

Resource Kona

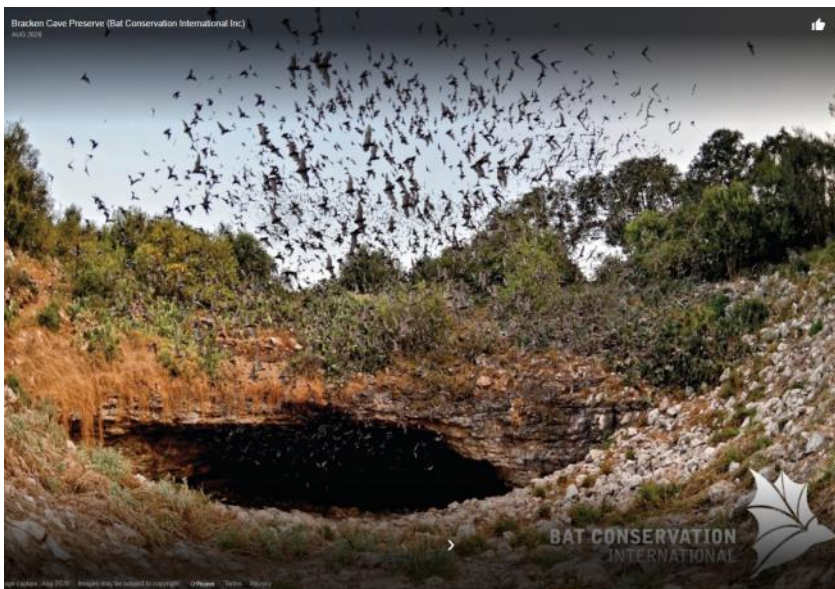
RESOURCE KONA

Fall 2020

KONA SOIL AND WATER CONSERVATION DISTRICT

October is Bat Appreciation Month

Did you know there are over 1,400 different bat species? They come in a variety of sizes from the flying fox, which weighs in at around 2.5 pounds to the bumblebee bat which weighs about .004 pounds, or .064 oz. It is about the size of a bumblebee, hence its name. The fastest bat in the world, the Mexican Free-tailed bat, can travel up to 100 mph in short bursts. Braken Cave in San Antonio, Texas has the largest bat colony in the world, a summer maternity colony of up to 20 million bats, in one cave.



A photo of the Braken Cave in San Antonio.
Photo Credit: Bat Conservation International.

Hawaii does have its own bat and it is the only native mammal in the state. The *Lasiurus cinereus semotus* is the Hawaiian hoary bat and is also known by its Hawaiian name, 'ōpe'ape'a. These animals are not particularly large generally weighing between .49 and .63 ounces. The United States Post Office will mail a letter that weighs an ounce or less for 50 cents. These are not large animals. The wing span of the hoary bat is between 10.5 and 13.5 inches. Male bats are larger than female bats.

There is not a lot of available documentation related to the 'ōpe'ape'a but the United State Geologic Services (USGS) studied them in the early 2000s.

USGS research has shown that hoary bats are present in many landscapes including lands used for silviculture, agriculture, grazing, and residential areas. Hoary bats are vulnerable to land use activities and modifications. Another behavior USGS research discovered is an altitudinal migration pattern of the 'ōpe'ape'a. During the summer-fall season the 'ōpe'ape'a is found in lower elevations where pregnancy, lactation and fledgling occurs. They migrate to much higher elevations, above 5,000', for over wintering. USGS found this seasonal movement to be consistent over multiple years. (cont. on page 2)

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Special points of interest:

- Kona SWCD meetings take place the Third Thursday of the month from 8am-10am and you are invited.
- This newsletter is produced with funding from the Hawaii County Department of Research and Development

October is Bat Appreciation Month (continued from previous page)

These little critters are solitary creatures that roost in trees near forests. They leave their roost around the time of sunset and return prior to sunrise. They have been known to travel up to 12 miles in one direction in one night. The species breeds in the summer time and usually has twins. The offspring are called “pups”. They are born during the summer pupping season. Hoary bats eat native and non-native night-flying insects, things like mosquitoes and gnats.



