

Resource Kona

RESOURCE KONA

Fall 2014

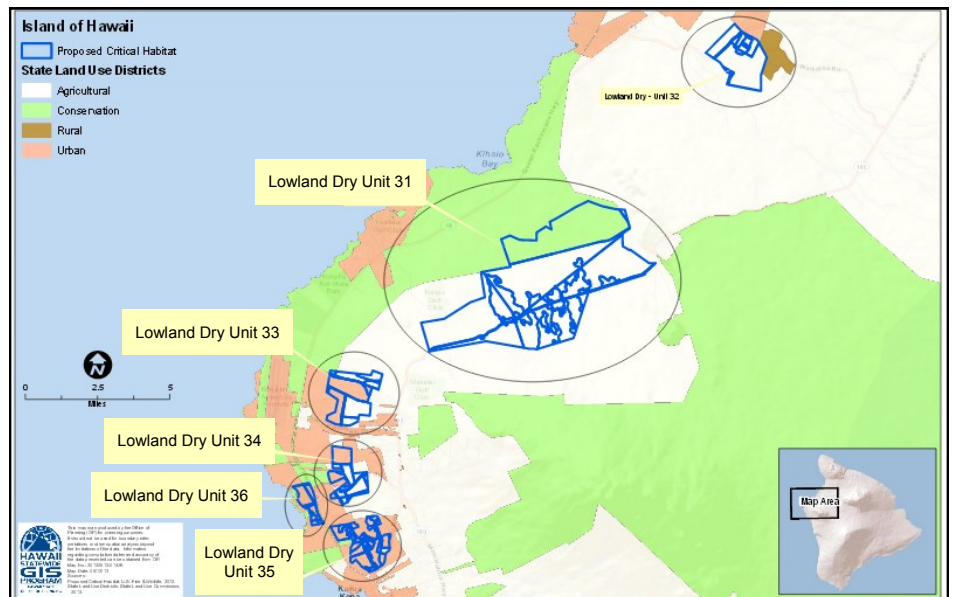
KONA SOIL AND WATER CONSERVATION DISTRICT

Critical Habitat, what is it and should farmers and ranchers worry?

Critical habitat is crucial to the survival of a threatened or endangered species and essential for their conservation. Critical habitat designation is called for in the Endangered Species Act (ESA) once a species is determined to be threatened or endangered. An “endangered” species is on the brink of extinction, “threatened” species are those that are declining in numbers and might become endangered if conservation efforts are not taken.

The US Fish and Wildlife Service (USFWS) is a government agency within the Department of the Interior (DOI). This is the federal government entity that makes the decision to list or not list a species as threatened or endangered. There are a lot of protections in place by the Endangered Species Act once a species is listed as endangered or threatened but without the appropriate habitat necessary for that species it will have a more difficult time surviving or rebounding from its threatened or endangered status. Based on science, the USFWS, determines the land that is best suited for critical habitat. Some people do not have any problem with a critical habitat designation but what if you plan to do more with your land than provide wildlife habitat, like plant an orchard or use grazing animals to assist with keeping invasive species under control?

According to the USFWS, the only infringement on a land owner whose land has a critical habitat designation is when that land (continued on page 4)



The graphic above shows where the land is that the USFWS would like to designate as Critical Habitat. It includes a lot of urban land that is already slated for development by a number of organizations, like Hawaiian Home Lands. The development of the Kona Judicial Complex and the proposed affordable housing project, Kamakana Village, are both on the lands proposed for critical habitat and exactly what that means is the plans have entered a stage of uncertainty. Will the land be designated as Critical Habitat and if so have all the millions of dollars already invested in the many projects to be affected been wasted?

Inside this issue:

Mulch availability

21st Century Agriculture

AMA or EQIP

Wildlife Wonders

History's Corner

Soils

FSA News

New Kona SWCD Chair

2014 Ballot Question Related to Ag

Page 2

Page 3

Page 4

Page 5

Page 5

Page 6

Page 7

Page 8

Page 8

Special points of interest:

- Kona SWCD meetings take place the second Tuesday of the month from 8am-10am and you are invited.
- Would you like a site visit to your farm for GPS and photo documentation purposes, call 322-2484 x100 to set up an appointment.

