

Resource Kona

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Winter 2011

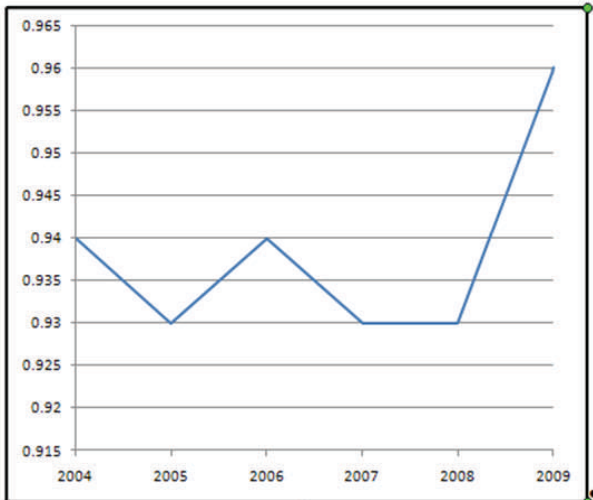
KONA SOIL AND WATER CONSERVATION DISTRICT

Why Nutrient Management is Important

Here in West Hawaii, if you have County drinking water, it is most likely coming from wells drilled deep down into an aquifer. The water in these aquifers, known as ground water, are part of our watersheds and are susceptible to pollution through leaching. One of the most common pollutants to groundwater is nitrogen.

Nitrogen pollution is considered a non-source point pollutant because there is no one source where it comes from that you can point to. Nitrogen is a run-off pollutant and generally its sources are fertilizer use, septic systems and animal waste. The presence of nitrogen in our drinking water can create

problems for the way our bodies transport oxygen through our blood. When there is too much nitrogen a situation called "blue baby syndrome" may take place because the ability of a baby's blood system to transport oxygen is affected. The good news: we do not currently have any serious problems with nitrogen in our drinking water. One of the tests the Hawaii County Department of Water Supply does every year is to test for nitrates (nitrogen). To the left is a graph created with data from the Department of Water's Annual Water Quality Report for the Halekii well. It shows that, at the moment, we do not have a problem at that well but only we, the community, can keep it that way. Problems arise when the parts per million reaches 10 and all the test to date show it as less than 1.



Halekii Well, Nitrate Levels (PPM)

Source: County of Hawaii Department of Water Supply

The District asks all farmers, homeowners, and landscapers to avoid over-fertilizing and before fertilizing, to get a soil test done. A soil test will give a

pretty good idea of what your soil needs and doesn't need, though you may have to ask specifically for a nitrogen test. Nitrogen levels in soil can change rapidly, even a thunder and lightning storm can affect your soil's nitrogen. (cont. on page 2)

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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

Why Nutrient Management is Important *(cont. from pg. 1)*

Knowing your crop's needs for nitrogen can also be beneficial. UH Extension Services recommends mature coffee orchards receive nitrogen at a rate of 300 lbs/ac/year. There are ways to provide some nitrogen without the use of commercial fertilizers. Using a cover crop of sun hemp is one idea or use perennial peanut as conservation cover. Both are nitrogen fixers as they take nitrogen from the air and convert it to a form that is usable by plants. Not only will you be protecting our drinking water for future generations but you could end up saving money by not having to purchase so much commercial fertilizer.

Also, keep a well maintained septic system. Human waste is flushed into septic systems and if they are not working properly, or are over taxed, nitrogen could be leaching into the ground water.

Finally, for those who do not pick-up after their pet, this is another example of non-point source pollution.

A Hui Hou Kara



Above: Kara Nelson working on a conservation plan for one of her clients.

Kara Nelson, Soil Conservationist here in Kealahou, has accepted a position in the Pacific Islands Area State Office in Honolulu. She will be heading over to Oahu to start her new responsibilities as a Resource Conservationist in late January. Kara started here in Hawaii about two years ago joining us from an NRCS office in Wisconsin.

