



Pacific Islands Area
Angel Figueroa,
Director

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2012 NRCS Summary for the Pacific Islands Area

Pacific Islands Area

March 2013

New Technology in Animal Waste Management

by Adam Reed, Water Quality Specialist



Raising pigs on Deep Litter is an effective way of addressing waste.

NRCS in PIA is adopting new technology to address the waste associated with local pig farms. Typically pig farms in Hawaii struggle to adequately collect and store manure produced. In addition, available land to utilize the waste is also challenging. A new waste system referred to as a Deep Litter System largely solves these problems. This system involves raising pigs on a bed of carbon based materials which is primarily a mixture of large to small wood chips. The concept is the pigs will be raised on this bed of material and the manure will be mixed into the woodchips by the rooting action of the pigs and slowly decomposes on site. The other advantage of

these systems is that the entire system is roofed and kept very dry which greatly reduces odors typically associated with pigs.

Recent farm tours hosted by the University of Hawaii extension have been well attended by local pig producers. And the level of interest from local producers has largely driven the NRCS's adoption of this technology.

This system solves many of the producer's problems while protecting our natural resources. Manure collection is 100%, it is confined and stored in the pen, the manure mostly decomposes on site, and need to spreading waste is greatly reduced. 2013 is the first year NRCS is providing both technical and financial support for this practice with the expectation of continuing into the future.

Biology and Environmental Compliance

by Greg Koob, State Biologist

FY2012 was a year of providing technical assistance to various staff. There were 191 requests for biology assistance from field and area office staff.

I also responded to 77 requests from outside agencies, partners and the general public regarding biology-related issues and I participated with 7 outside partners in 33 activities. In FY12, 289 determinations were completed to comply with the Endangered Species Act for all PIA field offices. As part of the technical review for FY12 contracting I helped do 112 CPA-52 (Environmental Evaluation) reviews.

To help Field Office determine permitting requirements for clients during the planning process I developed Conservation Planning Technical Note 6, a spreadsheet of permitting requirements for PIA as a planning tool. No other state office offers this service.

Office Requesting Assistance	Number of requests
Aiea	19
American Samoa	2
Guam	1
Hilo	30
Hoolehua	22
Kahului	53
Kealahou	18
Lihue	33
Saipan	1
Waimea	10
East Area Office	1
West Area Office	1



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Angel Figueroa,
PIA-NRCS Director

NRCS 2012 Accomplishments

NRCS had a very successful year in working with Partners in order to implement our programs and services. Our staff worked very hard to accomplish our goals and adapt to various changes throughout the year. I would like to thank our employees, partners, and clients for keeping their eye on implementing conservation on the Pacific Area land.

During Fiscal Year 2012 our priorities for the Pacific Islands Area were to: assist Pacific Islands farmers and ranchers to conserve their natural resources while producing food and fiber; provide financial assistance to our farmers and ranchers to help them implement sound conservation systems; reach potential clients that may be underserved and underprivileged; partner with Soil And Water Conservation Districts to increase conservation on the land; partner with other State and local agencies to conserve Pacific Islands natural resources; and implement conservation easement programs.

The means to achieve our goals included: Farm Bill Programs; Pacific Islands Coral Reef Initiative; Cooperative Agreements with entities to advance conservation; outreach to minorities and underserved; hiring a diverse staff; and providing a good working environment for our employees.

The challenges we faced to achieve our goals were changing program policies; reduced budgets; adapting to new financial systems software; turnover and retirements of key employees; the loss of a beloved Senator; equipment and real estate improvement needs; and the advent of new environmental regulations and challenges. Plus we always face the challenge of the "tyranny of distance" within our Region and with the "mainland".

The enablers to achieve our goals were; passionate clients; passionate Partners; and passionate staff who wanted to improve the conditions of our natural resources while promoting agricultural production.

Our agency contributed to food security; food safety; and healthy soil through voluntary action by Pacific Islanders.

