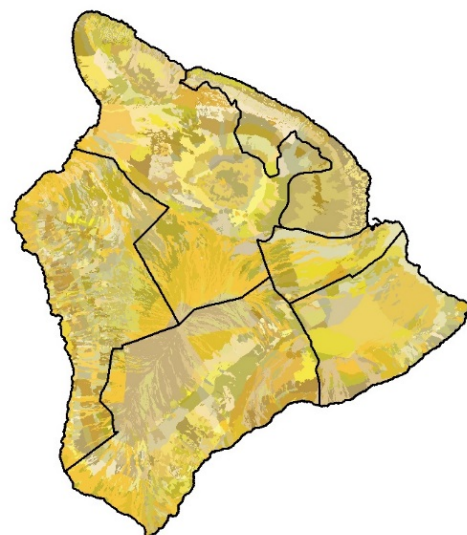


Hawaii Island Soil and Water Conservation District 2015 Annual Report



2015

International
Year of Soils



healthy soils for a healthy life

On the Cover Page Managing for Soil Health

Soil Health: The continued capacity of the soil to function as a living ecosystem that sustains plants, animals, and humans.

Soil is one of our planet's most precious resources. Healthy soil is important for our food security and the functioning of our ecosystems. It provides the support and nourishment needed for plants, animals, and humans to survive.

In honor of the 2015 International Year of Soils, this year's cover page is all about soil. At the top is a map that outlines our local SWCDs and showcases the incredible diversity of soils on Hawaii Island. The four photos below the map depict the four main principles of improving soil health (left to right, top to bottom):

1. Maximize plant diversity
2. Keep living roots in the soil
3. Keep the soil covered at all times
4. Minimize soil disturbance

Managing for soil health on the farm or pasture provides many benefits. Improving soil health will enhance the land's productivity, increase the farm's profitability, promote habitat for beneficial soil organisms, prevent soil loss, and ensure the soil will remain productive for years to come.

The USDA's Web Soil Survey online is a great tool to help you get familiar with the unique soils of your land. You can also contact your local NRCS Field Office for assistance and information on soil health practices.

COUNTY OF HAWAII

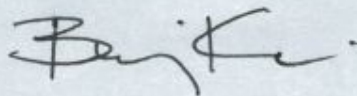
MAYOR'S MESSAGE 2015

On behalf of the people of the County of Hawai'i, it is an honor to extend our heartfelt thanks to all the staff and volunteers of the Hawai'i Island Soil and Water Conservation Districts whose achievements are documented in the 2015 SWCD Annual Report.

Often times unsung heroes, the Hawai'i Island Soil and Water Conservation District staff and volunteers work tirelessly to preserve and to protect Hawai'i's natural resources and our pristine environment. This dedication provides technical conservation assistance, continuing education, and underscores the value of protecting these essential agricultural resources.

Your work truly benefits the people of Hawai'i now and for generations to come.

Aloha,



Billy Kenoi
Mayor





Message from Bruce Petersen, Pacific Islands Area Director



I am proud of our conservation efforts and the District and NRCS staff that deliver programs and expertise. I hope you enjoy this report and welcome your comments and look forward to another great year partnering with you in helping people help the land.

Last year, over \$6,500,000 in financial assistance was provided to over 130 producers through USDA Farm Bill Programs, and almost 70,000 acres of conservation planning was completed. These accomplishments were a combined effort by NRCS and District employees. I appreciate the assistance that partners like you provide to NRCS and to the producers of Hawaii.

I have mentioned before that I do not have the funding to return us to the 125 full-time staff that many of you remember from years past. I can report that I have or will very shortly have vacancy announcements out for 14 positions. Three of those positions will be state office staff, and 11 positions will directly support the field. In addition, I have partnered with several Hawai'i Conservation Districts on financial contribution agreements to help partially compensate districts for assistance with conservation planning, conservation practice implementation, and administrative support.

I look forward to discussions to resolve issues and concerns and improve our partnership and our service to the producers in Hawaii. The Chief has said there is not a down side to putting conservation on the ground. The collective effort of all of us is what makes such a difference to the producers and to the natural resources of Hawaii. I thank you for your support and look forward to working with you.



About the Soil and Water Conservation Districts

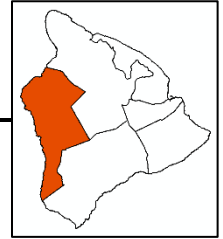
The Soil and Water Conservation Districts (SWCDs) are legally constituted, self-governing sub-units of Hawaii State government organized under the 1947 Hawaii Soil and Water Conservation District Law, now known as Chapter 180 of the Hawaii Revised Statutes. Chapter 180 outlines the duties and powers of the SWCDs to administer and conduct soil and water conservation activities within the State of Hawai'i. There are a total of 16 SWCDs throughout the state, and together they form the Hawaii Association of Conservation Districts (HACD).

The mission of the SWCD is to take available technical, financial, and educational resources and focus them to meet the needs of local land users in the conservation of soil, water, and other natural resources. To do this, the SWCDs work with partner agencies at the federal, state, and local levels, allowing land users to take advantage of all programs, services, and resources available to them. Some of the SWCD partners include the USDA Natural Resources Conservation Service and Farm Service Agency, Hawaii State Department of Land & Natural Resources (DLNR), Department of Health, and Department of Agriculture, County of Hawaii Research & Development, Planning Department, and Department of Public Works, and non-profits such as the Hawaii Farm Bureau and Resource Conservation & Development Councils.

