



**Pacific Islands Area
Angel Figueroa,
Director**

Honolulu, Hawaii

2011 NRCS Summary for the Pacific Islands Area



From the mountain to the ocean, NRCS is helping to protect and enhance the natural resources in the Pacific Islands Area.

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Nutrient Management for Coffee Growers

According to the National Agricultural Statistics Service, there are 830 Coffee Farms in the State of Hawaii. In 2011, an estimated 8.8 million pounds of coffee was marketed for sale. Of the 8,000 acres of coffee being produced in Hawaii about 6,300 acres were harvested.

With so many acres in coffee production, one concern is the nutrient management that can be difficult for producers to install. Nutrient management requires producers to apply the right amount, the right placement, the right timing, and the right form of fertilizer to ensure that excessive nutrients are not lost to surface or ground waters.

The basis of all nutrient management planning starts with a soil test. This may seem simple enough, but when you consider the soils on the Kona Coast of Hawaii are 80-90% lava, and the remaining portion of the soil is mostly organic, it complicates things. The fractured lava flows result in the rapid movement of surface water to ground water where nutrients can be transported and threaten groundwater and even coastal reefs.

Soil test recommendations were coming back to producers with extremely high recommendations for Nitrogen. NRCS State and Field office staff worked together along with numerous Kona Coffee growers to develop a new procedure for making Nitrogen application rates. The new method takes into consideration the Nitrogen found in the soil organic matter, the amount of lava in the soil profile, and the number of trees per acre.

As a result of this tool, the field offices are better equipped to produce nutrient management plans for the more than 700 Kona Coffee farmers. These plans will not only meet the needs of the producer, but also protect the islands surface, ground, and coastal waters.



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Director’s Message

The Natural Resource Conservation Service (NRCS) provides technical and financial assistance to private land users and communities across the Pacific Islands. We work throughout the State of Hawaii, the Territories of Guam and American Samoa, the Commonwealth of the Northern Mariana Islands, and the Freely Associated States of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands. This report is a brief summary of the work we have done in the federal fiscal year of 2011.

NRCS delivers our programs directly to individuals and through partnerships with local governments, Non-Government Organizations and others. I would like to thank all of our partners for their hard work and assistance in serving the communities.

As we continue our commitment to diversity and civil rights, please know that we still uphold our national policy to have solid, technically sound, and legal contracts under our Farm Bill regulations. We have a responsibility to uphold the integrity of spending tax dollars wisely and will continue to encourage, monitor, and implement quality conservation planning and contracting.

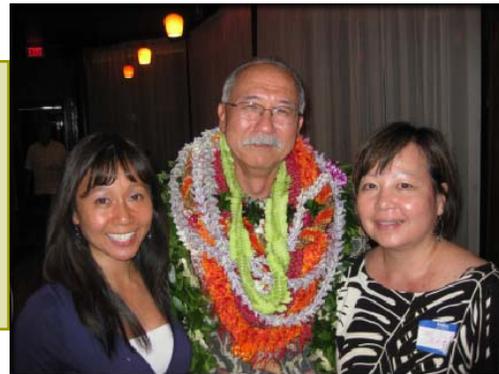
In this PIA summary, you will see that we implemented 196 conservation plans that covered 62,430 acres throughout the Pacific Islands Area in FY11. Of the many Farm Bill programs that we administer, you will also learn that farmers and ranchers in the Pacific Islands Area, received over \$6.5 million via the Environmental Quality Incentives Program. In addition, we also utilized \$1.2 million through the Grassland Reserve Program. Let’s not forget our Earth Team volunteers in Hoolehua that helped to establish, maintain, and harvest fresh produce for the People’s Garden to support our local food bank!

There are many great things taking place and we look forward to continue our work with all of our partners to put conservation on the ground and “Help people help the land.”

Larry Yamamoto Retires

Director Lawrence T. Yamamoto retired July 1, 2011 after serving 34 years with the USDA Natural Resources Conservation Service (NRCS). A strong supporter of locally grown agricultural products and caring for our islands resources, Larry will truly be missed. We wish him well in his new adventure!

