an independent, not-for-profit, community-based center for research, conservation, and education. The Kohala Center was established in direct response to the request of island residents and island leaders to create greater educational and employment opportunities by caring for—and celebrating—Hawai‘i Island’s natural and cultural landscape.” For more info, visit their website at www.kohalacenter.org or to become a Reef Teach volunteer contact Matt Connelly mconnelly@kohalacenter.org.

The Nature Conservancy: Together with their partners, “The Nature Conservancy (TNC) has protected almost 200,000 acres of natural lands in Hawai‘i. These acres include 10 Conservancy preserves that provide vital habitat for threatened native species. We also collaborate with others to protect the larger natural systems of which our preserves are a part.” A leading non-profit in the Kohala region, TNC has recently invested a lot of time and energy into hosting the South Kohala Conservation Action Plan (CAP) with input from dozens of knowledgeable community members, resource users, scientists and managers alike.

TNC has also been involved in helping various community groups with their own coastal management projects, including: the Puakō Makai Watch program, the Ka‘ūpulehu Marine Life Advisory Committee and is now beginning their restoration efforts of some fishponds and anchialine pools at Kīholo. For more info on the Kīholo Fishpond restoration contact Rebecca Most at rmost@tnc.org or check out their website at <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/Hawai'i/index.htm>.

The Waikoloa Dryland Forest Initiative: “Waikoloa Dry Forest Initiative Inc. is a nonprofit organization formed in 2011 to manage and preserve the remnant lowland wiliwili forest that persists just outside of Waikoloa Village. Our mission is to preserve the existing resources within the area, promote the natural regeneration of common and rare native plants, and restore the native dry forest community. We also hope to preserve, promote and restore understanding and stewardship of the forest within our communities through outreach and education and by providing opportunities to experience these special places.” They routinely seek volunteer help with native outplanting workdays on Saturdays. For more info contact Jen Larson at jen@waikoloadryforest.org or check out their website at www.waikoloadryforest.org

The South Kohala Coastal Partnership established through the guidance and collaboration of community members, associations, organizations, resource managers, as well as both State and Federal agencies that contributed to the planning of the South Kohala Conservation Action Plan. This group emphasizes the importance of collaboration and working community partnerships to identify target resources, develop strategies and promote coastal and marine stewardship activities. Together the partnership has a shared vision of a restored, healthy, abundant, and resilient South Kohala coastal ecosystem cared for and cherished by an island community guided by the values and traditions of South Kohala. The implementation of projects in this Coral Reef site is coordinated in partnership by the University of Hawai'i Sea Grant College Program and the Division of Aquatic Resources. Please contact the coordinator Sierra Tobiason at tobiason@Hawaii.edu for more info on projects and how to get involved. Visit the Hawai'i Coral Reef Strategy website: <http://www.Hawaiicoralreefstrategy.com/index.php/southkohala>, www.southkhalacoastalpartnership.com

IV. Communication strategies



Figure 3 – Communication Strategies

A combination of the communication strategies (Figure 3) will be used to interact with the South Kohala Coastal Partnership, additional stakeholders, and targeted audiences.

Website and social media

To share project details and updates with the larger group of participants and stakeholders of South Kohala the agent developed a website and social media pages. The South Kohala Coastal Partnership website

www.southkohalacoastalpartnership.com was established on January 8, 2014 with links to plans, projects and partner's websites, as well as photos and fliers about upcoming events and opportunities to volunteer. The Facebook page www.facebook.com/SouthKohalaCoastalPartnership was established on August 12, 2013 to serve the same purpose and to help increase the audience reached. A twitter account was established September 15, 2014 under SouthKohalaCAP to help share updates and project site photos.

An email account was set up through Mail Chimp with a private gmail account coastalpartnership@gmail.com for future email marketing efforts and communication strategies. Communication to date has gone through the agents personal work email account. Ms. Tobiason maintains an updated list of South Kohala Coastal Partnership contact information and email addresses in an excel spreadsheet form.

Mixed Media

Videos, articles and photos will be shared online through the website and social media pages as well as through partner websites and pages.

Meetings

Meetings include small group meetings, symposiums, conferences, public meetings, and briefings. Depending on the audience and participants meetings can get technical, it is important to identify participants ahead of the meeting and develop an appropriate agenda for desired outcomes.

Field Days

Include site visits, community work days, field trips, and any related monitoring and management in the field.

Workshops

Workshops will provide training opportunities for technical and hands on experiences and professional development. Topics include but are not limited to best management practices, rain gardens, water quality monitoring, stewardship, grant writing, and more.

Education and outreach materials

Outreach materials include color brochure, 1- pager, 2- pagers, project summary, and “postcards” on upcoming projects, additionally; the Rain to the sea educational activity developed for kids at outreach events was adopted by two teachers as a classroom activity. Agent contributed information services to the development of Past, Current and Future Events in the Habitat Blueprint Focus Area crosswalk document and development of the Hawai'i Hotel Stewardship Guide. Both documents will be made available for stakeholders.

Signage

Agent worked with a graphic designer to design logo for the SKCP to increase the awareness of the partnership and for use on materials, banners and provided photos and SKCAP information for the layout for two retractable banners.

The design and layout of educational signage for restoration and implementation of best management practices along the watershed will be drafted by the coordinator, collaborators and UH Sea Grant Communications department prior to contracting the printing and manufacturing.

Events

Events include the opportunity to interact with a large amount of people and share education and outreach materials and interactive activities. They provide a great opportunity to recruit volunteers and interested community members in working together to identify individual ways to take action. Events sometimes overlap with meetings which encourage interaction and opportunities to share information on a more technical level. Coordinator will staff the information booth at various events related to ocean conservation and stewardship and will provide outreach materials and interactive activities when possible. Partners are encouraged to participate, share tent space and help highlight partnership activities.

A. Communication within the South Kohala Coastal Partnership

To reach and engage the stakeholder groups a variety of strategies will be used to interact with identified groups or individuals that can help deliver the messages. An overarching goal of the communication within the partnership is to have all stakeholders aware of and using the website and social media pages as the primary methods to share project information. This will reach a large audience and inspire others to get involved and take action to reduce impacts the

coastal and marine ecosystems. Communication strategies with stakeholder groups will mainly come through interactions with the coordinator however the South Kohala Coastal Partnership participation is critical to sustain communication between groups.

Working Groups

Small group meetings will be conducted for the South Kohala Working group, planning team, advisory group and Coral Reef Working Group to obtain input on project development and to track the progress of the implementation activities. Information will also be shared with these groups through email blast, newsletters, and conference calls when needed.

Stakeholder groups

Home owners, residents and community associations

Contact with homeowners and residents should not be direct but rather made through the community association president. Direct contact via email or phone with the president of the association will help to increase the number of home owners reached while providing two way communications to stay up to date on local events. Information is commonly shared through email, newsletters, meetings and events with in these communities and most have the means to share information in their newsletters or calendar of events. Providing presentations at community association meetings or community events is also good way to share information with this stakeholder group. Depending on the communities previous involvement, location and awareness on certain topics presentations and materials aimed at local community (rather than visitors) can go beyond basic interpretation as residents are often familiar with the background information. It is important to engage residents in the area and provide opportunities to participate in projects. Send notification emails to the president about all upcoming events, workshops, meetings and field days that are open to the public as well as share 2 page fact sheets, and reports if relevant to the area.

Resorts

Interaction with resorts, accommodation sector and/or tour groups can be tricky. Luckily in South Kohala Coastal Partnership we have a central point of contact to get in touch with hotels and resorts in the area. The Kohala Coast Resort Association can provide appropriate contact information and serve as the liaison for sharing details on events or activities with the resort association.

Landowners

Direct contact with landowners or land managers via email or phone has been effective, and updates are shared through newsletters, presentations, events, site visits or through attending regular meetings that landowners attend such as the Kohala Watershed Partnership, South Kohala Coastal Partnership Wai'ula'ula Watershed Workshops, South Kohala Community Development Plan Action Team and Mauna Kea Soil and Water Conservation District meetings.

Schools

Communication with schools and teachers varies. Some teachers can be contacted directly via email or phone while other schools have a more formal approach to arranging meetings through the office secretary. Sometimes teachers attend events and those are good opportunities to discuss potential collaborations or activities and determine best ways to communicate and follow up. Opportunities for students to develop personal connections are available through hands on activities, field days, and site visits. Notifications of public events, activities, meetings and workshops should be sent to all schools with an invitation to participate if possible.

Resource Councils

It is important to plan ahead in contacting resource councils as agenda items are often formally reviewed and organized prior to the meeting.

Government officials

The best method to get in touch with government officials is through contact with their assistants via email or phone. The messages and programs to target community leaders and decision makers must be well thought out and if possible reviewed by the working group. Outreach materials provided could include newsletters, 2 pagers and reports to share specific information about the desired action and/or message.

B. Communication matrix

The communication strategies, approaches and leads outlined in this communication matrix (Table 3) will be used to interact with and engage local stakeholder groups with the goal to help achieve the South Kohala Coastal Partnership vision and implementation of the SKCAP. The purpose identifies the goals and objectives of each strategy and the identified measurable will help track stakeholder involvement for each strategy.