Her new position calls for her to provide technical support for conservation planning. One way she hopes to do that is to create a conservation planning course for the Pacific Islands Area for employee training purposes.

Kara will also work on maintaining and updating job sheets. Job sheets are a method NRCS uses to educate its clients as to how to install a conservation practice and the specs and standards that must be attained for the practice to be certified as complete. She will also be able

to provide a field staff perspective regarding decisions made at the state office level.

She hopes to be able to continue participating in competitive paddling, something she became involved in when she moved here. Please join us in wishing Kara the very best of success in her new position.

Annual Flood Control Structure Tour

The Kona SWCD and a representative from NRCS, Dave Fischer, and the Public Works Department, Dale Gomes, inspected some of the Kona's flood control structures. The structure adjacent to the Sunset Mill Coffee Cooperative on Napoopoo Rd. was in good condition overall. The only recommendation made was for the removal of two trees whose root systems could produce long term damage to concrete work along the sides of the structure.

Our next tour stops were mauka of Kainaliu where sediment basins and grass swales were established many years ago. There were some pig trails and the rooting up of the grass. One landowner requested and received some technical advise about the type of gate to install in a fence that would allow for the flow of water through the grassed swale but still prevent pigs from (cont. on page 3)

Annual Flood Control Structure Tour (cont. from pg. 2)

accessing his property. Overall the grassed swales were well maintained and credit for that goes to the county's Public Works Department employees. Dale Gomes has participated with the Kona SWCD in doing the tours for a number of years. He knows the history of the structures as well as the history of flooding in North and South Kona. Also joining us on this tour was Dave Fischer, an NRCS Civil Engineer. His engineering expertise is always valuable on these tours. He was instrumental in helping to solve the landowner's problem on how to keep pigs off his land while at the same time allowing for the flow of water.



The animal trail in the above picture has affected the integrity of this flood control structure .

Haole koa tree whose root system may cause problems in the future with the integrity of the structure



Kukui nut tree whose root growth can create problems in the future with the integrity of the concrete wall.

Kona County Farm Bureau and the Little Fire Ant

Last fall the Kona County Farm Bureau (KCFB) conducted a Little Fire Ant (LFA) survey of the Keauhou Estates subdivision. A number of volunteers joined the KCFB in placing 8-10 peanut baited chopsticks around the landscaping of about 80 homes.

After placing the bait out the volunteers waited an hour before going back and collecting them. Of all the lots test 43 had species that were potentially the LFA. The bait sticks from those home were sent to Cas Vanderwoude in Hilo who identified all the ants caught. The good news only one home tested positive for the LFA so steps can be taken to eradicate them from that parcel.

Previous to the survey at the Keauhou Estates the KCFB did a survey of the Kailua Bay Estates and surveys of additional subdivisions are planned for the future.

This spring the KCFB is hosting a fundraising locavore dinner in order to continue this valuable program. The dinner takes place on March 26th at the Keauhou Outrigger and the cost per person is \$65. You will be treated to a delicious meal made entirely of food grown on Hawaii and you will be helping the KCFB keep West Hawaii LFA free. Contact the KCFB for more information at 324-6011