Photo (L-R): PIA Public Affairs Specialist; Jolene Lau, Lawrence T. Yamamoto, and PIA Management Analyst, Gail Ichikawa.



Figueroa Selected as New Director



Following the retirement of Lawrence T. Yamamoto, the NRCS Chief announced that Angel Figueroa is the newly selected incoming Director of the USDA Natural Resources Conservation Service for the Pacific Islands Area. Mr. Figueroa took the reins as Director in August 2011.

Angel Figueroa was born in a small sugar cane-producing town in the Eastern Coast of Puerto Rico. After graduating from high school, he attended and graduated from the University of Puerto Rico with a degree in Agronomy and Soils. Figueroa began his career with USDA in New England in 1989 where he worked for the Farmers Home Administration for two years. In 1990 he was recruited by the then Soil Conservation Service as a Soil Conservationist and worked in two different field offices. He later went to serve as District Conservationist in Massachusetts and Ohio. In 1997 he was promoted to Area Conservationist and later as Assistant State Conservationist in North Dakota where he served for three years. In 2002, Angel went to the National Headquarters in Washington, DC to work at the Animal Husbandry and Clean Water Division. From 2004 to 2010 he served as National TSP Coordinator, and in 2010 he served as Conservation Initiatives Team Leader, both national leadership positions. In 2009 he was selected to serve as acting Associate Deputy Chief for Science and Technology, a leadership position he held for seven months. Angel moved to Oahu with his wife Ivette. Together they are the proud parents of two wonderful and beautiful daughters, Amy and Lynette.

Conservation Technical Assistance

The Conservation Technical Assistance (CTA) Program is NRCS’s foundation for providing conservation technical assistance to private individuals including farmers and ranchers, conservation districts, State and local governments and other organizations. Most technical assistance provided by NRCS and our partners leads to the voluntary development of a conservation plan which includes a resource assessment of the land that allows clients to address opportunities, concerns, and problems related to the use of natural resources and to help clients make sound natural resource management decision. Based on the conservation plans developed, NRCS and our partners may also provide the technical assistance needed to design, layout and checkout approved conservation practices. Although the CTA program does not include financial assistance to implement conservation practices, clients may elect to install practices on their own or apply for financial assistance via Farm Bill programs.

In fiscal year 2011, NRCS and our partners in the Pacific Islands Area assisted with the development of 196 conservation plans for clients which covered 62,430 acres. NRCS also provided technical assistance (design, layout, and checkout services) to clients to complete 449 installations of 42 different conservation practices at their own expense. Popular conservation practices installed include: Conservation Cover, Cover Crop, Critical Area Planting, Integrated Pest Management, Irrigation Pipeline, Mulching, Nutrient Management, Pipeline, Prescribed Grazing, Residue and Tillage Management, Restoration and Management of Rare and Declining Habitats, Terrace, Upland Wildlife Habitat Management, Vegetative Barrier, and Windbreak/Shelterbelt Establishment.

CTA Success Stories

The NRCS Pohnpei Service Center staff work with the U.S. Embassy to actively promote reforestation and provide technical guidance for reforestation plantings in the Federated States of Micronesia (FSM). In partnership with Pohnpei State Forestry, NRCS guides local schools and other village groups in how plant and maintain over 1,000 seedlings annually.



FSM national swimmer Debra Daniel and US Ambassador Peter Prahar (kneeling) listen as Agriculture Conservation Specialist Gibson Santos (standing) demonstrates proper tree planting techniques at Daini Field in Kolonia.

The NRCS Hilo Service Center staff worked with an organic farmer to plan a suite of practices to remediate damages caused by previous land clearing and to reduce erosion and build soil organic matter. Since the spring of 2011, the first phase of the practices have been implemented by the farmer and he is now on his way to ensuring that his farming practices are sustainable, natural resources are protected and he can meet his farming objectives.



<<< Before and After >>>



Farm Bill Programs

The 2008 Farm Bill offers America's farmers and ranchers more incentives than ever before to voluntarily conserve natural resources on privately owned land. Its conservation provisions help reduce erosion, guard streams and rivers, restore and establish fish and wildlife habitat, and improve air quality. The summary below pertains to the financial assistance through Farm Bill Programs in the Pacific Islands Area.