Research technician Corinna Pinzari inspects a Hawaiian hoary bat. You can see they are not very big. Photo: C. Todd USGS

One of the greatest threats to the Hawaiian Hoary Bat, like many bats around the world, is the loss of habitat. Whether they live within forest habitat, like the ‘ōpe‘ape‘a, or in caves like the Mexican Free-tail bat in the Braken Cave, loss of habitat is a worldwide issue for bats. The problem is most severe during the cold winter months. Where hibernating bats have been driven from their cave for guano

mining or by overzealous tourists, they use their hibernating energy reserves too fast and too soon. This results in starvation.

The severity and frequency of extreme weather events caused by climate change is another threat to bats. In Australia, Flying Fox bats are dying due to extreme summer heat. Drought has a big impact on bats. It could have an impact on the size of the forage range as well as their ability to reproduce. One of the challenges facing the bat population is that for its size, it does not reproduce very fast having only one or two pups per year. Other mammals of comparable size, like mice produce 6-12 pups 10 times yearly.

White Nose Disease (WNS) is another challenge for bats, though it has not been noted as existing in Hawaii, and hopefully it never will. WNS is a fungal infection that causes a fuzzy white growth on the nose, ears and wings of affected bats. WNS is responsible for the deaths of millions of bats in 34 states and 7 Canadian provinces. WNS can disturb hibernation patterns by causing them to rouse to soon. Then the bat will use its winter energy reserves too soon and too fast and ultimately cause it to starve to death.

Other challenges bats face is persecution. Around the world there are societies that believe all bats drink blood and should be destroyed, when in fact out of the 1,400 plus species of bats only 3 are vampire bats. (Continued on page 8)



Endangered Hawaiian Hoary Bat
Photo Credit: USGS

Targeted Conservation Delivery: TCD

PIA NRCS has developed a new paradigm for delivering technical and financial assistance through Farm Bill programs. They call this new business model the Targeted Conservation Delivery Model (TCD). TCD focuses on leveraging partnerships and funding to invest federal dollars strategically to restore, conserve, and protect PIA's natural resources.

Features:

- ◆ **Partner-Centric:** NRCS works closely with local, state, and federal partners and with non-governmental organizations to identify and strategically focus their investments on the highest-priority resource needs on our islands.
- ◆ **Cost Effective:** By collaborating with partners, NRCS leverages additional funding sources from other partner groups to make the most effective use of limited federal conservation dollars. Leveraging funds increases the total conservation investment that helps build resilient islands and thriving agricultural communities.
- ◆ **Focused & Targeted:** Instead of funding conservation projects on a farm-by-farm approach, they harness the power of multiple landowners undertaking similar conservation projects to achieve a broader local or regional outcome.
- ◆ **Results-Oriented:** The targeted approach emphasizes planning with a more impactful result in mind. NRCS staff work with local partners to set measurable goals to track and achieve meaningful conservation outcomes.
- ◆ **Management Tool:** The targeted approach helps NRCS leadership and field staff better prioritize, track, plan, and monitor conservation projects on-the-ground. This way of doing businesses allows them to more effectively deliver project planning and increases our efficiency in implementation.
- ◆ **Alignment:** This Targeted Conservation Delivery Model aligns with PIA's Strategic goal to deliver highly effective conservation solution for their customer.

The Vision:

- ◆ Over the next 5 years, PIA NRCS will transform how they plan and deliver their technical and financial assistance across our islands; called "***Targeted Conservation Delivery***".
- ◆ TCD will enhance NRCS' ability to work with local partners in order to solve high priority natural resource concerns in a focused and strategic manner.
- ◆ Investments of federal, state, local, and private dollars needed to address resource issues are used more effectively.
- ◆ NRCS has empowered employees in the field with strong technical skills, partnership support, and the ability to coordinate this strategic effort in their communities.
- ◆ Communities find success in addressing the environmental issues that matter most to them.

The Process:

- ◆ Every NRCS PIA Field Office will develop a '***Long-Range Plan***' (LRP) which describes resource concerns that are identified through facilitated Local Working Group discussions and other available (Continued on next page)

Targeted Conservation Delivery: TCD (continued from previous page)

information from many conservation partners. This can be a broad and visionary plan.