While some funding is provided through the DLNR, the SWCDs are mainly funded by the County of Hawaii in order to assist in the implementation of Hawaii County Code Chapter 10 Erosion and Sedimentation Control, also known as the County's "Grading Ordinance." The Grading Ordinance regulates all excavation, fills, grading, grubbing and stockpiling of soil material. Land users looking to conduct earthwork and/or soil disturbance for agricultural purposes that exceed the limits cited in the ordinance may receive an exemption to the County's permit requirements by developing a conservation plan with their local SWCD. The conservation plan must be approved by the local SWCD Board and detail the planned work and associated conservation practices.

Each SWCD Board consist of five directors who volunteer their time and service to natural resource conservation activities within the district. Each SWCD holds a monthly, public Board meeting to review and approve conservation plans and discuss and vote on important business. Individuals who are interested in getting involved with the districts are encouraged to do so and may contact their local SWCD directly. Contacts and other information related to the SWCDs can be found online at <http://dlnr.hawaii.gov/swcd/>.

Kona Soil and Water Conservation District



Directors' Message

This past year we had some extreme challenges from too much rain to too little rain.

Late last summer North and South Kona suffered from a series of flash floods that covered a span of about 6 weeks. Flash flood advisories seemed like a daily event with some suffering repeated assaults on their land. Naturally, land with a watercourse within or along its boundaries were impacted. Lifelong resident and rancher Barbara Nobriga stated that last year's rains caused every major watercourse in Kona to flow, something she says has not happened since 1968.

Many of those that experienced significant damage were producers who practice clean culture farming. Significant erosion occurred on some lands resulting in a great deal of soil loss. We are working with these farmers to adopt conservation measures that will restore and protect the land on their farms. The Farm Service Agency (FSA) is also working with many of those who suffered losses during the floods by assisting them with the cost of restoration, bringing the land back to where it was prior to the floods. For many, the next step will be to install conservation cover or other vegetative practices that will slow the flow of water over their land.

Once the floods were over, Kona was plagued with drought conditions and many in our area did not see meaningful rain for several months. Thanks to the staff of the Kealahou Field Office of the Natural Resource Conservation Service (NRCS) a lot of farmers and ranchers here have been able to get under contract to improve the water resources through irrigation or the development of stock water systems.

Part of our mission is to provide information to the community on the nature of our natural resources. To that end we participated in or hosted a number of events. In November we had our Soil Health Workshop which, for us, closed out the International Year of Soil. It was a very successful workshop with a variety of speakers addressing many concerns of our local producers.

We also participated in the Kona Coffee Expo providing information on soil health and plant species that are native to North and South Kona. The plant species info is provided by a booklet that NRCS created and the Kona SWCD had printed. It is a popular publication which makes choosing natives for your land easy by indicating the climate zones each individual plant is best suited. There are climate zone maps in the booklet so you can determine what your zone is and the plants that would grow best there.

The West Hawaii Forum invited the Kona SWCD to speak on the topic of "Soil and Water Management Challenges in Southwest Hawaii County". The forum was held at the Konaweana High School cafeteria at the invitation of Council Member David. Nearly all those who attended stated they learned something that would benefit their land. The Kona SWCD, as always, stressed the importance of keeping land covered in vegetation. Those plants are doing the important work of holding soil in place.

Kona SWCD Directors' Message, Continued

Our quarterly newsletter is another avenue we use to educate the community as to the natural resource challenges and successes that we have had. It remains an important part of what we do.

We would like to thank all those who work hard to steward our lands and keep them protected. We also want to thank all the people of Hawaii County. Your financial support, through the Department of Research and Development, is critical to our work and success. Finally, we want to thank our elected representatives, at all levels of government, who understand the value of our work and support us in many ways. We are happy to be building a health Hawaii Island along with all of you.

Kona SWCD Board of Directors



Greg Hendrickson, Chair



Jeff Knowles, Vice Chair



Pepe Miranda, Treasurer



*Left: Rick Robinson, Director &
Right: Keith Unger, Secretary*

Kona SWCD's Outstanding Cooperators of the Year

The farmers, ranchers, and forest land owners in North and South Kona have incredibly diverse operations. If someone can produce it off the land it is probably happening right here. That is why selecting our Cooperator of the Year is so challenging. Our nominees are the cream of the crop from the cream of the crop. Because of their skills, knowledge, and ability to apply it to the land in exceptionally diverse ways that protect our soil resources, we have three Cooperator of Year award winners!

Louise Hanna and Bob Kraus took a coffee farm that was very hazardous to walk through, because of the slope and the quantity of rocks underfoot, and turned it into an agroforestry environment that is a pleasure to view from their lanai, just sit down in but especially, given where it started, to walk through. They brought innumerable cubic yards of mulch to their land to start developing soil and started on establishing conservation cover. Knowing the importance of forests and bio-diversity for their farm, the wildlife population, even for the community as a whole, they started on planting native species within their coffee orchards. With the help of NRCS they have planted over 600 native trees. They are quite excited about their native plantings and are finding those who tour their farm equally as excited about them. The best thing...Louise and Robert are not done planting natives.



Here you can see a couple of the natives plants Louise and Bob have planted along with the conservation cover they established. It may not look like much but if you had seen where they started from, virtually no soil and no grass cover, you would know this is amazing.



Midori's land was an invasive mess with Christmas berry, Rose Apple, and Silver oak, to name a few. She had them removed and went about planting her native shrubs and trees.

When **Midori Satoh** and her husband were looking for their piece of paradise Midori wanted land she could restore to its native glory. The piece of land they found had Christmas berry, Rose apple, African Tulip and Silver oak as well as some unique rock wall configurations. Midori managed the tree removal work with no damage to any cultural resources. With the big trees removed, a fence could be installed, followed up with removing invasive understory shrubs and finally, the planting of over 600 native trees. Grasses, as expected, began to emerge with the overstory of the invasive trees removed but Midori is happy to deal with the grasses while everything else grows up around her.