Environmental Quality Incentives Program (EQIP): Addresses significant natural resource concerns that are locally identified. In 2010, we utilized \$6,442,809 for conservation planning, design and installation. These dollars assisted cropland, grazing land, and animal feeding operations. Projects include noxious weed control, brush management, pasture hayland planting, terraces, and groundcover. **In fiscal year 2011, we utilized \$6,553,621 for this program.**

Wildlife Habitat Incentives Program (WHIP): This program is used to develop or improve fish and wildlife habitat on private land. In 2010, we utilized \$160,759 to treat wetland, riparian, and upland areas. **In fiscal year 2011, we utilized \$16,952 for this program.**

Wetlands Reserve Program (WRP): This program is used towards wetland restoration, enhancement, or creation on private land. In 2009, we utilized \$366,100 for permanent easement of critical wetland and riparian areas.

Farm and Ranchland Protection Program (FRPP): This program is used to help state, tribal, or local government entities to purchase the development rights to keep productive farm and ranchland in agricultural use. In 2010 we utilized \$100,000. **In fiscal year 2011, we utilized \$607,000 for this program.**

Grassland Reserve Program (GRP): This program is used to help agricultural operators in restoring and protecting eligible grassland, land that contains fobs, or shrub lands for which grazing is the predominant use through rental contracts and easements. **In fiscal year 2011, we utilized \$1,215,720 for this program.**

Conservation Stewardship Program (CSP): The newest opportunity through the Farm Bill. This voluntary program encourages producers to maintain existing conservation activities and adopt new ones on their land. In 2010 we utilized \$67,175. **In fiscal year 2011, we utilized \$18,995 for this program.**

Conservation Innovation Grants (CIG): Intended to stimulate 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 2010 we utilized \$211,820. **In fiscal year 2011, we utilized \$217,350 for this program.**

Agriculture Management Assistance (AMA): Previously available to only 15 other states, Hawaii was just added as a qualifying state. This program addresses water management, erosion control, and integrated pest management. In 2010 we utilized \$297,027. **In fiscal year 2011, we utilized \$102,763 for this program.**



Duane DeLuz of Triple D Ranch shares with attendees at the first Hawaii GLCI Pasture Walk event their history of cooperation with NRCS and the conservation measures they have adopted. Program participants since the 90s, they have implemented fence, pipeline, watering facility, brush management, pasture and hay planting and prescribed grazing.



Outreach efforts in Waipio Valley encourage farmers to adopt practices to improve native waterbird wildlife habitat through WHIP and EQIP.



Glenn Bertelmann, a Hawaiian Homelands Rancher in Waimea, installing his monitoring transect for 528 - Prescribed Grazing, part of his EQIP contract.

Plants Materials Center

PMC People's Garden

In September of 2010 the Hoolehua Plant Materials Center accepted the challenge from USDA Agriculture Secretary, Tom Vilsack to develop a "People's Garden" at all USDA facilities. The garden will impact the small Molokai community by providing food for the less fortunate. It will also be a collaborative partnership between volunteers and community organizations to create an awareness that will instill the importance of agriculture and to incorporate a sustainable practice that that will nurture the environment.

A 1,600 sq. ft. "People's Garden" was undertaken by NRCS Earth Team volunteer Chelsea Sakamoto. Chelsea was a student of Molokai High School and undertook this challenge as part of her senior project. She along with Molokai High School students from the Molokai Environmental Preservation Organization, (MEPO) were regular visitors to the garden to help with weeding, planting and tending to the garden.

In total, the garden produced the following amounts:

Eggplant -576 lbs, Taro- 85 lbs., Sweet Potato-304 lbs., Pumpkin-15 lbs. Total -980 lbs of fresh produce. In conjunction with the People Garden, banana's were grown at the PMC and produced 4,438 pounds of bananas for the local food banks.



Molokai High School Students of the Molokai Environmental Preservation Organization, MEPO help out at PMC People's Garden



MEPO students harvest sweet potato 4-27-11.