Mahalo; Si Yu'us Ma'ase; Thank you; Gracias.

Angel Figueroa
Director
Pacific Islands Area



Through planning and program assistance, NRCS assists farmers with addressing threatened & endangered species concerns.



NRCS provides technical & financial assistance through Farm Bill Programs like EQIP and the Organic Initiative to address environmental & natural resource concerns. This successful cow/calf and slaughter steer operation has healthy organic beef cattle with conception rates greater than 90% .



A volunteer day where NRCS assisted with noxious weed removal at the local zoo.

Conservation Technical Assistance

By Ben Schmidt, Assistant Director for Operations

NRCS soil conservationists work with private landowners to protect soil and water resources predominantly on working lands. 333 new conservation plans on 69,995 acres were developed in FY12 and 475 existing plans had conservation applied on 72,119 acres across the Pacific Islands Area. We spent about \$42/acre in staff resources to bring conservation to working lands. There were also 17 new Comprehensive Nutrient Management Plans (CNMPs) written to help livestock producers protect water resources. In addition, 2,813 people received brief technical assistance from NRCS conservationists. The top 18 conservation practices utilized in FY 12 were:

Practice Name		Practice Name	
Access Control	1,128 ac	Irrigation Water Conveyance, High-Pressure	9,114 ft
Access Road	15,613 ft	Livestock Pipeline	121,369 ft
Brush Management	1,115 ac	Nutrient Management	530 ac
Conservation Cover	4,461 ac	Prescribed Grazing	8,982 ac
Cover Crop	830 ac	Tree/Shrub Establishment	1,330 ac
Deep Tillage	1,345 ac	Upland Wildlife Habitat Management	8,392 ac
Fence	260,238 ft	Vegetative Barrier	25,993 ft
Herbaceous Wind Barriers	5,581 ft	Windbreak Establishment	31,488 ft
Irrigation Pipeline	8,024 ft	Windbreak Renovation	1,666 ft

American Samoa (Before & After)



Before: Installation of a Vegetative Barrier.



After: Mature Vegetative Barrier Between Crops.

Oahu (Before & After)



Before: Soil Erosion in an Orchard.



After: Controlling the Erosion with Mulch Treatment.

Farm Bill Programs

By Shirley Nakamura, Assistant Director for Programs

The 2008 Farm Bill offers incentives to America's farmers and ranchers to voluntarily conserve natural resources on privately owned land. Its conservation provisions help reduce erosion, protect streams and rivers, restore and establish fish and wildlife habitat, and improve air quality. Below is a summary of the financial assistance provided through Farm Bill Programs in the Pacific

Environmental Quality Incentives Program (EQIP)

Addresses significant natural resource concerns that are locally identified. In 2011, we utilized \$6,553,621 for the installation of conservation practices on cropland, grazing land, forest land, and animal feeding operations. Projects include ground-cover, noxious weed control, brush management, and pasture & hayland planting. In fiscal year 2012, we utilized \$8,206,000 for this program.

Wildlife Habitat Incentives Program (WHIP)

Develops or improves fish and wildlife habitat on private land. In 2011, we utilized \$16,952 to treat wetland, riparian, and upland areas. In fiscal year 2012, selected states received funds to address targeted threatened & endangered species through the "Working Lands through Wildlife" initiative.

Wetlands Reserve Program (WRP)

Restores, enhances, or creates wetlands on private land. In 2009, we utilized \$366,000 for restoration contracts and permanent easement of critical wetland and riparian areas. In fiscal year 2012, we utilized \$55,000 for restoration of wetland areas.

Farm and Ranchland Protection Program (FRPP)

Helps state, tribal, or local government entities to purchase the development rights to keep productive farm and ranchland in agricultural use. In 2011, we utilized \$607,000. In fiscal year 2012, we utilized \$2,501,000 for this program.