Kona SWCD's Outstanding Cooperators of the Year, Continued

Robert and Dawn Barnes began their coffee growing adventure in 1999. They came into the Kona SWCD office and told the staff what their goals were at the time. They were told one of the most important things they can do, if not the most important thing, protect their soil because they did not have a lot of it. When they were creating their coffee fields the first thing they would get established was annual rye grass. With the grass growing they marked off coffee rows and planted their trees. They retained islands of native forest stands and frequently see hawks, an owl and bats. Overall, there is a fairly large bird population on the farm and one of the really cool claims to fame for this farm, their coffee has been served regularly in the White House!



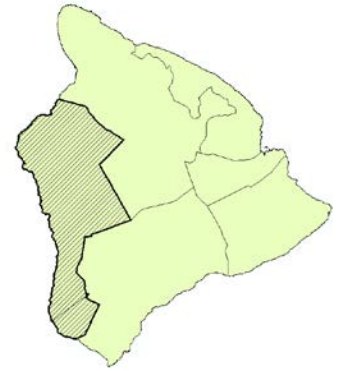
Before Robert and Dawn Barnes planted any coffee trees, they established conservation cover. Their soil was bare for the shortest time possible.

USDA-NRCS Kealakekua Service Center

Central Kona Center (Building 9)
81-948 Waena'Oihana Loop, Suite 101
Kealakekua, Hawaii 96750

#808-322-2484

Servicing: Kona and Ka'u SWCDs



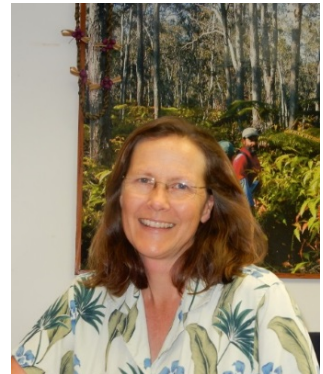
Field Office Staff



Jessica Schmelz, NRCS
District Conservationist



Bernard Vermeulen, NRCS
Soil Conservationist



Laura Nelson, NRCS
Soil Conservationist



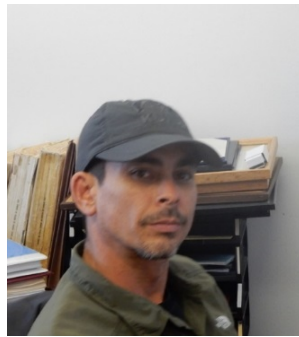
Mary Robblee, Kona SWCD
Soil Conservationist/Admin. Assistant