Mulch once again available by the truck load at Kealakehe

Earlier this year the county reinstated the ability to obtain large truck loads of mulch, for a small loading fee, at the Kealakehe transfer station. Having moved the operation much to Waikoloa many farmers simply stopped using the product because of the increase in hauling costs. Yes, the mulch is free but the truck driver’s time, truck and gas are not.

Possibly the greatest concern about using the county’s free mulch program has to do with what might be in the mulch that you absolutely do not want on your farm, like the Little Fire Ant.

The district asked about that scenario and the response was that proactive steps by Hawaii Earth Products (HEP), the company with the county contract to process green waste, and the Department of Agriculture, are taken at both the West Hawaii and East Hawaii facilities that process green waste into mulch. Those steps include using an EPA approved and registered ant baits and no Little Fire Ants have been discovered.

Temperature of the mulch piles is also monitored but more to prevent spontaneous combustion. The piles are temperature tested at 8am and are generally over 130 degrees. Later in the day, after the sun has been beating down on it, the temperature is presumed to increase.

Below is the fee schedule for loading trucks with mulch at the Kealakehe transfer station.

Vehicle Category	Flat Fee
MINIMUM LOAD FEE: <i>(any load less than 1/2 yard)</i>	\$ 5.00
SMALL PICKUP TRUCKS: <i>(Toyota Tacoma, Nissan Frontier) ½ to 1 yard loads</i>	\$ 5.00
FULL SIZE PICKUP TRUCKS: <i>(F-150, F-350, trucks with 6-8 foot bed (1.5 to 3.5 yard loads)</i>	\$ 8.00
UTILITY/LANDSCAPE TRUCKS: <i>(F-450 to F-750 sized trucks with staked side or dump beds) 4 to 8 yard loads</i>	\$ 12.00
TANDEM DUMP TRUCKS, SUPER TANDEM DUMP TRUCKS AND SMALL END DUMP TRAILERS: <i>(10 to 20 yard loads)</i>	\$ 15.00
SUPER END DUMP TRAILERS: <i>(20 plus yard loads)</i>	\$ 18.00



The photo on the left shows how a producer used mulch over a large area and then used mulch just around newly planted orchard trees. The photo below shows a mulch pile in quarantine to ensure there are no little fire ants .



21st Century Ag, Right Here in South Kona

The Greenwell Coffee Farm, a long-standing family farm managed by Tom Greenwell, is definitely in the 21st century when it comes to managing natural resources. Greenwell Coffee Farms uses 5-6 thousand gallons of water per day in its coffee processing. When coffee processing is complete this water is very low in pH, around 4.3, which makes it a poor choice for irrigation water. Beginning this fall the processing water is transferred to a 10,000 gallon water tank (like a catchment tank) that has air and bacteria inputs. It is in this tank for about 24 hours then pumped into a second tank where the processes with the air and bacteria continue for about another day then it is pumped into a third tank where it is used for irrigation. The pH of the water in the third tank is about 7, perfectly fine for irrigation.

This treatment system provides enough fertilizer for 15% of the needs of a 5 acre field for 1 year so the systems saves the farm money for water and fertilizer, both high level inputs on any farm. This water treatment system is something Greenwell Farms feels they cannot live without. The future cost of water is an ongoing concern and with this system in place some of those concerns have been alleviated.

Another 21st century management system they have put in place is incorporated in soil grafting. They have tested their soil for glyphosate build-up and those tests showed a low level of microbial activity where the use of the glyphosate herbicide was most frequent. Where the use was less frequent the soil's microbes are in better shape. Knowing microbial activity is imperative for soil health Tom knew some amending of the soil was probably called for but amend with what? They hired their own biologist and have started feeding the healthy soil a recipe of amendments that included molasses, one of microbes favorite meals, to build up the microbe numbers.