Grassland Reserve Program (GRP)

Helps agricultural operators in restoring and protecting eligible grassland, land that contains forbs, or shrub lands for which grazing is the predominant use through rental contracts and easements. In 2011, we utilized \$1,215,720 for this program. In fiscal year 2012, we utilized \$906,000.

Conservation Stewardship Program (CSP)

Encourages producers to maintain existing conservation activities and adopt new ones on their land. In 2011, we utilized \$18,995. In fiscal year 2012, we utilized \$126,000 for this program.

Conservation Innovation Grants (CIG)

Stimulates the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production. In 2011, we utilized \$217,350. In fiscal year 2012, a \$230,000 project in the Pacific Islands Area was nationally selected for funding.

Agriculture Management Assistance (AMA)

Addresses water management, erosion control, and integrated pest management. In 2011, we utilized \$102,763. In fiscal year 2012, we utilized \$106,000 for this program.



A pond is built as part of a livestock watering system. This practice, along with pipeline, troughs, fencing and noxious weed control measures, facilitates the implementation of a rotational grazing system to address a variety of resource concerns.



NRCS assists farmers with installation of hoop houses to prevent damage to truck crops and reduce human interaction with Nene – a threatened & endangered species. Evidence has shown that Nene will not enter covered structures such as high tunnels.



A successful CREP project that has created a native forest in the middle of a weedy deserted pasture along a highly visited stream.

Outreach in the Pacific Islands Area

By Jolene Lau, Public Affairs Specialist

150th Anniversary Celebration in Saipan

NRCS Saipan Field Office staff along with 20 Earth Team Volunteers whom majority are members of the Environmental and Natural Resources Organization from Northern Marianas College, Saipan and Northern Islands Soil & Water Conservation District, and Division of Environmental Quality celebrated the USDA 150th anniversary by removing unwanted weeds around trees that were planted as part of the Laolao Bay Revegetation Project site.



Crop Rotation Installed in Kahului

This field is an example of Crop Rotation using carrots, parsley, basil, and green onion. The cooperators do this to help manage pests and maintain better soil quality. Crop Rotation is growing crops in a planned sequence to reduce erosion, improve soil quality and organic matter, manage plant nutrients, and manage pests like weeds, insect, and disease.



Encouraging Veg Barriers in American Samoa

Typically, there is a lot of farming along the steep slopes in American Samoa. Employees in Pago Pago are working with farmers to install vegetative barriers like this to minimize erosion and runoff. Along with promoting vegetative barriers, they are also encouraging tree and shrub establishment, hillside ditches, composting facilities, and waste treatment.



Hispanic and/or Women Farmer Rancher Public Meetings

With the national deadline of March 25, 2013 for claimants to submit their claim packages, NRCS held five public meetings to raise awareness. In addition to distributing posters, postcards, and flyers that were approved by the Department, we followed the guidance for holding meetings in targeted counties based on the National Ag Statistics Service data for where our Hispanic and/or Female farmers and ranchers are located. Sessions were held with NRCS, Farm Service Agency and Rural Development Directors in Hilo, Waimea, Kona, Kahului, and Aiea.



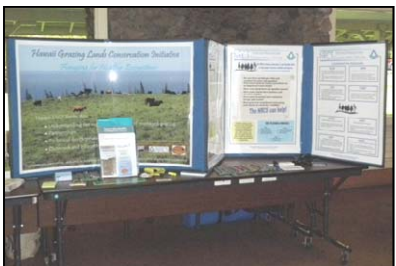
Irrigation Workshop with Thai Interpreter

In partnership with the Pacific Gateway Center farms at Kunia Agricultural Park, an Irrigation Workshop was held on Oahu with the Aiea Service Center employees. The session was translated into Thai for non-English speaking farmers. Demonstrations and written materials were also translated for the farmers to learn more about efficient irrigation practices.



Pasture to Plate Workshop in Waimea

What started out as successful Pasture Walk events in partnership with the Grazing Land Conservation Initiative, soon turned into another outreach effort to raise awareness of ranching management practices in Hawaii County. Since October 2011, almost 80 local famers/ranchers participated in these pasture workshops.