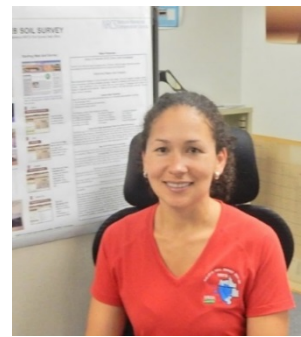
Jayne Flors, NOAA Staff



Carl Rossetti, NRCS
Civil Engineer Technician

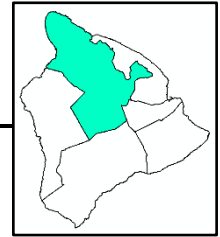


Mike Kolman, NRCS
Lead Soil Scientist

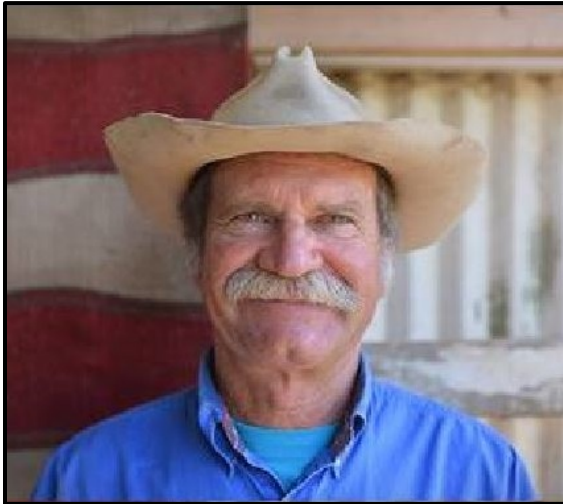


Jacky Vega, NRCS
Soil Scientist

Mauna Kea Soil and Water Conservation District



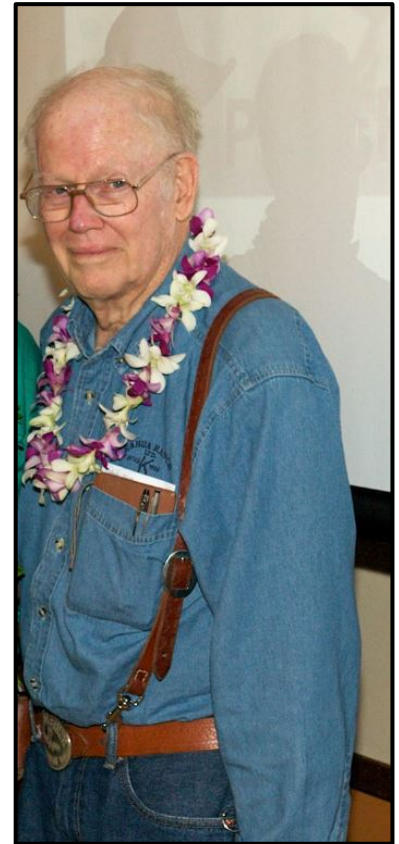
Mauna Kea SWCD Board of Directors



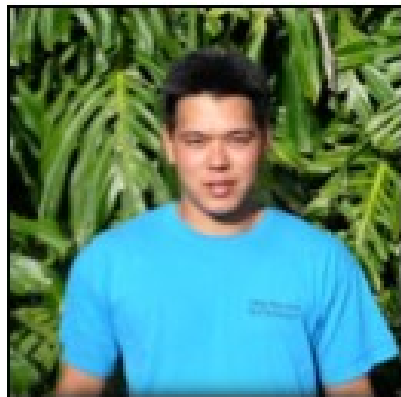
*Pono Von Holt,
Chairman*



*Chris Robb,
Director*



*Monty Richards,
Director*



*Brad Lau,
Treasurer*



*Charlie White,
Director*

Chairperson's Message

Greetings from the Mauna Kea District! This past year has been a busy and productive year for our district. Across the 740,000 acres that make up the Mauna Kea Soil and Water Conservation District there are a multitude of different agricultural and conservation achievements, and innovations happening every day. It is a privilege and an honor for the MKSWCD to assist our producers and land stewards in their work. We understand that being an agricultural producer in Hawai'i is not just a career but a passion, a tradition, and a challenge. The district is proud to support our community through the development of conservation plans, the compliance with the Country Grading and Grubbing Ordinance, participation in community education and

Mauna Kea SWCD Chairperson's Message, Continued

outreach activities, facilitating bulk orders of cover crop seed from mainland vendors, providing rental equipment to farmers, and technical assistance.

The district board meets every second Wednesday of the month from 4-6pm in the USDA-NRCS Waimea Field Office. This meeting is open to the public and participation is welcome. For more information about the district go to www.maunakeaswcd.org.

The NRCS Waimea Field office has seen many changes through this past year. They recently promoted one of their own, Carolyn Wong, to Pacific Islands Area Grazing Land Specialist. Carolyn began working for NRCS in 2001 and since then has been enhancing her knowledge of range land science. Completing her master's degree in Range Science in 2014 from the University of Utah, Carolyn has dedicated much of her career to understanding Hawai'i's unique pasture lands and how our range land animals interact with them. It was a pleasure to work with Carolyn as a Soil Conservationist and we suspect nothing less than wonderful to work with her as the Area Range Land Specialist. Another addition to the field office is Jill Ficke-Beaton. Originally, working for the MKSWCD as a conservation specialist Jill began her career with NRCS in 2014. After working in the Hilo Field office for two years Jill transferred back to the Waimea Field Office. She brings with her extensive personal ranching experience, a master's degree in Natural Resource Stewardship from Colorado State University, and wonderful sense of humor. We are very grateful to have Jill in the Waimea office as she is an exceptional planner and great coworker.

We would like to acknowledge and thank Matt Wung and the staff of the USDA-NRCS Waimea Filed office for their never ending support of the district and the community. It has been a pleasure to work with them both as a district official and as an agricultural producer. The Mauna Kea District would also like to thank the County of Hawai'i, the State Department of Land and Natural Resources, and the University of Hawai'i Cooperative Extension Service, and others for their financial and technical support that allows us to serve our conservation and agricultural community.

USDA-NRCS Waimea Service Center

67-1185 Mamalahoa Highway, Suite H148
Kamuela, HI 96743
#808-885-6602

Servicing: Mauna Kea and Hamakua SWCDs



Field Office Staff



First Row from left to right: Jill Ficke-Beaton, NRCS Soil Conservationist; Reese Libby, GIS Specialist; Hannah Conley, SWCD Soil Conservationist/Administrative Assistant; Matthew Wung, NRCS District Conservationist; Drew Stout, NRCS Area Engineer; Carolyn Wong, NRCS State Range Specialist.

Mauna Kea SWCD's Cooperators of the Year



Prescribed Grazing certification with Edgar and Lita Spencer.

Edgar and Lita Spencer, owners and operators of Maluhia Pomaikai Ranch, were selected as the 2015 Mauna Kea Soil and Water Conservation District Outstanding Rancher of the Year.

Located on the scenic pastoral lands of Waimea, the Spencer's ranch encompasses just over 260 acres. In the Spencer family for multiple generations, Maluhia Pomaikai Ranch has a long history of producing locally raised cattle and sheep. Now both being retired, Edgar and Lita were selected as outstanding cooperators because of their complete dedication to excellence in completing their conservation plan. Deciding to subdivide their paddocks, improve their forage quality, expand their water system, and establish silvopasture enclosures, the Spencer's have continuously showed a passion for improving their natural resources. They can often be seen at outreach events and workshops furthering their knowledge of animals, forages, and ecosystem interactions. They have graciously allowed multiple NRCS and District tours on their ranch, always greeting people with a friendly smile. It has been a pleasure to work with the Spencer's and we look forward to seeing their excellence continue.



Fence certification with Edgar and Lita.



Fence example.



Quality forage grasses in the pasture.

Mauna Kea SWCD's Cooperators of the Year, Continued

Y. Hirayama Farms have been selected as the 2015 Mauna Kea Soil and Water Conservation District Outstanding Farmer of the Year.

The Hirayama's have been a household name for locally grown vegetables in Waimea since Yuwato Hirayama and his wife Toshiko began farming in Puukapu in the early 1900's. Along with their two sons, Nate and Royce, the Hirayama's purchased an ag lot in Lalamilo in July of 1962. Since then they have been specializing in leafy vegetables and have steadily produced some of Waimea's finest greens. Located just down the road from the NRCS/District office, Y. Hirayama Farms is situated at the very edge of the prevalent trade wind rains making it ideal for growing vegetables.



Royce and Nathan in the lettuce field.

