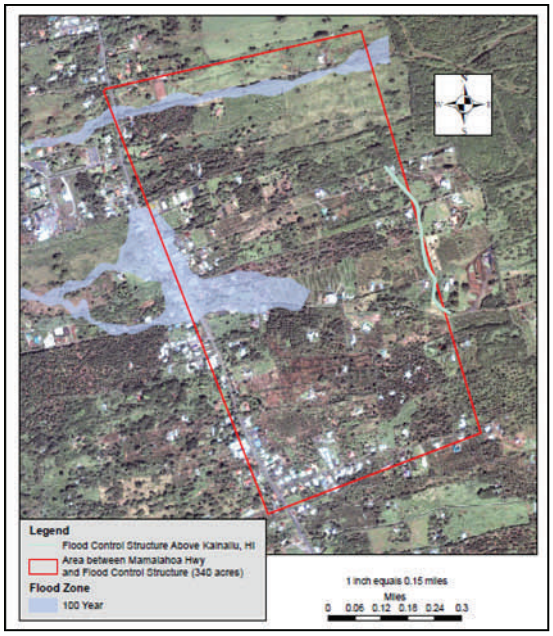
Resource Kona

RESOURCE KONA **Summer 2011**

KONA SOIL AND WATER CONSERVATION DISTRICT

Kealakekua and Kainaliu May 6th Storm Event

On May 6th there was a very heavy localized rain event that caused damage to homes, businesses, farms and ranches in the Kainaliu area. The Hawaii Civil Defense reported rain fell at a rate of 3.4 inches per hour. At a US government soil climate data collector records show May 6th had 3.54 inches of rain for the day. This equipment is located at 1,320 feet elevation, a short distance below the highway.



There are flood control structures above Kainaliu at an approximate elevation of 1,800 feet. One of the property owners there reported their 6 inch rain gauge was overtopped on the afternoon of May 6th in 2 and a half to 3 hours. Rainfall reported at the 2,400 elevation was 1-2 inches. This indicates rainfall rates increased as elevation increased then decreased with further elevation increases. In short, the area noted by the red outline (340 acres) in the picture to the right saw a lot of rain that day. By using an average of 4.5 inches of rain for the day we estimated over 41 million gallons fell on the 340 acres. The small streams and watercourses that run through that land were no match for that amount of water.

Though there is no way to stop the rain from coming out of the sky, we can have some control over the impact to our community. If there is a watercourse or stream through your property you can keep it clean of debris, and remove any sediment that has built up. If you are a farmer or rancher, plant a cover throughout your orchards or on your ranch roads. Reports from one property owner, the water was throughout their farm and flowed terribly through their watercourse but the area of the farm with grass remained intact, yes water flowed over it but when the water receded their grass and soil were still there. A word of caution, if rocks coming down with the water disturb or break the grass cover the outcome could be different. If you can incorporate rainwater harvesting through a rain garden or rain barrels some of that water running out of down spouts would not have made it into the stream system. (cont. on page 2)

Inside this issue:

Special points of interest:

- Do you want to learn more about protecting your natural resources, call us.
- If you want to become active in the Kona Soil and Water Conservation District please give us a call at 322-2484 ext 100

May 6th Storm Event (cont. from pg. 1)

Sediment built up along a fence line. It might look like extremely fertile soil but it came at the cost of the fence.

Prior to the 5/6 rainfall there had been a complete rock wall between the two red arrows.

A pile of debris left by the flowing water. For size reference that is a 5-6 year old child in the picture.

This picture shows that the power of the water flowing downstream could take out trees. We counted at least 3 lost trees during this visit.

Some people reported they had boards to put in the door to their store but they were caught in the traffic and were not able to put it up before damage was done. Work with your neighbors, talk to them and let them know where your flood boards or sand bags are so that can help you and themselves stay dry during the next intense rain event. Remember, it is not a matter of if but when. Now is the time to prepare for the next rain event the produces flash flooding.

The above pictures are from the Lehuula Stream which is the northern watercourse shown in the picture on page 1.