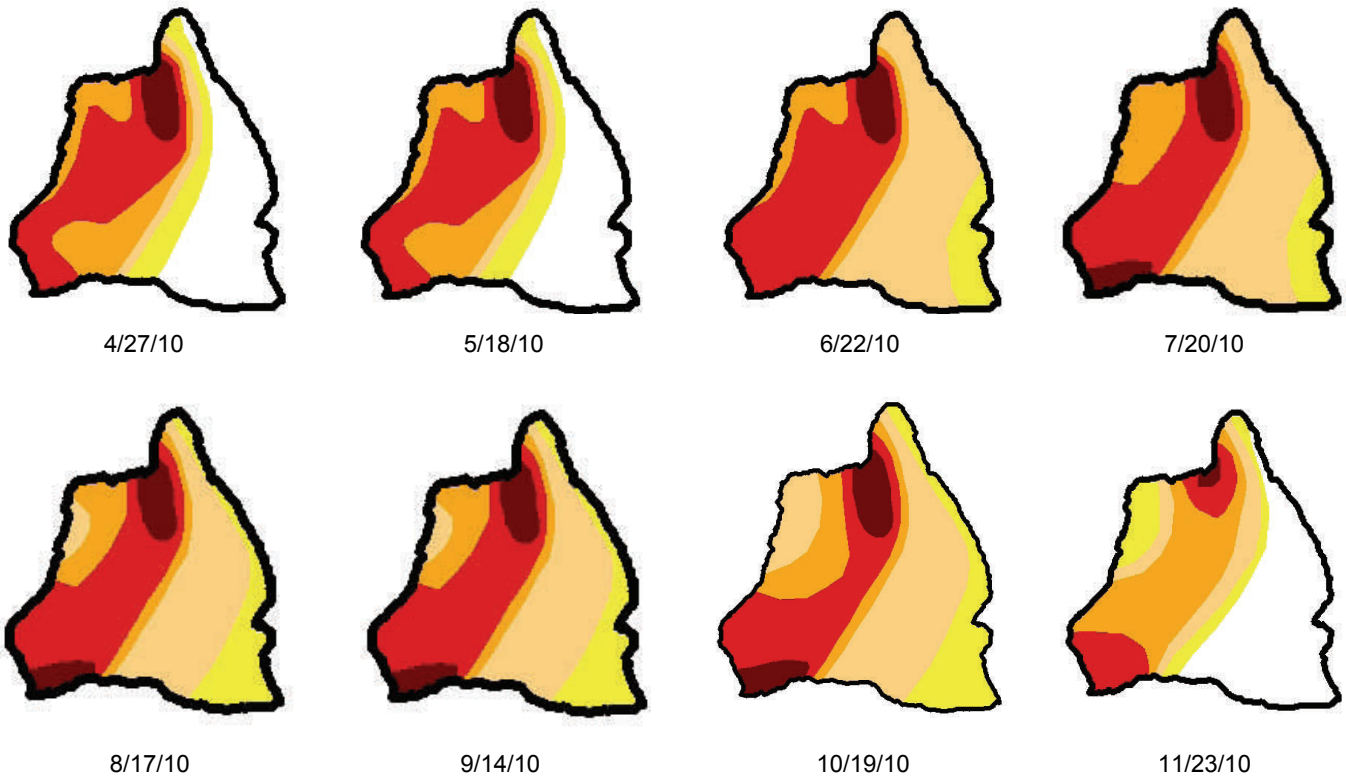
The KCFB also manages the popular Keauhou Farmer's Market held on Saturday mornings at the Keauhou Shopping Plaza. Stop by there and pick up fresh island eggs, vegetables, fruits and meats. The Lotus Café also has a booth and sells the most delicious summer rolls, avocado, fish or chicken that come with a wonderful peanut sauce.

Water Hauling Assistance Update

Back in May, the state of Hawaii submitted four funding requests for drought relief to the Bureau of Reclamation, an agency within the Department of the Interior. In November we learned none of them were funded. We don't why the requests were denied considering Hawaii was deemed the driest state in the country, and the USDA did classify four Hawaii counties as disaster areas because of the drought. One of the four requests was submitted by the Kona SWCD to cover the cost of hauling water to homes and farms that do not have access to county water and rely solely on water harvesting catchment.

DLNR asked for copies of successful funding requests so that we can learn how to improve our requests in the future, though we are hoping that a drought as severe as the one that is slowly improving around the island does not repeat itself anytime soon. See below for some of the maps found on the US Drought Monitor website that show the extent of the drought and the hardest hit areas. The good news is that the drought conditions appear to be subsiding. In the future the Kona SWCD will continue take advantage of opportunities it learns of to assist our local agricultural community.