While the soil is consuming its molasses, a narrow ditch, just a few inches deep, is dug along a coffee row. The amended soil is spread out in the ditch then the ditch is back-filled. The good soil has now been grafted into the soil that needs greater number of microbes for its good health.

Old school conservation practices are also implemented on Greenwell Coffee Farms such as keeping soil covered. Greenwell Farms knows there is little that is worse for soil than leaving it uncovered and exposed to the atmosphere, so they don't allow that. If they are establishing a new coffee field, even before the coffee goes in, a grass species is planted to prevent erosion, maintain soil moisture, and maintain soil temperature.

The Greenwell Coffee Farm has been a leader in the coffee industry for generations. Considering the value they place on protecting their soil and minimizing input costs it seems they will remain a leader for sometime to come.



Aside from all the science-based work being done on the farm they also landscape using native species. In the photo on the left they have used pili grass (aka tanglehead grass, *Heterogpogon contortus*), `ilima (*Sida fallax*), and `uki`uki (*Dianella sandwicensis*) at the farm's office entrance.

Hopefully their landscaping with natives has others interested in the practice as well. If you want to learn more about natives for your piece of paradise check out the *Kona's Native Hawaiian Plants* booklet located on the web at <http://www.kswcd.org/PDF/konasnativehawaiianplants.pdf>

Critical Habitat, what is it and should farmers and ranchers worry?

(continued from page 1)

owner or land user wants to participate in programs funded by the federal government, like the Natural Resource Conservation Service's (NRCS) Environmental Quality Incentives Program (EQIP). The federal government is restricted by law from funding projects that will have a negative effect on designated critical habitat, threatened or endangered species. Because local and state governments may use federal government funding for things like building roads, bridges, schools, etc., this aspect can make progress on infrastructure and building more costly and time consuming.

Per an article in Maui News on 2/26/13 on a public meeting held regarding the designation of land as critical habitat, a USFWS spokesperson, Christa Russell, Assistant Field Supervisor, acknowledged the challenge of participating in federal government programs if your land is designated as critical habitat. She also acknowledged that private landowners could be open to third party lawsuits (any person can sue another person suspected of violating the ESA "taking" prohibition) and their land values may drop as buyers may not want to pay a lot of money for land with the critical habitat designation.

So, if your land is given a critical habitat designation either nothing will happen, or you will have challenges participating in programs that provide federal government funding, or you have the potential to be sued by a third party.

AMA or EQIP, Which is a Better Fit For You?

There are many local producers who have benefitted from participating in the Natural Resource Conservation Service's (NRCS) Environmental Quality Incentives Program (EQIP) but there is another program that NRCS offers that can be as useful, the Agricultural Management Assistance Program (AMA).

AMA differs from EQIP in a number of ways. First, it is only offered in 16 states and Hawaii is one of them. The 16 states participating in the AMA program is where participation in the Federal Crop Insurance Program is historically low. Half of the AMA funding authorized by Congress is to be used for conservation, the other half is provided to the Agricultural Marketing Service (AMS) and the Risk Management Agency (RMA).

Another way AMA differs from EQIP is with the standard for allowing irrigation practices. If participating in the EQIP program you have to have been irrigating for two of the past five years. This is not a requirement for AMA so if you apply for the program and are eligible to participate and obtain funding for your application, a new irrigation system for producers without any irrigation is possible.

Being able to obtain funding for an irrigation system where previously there had been none is a great thing for our producers, the problem is in the amount of funding the AMA program receives. The entire state of Hawaii had \$85,000 to allocate to land owners/users during fiscal year 2014 which ended on September 30 of this year. The North and South Kona producers had EQIP contracts totaling approximately one million dollars for the same year, so the funding levels are not at all comparable.

Despite the low funding amounts in AMA the Kona SWCD recognizes the value of this program, particularly for producers who currently do not have any type of irrigation system on their land. It is possible this part of the AMA program can help with reducing our dependence on imported food because having a reliable irrigation system allows producers to grow more food.