Table 3 Communication matrix

Strategy	Specifics	Timing	Purpose	Planning	Format/ Approach	Measurable	Cost	Lead/ Partners	Venue
Website and social media									
	Facebook	Established Aug/Sept	Informed and engaged stakeholders	updates, photos, facts	Share updates, activities, photos, interactive questions	Number of followers and number reached	Free	Coordinator	
	Website	Established Oct/Nov	Informed and engaged stakeholders	updates, photos, facts, links	Weebly, word, PDF, photos	Number of hits	Free or small cost <\$100	Coordinator	
	Mail Chimp Email	Established Oct	Informed and engaged stakeholders	Update from events	Share newsletters, reports, and event information	Number of people on email list	Free	Coordinator	
Mixed Media									
	Videos	Continuous	Visually show threats and targets, share partner information, informed and engaged stakeholders	Gather video equipment, draft scripts when needed	Interviews, and educational information Share online	Number of videos and number of viewers reached	Free	Coordinator, TNC, South Kohala Reef Alliance	
	Press release	At least 2/year	Informed and engaged stakeholders	Prior to events and activities	Draft message and have UH Sea Grant communication s review	Number of people reached	Free	Coordinator and UH Sea Grant	
	Misc. Ads / articles	Continuous	Informed and engaged stakeholders	Prior to events and activities	Draft message and have UH Sea Grant communication s review	Number of people reached	Free	Various	

Meetings									
	SKCP Public meetings and presentations	Continuous	Informed and engaged stakeholders	Develop multiple presentations	Powerpoints, and outreach materials	Number of participants	Free	Coordinator and SKCP	
	SKCP symposium	Annually	Informed and engaged stakeholders	Partner presentations	Powerpoints and posters	Number of participants	TBD	Coordinator and SKCP	TBD
	SKCP core meeting	Bi-monthly	Discuss projects and prioritize activities	Agenda and goals	Skype, and conference calls between Big Island and Oahu	Number of participants and Number of actions/projects developed for the SKCAP	Free	Core working group	NRCS office Waimea
	Coral Reef Working Group	Quarterly	Provide project updates	Presentation	Powerpoint	Number of participants	Travel	DAR/NOAA	DLNR/NOAA
	DAR Sharing session	Bi-annually	Provide project updates	Presentation	Powerpoint	Number of participants	Travel	DAR	DLNR Kalanimoku building
	Coastal Community Management Network Meetings and workshops	Bi-annually	Increase community capacity	Agendas and goals	Sheet paper, potluck, new host each time	Number of participants, number of action plans, tools or information services provided	Travel	TNC/Coordinator	Rotates
	South Kohala Community Development Action Team	Monthly	Work with County on appropriate projects and planning	Provide technical information	Handouts, Powerpoints	Number of participants, Number of actions/projects supporting the SKCAP	Free	County	Rotates between Waimea, Waikoloa and Puakō
	Wai'ula'ula Watershed Stream Team	Monthly	Project planning, implementing	Agenda and goals	Sheet paper, maps, powerpoint,	Number of participants, number of	Free or small	UH Sea Grant & collaborator	Waimea

			and tracking, education and outreach		potluck	plans/designs , number of actions implemented	cost <\$100	s	
	Piilina Forum	Annually	Hawai'i Island Conservation Connections, project updates	Partner presentations , sessions and note taking	Powerpoints, small break out sessions	Number of presenters and number of participants	Free	KWP, TNC, UHH, BIISC	Waimea
	Hawai'i Conservation Conference	Annually	Statewide Conservation Connections, project updates	Partner presentations	Powerpoints, small break out sessions	Number of presenters and number of participants	\$400 and travel	HCA	Honolulu or Hilo
	Puakō Science/Projects Team	Monthly	Project planning, implementing and tracking, education and outreach	Provide technical information	Outreach materials	Number of participants in projects	Free	CORAL, UHH, TNC, SKCP	Puakō
	West Hawai'i Community College marine Science Advisory board	Quarterly	Hawai'i Island Marine Science Pipeline training and education development	Provide technical information	Outreach materials	Number of participants	Free	WHCC marine science professors, Coordinator, UHH, marine science industry	West Hawai'i
	West Hawai'i Fisheries Council	Monthly	Informed and engaged stakeholders: specifically Fisheries related topics	Presentations	Attend meetings and present updates when possible via powerpoint	Number of participants	Free	Multiple representatives	West Hawai'i Civic Center
	County Council meetings	Twice a month	Informed and engaged stakeholders	Provide technical information	Attend meetings and present	Number of participants, also aired on	Free	Hawai'i County	West Hawai'i Civic

					updates when possible	tv.			Center
	Mauna Kea Soil and Water Conservation District board meeting	Monthly	Informed and engaged stakeholders	Provide technical information	Attend meetings and present updates when possible	Number of participants	Free	Hannah Connely	NRCS office
	Waikoloa Village Community Action Team	Monthly	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	John Mueller	Waikoloa Village Association office
	Kawaihae Community Action team	Monthly	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	Jojo Tanimoto	Spencer Beach Park
	Waimea Community Association	Monthly	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	Sherm Warner (term ending Nov 2014)	Waimea school
	Puakō Community Association	Monthly	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	Peter Hackstedde	Hokuloa Church
	Kailapa Community Association	Monthly	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	Diane Kanealii	Rotates between homeowners
	Hawai'i Island Landscape Management Conference	Annually	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates, information booth	Number of participants	\$130 members	Bob Keating	Hapuna Prince Hotel
	Big Island Water Resources	Annually	Informed and engaged stakeholders	Provide technical information	Powerpoint or verbal updates	Number of participants	Free	Tracy Wiegner	UHH
	Twilight at Kalāhuipua'a Music and talk story	Monthly, Saturday after the full moon	Informed and engaged stakeholders	Provide historical and cultural information	Storytelling and music	Number of Participants	Free	Pii Leaha and Danny Akaka	Mauna Lani Eva Parker woods cottage
Field days									
	Community snorkel day	Bi-	Informed and	Provide	Snorkel around	Number of	Free	Eyes of the	Puakō and

		Annually at least or as needed	engaged stakeholders	technical information,	various sites, identify fish and invert species, discuss observations	participants		reef, Puakō Makai Watch, Reef Teach, Puakō community	other locations in the South Kohala priority area
	Site visits	Quarterly or as needed	Informed and engaged stakeholders	Notify site manager, get access, arrange vehicles, agenda and goals	Guided tour of project sites with partners	Number of participants	Gas	SKCP	South Kohala Priority area
	Watershed clean ups (stream, coastal and land)	At least 6 times a year	Increase community engagement	Notify site manager, get access, arrange supplies, agenda and goals, waivers	Hands on learning service learning experience	Number of participants, Number of sites, Number of acres treated	Free	Coordinator, Keep Puakō Beautiful, Waimea Trails and Greenways, PATH	Rotate Waikoloa and Wai'ula'ula streams
	Puakō Makai Watch and Reef Teach booth	Twice a month	Increase community engagement	Education and Outreach materials	Hands on learning service learning experience	Number of visitors reached	Free	Puakō Makai Watch and Reef Teach program	Puakō, Waialea, Panieau
	Coastal Water quality monitoring (C-water kit)	As requested or at least once a month	Increase community engagement	Notify site manager, get access, arrange supplies, agenda and goals, waivers	Hands on learning service learning experience	Number of participants, Number of sites	Free		Rotate
	Wai'ula'ula Watershed project (native planting, maintenance and monitoring)	Twice a month	Increase community engagement	Notify site manager, get access, arrange supplies, agenda and	Hands on learning service learning experience	Number of participants, Number of sites, Number of acres treated	Free	Coordinator, Keep Puakō Beautiful, Waimea Trails and Greenways,	Five sites

				goals, waivers				PATH	
	Volunteer service	Continuous	Increase community engagement	Notify site manager, get access, arrange supplies, agenda and goals, waivers	Hands on learning service learning experience	Number of participants, Number of sites, Number of acres treated	Free	See Volunteer opportunity list	Multiple sites
Workshops									
	Hotel Stewardship Guide	November 2014	Informed and engaged stakeholders	Agendas and goals	Powerpoints, Sheet paper, interactive activities	Number of participants, number of action plans, tools or information services provided	Free	CORAL, TNC and SKCP	Kalaemanō
	Best management practices series, rain garden installation, managing storm water runoff and watershed restoration DIYs	At least bi-annually 2014-2016	Informed and engaged stakeholders	Agendas and goals	Powerpoints, Sheet paper, interactive activities	Number of participants, number of action plans, tools or information services provided	Free	Coordinator, SKCP	Waimea
	Water quality	Quarterly or as requested	Informed and engaged stakeholders	Agendas and goals	Powerpoints, Sheet paper, interactive activities	Number of participants, number of action plans, tools or information services provided	Free	Coordinator, SKCP	Various
Signage									

	Wai'ula'ula Rain garden	In place after rain garden installation	Informed and engaged stakeholders	Design sign, Notify site manager or landowner, check for permits needed, supplies, install	Visual display of rain garden and function	Sign installed	NA	SKCP, Landowner, County	Waimea Center
	Wai'ula'ula Watershed	During Wai'ula'ula projects 2014-2016	Informed and engaged stakeholders	Design sign, Notify site manager or landowner, check for permits needed, supplies, install	Visual display of watershed and function and ridge to reef connections with suggestions on BMPs	Sign installed	NA	SKCP, Landowner, County	Waimea
	CORAL reef etiquette	As requested	Informed and engaged stakeholders	check for permits needed, install	Visual display and coral reef information	Sign installed	\$2K	CORAL reef alliance	Various
Events									
	Earth and Ocean Festival	Annually – April	Informed and engaged stakeholders	Supplies and equipment (See table 4)	Information booth and education and outreach materials	Number of participants	Free	Kona – Kohala Chamber of Commerce	Puakō
	Wiliwili Festival	Annually September	Informed and engaged stakeholders	Supplies and equipment (See table 4)	Information booth and education and outreach materials	Number of participants	Free	Waikoloa Dry Forest Initiative	Waikoloa
	Roi round ups - Alex and Duke Derego Foundation Ocean Safety and Roi Roundup	At least one annual event	Informed and engaged stakeholders	Supplies and equipment (See table 4)	Information booth and education and outreach materials	Number of participants	Free	TNC, Alex and Duke Derego Foundation	Various, Puakō
	Farmers Market	Weekly	Informed and	Supplies and	Information	Number of	Free		Various

			engaged stakeholders	equipment (See table 4)	booth and education and outreach materials	participants			around Waimea
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Table 4: List of available supplies for South Kohala Coastal Partnership education and outreach communication activities