In 2014, the Hirayama family decided to contact NRCS about developing a conservation plan. Through many conversations, site visits, soil health videos, soil testing, and literary reviews with NRCS they decided to give cover crops a try to improve their overall soil health, water infiltration and quality. The Hirayama's along with



Legume with symbiotic Rhizobia producing Nitrogen.

other Waimea farmers came to the Mauna Kea SWCD who then put together a bulk cover crop seed order to provide cover crop seeds while trying to reduce the price of shipping. The Hirayama's are now in their 2nd year of cover cropping and have started running little experiments by reducing the amount of fertilizer they apply to see just how much nutrients the cover crops are bringing to their crops.

They were selected as outstanding cooperators because of their enthusiasm about improving their soil resources and their dedicated work ethic. They are a wealth of knowledge in farming, specifically farming in Waimea. They have been very successful throughout these past many years and it has been a privilege to work with them.



Kaylie, Tayson, and employee Francisco Pira packing heads of cabbage.

2015 County Conservation Awareness Contest Highlights

November 6, 2015 @ Kahua Ranch, Kohala
Hosted by: Mauna Kea Soil and Water Conservation District
Participation: Keaau High School & Pahoa High School

Congratulations to the Contest Winners – Pahoa High School



Contest Results

Individual Awards

1st: Jeryll Bernardo, Pahoa

2nd: Alana Kizanis, Pahoa

3rd: Gernel Javier, Pahoa

Team Awards

1st: Pahoa High School

2nd: Keaau High School



2015 State Conservation Awareness Contest Highlights

November 20, 2015 @ Wailea Ag Group, Hakalau

Hosted by: Hamakua Soil and Water Conservation District

Participation: Leilehua High School-Oahu, Kamehameha High School-Maui, & Pahoia High School-Hawaii



Contest Results

Individual Awards

- 1st: Gernel Javier, Pahoia
- 2nd: Konapiliahi Dancil, KS
- 3rd: Zachary Luis, KS
- 3rd: Alana Kizanis, Pahoia
- 3rd: Mary Noble, Pahoia

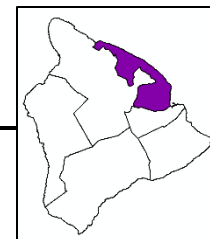
Team Awards

- 1st: Pahoia High School
- 2nd: KS High School – Maui
- 3rd: Leilehua High School

Mahalo to our hosts Lesley Hill and Michael Crowell of Wailea Ag Group, all participants, supervisors, and volunteers for a wonderful contest!



Hamakua Soil and Water Conservation District



Hamakua SWCD Board of Directors



*Doug Beaton,
Chairperson*

*Troy Keolanui,
Vice Chairperson*

*Dylan Shropshire,
Treasurer*

*Virginia Alderson,
Secretary*

*Marissa Harman,
Associate Director*

Chairperson's Message

It's been another busy year for the Hamakua Soil and Water Conservation District in addressing soil, water and other resource concerns in the local agricultural community. In 2015, the district, in partnership with the USDA Natural Resources Conservation Service, assisted over 50 cooperators, developed and approved 11 new conservation plans, and dedicated over 3,400 acres to conservation practices aimed at improving local natural resource quality on private agricultural lands. With the increase of small farmers and more land being used for the cultivation of annually-tilled crops, there is much potential for the district to continue implementing programs in conservation education and planning, and complying with the Hawaii County Grading Ordinance.

The district also took part in several outreach activities including Kamehameha School's Middle School Career Day, UH Hilo's Earth & Conservation Career Day, hosting a Rapid Ohia Death community talk, attending a community association meeting, volunteering at the 2015 Hawaii County Conservation Awareness Contest, and hosting the 2015 Hawaii State Conservation Awareness Contest.

The Hamakua SWCD would like to thank our partners: the County of Hawaii, the USDA Natural Resources Conservation Service, the University of Hawaii's Cooperative Extension Service, and the State Department of Land and Natural Resources among others for providing the financial and technical resource support we utilize to reach our goals and serve the conservation needs of the community as best we can. The Hamakua SWCD's success in having conservation activities implemented on the land would not be possible without the voluntary cooperation of our producers who are putting conservation into action at the ground level. Mahalo to all who are working towards improving the health of our environment and resource sustainability of our Hawaii Island community.

Hamakua SWCD's Outstanding Cooperators of the Year



Susan Kaye Lundburg owns a 41-parcel located in the Niupea Homesteads in Hamakua at 2275-2400 feet elevation on the slopes of Mauna Kea. Several streams flow through her parcel. Her goal is to restore the once pastureland back into a thriving native forest. Through the Forest Stewardship Program (FSP) and the Conservation Reserve Enhancement Program (CREP), Kaye's goal is being realized and has come a long way.

Through the FSP and CREP, Kaye received a forest management plan and a conservation plan that act as blueprints for the project. The main conservation practice involved is the CP-22 Riparian Buffer, while aimed at reforestation and stabilizing stream banks, creates habitat and connectivity for wildlife both aquatic and terrestrial. Kaye's plans also include Fencing, Brush Management, Mulching, and Upland Wildlife Habitat Management among many others. With these practices, she has successfully removed invasive plants and animals and supplemented the land with suitable native species.



Kaye, her partner Rod, and her son Jake head the operation. With aid from volunteers and student interns they've completed over half of the project in less than 18 months and continue to work at record pace. Although working under a program with contracted practice due dates can be a challenge, the key to their success is having a clear and concise goal and vision in mind.

Kaye is doing this for the love of the land, to see a site that was on the brink of loss be recaptured.



It's truly amazing to work with someone and experience the passion they have for the land. She has recently entered into a conservation easement that will protect the land from any future development and keep it as forestland into perpetuity. We need more people like Kaye that will ensure that our land is cared for and being preserved for future generations. Susan Kaye Lundburg is an outstanding cooperator and we congratulate her and her team on receiving the 2015 Outstanding Forester of the Year Award from the Hamakua Soil and Water Conservation District.