Molokai High Teachers and volunteers help with weeding of the taro patch.



Molokai High School students help with eggplant harvest 1-17-11.



Banana harvest from the PMC



People's Garden in full production 1-17-11.

Resource Technology Accomplishments

Agronomy Technical Assistance to HC&S

NRCS funded the Hawai`i Grazing Lands Conservation Initiative (GLCI) to do outreach in FY11. The Hawai`i GLCI is a partnership of grazers from Hawai`i's beef, dairy, sheep and goat industries committed to furthering the grazing industry's contribution to natural resource and ecosystem conservation. GLCI promotes the sound management and skillful use of grazing land resources in Hawai`i. NRCS is one of the primary players in the initiative. The result this NRCS/GLCI collaboration was, among other things, an excellent website (<http://www.grazinglandshawaii.org>) which PIA Grazing Lands Specialist, Lori Metz, helped develop. The Hawai`i Cattle-men's Council, Inc. and Hawaii Sheep & Goat Association are vital to the life of this initiative, and their members help lead this grassroots effort to conserve and sustain grazing land resources in Hawai`i.

Cover Crops for the Seed Industry

Plant Materials Specialist, Bob Joy, worked with the Aiea Field Office, Pioneer Seed, and the Oahu RC&D Council to make 'Tropic Sun' sunn hemp seed available to farmers and others for planting cover crops. Pioneer Seed and the Oahu RC&D council will be collaborating to grow and market Tropic Sun seed commercially. Pioneer will establish a commercial seed increase on a 10 acre field this fall. The seed should be available for purchase sometime in the spring of 2012.

Hawaii Forestry MOU Milestone

NRCS joined three other agencies in signing the landmark Hawaii Forestry MOU on May 19, 2011. The U.S. Forest Service (USFS), the Hawaii DLNR's Division of Forestry and Wildlife, the Hawaii Association Conservation Districts and NRCS joined with the Hawaii Governor, the Honorable Neil Abercrombie, in executing an MOU further detailing forestry-related program delivery strategies for the State of Hawaii. Pictured right (L to R) are Conservation Reserve Enhancement Program client Mr. John Lindelow and MOU signatories: Ms. Laurie Tippin, representing USFS Regional Forester Mr. Randy Moore; HACD President, Wesley No-hara; Hawaii Governor the Honorable Neil Abercrombie; Ms. Kathleen Dobler representing NRCS-PIA Director Mr. Larry Yamamoto, and; State of Hawaii DLNR Chairperson, Mr. William J. Aila, Jr.



Plant Materials Work in American Samoa



Bob Joy traveled to the American Samoa Field Office in August with his plant materials knowledge and skills. He helped to maintain and improve relations with other agencies. The American Samoa Community College, Land Grant, has been providing planting material to farmers and others of 'Sunshine' vetiver-grass. This was originally a CIG project and the original planting material was supplied by the Ho`olehua PMC. Adjacent to the vetiver plant increase field is the ASCC greenhouse where ASFO DC, John Womack, and Bob Joy met with Eric Pese, Greenhouse Manager (photo left).

The NRCS and Hawaii GLCI Partnership

NRCS helped fund the Hawai`i Grazing Lands Conservation Initiative's (GLCI) FY11 outreach effort. The GLCI is a partnership of grazers from Hawai`i's beef, dairy, sheep and goat industries committed to furthering the grazing industry's contribution to natural resource conservation. NRCS is one of the principal partners in the initiative. The result this NRCS/GLCI collaboration was, among other things, an excellent website (<http://www.grazinglandshawaii.org>), which PIA Grazing Lands Specialist, Lori Metz, helped to develop.

Wetland Indicators Update

Gregory Koob, PIA State Biologist, represented the Pacific Island Area NRCS in voting for the updated rating for wetland indicators for plants. He was the NRCS representative with other federal agencies including EPA, F&WS and the Army Corps of Engineers (ACOE). Greg voted on more than 1000 plant species and assigned a wetland indicator status to each. This endeavor, overseen by the ACOE, is a nation-wide effort. It will result in an updated plant list from the 1985 wetland indicator plant list and is due to be completed in 2012.