Supplies and equipment available	
Description	Lead/contact
Hotel Stewardship guide	CORAL
SKCP Newsletter	Coordinator
Progress reports	Quarterly
Fact sheets	Annually
Final Reports	Annually
Making a difference guide	DAR
Ka Pili Kai	UH Sea Grant
Hazards manual	UH Sea Grant
Rain garden manual	Online
Volunteer opportunities sheet	Coordinator
SKCP Banner for table	Coordinator
SKCP Stand up banners (2)	Coordinator
Projector	Coordinator
SKCP Brochures	Coordinator
10 X 10 tent	Coordinator
Reuseable totes	UH Sea Grant
Enviroscape	NRCS/MKSWCD
Fish ID posters	DAR
Spawning guide posters	Kohala Center
Pens	UH Sea Grant
Seeds	NRCS/MKSWCD
C-Water tool kits	Coordinator
Fish rulers	DAR
Fish regulation brochure	DAR

C. Media

Table 5 Media Contacts

Media Contacts	Phone/Fax	Email/Contacts
West Hawai'i Today	808-329-9311 808-329-4860 fax	wht@aloha.net Carolyn Lucas – Zenke Clucas-zenke@westHawaiiitoday.com Erin Miller emiller@westHawaiiitoday.com
Hawai'i video news		David Corrigan davidcorrigan@bigislandvideonews.com
North Hawai'i News	(808) 930-8675 (808) 885-0601 fax	Lisa Dahm editor@northHawaiiinews.net , Melora Purell coordinator@kohalawatershed.org
Big Island Weekly	(808) 930-8668 office (808) 329-3659 fax	editor@bigislandweekly.com
Big Island news now		http://bigisland.Hawai'inewsnow.com/
Big Island news center	Ph: (808) 329-8090 Fax: (808) 769-5050	info@BigIslandNewsCenter.com
Hawai'i news now KHNL/KGMB	MAIN LINE: (808) 847-3246 NEWSROOM: (808) 847-1112	www.Hawai'inewsnow.com news@Hawaiiinewsnow.com
KITV	536-9979	
KHON	591-4278	news@khon2.com
Hawai'i Public Radio		news@Hawaiiublicradio.org
Hawai'i AP	808-536-5510, 808-531-1213fax	Audrey McAvoy amcavoy@ap.org

D. Interaction methods

Table 6 - The levels of interaction by communication strategy

Strategy	Stakeholder groups							
	SKCP	Working group	Homeowners/community associations	Resorts	Landowners	Schools	Resource Councils	Government officials
Website								
Social media								
Email								
Mixed media								
Meetings								
Field days								
Workshops								
Education and outreach materials								
Signage								
Events								

Individual follow up with each stakeholder group to determine outcomes of communication strategies and to document the outcomes and outputs for example if a stakeholder implemented or incorporated BMPs, or changed behavior because of the communication efforts of the South Kohala Coastal Partnership and South Kohala Conservation Action Plan.

V. Appendix

A. Education and outreach materials

Past, Current, Future Efforts in Hawai'i Blueprint Focus Area

Contents

Entire Blueprint Focus Area:	2
Division of Aquatic Resources (DAR) Monitoring.....	2
Integrated Ecosystem Assessment (IEA)—Kona.....	2
MHI Biogeographic Assessment.....	3
Sentinel Site.....	4
Other Significant Documents:.....	4
South Kohala Priority Area:	5
South Kohala CAP.....	6
Pelekane.....	7
Wai'ula'ula.....	11
Puakō.....	12
Coastal Use Mapping.....	14
Kīholo	14
Anchialine Ponds.....	15
Fish Pond.....	15
State Park.....	16
Ka'ūpūlehu	17
Acronyms	17

Overview:

This document is meant to provide insight into work that has been done, and that is currently underway for Habitat Blueprint in the Kona region of Hawai'i. The documents referenced in this report are briefly summarized, and explained in relation to the region where work and research has, or is being done. As more work is completed and proposed for the Blueprint project this document will be updated accordingly.

Entire Blueprint Focus Area:

- **Division of Aquatic Resources (DAR) Monitoring**

Long-Term Monitoring of Coral Reefs of the Main Hawaiian Islands Final Report

- POC/Partners: NOAA CRCP, DAR
 - Key Contributors: William Walsh, Stephen Cotton, Camille Barnett, Courtney Couch, Linda Preskitt, Brian Tissot, Kara Osada-D'Avella
- Timeline:
 - Project: October 1, 2009-December 31, 2012
 - Final Report: February 2013

*July 1, 2013-June 30, 2014 the long-term monitoring was continued in West Hawai'i for data collection and assessment in consultation of data already collected around the Main Hawaiian Islands

- Document Location: <http://www.coralreefnetwork.com/kona/NOAA%20961%20Final%20Report.pdf>
- Summary:
 - Goals: To provide an overview and detailed description of the surveys of main coral reefs around the Hawaiian Islands that have already taken place
 - Results: Reports on the studies and their results within the following categories:
 - Benthic
 - Coral and Habitat Surveys
 - Coral Disease Surveys
 - Temperature Trends

- Fish
 - Introduced Species/Fish Die-Off
 - Aquarium Species
 - Invertebrates
 - East Hawai‘i
- The continuation of this type of data collection and assessment in consultation with data already collected can help resource managers, communities and economies (tourism, fisheries, and island-based) at local, state and Federal levels, who are reliant on ecologically resilient and sustainable coral reefs, better understand the health and resiliency of West Hawai‘i coral reefs and identify potential land-based stressors that may affect ecosystem health by interfering with coral recruitment.

- **Integrated Ecosystem Assessment (IEA)—Kona**

Pacific Islands Region—Candidate Habitat Focus Area Documentation Template

- POC/Partners: PIFSC EOD/Evan Howell, PIFSC Kona IEA, Cascadia Research, NOAA (NOS/NCCOS, NMS/HHWNMS), University of Hawai‘i- International Pacific Research Center, TNC, DAR
- Timeline: May 23, 2013 (Date of Proposal)
- Document Location: N/A
- Summary:
 - Goals: Use existing satellite tagging data deployed on three species of cetaceans to assess the relationships between population densities and environmental factors, and to develop species-specific models.
 - Expected Results: A better understanding of relationships between cetacean species and their environment, and species-specific models that allow managers to foresee seasonal presence on the species on a finer scale than typically provided by visual transect surveys.

- **MHI Biogeographic Assessment**

BOEM—Funded Research in Hawai‘i

- POC/Partners: BOEM, NOAA, USGS
- Timeline: September 2013
- Document Location: <http://www.boem.gov/PROUA-Hawaii-Studies-Fact-Sheet/>
- Summary:
 - Goals: To identify BOEM’s role and responsibilities in Hawai‘i, and to outline the organization’s information needs and new studies. The following studies are underway:

- “Habitat Affinities and At-Sea Ranging Behaviors Among Main Hawaiian Island Seabirds”
 - “Pacific Regional Ocean Uses Atlas”
 - “Maritime Cultural Resources Site Assessment in the Main Hawaiian Islands”
 - “Maritime Biogeographic Assessment of the Main Hawaiian Islands”
- Expected Results: To carryout the new studies to assess available information, determine knowledge gaps, and collect new baseline information. And then, to use the information gathered from the studies for informed, science-based decision-making about renewable energy development offshore the Main Hawaiian Islands.

Ocean Tipping Points

- POC/Partners: University of California Santa Barbara (UCSB), National Center for Ecological Analysis and Synthesis (NCEAS), NOAA Northwest Fisheries Science Center, Stanford University’s Center for Ocean Solutions Environmental Defense Fund (EDF), Cal Poly- San Luis Obispo, Parks Canada, Fisheries and Oceans Canada, the Council of Haida Nation, the Hawaiian Islands Humpback Whale National Marine Sanctuary (NOAA and the State of Hawai’i)
 - Funding: Gordon and Betty Moore Foundation
- Timeline: 2014-Spring 2016 (expected completion date)
- Document Location: <http://oceantippingpoints.org/sites/default/files/uploads/TippingPointsOverview.pdf>
- Summary:
 - Goals: “To understand and characterize tipping points in ocean ecosystems” with the following research goals:
 - Improve knowledge and understanding of ocean tipping points in relation to the potential impacts, and their relevance to management
 - Develop a “toolbox” of tested approaches for management of ecosystems prone to tipping points, so that managers can set targets, monitor using early warning indicators, prioritize management actions and evaluate progress towards ecosystem objectives, and above all so that they can operate in a “safe space” for decision-making
 - Expected Results:
 - Advancement of scientific understanding of the complex ecological and social dynamics within marine ecosystems.
 - “The final product of this collaboration will be a toolbox, general framework and guide to setting targets for place-based management of multiple human activities with the context of ecosystem tipping points.”