Hamakua SWCD's Outstanding Cooperators of the Year, Continued

Roger Uchima of Indian Tree Ranch has been a cooperator of the Hamakua SWCD since 2010. He raises cattle on two leased parcels totaling 2,547 acres in Kalaoa. Roger signed up for conservation planning assistance and later applied for his first Environmental Quality Incentives Program (EQIP) contract in 2011. He worked with former NRCS Soil Conservationist Justin "Buddy" Perry to develop a long-term conservation plan that would address resource concerns in manageable amounts, considering Roger's time and resources. Roger was working full-time doing construction, and managing his ranch on a part-time basis. His resource concerns included noxious and invasive plants like Koster's Curse and Broomsedge, inadequate quality and quantity of forage, and excessive nutrients in surface water. At the time, Roger was rotating two separate herds; 200 animal units (AU) on one side of the ranch and 300 AU on the other side, with approximately 750 and 1,070 grazing acres, respectively.

In Phase I, Roger focused on restricting the cattle's access to adjacent streams. The animal waste and erosion caused by their walking trails along the steep stream banks were negatively impacting surface water quality. These streams eventually discharge into the designated impaired waterbody of Hilo Bay. He installed over 8.4 miles of fence, did some herbicide spraying and mowing to control weeds, and also planted Signal and California grasses in select areas to replace marginal Vasey, Carpet, and Hilo grasses. Phases II, III, and IV focused on dividing the paddocks to facilitate an intensive grazing management plan and



systematically continue his weed control and forage planting. In 2014, Roger began to see the impacts of his grazing rotation and decided to combine his herds into one for maximum pasture utilization and rest periods. After completion of Phase IV (current), Roger will be rotating almost 600 AU through 73 paddocks on 1,820 acres. The advantages of intensive grazing for Roger is having maximum forage production and use per acre, weed control through grazing, more even distribution of manure throughout the paddocks, more uniform animal distribution, higher stock

Hamakua SWCD's Outstanding Cooperators, Continued

densities with less stress on animals, and more forage options because his pastures are rested and grazed more efficiently. Roger practices seasonal breeding and has noticed that since the improvements, he has had healthier cows with the highest conception rates he's ever had!

Roger appreciates the helpful guidance and planning of NRCS conservationists Buddy Perry and Kori Hisashima. He commends NRCS for their technical knowledge on grazing systems that helped him as a new rancher become a successful beef producer while conserving and enhancing his natural resources. Roger continues to be a pleasure to work with. He completes his practices on or ahead of schedule, and uses the management tools we have shared with him to ensure the continued success of his operation. Congratulations to Roger Uchima of Indian Tree Ranch for being honored as the 2015 Hamakua Soil and Water Conservation District Rancher of the Year.





Photos by J.B. Friday

RAPID 'ŌHI'A DEATH

RAPID 'ŌHI'A DEATH A NEWLY IDENTIFIED DISEASE

A disease that is new to science and new to Hawai'i has killed hundreds of thousands of 'ōhi'a trees (*Metrosideros polymorpha*) across more than 34,000 acres of Hawai'i Island. Known as Rapid 'Ōhi'a Death (ROD), it is caused by a fungus called *Ceratocystis fimbriata*. We can all help minimize further spread, and buy time to help researchers find answers and potential treatments. New information is being uncovered almost every week.

This disease has the potential to kill 'ōhi'a trees statewide. The most important thing we can all do now is help prevent ROD from spreading.

'Ōhi'a lehua is the backbone of Hawai'i's native forests and watersheds which are our source of fresh water in these islands. 'Ōhi'a trees cover more than 1 million acres statewide—they are perhaps the most important tree in Hawai'i.

5 THINGS YOU CAN DO TO REDUCE THE SPREAD OF RAPID 'ŌHI'A DEATH



1 DON'T MOVE 'ŌHI'A WOOD

Don't move 'ōhi'a wood, firewood or posts, especially from an area known to have ROD. If you don't know where the wood is from, don't move it.

2 DON'T TRANSPORT 'ŌHI'A INTER-ISLAND

Comply with the new quarantine rule to help prevent ROD from spreading. Don't move 'ōhi'a plants, wood, or other 'ōhi'a plant parts interisland without a permit.

3 CLEAN YOUR TOOLS

Use only proven cleaning methods—other methods have been tested and they don't kill the fungus. Tools used for cutting 'ōhi'a trees (especially infected ones) should be cleaned with 70% rubbing alcohol or 10% bleach (if using bleach be sure to oil afterwards to prevent corrosion).

4 CLEAN YOUR GEAR

Clean your shoes, gear and clothing. Decontaminate shoes by dipping the soles in 10% bleach or 70% rubbing alcohol. Other gear can be sprayed with the same proven cleaning solutions. Wash clothing in hot water with detergent.

5 WASH YOUR VEHICLE

Wash the tires and undercarriage of your vehicles with detergent, especially after traveling from an area with ROD and/or if you have traveled off-road.