- ◆ Wherever possible and appropriate, the long-range plans are closely linked to local SWCD long-range plans.
- ◆ Taking the priority resource concerns from the long-range plans, county-level NRCS staff work with local partners to determine specific goals and desired outcomes.
- ◆ ‘**Targeted Conservation Plans**’ (TCP) are derived from the Long-Range Plans and lay out the technical and financial needs for a specific resource concern for up to five years. More specifically, they describe the primary resource goals, evaluate alternatives, proposed solutions, establish partner roles, monitoring and evaluating methods, and necessary funds and technical assistance needed.
- ◆ TCPs are submitted each year and compete for funding. NRCS leadership uses evaluation criteria developed with input from the State Technical Committee to select which TCPs will receive funding for the duration of the proposal.
- ◆ The approved TCPs are used to develop NRCS PIA’s budget and State Resource Assessment for the year, identifying where the agency will invest its staff and financial resources.
- ◆ Field Offices will begin with a single TCP but may get additional TCPs approved in following years and may have multiple TCPs being funded at the same time.
- ◆ We are committed to continual improvement of the approach by an ongoing discussion of challenges and successes through a steering committee made up of Leadership Team and Field and State staff.

So where do you, our local farmer, rancher and forest land owner fit into all this? Because this is a locally led process, as a Cooperator of the Kona SWCD you will be invited to participate in our Local Work Group. Other local organizations, Kona Coffee Council for example, will also be invited to participate. Keep your eyes out for the Local Work Group invitation and in the mean time, think about your natural resources and how you would like to see them improved.

Conservation Stewardship Program: CSP

Our Conservation Stewardship Program (CSP) helps you build on your existing conservation efforts while strengthening your operation. Whether you are looking to improve grazing conditions, increase crop resiliency, or develop wildlife habitat, we can custom design a CSP plan to help you meet those goals. We can help you identify natural resource problems in your operation and provide technical and financial assistance to solve those problems or attain higher stewardship levels in an environmentally beneficial and cost-effective manner. For example, we can look at ways to address the amount of soil lost; mitigate the impact of excess water; reduce the contribution of agricultural operations to airborne soil particles and greenhouse gas emissions; improve the cover, food, and water available for domestic and wildlife species; or promote energy efficiencies for on-farm activities. If you are already taking steps to improve the condition of the land, chances are CSP can help you find new ways to meet your goals. Most agriculture producers that participate in the Conservation Stewardship Program (Continued on next page)

Introducing Pulelehua “Lele” Kimball



Meet Pulelehua ‘Lele’ Kimball, one of the new Soil Conservationists in the Kealahou field office. Lele is originally from Kona area and returned to her family’s forest farm after completing her MS at Virginia Tech’s Department of Forest Resources and Environmental Conservation. Lele has spent much of her life on the mainland and abroad studying, researching, implementing projects and traveling. These days, she spends most of her free time close to home, harvesting, weeding, and spending time with family and farm critters. New to NRCS, she is excited to be joining the Kealahou field office team to work with Kona land stewards to cultivate productive lands in harmony with a healthy environment and functioning island ecosystems.

She has been out in the field so some folks have learned first hand of her knowledge of plants. If she visits your farm, you can be sure you will receive the lesson on the miracle of weeds.

To the left is a photo of Lele with Mia, her much loved mutt.

NRCS Response to COVID 19

NRCS continues to be diligent in regards to COVID 19. We are doing site visits, with masks on, and if we cannot be socially distant on their farm the producer will be required to wear a mask. If you want to meet with someone in the office you do need to make an appointment and when you are here you will be required to wear a mask.

Work related travel between the islands has been virtually non-existent. It does make training challenging because a lot of our training is best done in the field and many of the specialists are on Oahu. Some employees, for personal reasons, do have to travel interisland. When that is done, at least in the past, the employee would have to quarantine and work from home for two weeks, no site visits. Now, with the new policies in place pertaining to being tested for COVID upon your arrival to an island, employees will be able to work in the office sooner than in the past and also be available for site visits much sooner.