A Marine Biogeographic Assessment of the Northwestern Hawaiian Islands

- POC/Partners: NOAA (NOS, ONMS-PMNM, CCMA-BB), University of Hawai’i at Manoa, NCCOS
 - Key Contributors: Alan Friedlander, Kaylene Keller, Lisa Wedding, Alicia Clarke, Mark Monaco
- Timeline: July 2005 - May 2009
- Document Location: <http://ccma.nos.noaa.gov/ecosystems/sanctuaries/nwhi/>

- Summary:

- Goals: To develop and implement a “biogeographic assessment [plan] to directly support the research and management needs of the Papahānaumokuākea Marine National Monument (PMNM) by providing a suite of spatially articulated products in map and tabular formats.” The four major working objectives include:

1. Identify and compile priority biological, physical and environmental data for the Northwestern Hawaiian Islands
2. Define significant biological areas or “hot spots” based on distributions, abundance, habitats and community metrics
3. Define ecological linkages of living marine resources and habitats
4. Organize all data and information into digital products for incorporation into the Monument’s geographic information system (GIS)

- Results: A report including all of the major findings from the assessment in the following categories:

- Oceanography
- Geology and Benthic Habitats
- Benthic Communities
- Fishes
- Protected Species
- Seabirds
- Non-indigenous and Invasive Species
- Connectivity and Integrated Ecosystem Studies
- Management

- **Sentinel Site**

**No documents currently available*

- **Other Significant Documents:**

Understanding Dolphin Swim Experiences and Human Perceptions

- POC/Partners: York University/Carlie S. Weiner, Duke University
 - Funding: Social Science and Humanities Research Council, Dolphin Quest
- Timeline: Presented at the 2014 Ocean Sciences Meeting (2/27/2014)
- Document Location: Abstract available at: <http://www.sgmeet.com/osm2014/viewabstract.asp?AbstractID=15112>
- Summary:

- Goals: The purpose of this project is to assess the implications and effects of dolphin-based ecotourism, and to understand how possible management will influence the attitudes and behaviors towards dolphin populations in high-tourism areas. The main goals of the research include:
 - Assess social implications and effects of dolphin-swim tourism
 - Gather baseline data of human attitudes and physical interactions with Hawaiian spinner dolphins
 - Identifying the reasons for participation in dolphin tourism
 - Understand how management and education will influence attitudes/behaviors of dolphin swim participants
 - Articulate community problems surrounding dolphin-swims
- Results: Identification of current knowledge gaps pertaining to dolphin tourism through classification of social debates associated with marine tourism, especially illustrating areas of neglect in field research. Also, research methods involving broad consideration of both human and natural systems are discussed, so that they can be used as a tool for social-ecological linkages and placed in a broader context of balancing human interest and ecosystem health.

Ala Kahakai National Historic Trail Comprehensive Management Plan

- POC/Partners: NPS; Aric Arakaki
- Timeline: 2009- present (ongoing)
- Document Location: http://www.nps.gov/alka/parkmgmt/upload/alka_cmp_low-resolution.pdf
- Summary
 - Goals: This plan outlines the management guidelines needed to fulfill the preservation and public goals for the trail for the next 15-year period. The plan is based on the trail's purpose and its significant attributes, stories, and experiences, and it is guided by the community's vision. Strategies for resource protection, trail use, and facility development.
 - Results: A comprehensive management plan explains the purpose and need for the plan, administration, management, and partnerships, guidance for resource protection, facility development and implementation. This is an ongoing project for which there will be various outcomes over the 15-year timeframe.

Community Wildfire Protection Plan for Northwest Hawai'i Island

- POC/Partners: HWMO; Elizabeth Pickett
- Timeline: 2007
- Document Location: <http://Hawai'iwildfire.org/hwmo-products.html>
- Summary:
 - Goals: 1) installation of pre-staged static water and helicopter dip tanks; 2) acquisition of adequate resources for first responders, including off-road tankers; 3) reduction of fuel loads and/or appropriate conversion of fuels along road sides, in community open areas, and individual homes; 4) adoption of development standards and community planning that requires the mitigation of wildfire

- risks; 5) creation of secondary emergency access roads and emergency egress signage within subdivisions; 6) development of emergency staging areas within communities; 7) reduction and/or control of invasive species that possess inherent fire or ignition
- Results: To date, there has been no loss of life contributed to wildfire disasters. However, the existing wildfire risk is severe given the fire history, rapid development of the region, and the increasing fire fuel load. The mitigation measures outlined in this CWPP will enable Northwest Hawai'i communities to reduce their risk to wildfire and create a more efficient fire-protection plan. The mitigation measures listed above identify pro-active projects that communities and fire agencies can undertake to minimize losses from a major wildland fire

● South Kohala Priority Area:

Assessment of coral settlement distributions and environmental conditions

- POC/Partners: UHM HIMB; Dr. Paul Jokiel, Dr. Ku'ulei Rodgers, Dr. Yuko Stender
- Timeline: January 2014- March 2015
- Document Location: N/A
- Summary:
 - Goals: Fisheries Management 1. Evaluation of past, present and future condition of the reef in Pelekane Bay 2. Document changes in the watershed using sedimentation data, historical data, and water quality data 3. Continue monitoring and quantify coral settlement 4. Fish and benthic transects 5. Quantify water quality

Coastal Water Monitoring Tool Kit (C-Water Kit) and citizen science program

- POC/Partners: UH Sea Grant/South Kohala Coastal Partnership; Sierra Tobiason
- Timeline: July 1, 2014-May 31, 2015 (estimated)
- Document Location: N/A
- Summary:
 - Goals: 1) Develop two tool kits to loan to communities, schools and organizations, 2) Improve community awareness of coastal threats related to water quality 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 the coastal communities in South Kohala.
 - Results: Plan of implementation in process

Incorporating Groundwater Levels into Sea Level Detection Models for Hawaiian Anchialine Pool Ecosystems

- POC/Partners: Lisa Marrack (UC Berkeley and NPS)

- Timeline: 2010 (?) - 2014
- Document Location: <http://www.jcronline.org/doi/abs/10.2112/JCOASTRES-D-13-00043.1>
- Summary:
 - Goals: To model the effects of Sea level rise on present cultural and natural resources within the Ala Kahakai National Historic Trail corridor. The main objections for the project were to determine whether accounting for groundwater levels in the model improved pool detection, to identify the model that most accurately detected known pools, and to identify which pool features make some pools more likely to be detected than others.
 - Results: Six water level models were validated with the test data set of actual pool locations to determine how well they detected known anchialine pools.
 - Conclusions: Future predictive modeling of anchialine pool response to sea level rise should include groundwater levels. Furthermore, geospatial models aimed at predicting ecosystem shifts due to sea level rise may be improved by including groundwater as a factor and should be validated using current ecosystem conditions.

South Kohala Community Development Plan

- POC/Partners: County of Hawai'i
- Timeline: 2008
- Document Location: <http://www.Hawaii-county-cdp.info/south-kohala-cdp>
 - News Report: <http://northhawaii.com/sections/news/community-development-plan-south-kohala-action.html>
- Summary:
 - Goals: Part of the Hawai'i County General Plan, which mandates CDPs for several regions on Hawai'i Island, this plan is meant to address and implement the broad general plan goals, policies, and standards as they apply to South Kohala. It is intended to serve as a forum for community input into land-use, delivery of government services and any other matters relating to the region.
 - Results: This particular group has recommended 3 CIPs (Capital Improvement Projects):
 - Puakō wastewater treatment study
 - Waikoloa regional park and community center
 - Waimea sidewalk and bikeways improvements

*This program is ongoing, with various action committee meetings scheduled monthly throughout the year to make intended progress with projects, recruit volunteers, and to determine necessary funding opportunities.

- **South Kohala CAP**

South Kohala Conservation Action Plan Summary

- POC/Partners: South Kohala Coastal Partnership, DLNR, DAR, NOAA (CRCP, HIHWNMS), NPS, TNC/Chad Wiggins, NRCS

- Timeline: September 2010-July 2012
- Document Location: http://www.Hawaiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/skcap_summary.pdf
- Summary
 - Goals: Use the CAP process to effectively determine conservation targets, and to develop plans of implementation. Then, using this plan outline how to best to address the high-ranked threats in South Kohala communities including:
 - Land based pollution
 - Invasive, habitat-modifying species
 - Overfishing
 - Lack of community capacity
 - Results: Thorough situation analysis surrounding each threat to create comprehensive and relevant strategies, and clarification of the current understanding of the project situation.

South Kohala Conservation Action Plan Final Report

- POC/Partners: South Kohala Coastal Partnership, DLNR, DAR, NOAA (CRCP, HIHWNMS), NPS, TNC, and NRCS
 - Key Contributors: Aric Arakaki, Chad Wiggins, Elia Herman, Emma Anders, Kathy Chaston, Kim Hum, Malia Chow, Matthew Wung
- Timeline:
 - Final Report: September 2012
 - Implementation: 2013-2020
- Document Location: http://Hawaiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/skcap_final_report.pdf
- Summary:
 - Goals: To gain “a restored healthy, abundant, resilient South Kohala coastal system, cared for and cherished by an island community guided by the values and traditions of South Kohala” using the following 6 strategies:
 1. Community Partnership
 2. Community Co-managed areas (CCAs)
 3. Fisheries Management
 4. Sediment Reduction
 5. Invasive Species
 6. Additional threat analysis
 - Results: Work plans have been developed and submitted for these various strategies with different organizations and agencies agreeing to lead the implementation of these actions. Continuously increasing partnerships are expected to lead to more specific and on-the-ground and in-the-water action.