IF YOU SUSPECT ROD IN YOUR AREA PLEASE CONTACT:

Dr. J.B. Friday
UH Cooperative Extension Service
Email: jbfriiday@hawaii.edu
Phone: (808) 969-8254

Dr. Flint Hughes
USDA Forest Service
Email: fhughes@fs.fed.us
Phone: (808) 854-2617

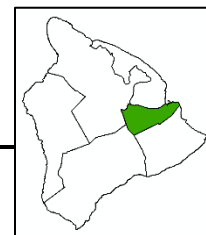
Dr. Lisa Keith
USDA Agriculture Research Service
Email: Lisa.Keith@ars.usda.gov
Phone: (808) 959-4357

FOR THE LATEST INFORMATION, MAPS, AND UPDATES ON RAPID 'ŌHI'A DEATH PLEASE VISIT:

www.rapidohiadeath.org
f www.facebook.com/rapidohiadeath



Waiakea Soil and Water Conservation District



Chairperson's Message

The mission of the Waiakea Soil and Water Conservation District (SWCD) is to preserve our land and water resources by assisting in planning and education. The Waiakea Soil and Water Conservation District provides conservation plans for individual agricultural landowners to help control surface water and reduce sediment runoff. The Waiakea District, being in an urban setting, also assists on flood control projects along with the County Department of Public Works (DPW) and Natural Resource Conservation Service (NRCS) with planning and annual inspection of such projects. Plans are also provided for USDA NRCS Farm Bill cooperators, primarily for Environmental Quality Incentive Program (EQIP) with the District acting as a Technical Service Provider (TSP).

We are currently working with Warren Lee and Hawaii County Department of Public Works to improve access to the Piihonua Diversion for our annual inspection. The clearing of the access trail is completed and repairs are being done on the project.

The District would like to thank its partners the County of Hawaii Department of Research & Development, County of Hawaii Department of Public Works, USDA Natural Resources Conservation Service, the University of Hawaii Cooperative Extension Service and the State Department of Land and Natural Resources for all their assistance in our goals. We also would like to thank the cooperators for their earnest efforts towards helping to create and implement the plans.

The Waiakea SWCD would also like to thank all, representing HACD, for all their efforts to secure funding from the State Legislature. The work has not been easy. We at the Waiakea SWCD would like to join with all District Directors to come up with new ideas for better funding. One idea our District wants to promote is the potential use of lands controlled by the Department of Land and Natural Resources. If part of the income from State land leases can be directed to the Districts, we may have sufficient funding to carry out our mission.

If given the land we could produce and sell plant material for windbreaks, ground covers, forage, or native species for natural area restoration. The State is land rich. Let's see if we can tap this wealth for the benefit of conservation.

We are currently working on a grass planting project in the Kukuau area that may assist the community in their planning process. We will keep you all informed as things progress.

Waiakea SWCD Board of Directors



*Leslie Takayama,
Chairman*



*Sheldon Takajo,
Vice Chair*



*Amy Bugado,
Treasurer*



*George Mikami,
Secretary*



*Harry Toki,
Secretary*

Waiakea SWCD's Spotlighted Cooperator of the Year

Marvin Kaleo Arruda has a 90-acre cow ranch operation located in the Kaumana area. He has been a cooperator on this property since 2016. He has worked with Soil Conservationist Spencer Nagata to address his resource concerns of soil erosion, degraded plant condition, and water quality. Marvin was selected due to his hard work and dedication to conservation in beginning to address these concerns.

Marvin's ranch consisted of 3 large paddocks. The work he has already done include the installation of 4 cross fences, with the intention of installing two more cross fences to make his ranch go from 3 paddocks to 7 paddocks. This will facilitate improving grazing efficiency which in turn improves soil quality, water quality and forage with time. He also has further improved his pasture by implementing brush management and removing the dense thicket of waiawi from his largest paddock.

Marvin Kaleo Arruda's hard work has led to a more productive ranch operation. He intends to do more in the near future to make it even better. The Waiakea Soil and Water Conservation District is pleased to announce the selection of Marvin Kaleo Arruda as the recipient of the "Waiakea Spotlighted Cooperator of the Year." Great Job!

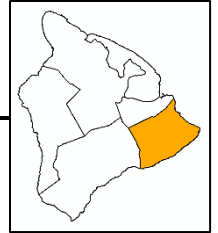


Brush Management implementation: Before(left) with dense waiawi thicket, and after(right) with brush removed and ohia lehua trees left undisturbed.



Newly installed cross fence.

Puna Soil and Water Conservation District



Puna SWCD Board of Directors



*Oliver English,
Chairman*



*Aileen Yeh,
Vice Chair*



*Dave Schell,
Secretary/Treasurer*



*Randy Cabral,
Director*



*Ross Sibuciao,
Director*

Chairperson's Message

The Puna Soil and Water Conservation District (SWCD) have been instrumental in conservation planning and accomplishments throughout the agricultural lands in the Puna District.

With the assistance of full-time district employees Amelia Drury and Jennifer Reavis, and part-time employee Kamran Fujimoto, the Puna District was able to assist 60+ Cooperators in 2015. The District continues to be one of the fastest growing districts in the State of Hawaii.

Invasive species are increasing in this district as more nurseries and potted plant cooperators start to expand. The *little fire ant* is spreading to higher elevations. Other pests of interest include the *macadamia nut felted coccid* and *coqui frog*. Animal waste remains a district priority, other critical issues are water quality, noxious weeds, and soil erosion control.

We would like to thank the many governmental agencies that assist in the District programs. The State Legislature through DLNR, USDA Natural Resource and Conservation Service for supporting the SWCDs, the UH Extension Service for their assistance, and the County of Hawaii Research & Development for their funds to hire District employees.

Puna SWCD's Spotlighted Cooperator of the Year

Wayland Lum has a 51-acre coconut/plumeria orchard & pasture operation located in the Hawaiian Beaches area. He has been a cooperator on this property since 2014. He has worked with Soil Conservationist Spencer Nagata to address his resource concerns of degraded plant condition, water quality, and inadequate livestock water. Wayland was selected due to his hard work and dedication to conservation in beginning to address these concerns.

Wayland's coconut/plumeria orchard & pasture consisted of 1 large paddock allowing his hair sheep and donkeys to continuously graze underneath his orchard trees. The hard work he had done already of installing 12 cross fences made his silvopasture go from 1 paddock to 11 paddocks; therefore, facilitating improvement to grazing efficiency which in turn improves water quality and forage with time. He also has further improved his silvopasture by implementing brush management and removing the dense thicket of albizia, melochia, and gunpowder trees from his silvopasture.