The below maps are available on line at www.drought.unl.edu/dm/monitor.html. Updated maps are released every Thursday morning.



Intensity:

D0 Abnormally Dry	D3 Drought - Extreme
D1 Drought - Moderate	D4 Drought - Exceptional
D2 Drought - Severe	

Maui Dirt Devils Head to the Nationals

Each year the Soil and Water Conservation Districts (SWCDs) across the state hold County Conservation Awareness Contests, a land judging contest. The winner of the county contests move on to the state level competition and the winner of that moves on to the national level competition held in Oklahoma.

For 2010, Pahoa High School won the Hawaii County Conservation Awareness Contest which was held in October and hosted by the Kona SWCD at the Kainaliu UH Extension Services facilities. Pahoa High, with financial help from all six of the Big Island's SWCDs participated in the state contest held on Oahu in late November. The winner of the state level competition was the Maui Dirt Devils which is a strong team every year.

The SWCDs from across the state are helping with travel costs to the national competition though our help may not be enough. If you would also like to help the Dirt Devils get to Oklahoma feel free to contact the SWCD office on Maui. You can reach their admin assistant Maggie at 808-871-5500 ext. 101 and every little bit helps.



To the left is a picture of the Maui Dirt Devils, a 4-H team from Seabury Hall. From left to right team members are adviser Daryl Yamada and students Ashley Malek, Devin Vinoray, Tyler Yamada and Taylor Hori

To the right is a photo of a conservation awareness contest in process. Sometimes the contest is referred to a Land Judging Contest. Students have to inspect soil pits and make determinations about the soil and surrounding land based on what they observe. Students make determinations on soil texture, at the surface and subsurface layers, soil permeability, erosion, slope and suitable land capability class. This contest provides a great opportunity for students to learn what kind of real world knowledge is required for a variety of career fields.



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

Editor's Note: "The Soils of the Kona District", is a reoccurring column in this newsletter. This edition will be highlighting a resource available to any one with an internet connection, the Web Soil Survey, made available to the public through the Natural Resource Conservation Agency, and agency within the USDA.

The soil survey is a basic natural resource assessment for landowners to make land use decisions. Readily accessible local soil information is critical to informing conservation decisions for sustainable land use planning. The USDA-NRCS Web Soil Survey replaces the traditional printed soil survey books with an easy access, self service system that retrieves local soil information. The digital format is continually updated with the most current official USDA soil survey information. It includes interpretive data for agronomic, forestry, recreational, urban development, and other uses. Web Soil Survey can display soil maps and interpretive thematic maps. Customers can customize reports or data files to individual needs to address questions on potential land use. Maps and data reports can be printed or saved to the customer's computer in a custom soil resource report. The original Web Soil Survey was released for public use in 2005. The current version was made available in 2008. Check out this cool website for yourself. If you have questions regarding Web Soil Survey or soil in general, please contact Michael Kolman at the USDA-NRCS service center in Kealahou.

The screenshot shows the Web Soil Survey home page in a Windows Internet Explorer browser. The page layout includes a search bar at the top left, a navigation menu, and a main content area. The main content area features a large green "START WSS" button, a "Welcome to Web Soil Survey (WSS)" section with a photo of people in a field, and a "Three Basic Steps" section. The "Three Basic Steps" section includes: 1. Define... with an "Area of Interest (AOI)" map; 2. View/Explore... with a "Soil Map" thumbnail; and 3. Click the Soil Map tab to view or print a soil map, or click the Soil Data Explorer tab to access soil data for your area and determine the suitability of the soils for a particular use. The "I Want To..." section lists links such as "Start Web Soil Survey (WSS)", "Know the requirements for running Web Soil Survey", "Know whether Web Soil Survey works in my web browser", "Know the Web Soil Survey hours of operation", and "Find what areas of the U.S. have soil data". The "I Want Help With..." section lists links such as "How to use Web Soil Survey", "How to use Web Soil Survey Online Help", "Known Problems and Workarounds", "Frequently Asked Questions", and "Citing Web Soil Survey as a source of soils data".