Implementation of South Kohala Conservation Action Plan

- POC/Partners: UH Sea Grant; Darren Lerner, Sierra Tobiason
- Timeline: July 2013- June 30, 2014
- Document Location: N/A
- Summary:
 - Goals/Results: 1. Coordinate and staff a locally based working group, 2. Organize and lead local stakeholder engagement related to Phase I implementation of South Kohala Projects, 3. Review and synthesize reports, research materials and study findings to communicate information, 4. Assist with project oversight.

- **Pelekane**

Coastal Circulation and Sediment Dynamics in Pelekane and Kawaihae Bays, Hawai'i Final Report 2012

- POC/Partners: NOAA, NOAA-HCRI
 - Key Contributors: Curt D. Storlazzi, Michael E. Field, M. Katherine Presto, Peter W. Swarzenski, Joshua B. Logan, Thomas E. Reiss, Timothy C. Elfers, Susan A. Cochran, Michael E. Torresan, Hank Chezar
- Timeline: November 2010-March 2011
- Document Location: <http://pubs.usgs.gov/of/2012/1264/> (PDF download available)
- Summary:
 - Goals: To implement various upland watershed management activities to reduce land-based sources of pollution in Pelekane Bay based on data found on circulation and sediment dynamics in the Pelekane and Kawaihae Bays.
 - Results: Confirmation of the complex coastal circulation and sediment dynamics in Pelekane and Kawaihae Bay, and information on the physical oceanographic processes and sediment transport within the bays during winter conditions, which can be used to better understand their relation to coral reef health.

Ungulate exclusion and sediment reduction

- POC/Partners: Kailapa Community Association; Diane Kanealii
- Timeline: October 2013-September 2014
- Document Location: <http://www.southkohalacoastalpartnership.com/projects.html>
- Summary:
 - Goals: This project has fenced off approximately 13 acres of land in the Kailapa subdivision to exclude feral goats and to conduct watershed restoration activities that will help reduce sediment being carried into the reef. The community will be hosting work-days that provide volunteer opportunities and participation in native plant propagation and outplanting as well as installation of sediment dam.

- Results: Sediment Reduction- 1. Reduce feral goat population 2. Decrease erosion and coastal sedimentation 3. Install and monitor erosion pins 4. Establish native dry forest seed bank 5. Outreach

Thirty Years of Coral Reef Change in Relation to Coastal Construction and Increased Sedimentation at Pelekane Bay, Hawai`i

- POC/Partners: HIMB, NPS/Eric Brown, Washington State University/Brian Tissot
 - Key Contributors: Yuko Stender, Paul L. Jokiel, Ku`ulei S. Rodgers
- Timeline: 1976-Present
- Document Location: <https://peerj.com/articles/300.pdf> (Final version)
- Summary:
 - Goals: To assess long term monitoring programs of coral reefs from 1976, 1996, and 2012, and to provide evidence to support corrective actions that have been undertaken to prevent further precipitous reef decline.
 - Results: Based on the assessment of past project results, and the changing structure of the Pelekane Bay area, the region has developed a tolerance resistance to severe environmental impacts such as storm events, and land-based sedimentation. The reef has been found to maintain the ability to withstand these disturbances and maintain functional capacities. Since the last survey of the area the situations contributing to level of reef resilience have improved due to watershed management programs and mitigation of human impacts. Overall, it is concluded that this type of monitoring and dataset expansion will be necessary for future continuation of these assessments.

Terrigenous sediment impact on coral recruitment and growth affects the use of coral habitat by recruit parrotfishes (F. Scaridae)

- POC/Partners: Blue Wilderness Dive Adventures, NOAA (Fisheries, Office of Habitat Conservation)
 - Funding: CRCP
 - Key Contributors: E. DeMartini, P. Jokiel, J. Beets. Y. Stender, C. Storlazzi, D. Minton, E. Conklin
- Timeline: 2010-2012
- Document Location: [http://www.researchgate.net/publication/241276636_Terrigenous_sediment_impact_on_coral_recruitment_and_growth_affects_the_use_of_coral_habitat_by_recruit_parrotfishes_\(F._Scaridae\)](http://www.researchgate.net/publication/241276636_Terrigenous_sediment_impact_on_coral_recruitment_and_growth_affects_the_use_of_coral_habitat_by_recruit_parrotfishes_(F._Scaridae)) (Document must be viewed or downloaded as a pdf from the site)
- Summary:
 - Goals: To quantify the spatial distribution of sediment impact on the benthos of Pelekane Bay and juvenile parrotfishes that inhabit it in order to provide insight into potential response of the nearshore reef community.
 - Results: A conceptual “space-for-time” substitution that compliments long-term temporal monitoring of responses of the nearshore reef to restoration. This illustrates the possibility of predicting temporal responses to watershed restoration that may occur in the future.

Water Quality in the Brackish Waterbody at Pu'uloholā Heiau national Historic Site Summary Report

- POC/Partners: NPS, NRDS, PUHE
 - Key Contributors: David F. Raikow, Anne Farahi
- Timeline: 2007-2011
- Document Location: <https://science.nature.nps.gov/im/units/pacn/parks/puhe.cfm> (fill out search boxes) OR https://irma.nps.gov/gueststs/users/issue.aspx?wa=wsignin1.0&wtrealm=https%3a%2f%2firma.nps.gov%2fApp%2f&wctx=rm%3d0%26id%3dpassive%26ru%3d%252fApp%252fReference%252fDownloadDigitalFile%253fcode%253d471964%2526file%253dPACN_Water_Quality_PUHE_Report_2007-2011.pdf&wct=2014-06-11T00%3a49%3a46Z (automatic download)
- Summary:
 - Goals: To provide a “data report” for long-term water quality monitoring projects that are meant to be used as indicators of aquatic ecosystem conditions. The summary is meant to provide park managers with information on current conditions and temporal trends in ecosystem health, so that they can use data to respond to resource conditions, and to evaluate management actions.
 - Results: This report focuses on the data collected from a minor algal bloom in 2009 and a flood event in 2011 in relation to the brackish waterbody at PUHE. The information gathered indicates that relatively large amount of nutrients, especially nitrogen, are delivered to the waterbody during major events such as flooding. This suggests the increased risk of future algal blooms, and potentially increased surface scums. Determining the relative importance of groundwater versus overland-flow delivery of nutrients in these situations will be necessary to contribute to similar studies in the future.

Survey of the Coral Reefs of Pelekane Bay

- POC/Partners: TNC, PUHE, University of Hawai'i Hilo, NELHA Water Quality Lab, and researchers from Cornell University and the Scripps Institution of Oceanography
 - Key Contributors: Dwayne Minton, Eric Conklin, Courtney S. Couch, Melissa Garren, Marah J. Hardt, Russell Amimoto, Kydd Pollock, Chad Wiggins
- Timeline: Final Report January 2011
- Document Location: <https://www.yumpu.com/en/document/view/23286238/survey-of-the-coral-reefs-of-pelekane-bay-the-kohala-center>
- Summary:
 - Goals: Erosion control and re-vegetation project on over 400 acres of degraded land above Pelekane Bay so that the coral reefs in the bay can recover through natural processes.
 - Rehabilitation of the *mauka* watershed through erosion, ungulate control, and native vegetation restoration in order to decrease the amount of soil transported into the bay.
 - Develop an effective *Mauka to Makai* model for resource management in Hawai'i
 - Results: Confirmation that the coral reef community in Pelekane Bay is under chronic, sediment-related stress, and that there is a lack of young coral colonies within the bay. But, there is also evidence of higher diversity and abundance of corals and fish just

outside of the affected area, which indicates potential for recovery. Specific recommendations based on this information and for future monitoring are also included, so that original goals to naturally restore the area can be met.

Pelekane Bay Watershed Restoration Project

- POC/Partners: KWP/Melora Purell & Brad Lau, Parker Ranch, Queen Emma Land Company, DOFAW
 - Funding: NOAA through the American Recovery and Reinvestment Act (ARRA)
- Timeline: August 2009-February 2011
 - Final Report: May 31, 2011
- Document Location: N/A
- Summary:
 - Goals: To address the sources and the impacts of land-based sediment flowing into Pelekane Bay. The restoration plan had these guiding objectives:
 1. Maintain existing ground cover to prevent actively eroding areas from expanding.
 2. Restore native vegetation to critically eroding and strategically important areas of the watershed.
 3. Reduce sediment transport and storage in drainage ways and to mitigate actively head-cutting gullies.
 - Expected Outcome: This project is an endeavor to accomplish large-scale ecosystem rehabilitation, and requires commitment over the long term. The eventual success requires a commitment to maintenance of the fencing, irrigation system, and plantings for many years.