Wayland Lum's hard work has led to a more productive coconut/plumeria orchard & pasture operation. He intends to do more in the near future to make it even better. The Puna Soil and Water Conservation District is pleased to announce the selection of Wayland Lum as the recipient of the "Puna Spotlighted Cooperator of the Year. Great Job!



Implementing Brush Management.



Completing Brush Management.

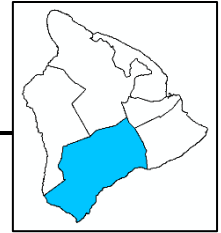


Newly installed cross fence.



Newly installed cross fence.

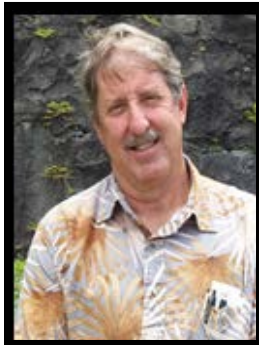
Ka'u Soil and Water Conservation District



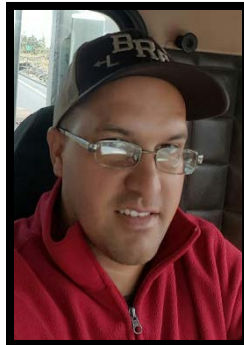
Ka'u SWCD Board of Directors



*Brenda Iokepa-Moses,
Chairperson*



*John Cross,
Vice Chair*



*Tyler Johansen,
Secretary/Treasurer*



*Kirk Derasin,
Director*



*Phil Becker
Director*

Chairperson's Message

With over twenty years serving on the Board I am pleased to welcome a few new members and embrace and value our returning members to the Board. Our current Board represents all aspects of diversified agriculture and bring an abundance of experience and knowledge to the table.

The Big Island has many challenges within the agricultural community we realize that just because we are on the same island that the needs of each district are very different. Therefore it's important we work together but prioritize and address the issues that are relative to our area. It is our mission to better serve our community of farmers by improving our working relationships with SHPD and NRCS to speed up the process in preparing conservation plans so farmers are able to begin working their farms in a timely manner and with proper guidance.

Recently attending the annual NACD conference in Reno, Nevada it became clear how important it is to keep Hawaii's concerns voiced at these types of forums. It has been difficult in the past to send representatives because of the cost and travel time involved. As all of our board members do this job with no compensation they should be commended for the selfless service and dedication.



Pacific Region Board at the 2016 NACD Conference held in Reno, Nevada.

Ka'u SWCD Spotlighted Cooperator of the Year

Forest Solutions, Inc. manages a 165-acre koa forest timber operation located in the Pahala area for Kamehameha Schools. They have been a cooperator on this property since 2012. They have worked with Soil Conservationist Amelia Myers and previously with Soil Conservationist Grant Kow to address their concerns of soil erosion, plant productivity health & vigor, air quality, and water quality. Forest Solutions was selected due to their hard work and dedication to conservation in beginning to address these concerns.

Forest Solutions forest timber operation consists of koa trees. They have done the hard work of planting koa trees and making a fuel break. So, far the planted koa trees and been establishing themselves and the fuel break has been maintained. Pruning and thinning may need to be done in the future to improve the health of the koa trees.

Forest Solutions' hard work has led to a productive koa forest timber operation. They hope to do more in the near future to make it even better. The Ka'u Soil and Water Conservation District is pleased to announce the selection of Forest Solutions as the recipient of the "Ka'u Spotlighted Cooperator of the Year. Great Job!



Applied Fuel Break.

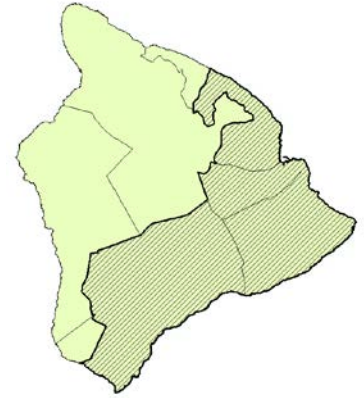


Tree/Shrub Establishment of koa trees.

USDA-NRCS Hilo Service Center

154 Waianuenu Avenue, Room 203 & 303
Hilo, HI 96720
#808-933-8381

Servicing: Hamakua, Waiakea, Puna, and Ka'u SWCDs



Field Office Staff



First Row from left to right: Jennifer Reavis, SWCD Administrative Aide; Kori Hisashima, NRCS District Conservationist; Amy Koch, NRCS Assistant Director for Soil Science.

Second row from left to right: Kanoë Malani, SWCD Soil Conservationist/Admin. Assistant; Amelia Myers, SWCD Soil Conservationist; Alex Gerken, Hawaii Island CREP Planner; Alicia Greene, NRCS Civil/Agricultural Engineer; Spencer Nagata, NRCS Soil Conservationist; and Laila Jayyousi, NRCS Soil Conservationist.

In Loving Memory of Justin Masayoshi "Buddy" Perry

September 11, 1977 – December 13, 2015



Buddy Perry was a Soil Conservationist with the USDA Natural Resources Conservation Service in the Hilo Field Office. Prior to NRCS, he worked as an SWCD Soil Conservationist for the districts in East Hawaii. His commendable service in natural resource conservation is reflected in the success of the farmers and ranchers he has helped. Buddy left a lasting impact in our community both inside and outside of work. We are truly blessed to have had such an outstanding individual among us.



Funding for the production of this annual report is through the County of Hawaii's Department of Research and Development.