By Glenn Sakamoto, Plants Materials Center Manager

Developing an Alternative Fuel Source for Hawaii Napiergrass x Pearl Millet Hybrid Bio-fuel Study

The rising cost of imported fossil fuel to Hawaii has sparked the renewed interest in the technical and economic feasibility of producing ethanol from lignocelluloses biomass. Supporting this effort, the Hoolehua PMC provided the University of Hawaii, Tropical Plant and Soil Science Department, as well as several private and research institutions with 17 accessions of a pearl millet x napiergrass hybrid cross developed at the Hoolehua PMC. The 17 accessions were part of a collection developed in the mid eighties as part of a forage and windbreak study. The cross between *Pennisetum purpureum* x *Pennisetum glaucum* was significant in that it produced a sterile seed variety of napiergrass. The sterile attribute plays an important role of not allowing it to become an invasive plant introduction to Hawaii, especially if it's utilized by sugar plantations, seeking an alternative crop for sugarcane replacement. The hybrid napiergrass is a very fast growing, high yielding, palatable perennial grass, which under ideal conditions can attain a height of 15-18 feet in one year.



Hawaiian Commercial & Sugar Company (HC&S) and University of Hawaii at Manoa representatives evaluate napiergrass hybrid



Hybrid napiergrass increase planting 9-30-11



Hybrid napiergrass plots at 71 days



Ten month old hybrid napiergrass 7-20-12

2008 Farm Bill and Pollinator Conservation

The new language in the 2008 Farm Bill makes pollinators and their habitat a priority for every USDA land manager and conservationist. The Farm Bill authorizes special consideration in determining payments for practices that promote pollinator habit. Most importantly, the new Farm Bill authorizes the Secretary of Agriculture to encourage "the development of habitat for native and managed pollinators, as well as the use of conservation practices promoting native and managed pollinators", during administration of any conservation program

Plant pollinators (both native and non-native) are a vital part of our environment and are especially important to the global crop production. It is extremely important that we protect, enhance and encourage this valuable resource.

The Hoolehua Plant Materials Center in partnership with the University of Hawaii Cooperative Extension Service is currently working together to test five common native plants to improve crop production. The study is designed to evaluate various native plants for the purpose of improving crop-pollination by attracting pollinators with an alternative food source/habitat during and after crop seasons. The study will also serve as a demonstration planting to increase the knowledge base of the farming community by demonstrating the importance of pollinator habitat management for increased crop.

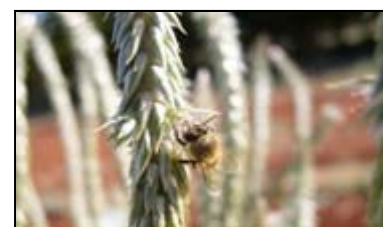
Pollinator Plants



Sida fallax, Ilima



Native Pollinator study at Hoolehua PMC



Achyranthes splendens



Bidens menziesii, Ko'oko'olau



Waltheria indica, Uhaloa

NRCS exhibit booth at Society of American Foresters 2011 National Convention, "Year of the International Forest," in Honolulu, November 3-4, 2011

By Michael Constantinides, Forest Ecologist

As part of on-going forestry outreach efforts in PIA, the RTT arranged for NRCS to be represented at the subject annual conference by sponsoring an exhibit booth focused on NRCS forestry and agroforestry opportunities in PIA. Associated USDA personnel attending the conference included: Andy Mason, National Agroforestry Center (NAC) Director, Lincoln, Nebraska; Craig Ziegler, West National Technology Support Center Forester, Portland, Oregon; Michael Constantinides, PIA State Forester, and; Jolene Lau, PIA Public Affairs Specialist.