USDA Issues a Notice to Hispanic and/or Women Farmers and Ranchers

The USDA has been under a lot of pressure lately to make amends for previous discrimination practices. The Pigford lawsuit involves primarily African American farmers who were denied farm loans because of their race. In October of 2010 Native American Indians won a class action discrimination lawsuit. The US Department of Justice is involved in settling claims under each of those circumstances.

As a woman or Hispanic you may feel you also suffered from discrimination when it came to obtaining farm loans or farm loan servicing. The USDA is working on rectifying those allegations. If you believe that the USDA improperly denied farm loan benefits to you between 1981 and 2000 because you are Hispanic or because you are female, you may be eligible to apply for compensation. You may be eligible if:

1. You sought a farm loan or farm-loan servicing during that period: and
2. The loan was denied, provided late, approved for a lesser amount than requested, or approved with restrictive conditions, or USDA failed to provide an appropriate loan service: and
3. You believe these actions were based on your being Hispanic or your being female.

You can register your name to receive a claims packet by calling the Farmer and Rancher Call Center at 1-888-508-4429 or access the following website: www.farmerclaims.gov

In 2011, a claims administrator will begin mailing claims packages to those who have requested on through the Call Center or website. The claims package will have detailed information about the eligibility and claims process.

For guidance, you may contact a lawyer or other legal services provider in your community. If you are currently represented by counsel regarding allegation of discrimination, you should contact your counsel regarding the claims process.

Jim Sutter Joins the NRCS Kealakekua Field Office Staff

Jim Sutter joined the Kealakekua Field Office in mid-April coming from Bloomfield, Iowa. He has worked for NRCS for more than 18 years after obtaining a Bachelor of Science degree in agriculture

The farmers in Iowa generally produced corn, soybean and livestock producers. The most often installed practices were erosion control based and included ponds, terraces, water & sediment control basins and grade stabilization structures. The biggest difference Jim has seen in resource concerns between Iowa and Kona is how important protecting soil is to producers here and, relative to Iowa, how little soil we have.

Another big difference Jim has seen is how diversified our crops are and how many micro-climates we have. He is looking forward to learning all about what our farmers produce and helping them get conservation on the ground.

Jim's wife Vicki is an elementary education teacher and is hoping to working within our educational system.

Please join us in welcoming Jim and his wife to our community.

HACD Holds its Annual Conference on Kauai

This year the Hawaii Association of Conservation District's (HACD) annual conference was hosted by the West Kauai Soil and Water Conservation Districts and was held at the Waimea Plantation Cottages.

The annual conference brings members of the state's 16 soil and water conservation districts together along with representatives from the USDA's Natural Resource Conservation Service (NRCS), University of Hawaii's College of Tropical Agriculture and Human Resources (CTAHR) Extension Services, local politicians and water quality specialists.

HACD's Conservation Planners provided presentations on what has been happening in their districts. On Kauai the districts are promoting the use of cover crop and a number of other practices to improve soil and minimize soil erosion. On Maui the SWCDs are working on an Upcountry Watershed Project, continuing work on the Lahaina Watershed Project and working on the Kula Storm Water Reclamation Study. From the Mauna Kea SWCD we learned of their continuing efforts to protect the Waiulaula watershed. The HACD Conservation Planner working on Oahu is a recent hire and is learning about the most serious resource concerns for the agricultural producers there and making suggestions on what can be done to alleviate some of the problems.

Pioneer Research Facility's solar panels. They generate 85% of the facility's electrical needs and will reduce emissions associated with traditional electricity production by the equivalent of 100 cars.

Through the use of a tour the hosting soil and water conservation district can highlight projects, farms and businesses that practice conservation. The tour for this conference brought us to DuPont's Pioneer Research Facility in Waimea where they develop hybrid seeds, generally for corn, soybean and sunflower, for growers all over the world. In 2009 they installed 1,500 solar panels and, according to a Garden Island newspaper article they are able to satisfy up to 85% of their own electrical needs. They also have water retention basins or ponds and use that water to meet their irrigation needs.

They have three growing seasons each year and could probably have a fourth but they are parties to an agreement between all seed developers on the island that calls for everyone letting their land sit fallow at the same time for 2-3 months each year. This causes a disruption in the life cycle of insect pests, thrip particularly, that harm their corn seed crop. This method of pest management decreases the need for insecticides that could bring their own set of problems.