New PIA State Forester and Resource Conservationist on the RT Team

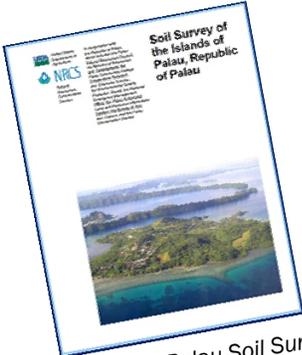


The newest RT Team member, Michael Constantinides (right) joined the NRCS in June 2011 as the PIA State Forester. Michael came to us from the Hawaii DLNR Division of Forestry and Wildlife where he served Hawaii for over 14 years addressing forestry conservation needs here in Hawaii.

Another new RT Team member is Kara Nelson, Resource Conservationist and Economist. She jumped right into the huge workload of the annual PIA Program Payment Schedule., completing 73 practice payment schedules with approximately 250 scenarios. This was an enormous nation-wide workload which Kara ensured was completed by the deadline.

Soils in the Pacific Islands Area

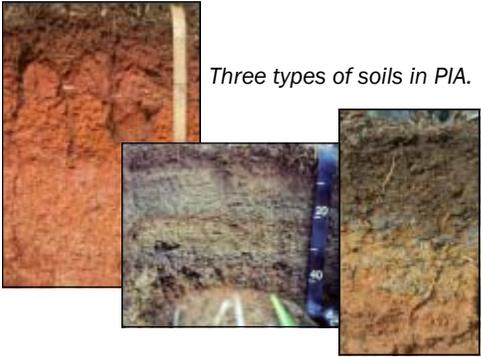
Soil Survey Success Story: Updated Palau Soil Survey, USDA-NRCS Pacific Islands Area



Cover of the Palau Soil Survey

The NRCS Pacific Islands Area recently presented the President of Palau with the updated “Soil Survey of the Islands of Palau, Republic of Palau.” The United States has a special relationship with Palau and is supporting the development of the island nation by providing it with the latest NRCS soil survey technology. The NRCS offers conservation technical support to national and state governments in Palau through the Palau Field Office in cooperation with the U.S. Embassy.

Soils differ in their properties, behavior, and management.



Three types of soils in PIA.

Completion of Soil Survey Mapping for the Island of Hawaii



The soil survey staff in PIA would like to announce the completion of soil mapping for the Island of Hawaii. The extensive revision of soil mapping for the Big Island began as a project in 1992. The area was mapped as two survey areas that include Hawaii Volcanoes National Park and the remainder of the Island of Hawaii. The total area mapped is over 2.5 million acres. The Soil Survey of Hawaii Volcanoes National Park was published in 2008 (see Web Soil Survey for new soil maps and information <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>). Publication date for Soil Survey of Island of Hawaii is tentatively scheduled for the end of 2012 after review and certification of the data.

Left photo: Island of Hawaii (The Big Island)

Conservation Awareness Program

PIA staff assisted with both county and state Conservation Awareness Contests in Hawaii where high school students judge the land’s suitability for agriculture or residential use. For agricultural sites, they record properties such as soil depth and slope, determine the land capability class, then select recommended conservation practices. When judging residential sites, the students record various properties including soil texture and stoniness, then evaluate the degree of limitations each property has for foundations, lawns, and shallow excavations.



Students determine slope and soil depth for the State Conservation Awareness Contest (Oahu).



Soil Scientists Patrick Niemeyer and Amy Saunders prepare an agriculture site for the Hawaii State Conservation Awareness Contest (Oahu).

Watershed Program Activities

The Natural Resources Conservation Service applies its vision of productive lands and a healthy environment to watershed-scale issues through programs such as the Watershed Operations Program, the Watershed Surveys and Planning Program, and the Emergency Watershed Protection program (EWP). During fiscal year 2011, Pacific Islands Area staff helped its partners and local project sponsors complete several watershed projects, most of which received federal funding assistance through prior-year Congressional appropriations.