Andy arranged for NAC agroforestry pup-up displays and brochures to be shipped out to Honolulu, and Jolene created two PIA-specific forestry posters. Jolene was also the lead on setting up and staffing the exhibit during conference hours, with support from Craig and Michael.

During the conference Craig, Jolene and Michael spoke to many forestry professionals and university students regarding NRCS PIA forestry, technical assistance, and related programs. All of the students were interested in internships and career opportunities with NRCS as well. Craig and Michael also attended various conference plenary and technical sessions, including several in a day-long track focused on agroforestry.



NRCS exhibit booth

Practitioner's Guide for Effective Non-Restricted Herbicide Techniques to Control and Suppress Invasive Woody Species in Hawai'i

By Michael Constantinides, Forest Ecologist

I worked with Dr. James Leary, Invasive Weed Specialist from the University of Hawaii Cooperative Extension Service, who developed and published the first edition of a guide to landowners and managers for herbicide control of some of our worst invasive woody species in PIA. Dr. Leary initiated this project in part due to my encouragement, and I contributed by reviewing drafts during its development. This is a very useful tool for PIA Planners and our Cooperators.

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/WC-10.pdf>



Bart Lawrence showing surface soil with high plant growth potential.

Practice Payment Schedule (PPS)

Kara Nelson, Resource Conservationist/Economist led the Practice Payment Schedule (PPS) process for fiscal year 2013 for the development of 91 PPS. The PPS process changed for fiscal year 2013 as national technical specialist teams developed PPS scenarios for regions to modify, and component costs within each PPS was developed at the national level for each state/area. She worked with discipline specialists to modify national scenarios and create new PIA ones, and also sent in local cost data on the request of national teams. She also assisted with releasing notices and announcements that updated 54 practices in the Field Office Technical Guide (FOTG) and seven ecological technical notes. In addition, with the help of Karl Mikasa, they created a new Technical Notes website on the PIA NRCS website so people no longer have to go into the ftp site. She designed the site structure and scanned all documents that were not previously electronic so that all technical notes may be available online and easily accessible.

New PIA Cultural Resources Specialist on the RT Team



Valerie Russell joined the NRCS in January 2012 as the PIA Cultural Resources Specialist. Valerie immediately jumped into learning the cultural resources review protocols outlined in the Hawaii State Level Agreement and completed a total of 218 cultural resource review requests in support of Farm Bill program applications in 2012. In support of program applications, Valerie conducted field visits with the Kealahou, Hilo, Waimea, Hoolehua, and Kahului field office staff and provided cultural resources on-the-job training (OJT). Valerie also worked with the NRCS Federal Preservation Officer / National Cultural Resources Specialist in outreach activities to Native Hawaiian Organizations (NHOs) associated with the development of a new nationwide prototype programmatic agreement.



Oahu, Conservation Innovation Grant recipient Hawaii Agricultural Research Center showing reclamation of land from invasive forest species: Tree/Shrub Site Preparation followed by Conservation Cover, with Tree/Shrub Establishment to follow. Photo by Michael Constantinides.



Tree/Shrub Site Preparation and Tree/Shrub Establishment for NRCS Cooperator, Stephen Kostelnik. Photo by Nicholas Saumweber.

Soils in the Pacific Islands Area

By Kealakekua MLRA office and the Soil Science and Natural Resource Assessments Staff

Release of the Updated Soil Survey of the Island of Hawaii

The newly released extensive revision of the Soil Survey of the Island of Hawaii is currently accessible through Web Soil Survey, Soil Data Mart and the SoilWeb Smartphone App. This replaces the soil survey that was released in 1973. The new survey contains much greater detail and accuracy in the soil mapping and includes ecological site descriptions that were not available previously. Soil scientists identified 144 soil series during their soil mapping, including 64 newly established series. Much work was required to develop the ecological site descriptions, which will be valuable tools for the NRCS field office staff and other land managers to use in habitat restoration.