The two programs, AMA and EQIP, are very similar as well. They have the same eligibility requirements, they both have Adjusted Gross Income (AGI) requirements and both are for the purpose of getting conservation on the ground.

Wildlife Wonders



This is a photo of a Black Crowned Night Heron or Auku`u. It is indigenous wildlife meaning that not only is it native to Hawaii but can be found in other parts of the world as well.

It is the feeding habits of this bird that give it its name "Night Heron". This species of bird will stand still along the water's edge and wait until there is prey available for ambush. Their diet consists mainly of small fish, crustaceans, aquatic insects and small mammals and small birds.

The male chooses the nesting site, generally a platform of sticks, twigs and other vegetation usually in tree or in a habitat away from predators. A tree that branches out over water is often a safe place for the nest.

The nest building process is started by the male and when he finds a mate both are involved in building the nest, the male obtaining the building supplies and female positioning them where she sees fit.

Three to five eggs, which take 24-26 days to incubate, is considered a normal clutch for this species. The nesting period is about 4 weeks and then the young leave the nest. It is another couple of weeks before they learn to fly. During that time they move through vegetation on foot.

This photo was taken at the Kaloko Honokohau National Park

History's Corner, Flash Flooding October 3rd and 4th, 1968



October 3, 1968 saw 11.6 inches of rain fall in about 4 hours at the 2,300' elevation. The photo on the left, taken on 10/3/1968 is of Mamalahoa Highway where the Kaunalumalu Stream crosses it, about a half mile south of Hualalai Rd. The flow rate was estimated to be 5,200 cfs.

The photo to the right is of a road in the Seaview Estates Subdivision and was taken on October 4, 1968. The caption on the photo reads: "Street destroyed by Kaunalumalu Flood. Water got under the asphalt, washed away the fine material, and left the road very wavy and broken up."

Soil Facts

Mike Kolman, MLRA Soil Survey Leader, USDA, NRCS Kealahou, Hawaii



Pu'u Wa'awa'a is the namesake of the greater ahupua'a (traditional land management area) in the North Kona District which encompasses over 35,000 acres on the leeward side of Hawaii Island. The ahupua'a spans eight miles from 6,500 feet elevation to sea level at Kiholo Bay. It is owned by the State of Hawaii Department of Land and Natural Resources. However, there are a few parcels of land that were withdrawn from the lease during the Territorial era and still remain under private ownership today. The remainder of more than 35,000 acres is managed as a State Forest Reserve. In 2002, the Board of Land and Natural Resources directed the establishment of the Pu'u Wa'awa'a Advisory Council to provide guidance to the State regarding the multiple-purpose concept of a modern ahupua'a. In 2003, with the close involvement of the Council and State staff, a Management Plan was developed and approved by the Board to drive the multiple use vision into the future, and serves as the roadmap for short-term as well as long-term activities on the land.

In order to work on the management plan, Elliott Parsons, Conservation Planner at North Kona Game Mammal Habitat Conservation area, requested information from the Kealahou Soil Survey office to help with the inventory of natural resources. Soil surveys are important to planners, engineers, zoning commissions, tax commissioners, homeowners, developers, as well as agricultural producers. Soil surveys provide the basic information needed to manage functions. They also provide information needed to protect water quality, wetlands, and wildlife habitat. Soil surveys are the basis for predicting the behavior of a soil under alternative uses, its potential erosion hazard, and potential for ground water contamination, suitability and productivity for cultivated crops, trees, and grasses.

With the soil survey information provided, Mr. Parsons was able to determine the suitability of sites for native plant species and trees, of areas to build plant community enclosures, and for fencing materials.

If you would like soils information for your land contact the Soil Survey staff at the Kealahou Field Office. Mike Kolman can be reached at 322-2484 ext. 106 or Jacky Vega at ext. 108.

You can also learn about your soil using the Web Soil Survey, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm> You may need some instruction on using the Web Soil Survey when you first try it. Give us a call we will be happy to help you.



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 Hilo can be reached at 933-8381 ext 1.