Above: Web Soil Survey home page. Click on the green START WSS to begin.



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 Kealahou can be reached at 322-2484 ext 111.

SURE

SURE provides benefits for 2008 through 2011 crop year farm revenue losses due to natural disasters. It is the 2008 Farm Bill's successor to prior ad hoc crop disaster programs. For SURE, a "farm" is eligible when either:

- a portion of the farm is located in a county covered by a qualifying natural disaster declaration (USDA Secretarial Declarations only) or a contiguous county; or,
- the actual production is less than 50% of the normal production.

Signup for the 2009 SURE began on January 10, 2011.

TAP: The Tree Assistance Program (TAP) provides financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate eligible trees, bushes, and vines damaged by natural disasters occurring thru October 1, 2011.

CREP: FSA continues to accept applications for the Hawaii Conservation Reserve Enhancement Program (CREP). Through CREP, program participants receive financial incentives from USDA and the State to voluntarily remove land from agricultural production and convert the land to native grasses, trees and other vegetation.

LIP: The Livestock Indemnity Program (LIP) provides financial assistance to producers for livestock deaths that result from natural disaster. LIP compensates livestock owners and contract growers for livestock death losses in excess of normal mortality due to adverse weather, including losses due to hurricanes, floods, certain diseases, wildfires, extreme heat and cold. Eligible losses must be documented with FSA within 30 days of the death being apparent. Note that VOG has been approved as a qualifying event; but drought is not a qualifying event.

Conservation Loans

FSA will make and guarantee Conservation Loans (CL) to farmers and ranchers who want to promote conservation on their land as well as conserve the country's natural resources. Producers can apply for CL to improve or implement conservation practices on their land as long as the practice is approved by NRCS.

This loan program can help with practices that reduce soil erosion, improve water systems and quality, and promote sustainable and organic agriculture.

For more information on this program and other loan programs offered through FSA contact John Tamashiro at 933-8342 or Miki Miyasato at 933-8344 in the Hilo FSA office."

USDA is an equal opportunity provider, employer and lender. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, 1400 Independence Ave., SW, Washington, D.C. 20250-9410 or call (800) 795-3272 (voice), or (202) 720-6382 (TDD).

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Board of Directors:
Chairman: Rick Robinson
Vice Chairman: Greg Hendrickson
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Assistant
Monthly meetings are held on the 2nd
Tuesday of the month from 7am-9am
at the USDA Kealahou 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

Director Isbell to Help the Community's Youth

Virginia Isbell has resigned from her director position on the Kona SWCD. She is involved in numerous activities for the benefit of West Hawaii, particularly for our community's youth and she wants to be able to devote more time to those efforts.

Virginia has been an important member of our organization providing an historical reference for many topics of conversation at our meetings, particularly the history of the Kealahou dump. We will miss hearing her input at our meetings but a person only has so many hours in a day. The youth of West Hawaii are certainly deserving of the knowledge and viewpoints Virginia can bring to any organizations she works with. We wish her the greatest of success.

Virginia's director position was scheduled to expire in June of this year. We are looking for someone who lives or works in North or South Kona and has an interest in protecting and preserving our natural resources while promoting agricultural economic development. If you are interested contact Mary at the district office, 322-2484 ext 100

Help Prevent Destructive Flood Damage

We have been experiencing some heavy rains lately which have not caused any flooding problems and that might be a result of how dry it has been for the previous year. If we continue to receive these heavy rains, serious runoff problems could occur. You can help prevent them by keeping water courses that run through your property cleaned out. If you know of a culvert with a lot of debris, you can contact the county's Public Works Department and let them know. They are a hard working group of people who want the community to be safe, so help them help you by reporting blocked culverts.

To our agricultural community, the Kona SWCD wishes you the greatest of success in 2011