Pelekane Bay Watershed Management Plan: South Kohala, Hawai'i

- POC/Partners: Mauna Kea Soil and Water Conservation District
 - Funding: EPA, Hawai'i Department of Health-Clean Water Branch
 - Key Contributor: M. Carolyn Stewart (Marine and Coastal Solutions International, Inc.)
- Timeline: Final Report 2005
- Document Location: http://health.Hawaii.gov/cwb/files/2013/05/PRC_Maps_PelekaneBayWatershedPlan.pdf
- Summary:
 - Goals: This updated management plan of the Pelekane Bay Watershed Management Project was initiated under the requirements to prepare a Watershed Restoration Action Strategy (WRAS) for the priority watersheds identified in EPA and USDA's Unified Watershed Assessments. The goals are to list specific water quality problems; identify sources of contaminants causing those problems; provide a schedule of action items that should be undertaken to address those sources; estimate the funding needs for those action items; and establish a monitoring program to assess effectiveness of conservation measures in addressing water quality problems,
 - Results: As part of the watershed management project, the following have been accomplished since 1994:

- Improvement in ground cover density and quality, as reflected in increased stubble heights and ground cover throughout most of the watershed.
- The fencing and grazing of Paddocks 5A and 5B, which help minimize soil loss by reducing the risk of fires within the watershed.
- The construction of firebreak that protects neighboring communities from fire.
- Initiation of monitoring of instream water quality, stubble height, vegetative cover, and soil erosion.
- The recommended actions contained in this plan include more activities needed to reduce soil loss and provide ongoing comprehensive monitoring to measure trends and changes over time.

Pelekane Bay Watershed Sediment Runoff Analysis

- POC/Partners: Group 70 International Inc., Oceanit Center, U.S. Army Corps of Engineers
- Timeline: Final Report December 2007
- Document Location: http://www.csc.noaa.gov/digitalcoast/_pdf/PelekaneBayWatershedSedimentRunoffAnalysis_FinalReport2007.pdf
- Summary:
 - Goals: 1) estimate average annual sediment yield; 2) estimate sediment yield from historical storm events; 3) characterize Pelekane Bay sediment deposit; and 4) define critical watershed issues.
 - Results: Erosion prevention measures should concentrate in the lower watershed area as these soils have the greatest potential for erosion during the large storm events.

Reefs at Risk: Revisited

- POC/Partners: WRI, TNC, WorldFish Center, ICRAN, UNEP-WCMC, GCRMN
 - Key Contributors: Laretta Burke, Kathleen Reytar, Mark Spalding, Allison Perry
- Timeline:
 - Program: 1998-Present
 - Report: 2011
- Document Location: <http://www.wri.org/publication/reefs-risk-revisited> (Document can be downloaded from this site)
- Summary:
 - Goals: To raise awareness about the Location and severity of threats to coral reefs. To catalyze opportunities for changes in policy and practice that could safeguard coral reefs and the benefits they provide people for future generations.
 - Key Findings:
 1. The majority of the world's coral reefs are threatened by human activities.
 2. Local threats to coral reefs are the most severe in Southeast Asia and least severe in Australia.
 3. Threat levels have increased dramatically over a ten-year period.

4. Changes in climate and in ocean chemistry represent significant and growing threats.
5. While over one quarter of the world's coral reefs are within protected areas, many are ineffective or only offer partial protection.
6. Dependence on coral reefs is high in many countries, especially small-island nations.
7. Degradation and loss of reefs will result in significant social and economic impacts.
- Need to improve, quickly and comprehensively, on existing efforts to protect reefs and the services they provide humanity.

- **Wai'ula'ula**

Wai'ula'ula Watershed Management Plan: Mauna Kea Soil and Water Conservation District

- POC/Partners: Sustainable Resource Group International
 - Kristin Duin and Andy Hood
- Timeline:
 - Plan Outline Published: 2011
 - Project implementation: October 2013- September 2014
- Document Location: http://Hawaiiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/Waiulaula_plan_final_w-o_appendices.pdf
- Summary:
 - Goals: Implement proper management techniques to protect the vital watershed focusing especially on addressing existing sources of polluted runoff, threats to the watershed health, and preventing further degradation of resources as predicted land-use changes occur. Also, sustaining a healthy *mauka-makai* connection and promoting community-based environmental stewardship is important.
 - Results: Development of a plan to meet the needs of maintaining a healthy watershed, including brief outlines of a sample and analysis plan (SAP), data management, and an adaptive management approach.
 - Plan: 1. Inventory and Assessment, 2. Erosion monitoring, 3. Riparian zone overlays-GIS maps, 4. Report- photo document, erosion plan, prioritize action

Implementation of Best Management Practices to Reduce Nonpoint Pollution and Storm Water Runoff in Wai'ula'ula Watershed

- POC/Partners: UH Sea Grant/South Kohala Coastal Partnership; Sierra Tobiason, Darren Okimoto
- Timeline: August 2014 –August 2016 (estimated)
- Document Location: N/A (still being set up)
- Summary:
 - Goals: The objective of this project is to reduce nutrient loads (total nitrogen, nitrate + nitrite, total phosphorous) and sediments in the Wai'ula'ula Watershed by implementing best management practices at five site along 11,100 feet of the stream riparian

corridor. Restoration activities in the watershed will also help to protect land owners from property loss due to flooding, fire, and erosion, create healthy habitats for native aquatic species, and increase community stewardship

- Data collected includes erosion monitoring data monthly through photo documentation and erosion pin monitoring and water quality samples quarterly or after major storm events.

- **Puakō**

Biologist: Malama the aina

- POC/Partners: South Kohala Utility and Improvement Design (SKUID, skuid.org), NOAA Fisheries/Lani Watson, DLNR
- Timeline:
 - Article published: June 10, 2014
 - Project: Presently underway
- Document Location: <http://westHawaiiToday.com/news/local-news/biologist-malama-aina>
- Summary:
 - Goals: Minimize the damage that cesspools create in coral reefs in the Puakō region, including proper regulation of untreated wastewater entering the ocean. And, to get local community members and Puakō residents involved through SKUID, proposing that individual homeowners replace the current cesspools.
 - Results: The development of SKUID allows the community to work independently, without completely relying on government officials. This program has already jump-started initiatives to conduct surveys of current septic systems, and to raise funds to help subsidize the replacements.

Understanding the impacts of land based nutrients on coral reef health

- POC/Partners: TNC; Eric Conklin, Courtney Couch
- Timeline: October 2013- September 2014
- Document Location: <http://www.southkhalacoastalpartnership.com/projects.html>
- Summary:
 - Goals: Fisheries Management in the Puakō and Mauna Lani area; 1. Identify sites for targeted management along the Puakō- Mauna Lani reef system 2. Test the relationship between coral health and exposure to terrestrial input, generate high-resolution (spatial and temporal) temperature and salinity maps of submarine groundwater discharge (SGD) plumes to better track terrestrial input and inform future studies.
 - Results: Since November 2013, staff from The Nature Conservancy and volunteers have collected and monitored water quality parameters at 12 sites, and in February the coral health surveys were conducted.

Puakō Makai Watch

- POC/Partners: Puakō Community Association
- Timeline: 2007-Present
- Document Location:
 - Program overview: <http://www.Puako.org/makai.html>
 - News Article: <http://northHawaii.news.com/sections/news/Puakō-association-start-makai-watch-program.html>
- Summary
 - Goals (as of 2012/2013): 1) Provide coral reef information 2) increase voluntary compliance, 3) Increase user/community interaction 4) Manage invasive species 5) Build community capacity 6) Build educational partnerships 7) promote coral reef related outreach to raise awareness 8) data collected and management.
 - Results: Informational booth started in 2011, Makai Watch Coordinator hired 2013 and Reef teach volunteer program started in 2013.

South Kohala Conservation Action Plan Roi Research Report

- POC/Partners: TNC
 - Timeline:
 - Project: 2011-2012
 - Report: September 2013
 - Document Location: http://www.Hawaiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/TNC_SKCAP_Roi_Report.pdf
 - Summary:
 - Goals: To focus efforts on the sixth objective of the South Kohala CAP, specifically the second strategy: “Quantify effects of mangrove, kiawe, roi, and tilapia on coastal and coral reef ecosystems, and identify appropriate management actions.”
 - TNC aimed to implement a portion of this specific strategy by evaluating the management feasibility and preliminary results of targeted removal of the introduced predatory roi at Puakō.
 - Results:
 - Fish biomass decreased at all study sites two years after roi removal
 - Numerical fish abundance increased at all study sites 2 years after roi removal
 - Competitor abundance decreased at the reference site and increased at control treatment locations
 - Competitor biomass decreased at the reference site and increased at control treatment locations
 - Small select prey species abundance increased at all study sites

*All results claimed: “differences were not significant by location”

- **Coastal Use Mapping**

Coastal Uses Mapping

- POC/Partners: NOAA (NMPAC, CSC-Digital Coast), Hawai'i State Coral Reef Strategy
- Timeline:
 - South Kohala Map Completed: 2011
 - West Maui Map Completed: 2012
- Document Location: <http://www.Hawaiicoralreefstrategy.com/>
 - South Kohala Map: <http://www.Hawaiicoralreefstrategy.com/index.php/southkohala>
 - West Maui Map: <http://www.Hawaiicoralreefstrategy.com/index.php/prioritysites/westmaui>
- Summary:
 - Goals: To fill a critical information gap in ocean management by mapping significant human uses of the nearshore ocean area at priority sites in Hawai'i (in this case South Kohala and West Maui, as designated by the State's and NOAA's Coral Program). Gaining a better understanding of the spatial range and intensity of key use types at the two sites to inform resource management was also a priority for this project.
 - Results: Participatory GIS mapping workshops were held to gather information on both extractive and Non-extractive Ocean uses from local resource users, scientists, and stakeholders. Data, maps and analytical products for both sites were completed, representing both priority sites.