"We have been anticipating the release of the new soil survey on the Island of Hawaii in an effort to provide our natural resource planners and the public with the most updated soil maps and information available," stated Angel Figueroa, Director of the Natural Resources Conservation Service (NRCS) in the Pacific Islands Area.

Profile of the Honokaa soil series from the Island of Hawaii. This soil developed from volcanic ash on the windward slopes of Mauna Kea Volcano. Photo by Steve Campbell, 2012.



Technical Soil Services

PIA soils staff fulfilled over 80 requests for technical assistance throughout the year, serving over 300 customers. Internal requests from local conservation districts and NRCS field offices included: custom maps, technical consultations, training, program support, onsite investigations, and wetland delineations. Hawaii Island soil scientists were called for two different onsite investigations, a cattle ranch and a watercress farm, to address landowner concerns about the effects of vog (volcanic smog from Kilauea volcano) on the soil chemistry and vegetation. Walk-in customers, private consultants, universities, and other agencies (federal, state, and local) benefited from technical presentations, custom maps and interpretations, and local soil expertise provided by PIA staff. The PIA West Resource Soil Scientist gave presentations about wetland soils of Micronesia and sustainable soil management in Micronesia at the University of Guam Island Sustainability Conference, as well as local presentations about the NRCS Wetlands Reserve Program.

Resource Soil Scientist Bob Gavenda discusses wetland soils during a community presentation in Guam.



A gas plume erupting from Halemaumau Crater within Hawaii Volcanoes National Park. The sulfur dioxide gas (vog) has had an adverse affect on surrounding farms and ranches.

Conservation Awareness Program

PIA staff once again provided technical support with site set-up for the county and state Conservation Awareness Contests, held in October and November 2011, respectively. High school students must judge the land's potential for agriculture and residential use. The state contest was held in Hilo, where heavy rains forced the contest site to be relocated to the Hilo Federal Building at the last minute, prompting creative thinking on the part of the contest coordinators. In September 2012, for the first time in many years, Hawaii Island staff provided onsite training to 5 schools to prepare students for the 2012 county contest and provide information about careers in natural resources.



Students examine the soil profile and record data such as topsoil and overall depth during the Hawaii County Conservation Awareness Contest held in Kau.

Soil Health Initiative

This year, the Soil Health Initiative is a key component in the Chief's list of priorities. Cropland Soil Health is the initial focus in this effort to support effective conservation planning, as these soils have been most highly altered by past agricultural disturbance. Range, pasture and forest land soils will also be included in the future, as we develop improved methods to measure key Soil Health indicators.

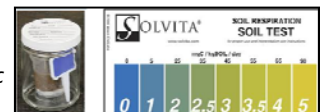
Soil Health responds to good soil management practices and it can be quantified using field tests, which makes it ideal for continuing assessment by conservation staff. Measurement of various target properties with the Soil Quality Kit (SQK) helps the conservation planning staff quantify the actual effects of applied practices. The State Office Soil Health Coordinator, Cindy Stiles, will be working with the FOs to provide supplies and updated materials to the SQKs. Inventory supply 'care packages' are due to arrive at FOs in mid-January, followed by a yearly restocking of consumable items. Training will be provided upon request and dependent upon funding for inter-island travel.



Dickey-John soil compaction testers

In addition to re-supply and training, new items are being tested for use in the SQK arsenal. Hand-held penetrometers (also known as 'Dickey-John' soil compaction testers) to measure soil compaction are being evaluated and compared with recommended SQK measuring methods, with the hope that all FOs will be outfitted by the end of 2013.

Also, a new test method for soil organic matter is being evaluated by the State Office - the Solvita Soil Respiration test. This test is simple to use and the client can get a quick answer on relative soil organic matter condition. Once the testing is done, the State Office will release an information sheet on the product for the FOs and follow up with supply and training, as requested.



Solvita Soil Respiration Test

Landscape Conservation and Watershed Program Activities



Ranae Ganske-Cerizo described common West Maui agricultural resource concerns to members of the US Coral Reef Task Force.