One of the pumping sites maintained by the Kekaha Agriculture Association. This pump moves about 10 million gallons of water per day keeping Kehaka and the Pacific Missile Range Facility dry

We also visited a pumping site located on Kekaha Agricultural Lands that is managed by the Kekaha Agricultural Association, a non-profit agricultural cooperative. The Association is responsible for the operation and maintenance of the infrastructure that supports the nearly (continued on next page)

HACD Holds its Annual Conference on Kauai *continued from previous page*

13 thousand acres of lease land and prevents the Pacific Missile Range Facility (PMRF) from flooding.

The infrastructure they maintain includes the 21 mile Kokee Ditch System and the 27 mile Kekaha Ditch System. They also maintain the Puulua, Kitano and Mana Reservoirs. There is a 40 mile drainage and pumping system they maintain which keep the PMRF, the town of Kekaha, and productive agricultural land from flooding. The Waiawa and Mauka Hydroelectric Plants are also included in the infrastructure they maintain. With these plants they are able to produce the electricity necessary to operate the pumps that keep everything from flooding.

The grey area shows where the invasive species have been treated at the PMRF. Green area shows where the native species are becoming more abundant. The natives include the Pohinahina and the Pohuehue, also known as the beach morning glory.

We also went to the PMRF to see an area of native planting and invasive species removal. This was along a beautiful beach which had long thorn Kiawi trees along the beach's edge. Using herbicides they were able to kill the trees and then by using heavy equipment and chainsaws they are able to remove the wood and prevent the trees from re-sprouting though they do continue with follow-up treatments. They have the native Pohuehue, the beach morning glory, and the Pohinahina that are thriving.

NRCS Director of the Pacific Island Area, Larry Yamamoto, advising the group as to the status of the conservation programs NRCS offers through the Farm Bill.

We finished up our tour with a visit to the West Kauai Technology & Visitors Center in Waimea where Aletha Kaohi gave us a lecture on the history of Waimea and the surrounding area.

Top photo is the native Pohinahina and in the bottom photo the native Pohuehue, the beach morning glory. These pictures were taken at the PMRF. Photos to the right include a picture of the beach at the PMRF and a view of the grounds at the beautiful Waimea Plantation Cottages.

Soils of the Kona District

By Mike Kolman, Soil Scientist, Soil Survey Office Leader, USDA-NRCS

Editor's Note: "The Soils of the Kona District" is a reoccurring column which will highlight the many different soil types within North and South Kona their use and management. As a form of educational outreach, this edition's column will introduce you to more common soil terms and their meanings. We will provide additional terms and their meanings in future publications. If you have any questions regarding these definitions, how they apply to your soil, or general soil questions, please feel free to contact our NRCS Soil Scientist, Mike Kolman at 322-2484 ext. 106

Animal unit month (AUM): The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aspect: The direction in which a slope faces.

Bedrock: The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography: A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Breast height: An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management: Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Canopy: The leafy crown of trees or shrubs. (See Crown.)

Capillary water: Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Cation: An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity: The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Coarse textured soil: Sand or loamy sand.

Cobble (or cobblestone): A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Crown: The upper part of a tree or shrub, including the living branches and their foliage.

Deferred grazing: Postponing grazing or resting grazing land for a prescribed period.

Diversion (or diversion terrace): A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Drainage class (natural): Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized=excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

FARM SERVICE AGENCY

For more information, or to apply for any USDA Farm Service Agency program, please call your local USDA Service Center. NOTE: Fees, eligibility requirements, income and payment limitations may apply with any of the programs listed below. Please check with the nearest FSA office for specific rules. The FSA office in Kealakekua can be reached at 322-2484 ext 111. The FSA office in Hilo can be reached at 933-8381 ext 1.

There has been a change is the office hours for the Kealakekua FSA office. Currently the hours the office is open is on Thursday and Friday from 8-3:30. Please call ahead of time to schedule an appointment. The FSA staff is here to serve you

Livestock Forage Disaster Program (LFP) – LFP provides compensation to eligible livestock producers who have suffered grazing losses. The losses must be due to a qualifying drought condition during the normal grazing period for the county. Eligibility requirements do apply, please inquire with your nearest FSA office for details. Applications for the 2011 calendar year will be accepted until January 31, 2012.