Hawai'i Coastal Use Mapping Project: Ocean Uses Map Book

- POC/Partners: NOAA offices (OCRM, PIRO, PSC and PIFSC), DAR
- Timeline:
 - Project: September 23-25, 2010
 - Report: March 2011
- Document Location: http://marineprotectedareas.noaa.gov/pdf/atlas/hi/hi_coastal_use_mapbook.pdf
- Summary:
 - Goals: Gather spatial data on human uses of the coastal and marine environment in South Kohala and North Kona regions.
 - Results: a 3-day workshop providing expertise on the various human use activities, as well as 15 different maps displaying the patterns of each of these activities. A compilation of the supplemental data provided by participants was also created during the mapping process.

- **Kīholo**

Integrating Local Ecological Knowledge with a novel scientific tool to refine traditional community based Mood Calendars

- POC/Partners:
- Timeline: UH-Manoa; Dr. Alan Friedlander, Eva Schemmel
- Document Location: (abstract) <https://Hawaii.conference-services.net/reports/template/onetextabstract.xml?xsl=template/onetextabstract.xml&conferenceID=3714&abstractID=792795>
- Summary:
 - Goals: Work with local communities to combine traditional ecological knowledge and community monitoring with scientific assessment to better understand and protect valuable marine resources in Hawai'i.
 - Results: Developed monitoring programs to identify fish spawning seasonality to help inform community-based management, including the development of place-specific Hawaiian moon calendars. These moon calendars predict seasonal, monthly, and daily ecological cycles of harvested fish species, and are being used to develop pono (sustainable) harvest practices at the community level. To aid in the refinement of these Hawaiian moon calendars, we developed endocrine steroid assays that are used along with histology techniques, and community observations to determine fish spawning periodicity.

- **Anchialine Ponds**

Proposed Restoration Pools- Anchialine Pool Restoration Project

- POC/Partners: NPS- Pu'uhonua o Hōnaunau National Historical Park
- Timeline: July 12, 2013
- Document Location: N/A
- Summary:
 - Goals: To inform the public on the anchialine pools restoration project in the park. Proper explanation of what the project entails, what species are involved, and the significance/importance of the project.
 - Important aspects of the Project: Conduct restoration activities in 6 anchialine pools along the North Kona Coastline that support a high level of endemism and representation of both aquatic and marine species that are tolerant of the range of conditions. The following steps are projected to take place in order to ensure this:
 - Removal of non-native fish using electrofishing and CO2 application
 - Use of native Hawaiian customs and practices to benefit the local community socioeconomically.
 - Re-establish a sustainable population of `opae`ula in order to reintroduce traditional fishing practices (palu `opelu fishing)
 - Results: Public awareness of the project and community outreach and education

- Expected Results of the Project: Use of BACI design to assess the effects of the removal method on both the target (fish) and non-target (invertebrates). Long term monitoring will be conducted to document the return of native shrimp following invasive fish removal.

- **Fish Pond**

Ka Loko o Kīholo Rehabilitation Project Summary

- POC/Partners: TNC, Hawai'i State Parks Division, Hui Aloha Kīholo, Conservation International, US Fish and Wildlife Service, and US Forest Service
 - Funding: NOAA's Community Restoration Program, and the Hawai'i Community Foundation
- Timeline: 2012-Present
- Document Location: N/A
- Summary:
 - Goals: Improve the estuarine habitat in Ka Loko Kīholo using an adapted traditional management approach with 4 main goals:
 1. Return Kīholo fishpond to its documented former ecological health by managing threats to the habitat
 2. Evaluate the potential for Kīholo fishpond to provide a reliable and sustainable food source for the community
 3. Improve or return habitat for formerly documented native flora and fauna
 4. Provide a place for researchers, students, and community members to study nature, learn about estuaries and traditional fishpond management, and to develop effective and innovative solutions to conservation's critical threats at multiple scales
 - Results: Development of mid-range strategies for Kīholo fishpond, provision of tangible opportunities for community members to take part in maintenance and restoration, as well as access to study of sea-level rise effects, and the means to tag, measure and track Pacific Green Sea Turtles. New partnerships have also developed throughout the project work, improving research support to enhance the knowledge relevant to fishpond management across the state.

- **State Park**

Kīholo State Park Pre-Final Master Plan and Draft Environmental Assessment

- POC/Partners: Hawai'i State Parks Division, DLNR (Office of Environmental Quality Control, Department of Health), Planning Solutions, Inc.
- Timeline: August 2013*
- Document Location: http://oeqc.doh.Hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Hawaii/2010s/2013-09-08-HA-5B-DEA-Kiholo-State-Park-Pre-Final-Master-Plan.pdf
- Summary:

- Goals: Implementation of a proposed Master Plan for Kīholo State Park to create a formal cultural-historic interpretive program at the park to channel the public to visit sites that are identified as appropriately managed, so that sensitive archaeological and historic sites can be managed and protected more effectively. The changes/additions to park would include:
 - At least one campground and parking area at Kīholo Bay and an optional campground and parking area at Keawaiki Bay
 - A new access road into the park from Queen Ka‘ahumanu Highway, and an optional additional access road to Keawaiki Bay
 - Infrastructural improvements
 - The creation of interpretive trails, signs, and archaeological site restoration
- Expected Results: The Master Plan for Kīholo State Park will be implemented effectively in consultation with the environmental assessment, as well as public and agency comments with no potential to cause potential harm to the environment.

*Final Master Plan was published March 2014 and is available at: <http://dlnr.Hawaii.gov/wp-content/uploads/2014/04/Kiholo-SP-Final-Master-Plan.pdf>

Kīholo Conservation Action Plan

- POC/Partners: Hui Aloha Kīholo, TNC, Conservation International, Ala Kahakai NHT NPS, Hawai‘i State Parks Division
- Timeline:
 - Report: July 2013
 - Project: Presently underway, with objective program results by 2015-2020
- Document Location: N/A
- Summary:
 - Goals: Implement the following conservation strategies over the next 10 years to address known threats to Kīholo’s conservation targets, and “to honor the vision of Kīholo kūpuna and community members who wish to see their traditions and the place they care so much about thrive and sustain future generations.”

1. Restore inland pond system

2. Increase compliance

3. Maintain groundwater flow

4. Build management capacity

5. Understand changes in the health and use of reefs, fisheries and fishponds

- Results: The following are the completed outputs of Kīholo CAP:
 - 5 fully reviewed and prioritized conservation strategies to address threats to coastal and marine life in Kīholo
 - A dynamic partnership committed to implementation
 - 13 member participant network

As the plan is carried out the program’s goals are expected to be achieved over the next 10 years, as well as changes in the health of the priority target resources.

- **Ka’ūpūlehu**

**No documents currently available*

Acronyms

Acronym	Meaning
NOAA	National Oceanic and Atmospheric Administration
CRCP	Coral Reef Conservation Program
PIFSC	Pacific Islands Fisheries Science Center
NOS	National Ocean Service
NCCOS	National Centers for Coastal Ocean Science
ONMS	Office of National Marine Sanctuaries
HIHWNMS	Hawaiian Islands Humpback Whale Nation Marine Sanctuary
PMNM	Papahānaumokuākea Marine National Monument
CCMA-BB	Center for Coastal Monitoring and Assessment-Biogeography Branch
NCCOS	National Centers for Coastal Ocean Science
PacIOOS	Pacific Islands Ocean Observing System
CSC	Coastal Services Center

NGS	National Geodetic Survey
OCRM	Office of Ocean and Coastal Resource Management
NMFS	National Marine Fisheries Service
PIRO	Pacific Islands Regional Office
HCRI	Hawai'i Coral Reef Initiative
NMPAC	National Marine Protected Areas Center
PSC	Pacific Services Center

Acronym	Meaning
POC	Point of Contact
CAP	Conservation Action Plan
SKCAP	South Kohala Conservation Action Plan
DAR	Hawai'i Division of Aquatic Resources
DLNR	Hawai'i Department of Land and Natural Resources
MHI	Main Hawaiian Islands
BOEM	Bureau of Ocean Energy Management

USGS	United States Geological Survey
UH	University of Hawai'i
NPS	National Park Service
TNC	The Nature Conservancy
NEHLHA	National Energy Laboratory Hawai'i Authority
PICCC	Pacific Islands Climate change Cooperative
NRCS	National Resource Conservation Service
HIMB	Hawai'i Institute of Marine Biology
KWP	Kohala Watershed Partnership
DOFAW	Hawai'i Division of Forestry and Wildlife
NRDS	National Resource Data Series
PUHE	Pu'ukoholā Heiau National Historic Site
EPA	US Environmental Protection Agency
WRI	The World Resources Institute
ICRAN	International Coral Reef Action Network
UNEP-WCMC	United Nations Environmental Programme-World Conservation Centre
GCRMN	Global Coral Reef Monitoring Network
NHT	National Historic Trail

B. Fast Facts and talking points

Ecosystems with in South Kohala

“South Kohala contains one of the longest contiguous coral reefs in the state,” said DLNR Chairman William Aila. “And nearly a quarter of the corals and fish that live along this coast are found nowhere else in the world. These resources are important to Hawai‘i’s economy, culture and environment, and that is why it is imperative that we work together to protect them,” said Aila. – excerpt from South Kohala CAP press release.

The area include species unique or endemic to Hawai‘i Island such as anchialine pool species of invertebrates, and those listed on the Hawai‘i Species of greatest Conservation concern and local action strategy. Participants involved in the CAP process identified the resources they wanted to protect: coral reefs; wetland habitats like anchialine pools and fishponds; predators such as sharks and ulua; food fish and invertebrates like octopus, lobsters, and parrotfish; and the strong personal connection between people and places that exists in Hawai‘i. Listed mammals include: Hawaiian monk seal, Humpback whale, False Killer Whales and Green Sea Turtle all of which are documented in the area.