Watershed Operations Projects

Lahaina Watershed Project: The Maui County Dept. of Public Works and the West Maui SWCD are sponsoring this project to reduce sediment discharge to the ocean and provide flood protection to properties in West Maui, Hawaii. The six-phase project will ultimately consist of two miles of diversion channel, four sediment basins, and a debris basin. Construction of the Phase 1 diversion channel was completed in June 2011, and the 60% design submittal for the Phase 3 diversion channel was completed in July.



Lahaina Watershed Project Phase 1 Final Inspection.

Kagman Watershed Project: Substantial progress was made on the construction of Waterways A, B and C, which will offer flood protection to this southwest Saipan community. Future project phases will develop a reservoir to enable the waterway discharge to be stored for subsequent irrigation use. The local project sponsors are the CNMI Dept. of Land and Natural Resources and the Saipan and Northern Islands SWCDs.

Upcountry Maui Watershed Project: Sponsored by the Hawaii Dept. of Agriculture, Maui County Dept. of Water Supply, and the Olinda-Kula SWCD, this project will improve agricultural water supply to 12,250 acres on the western slope of Haleakala. During fiscal year 2011, construction was completed on Phases 4 and 5 of the main distribution pipeline, and progress was made on designs of the Kealahou, Waiakoa, Kaonoulu and Waiohuli lateral pipelines.

Lower Hamakua Ditch Watershed Project: Sponsored by the Hawaii Dept. of Agriculture and the Hamakua and Mauna Kea SWCDs, this project will improve agricultural water supply to small farmers and ranchers along the Hamakua Coast of the Island of Hawaii. During fiscal year 2011, NRCS provided funds to stabilize tunnel sections, line ditches, and install livestock exclusion fencing.

Wailuku-Alenaia Watershed Project: The primary project sponsor, the Hawaii County Dept. of Public Works, coordinated internal review of a draft Environmental Assessment in July 2011, achieving a milestone towards development of the last of four major flood protection elements for portions of Hilo on the Island of Hawaii.

Watershed Planning Activities

Hanalei Valley Irrigation Intake Protection Preliminary Investigation: A final report was completed in August 2011 by project sponsors East Kauai SWCD and the Kauai Taro Growers Association, evaluating and selecting recommended measures to reduce breach-flow events and retain flows in the main channel of the Hanalei River.

Waipio Valley Flood Damage Reduction and Stream Stabilization Preliminary Investigation: Project sponsor Mauna Kea SWCD released a draft report in July 2011 and conducted stakeholder meetings to refine design concepts for two areas where stream migration and bank erosion threaten water diversions into critical auwai channels delivering water to taro loi.

Kula Stormwater Reclamation Project: The Central Maui SWCD finalized four distinct task reports in September 2011 evaluating alternative designs to collect, store, and distribute stormwater discharges for agricultural use.

Napili 4-5 Sediment Basin Outlet Improvements: Project sponsors Napili Bay and Beach Foundation and the Maui County DPW achieved permit compliance and initiated construction of outlet modifications to improve the release of collected runoff.

Emergency Watershed Protection (EWP) Projects



Fred Barcinas EWP Project.

Fred Barcinas EWP: The Government of Guam completed a slope stabilization project that protects a residence and a segment of the only road servicing Southern Guam. The project is the last of seven projects installed in response to damaging effects of Typhoon Tingting in 2005.

American Samoa Tsunami EWP: The American Samoa Govt. Dept. of Public Works completed repairs to streambank stabilization structures at seven sites damaged during the September 2009 tsunami.

American Samoa Landslide EWP: During fiscal year 2011, the American Samoa Govt. Dept. of Public Works also completed the work to remove debris, stabilize existing slopes, and restore flow to a waterway blocked by a landslide following sustained heavy rainfall in July 2009.

Kiiholo Bay Earthquake EWP: The Hawaii Dept. of Agriculture completed repairs to the lining of the Upper Hamakua Ditch in October 2011, finishing the last of seven projects conducted in response to the October 2006 earthquake that cut off agricultural water to nearly all farmers of north-west Hawaii Island.

Kilauea River / Wailapa Stream EWP: In fiscal year 2011, the Kauai County Dept. of Public Works completed the removal of sediment and debris that had emanated from the tragic breach of Ka Loko Dam in March 2006.