Improvements to FSA’s Microloan Program

The United States Department of Agriculture (USDA) recently announced expanded eligibility criteria and increased lending limits to help more beginning and family farmers. As part of this effort, USDA is raising the borrowing limit for the Microloan Program from \$35,000 to \$50,000; simplifying the lending processes; updating required “farming experience” to include other valuable experiences; and expanding eligible business entities to reflect changes in the way family farms are owned and operated.

The new microloan changes will allow beginning, small and mid-sized farmers to access an additional \$15,000 in loans using a simplified application process with up to seven years to repay. Microloans are part of USDA’s continued commitment to small and midsized farming operations. In addition to farm related experience, other types of skills may be considered to meet the direct farming experience required for farm loan eligibility such as operation or management of a non-farm business, leadership positions while serving in the military or advanced education in an agricultural field. Also, individuals who own farmland under a different legal entity operating the farm now may be eligible for loans. Producers will have an opportunity to share suggestions on the microloan process and the definitions of farming experience and business structures until December 8, 2014, through the Federal Register. There is also a published notice to solicit ideas from the public for pilot projects to help increase the efficiency and effectiveness of FSA’s loan programs, with comments accepted through November 7,

2014.

<i>Interest Rates for October 2014</i>	
Farm Operating Loans –Direct	2.125%
Microloans	2.125%
Farm Ownership Loans – Direct	3.625%
Farm Ownership Loans – Direct Down Payment, Beginning Farmer or Rancher	1.50%
Emergency Loans	3.125%

For more information on farm loans, please visit www.fsa.usda.gov or contact your local Farm Service Agency office. The Hilo FSA office can be reached at 933-9381 ext. 1

Please note: Interest rates are subject to change without notice.

The FSA staff requests that you save time and call ahead to make an appointment when you need to see them. They will take you as a walk-in person with questions but you could potentially waste a lot of your valuable time that way. Call head, make an appointment, it is easy. 933-9381 ext 1. They are happy to assist you.

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

Board of Directors:
Chairman: Greg Hendrickson
Vice Chairman: Jeff Knowles
Treasurer: David Fischer
Secretary: Keith Unger
Director: Rick Robinson

Staff: Mary Robblee, Conservation Assistant
Monthly meetings are held on the 2nd Tuesday of the month from 8am-10am 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.

We are on the web at

www.kswcd.org

AMA or EQIP, Which is a Better Fit For You?

If you too believe these programs are a benefit to our producers, and therefore a benefit to our community, contact our federal representatives, Tulsi Gabbard or Colleen Hanabusa, and let them know. Representative Gabbard's contact number for her Honolulu office is 808-541-1986 and Representative Hanabusa's Honolulu contact number is 808-541-2570.

Rick Robinson Steps Down as Kona SWCD Chairperson

Rick Robinson, the Chairperson of the Kona SWCD has stepped down from the position and will remain on the board. Robinson believes to have a healthy community organization the person in charge has to change, new blood in the leadership position. The make-up the entire board is as follows:

Chairperson: Greg Hendrickson, an attorney who specializes in conservation law,

Vice Chairperson: Jeff Knowles, retired Natural Resource Conservation Service conservationist.

Secretary: Keith Unger, Ranch Manager for McCandless Land and Cattle Company

Treasurer: David Fischer, retired Natural Resource Conservation Service civil engineer

Director: Rick Robinson, retired from Kamehameha Schools, Land Asset Division, grower of coffee and Bird of Paradise flower.

If you are interested in working on this board stop in for a meeting at the USDA Service Center on the second Tuesday of the month, unless there is a federal holiday that day as is the case this November 11,

Ballot Question Relating to Agriculture

There is a state constitutional amendment question being put before Hawaii's voters this year related to the state being able to issue special purpose revenue bonds to assist agriculture enterprises on any type of land. The current law allows for bonds to be issued and the funds raised to be used only by agricultural enterprises serving important agricultural lands. The new law would allow any agricultural enterprise to potentially access these funds. Substantive capital funds are required to build and support the infrastructure our farmers and ranchers need in order to grow our food and decrease our state's food insecurity concerns.