Noninsured Crop Disaster Assistance Program (NAP) – Applications are now being accepted for the 2012 program year. All applications must be received by December 1, 2011. FSA is unable to insure coffee, macadamia nuts, macadamia nut trees, papayas, and bananas. Check out: http://www3.rma.usda.gov/apps/agents/index.cfm to locate an agent for crop insurance for these crops. For all other crops, call your local FSA office.

Stop in or give Jen Withrow a call and wish her luck in her future endeavors. Jen is currently working toward a masters degree in elementary education. She has accepted a position in her chosen field and will begin at Innovations School later this summer as a part-time tutor. Innovations and the kids she will work with are very fortunate to have her as a resource.

FSA County Committee Elections Currently Underway

FSA County Committees are a direct link between the local farming community and the USDA. Committee members help deliver FSA programs at the local level by deciding on the kind of programs their county will offer.

The nomination period began on June 15th and runs through August 1st. Eligibility requirements for nominees include participating in an FSA program, be eligible to vote in the county committee election and reside in the local administrative area (LAA) where they are a candidate.

Ballots are scheduled to be mailed to eligible voters on November 4th and are due back to a USDA Service Center by December 5th.

Newly elected county committee members take office on January 2nd.

Contact your local FSA office for more information on nominations, voting and serving on your local FSA county committee.

81-948 Waena'Oihana Loop
Kealakekua, HI 96750
322-2484 ext. 100
Fax: 322-3735

Board of Directors:
Chairman: Rick Robinson
Vice Chairman: Greg Hendrickson
Secretary:
Director:
Director: David "Kawika" Marquez

Staff: Mary Robblee, Conservation Assistant
Monthly meetings are held on the 2nd Tuesday of the month from 8am-10am at the USDA Kealakekua Service Center below the post office. All are welcome and the facility is ADA accessible.

Organization: The Kona Soil and Water Conservation District (KSWCD) is a government subdivision of the State of Hawaii organized under Hawaii State Law, HRS Chapter 180

Function: To utilize available technical, financial and educational resources to focus or coordinate them so that they meet the needs of the local land users with regards to conservation of soil, water, and natural resources.

Service: The District serves the communities and land users within North and South Kona

Why: The District is committed to the promotion of wise land use and resource stewardship.

Were on the web at

www.kswcd.org

Forestry MOU Signed by Federal, State and Local Organizations

On May 19th the Natural Resource Conservation Service (NRCS), the United States Forest Service (USFS), Hawaii's Department of Land and Natural Resources (DLNR) and the Hawaii Association of Conservation Districts (HACD) signed a Joint Forestry Memorandum of Understanding for the purpose of enhancing public benefit from the sustainable management of forestry resources in Hawaii.

There are a number of challenges facing our forests that this MOU is intended to address, they include the fragmentation and development pressures forests face, including the pressure to convert forest land to crop and range land. The increased cost associated with wildfire control is another challenge partly because of the spread of non-native invasive fire-adapted plants. The increase in invasive species damage is from all forms of non-native life including mammals, insects, diseases and plants. Another challenge the invasives present is the reduction in the amount of sustainable habitat for native species and for native ecosystems. Other challenges to our forests is the management of a forest products industry and climate change which includes changes to rainfall patterns and a rise in sea level.

As partners, those who signed the MOU will work together to promote sustainable forestry management by providing financial and technical assistance on privately managed lands. The partners will work toward identifying critical forest landscapes and the development of program ranking criteria and permissible cost-share rates to ensure that forestry-related projects receive a representative allocation of available conservation assistance.

The partners will also develop and implement a communication plan between the partners to further forestry related initiatives in a consistent manner. There will be Partner meetings to enhance their interactions and cross-training efforts and to recognize and integrate local, regional and national initiatives. They will also collaborate on outreach and education programs related to forestry initiatives, best management practices, and other activities.

There are other ways the Partners of the MOU will work together so that more conversation takes place within our forests, with each Partner bringing their own level of expertise to the table. It is an exciting time to be working in forestry in Hawaii because of this MOU. New opportunities to improve our forested land using the resources of all the organizations while not wasting resources on a duplication of efforts.