- The Knowledge, Attitudes and Perceptions Survey conducted in the priority site to incorporate the community input in the CAP process. The top ranked threats match those identified in the SKCAP. Of the 202 people surveyed, over 80 people were interested in learning about volunteer and opportunities to get involved.
- Biological (fish, coral, and CREEL), Water quality and Human use surveys are regularly conducted in the area. In Ka‘ūpūlehu surveys are made possible through a partnership with Hualālai Resort, community volunteers and The Nature Conservancy. Projected outcomes: Data collection for baseline and research purposes for natural resource staff of resort and the Ka‘ūpūlehu Marine Life Advisory Council. The fishponds and anchialine pools in the area are habitat for ‘Ae‘o breeding.
- DAR has been monitoring benthic habitat and conducting fish surveys in West Hawai‘i since 1985. Results from the Puakō area indicate a decline of 43-69% of total abundance of all fish species in Puakō. The widespread of decline in families of fish suggests that there are multiple factors contributing to the long term decline in fish abundances. A drastic 94% decline in herbivores was documented. Coral cover has decreased by 35% at Puakō and crustose coralline algae decreased by 64% both of which are critical to building, settlement and stabilization of coral reef communities.

- Researchers and scientists from DAR, Cornell, and the University of Hawai'i established areas along the West Hawai'i coast for monitor and document coral health prevalence, recruitment and coral settlement.
- Benthic habitat mapping and surveys have been conducted by partners from the NOAA Coral Reef Ecosystems Division, USGS, and NPS, for the West Hawai'i and Kawaihae regions.
- Kona Coast Integrated Ecosystem Assessment included a variety of agency partnership to conduct a combination of oceanographic sampling, distribution of marine life and monitor ecosystem changes in the area, with the projected outcome of an interactive data portal of the information collected in the area.
- Watershed restoration projects by the Kohala Watershed Partnership have been successfully reducing the amount of sediment discharged into the Pelekane Bay Watershed through partnerships with landowners to build sediment dams, fence 18 miles of area to remove ungulates and conduct out planting to restore bare ground.
- TNC has completed two years of Roi removal experiment and determined that removal is possible as a management tool. At least another 18 months will be needed to ensure that it is beneficial to native fish species. They have supported community and volunteer roi removal events to maintain community engagement and interest and supported grassroots efforts to manage invasive fish.
- There are several Cultural and Historical sites in South Kohala open to the public: Pu'ukohola Heiau National Historic Site, Petroglyphs – Puakō, Mauna Lani, Waikoloa, Hawaiian fishponds and the Ala Kahakai Coastal Trail.
- The Ala Kahakai Coastal Trail spans through the whole distance of this focus area. Through the Ala Kahakai Trail Association and NPS Gateway project of engaging families from the ahupua'a in managing and restoring portions of the trail they will also incorporate caring for and managing the natural resources within the ahupua'a portion of the trail they are restoring.

Fishing Rules and Regulations

Marine managed areas include Puakō-Anaeho'omalū FMA, Pūako Bay - Puakō Reef No-Net FMA, Humpback Whale NMS, and Ka'ūpūlehu – FMA. Partnerships between communities, businesses, agencies, organizations and DOCARE there are regular opportunities offered to help train volunteers, staff, and community members on the rules and regulations, and provide to training for biological and human use surveys and reef etiquette outreach and education.

West Hawai'i Rules Package: December 2013 approved

Scuba spearfishing ban:

No take of:

Hihimanu: Spotted Eagle Ray, Broad Sting Ray, Pelagic Sting Ray, Hawaiian Sting Ray,

Blacktip Shark – Mano Pa'ele

Tiger Shark – Mano Niuhi

White Tip- Mano lalakea

Grey Reef – Mano

Whale shark – Lelewa'a

Triton's Trumpet – 'Ole

Horned Helmet – Pupuhi

Regulation sizes for Aquarium fish:

Yellow Tang-Lau'ipala #1 exported aquarium fish - <2" TL – 5 fish/person/day, >4" TL – 5 fish/person/day

Goldring – Kole - > 4" TL – 5 fish/person/day

Achilles Tang – Paku'iku'i – 10 fish/person/day

*See White list attached

C. Meeting locations in South Kohala (Waimea)

Waimea Civic Center (2)	up to 50 people	DOH	887-8114
Kahilu Town Hall (1)	up to 250 people	Mana Christian Ohana	885-2700
Family Support Services (3)	up to 15 people	FFS of West Hawai'i	885-0086
Tutu's house (3)	up to 25 people	Tutu's House	885-6777
Waimea Community Center	up to 100 people	Hawai'i County	887-3014
Kuhio Hale (2)	up to 300 people	DHHL	887-6053
NRCS Office (3)	up to 10 people	NRCS (Matt)	885-6602
KTA Conference Room(3)	up to 5 people	KTA	885-8866
Public Library Meeting Room			887-6067
Kanu o ka Aina(2)			887-8144
Pukalani Stables(1)	up to 200 people	Paniolo Pres. Society	854-1541
Anna Ranch(1)			885-4426
DLNR Waimea Hunter education classroom <4:30PM (2)			
Spencer House (1)			
Waimea Preservation Association Cottage (3)			

(1) Fee (2)Free for certain groups (3)Free

D. Grant opportunities

Name	Funding	Match	Dates	Website	Contact
NOAA- Bay Watershed Education and Training (B-WET)	\$20,000-100,000	NA	August/Sept	www.grants.gov www.csc.noaa.gov/psc	Stephanie Bennett, Pacific Services Center 808-522-7481 Stephanie.bennett@noaa.gov
NOAA Marine Debris	\$50,000-\$150,000	1:1	November	http://www.habitat.noaa.gov/funding/marinedebris.html	
NOAA Coastal and Marine Habitat Restoration				http://www.habitat.noaa.gov/funding/coastalrestoration.html	
DOH	<\$500,000	1:1	November	http://health.Hawaii.gov/cwb/site-map/clean-water-branch-home-page/polluted-runoff-control-program/319-grant-program/	
NOAA – mini grant	\$15,000	NA	March	http://www.fpir.noaa.gov/Grants/grants_avail.html	Kara Miller, NOAA Federal
Saltonstall-Kennedy Act			App in by Sept. 29	www.grants.gov/applicants/download-application-package.html?oppld=182239	Kara Miller, NOAA Federal
Hawai'i Community Foundation	\$<\$50,000	1:2	August	www.Hawaiicommunityfoundation.org	environment@hcf-Hawaii.org
Sea Grant	\$10,000-45,000	1:2 non federal		http://seagrant.soest.Hawaii.edu/request-proposals-2016-2018	Fiscal questions Bruce Hamakawa, 808-956-3571 or bhamakaw@Hawaii.edu .
Fish Habitat Partnership	\$10,000-50,000	1:1 non federal	October	Fishhabitat.org	Gordon Smith Gordon_smith@fws.gov

BOH Monty Richards Hawai'i Island Community Award	\$25,000	NA	July	https://www.boh.com/sites/community/1987.asp	
DOD legacy resource management program			March	www.dodlegacy.org	
Matson – Ka Ipu Aina	Free container and \$1,000 cash for Non profits	NA		http://www.matson.com/foundation/kaipuaina/	
HTA			October	http://www.Hawaiitourismauthority.org/about-hta/rfps/	
Harold K.L. CASTLE FOUNDATION			Rolling	http://castlefoundation.org/grantees/faqs/	
West Marine Conservation Grant	\$5,000	NA	March – May	http://www.westmarine.com/	grantsandsponsorships@westmarine.com
EPA EE			Fall	http://www2.epa.gov/education/environmental-education-ee-grants	eegrants@epa.gov
NFWF	\$50,000-150,000			http://www.nfwf.org/coralreef/Pages/spring2015rfp.aspx#.VCRufptM470	Michele Pico Michelle.Pico@nfwf.org

E. References

South Kohala Conservation Action Plan:

http://Hawaiiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/skcap_final_report.pdf

Wai'ula'ula Watershed Management Plan

http://www.Hawaiiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/Waiulaula_plan_final_w-o_appendices.pdf

Pelekane Bay Watershed Management Plan

http://www.Hawaiiicoralreefstrategy.com/PDFs/3_Priority_Sites_Kohala/pelekanebaywatershedplan.pdf

Recent related news articles

Where have all the fish gone?

<http://northHawaiinews.com/sections/news/where-have-all-fish-gone.html>

Pilina: 2013 Hawai'i Island Conservation Forum

<http://westHawaiiitoday.com/sections/news/local-news/forum-touts-collaboration-key-conservation-success.html>

South Kohala Coral Reefs in Dire Straits

<http://data.nodc.noaa.gov/coris/library/NOAA/CRCP/project/20642/S-Kohala-Coral-Reefs-in-Dire-Straits.pdf>

Hawai'i Species of Greatest Conservation Need

http://www.state.hi.us/dlnr/dofaw/cwcs/Conservation_need.htm

Ae'o at Hualālai

<http://westHawaiiitoday.com/sections/news/local-news/three-Hawaiian-stilts-return-wild.html>

West Hawai'i Regional Fishery Management article

<http://governor.Hawaii.gov/blog/governor-signs-west-Hawaii-regional-fishery-management-area-rules/>

South Kohala KAP Survey presentation

<http://vimeo.com/84261167>