NRCS offers a spectrum of initiatives and programs that enable the agency to partner with local entities to address resource concerns at a larger landscape scale. During 2012, the Pacific Islands Area contributed to watershed improvements such as flood prevention measures and agricultural water supply infrastructure, through planning and construction activities including those highlighted for the projects below.

Fred Barcinas Emergency Watershed Project

A ribbon cutting ceremony was held in March 2012 to celebrate the final completion of seven Emergency Watershed Program projects constructed in response to damaging effects caused by Typhoon Tingting in 2005. Speakers at the ceremony included the Governor of Guam, the chairmen of both the Northern Guam and Southern Guam SWCDs, and NRCS PIA - West Area employees Bart Lawrence and Jeff Wheaton. The Fred Barcinas project installed a slope stabilization feature that protects a residence and a segment of the only road servicing Southern Guam.



Kagman Watershed Project

The construction of Waterways A, B and C were substantially completed during 2012, with notable affects of reduced flooding to nearby agricultural fields, residences and local infrastructure. The local project sponsors are the CNMI Department of Land and Natural Resources and the Saipan and Northern Islands SWCDs. Future project phases will develop a reservoir to store waterway discharges for subsequent irrigation use.



Kagman Waterway B

Lahaina Watershed Project

A 90% design submittal was completed in December 2012 for the Phase 3B Debris Basin at Kauaula Stream. The Maui County Department of Public Works and the West Maui SWCD sponsored the project to reduce sediment discharge to the ocean and provide a 100-year level of flood protection to properties in Lahaina. The six-phase construction plan will develop two miles of diversion channel, four sediment basins, and a debris basin.

Lower Hamakua Ditch Watershed Project

During 2012, construction contracts were awarded involving tunnel stabilization, ditch lining, and installation of livestock-exclusion fencing for the Lower Hamakua Ditch irrigation system. The ditch system fell into disrepair following the closure of sugarcane plantations in the early 1990s. Sponsored by the Hawai`i Department of Agriculture and the Hamakua and Mauna Kea SWCDs, this project is improving water supply to small farmers and ranchers developing diversified agriculture on former plantation lands.

South Kona Watershed Irrigation System Planning Project

An Environmental Information Document was completed in 2012 that compiles the entire project planning information prepared to date and makes it available for public use. Instigated by the Honomalino Irrigation Cooperative and sponsored by the Hawai`i Department of Agriculture and County of Hawai`i Department of Research and Development, the project has entered a holding phase until funding becomes available for further design and construction.

Upcountry Maui Watershed Project

Progress continued on designs of the Kealahou, Waiakoa, Kaonoulu and Waiohuli Laterals, as part of the non-potable agricultural water supply system being developed to service 12,250 acres of prime Kula farmland. Sponsored by the Hawai`i Department of Agriculture, the Maui County Department of Water Supply, and the Olinda-Kula SWCD, the project will result in a more cost-effective and sustainable use of regional water supplies by reducing the demand on municipal water treatment facilities.

Wailuku-Alenaio Watershed Project

Work continued on a Watershed Plan Supplement addressing flood protection in the Kaumana Drive area of Hilo. The County of Hawai`i Department of Public Works and the Mauna Kea and Waiakea SWCDs are the local sponsors of the project. Three of five approved measures were constructed in the 1980s; designs for the final two measures are being revised to improve their effectiveness.

West Maui Coral Reef Initiative

2012 was the first year of a planned three-year effort to significantly reduce sediment runoff and improve water quality from agricultural lands in West Maui. The effort builds on partnership activities of the US Coral Reef Task Force, which in 2011 selected the Honokōwai and Wahikuli watersheds for collaborative efforts involving NOAA, Hawai`i DLNR, USACE, USEPA, USGS, and several other entities. NRCS conducted outreach meetings and recruited several agricultural producers to install conservation practices through EQIP and WRP contracts using targeted WMCRI funds.