Conservation Stewardship Program: CSP (continued from previous page)

and have already implemented conservation practices on their land. CSP offers additional opportunities to expand on existing conservation efforts by offering conservation practices, enhancements, bundles, and other conservation activities. For example, if you have been planting a cover crop, you may decide to try an enhancement for multi-species cover crop.

The program represents a genuine commitment to conservation – CSP contracts are for five years, with the opportunity to compete for a contract renewal if you successfully fulfill the initial contract and agree to achieve additional conservation objectives. An NRCS conservation planner will work closely with you throughout the entire contract process.

Contract payments are based on two components: (continued on the next page)

Conservation Stewardship Program: CSP (continued from previous page)

1. Payments to maintain the existing level of conservation based on the land uses included in the contract and NRCS assessment of existing stewardship at the time of enrollment.
2. Payments to implement additional conservation activities.

NRCS may provide a minimum annual payment of \$1,500 in any year the Chief determines the total contract payment amount is less than a rate determined equitable based upon the effort required by a participant to meet contract requirements.

CSP is for working lands. Through CSP, we can help you build your business while implementing conservation activities that help ensure the sustainability of your entire operation. Good land stewardship not only conserves the natural resources on your farm, ranch, or forest — it also provides multiple benefits to local communities, including better water and air quality, increased wildlife habitat, and sustainably grown food and fiber.

If you are interested in learning more about the CSP program give Laura Nelson, our District Conservationist a call at 339-9046, she will be happy to help you.

Don't' forget about EQIP!



Ground catchment

NRCS offices across the PIA are into planning season preparing, for the 2021 contracting cycle. If you are interested in learning more about EQIP, or participating in the EQIP, give us call. Our conservationist will schedule a visit to your farm or ranch to assist you in developing a conservation plan.

The deadline for applying to the program has not been announced. Our conservationists are meeting with farmers to provide technical assistance. It is during this time we will discuss EQIP.

The surrounding photos are examples of conservation practices installed through EQIP. The photo to the left is of a ground catchment. The ground area where the water will be captured, as opposed to a roof. There is a drainage pipe that runs the water from the catchment area to a water tank which will then pipe water to animal troughs to ensure a clean source of drinking water for the animals. The photo to the right show a barbed wire cross fence, using 5 strands of wire.



Tree & Shrub Site Prep. The removal of unwanted species to allow for Tree & Shrubs to be established

Other practices include Tree & Shrub Establishment, Tree & Shrub site prep (see photo to the left), mulching (see photo below), conservation cover, cover cropping, rotational grazing, and many more.



Cross fence using 5 barbed wires on the T-posts. The T-posts are new as well. Note the old fence behind the new fence.



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 shares a phone line with Rural Development (RD). Both are in Hilo and can be reached at 933-8381, FSA is ext 2.

Coronavirus Food Assistance Program 2 aka CFAP2

Are you a farmer or rancher whose operation has been directly impacted by the coronavirus pandemic? USDA is implementing Coronavirus Food Assistance Program 2 (CFAP) for agricultural producers who continue to face market disruptions and associated costs because of COVID-19.

To participate in this program you have two options. The preferred option, you reach out to the folks in the FSA office in Hilo, specifically give either Gail (933-8369) or Cristin (933-8338) a call. This is an FSA program so they will have a lot more answers to questions than us in the NRCS office.

The second option is to call Laura Nelson here at the NRCS office, 339-9046, and request E-Authentication approval. If you choose the second option you will be completing any new producer and program eligibility forms, and the application on your own. However, some of those forms may not need to be completed if you are currently participating, or have participated with our agencies. I do not know which are which and it could depend on how you apply to the program, for example, are you applying as an entity/business or as an individual? Just like our NRCS programs how you apply affects the paperwork that needs to be completed. Also, I have been advised, a lot of people who try to do it on their own get really frustrated and end up calling FSA for assistance.

Save your mind, let Gail or Cristin help you with the paperwork. After speaking with you they will send you (via email or snail mail) the filled out application for your signature. They will also walk you through the eligibility documents such as the 941 and the 1026, just to name a few.

So your two options are to get help or do it yourself. Please believe, it will be easier for you, and the FSA staff, if you call them and let them help you. They are accepting CFAP 2 applications until December 11, 2020.

Program	Interest Rates	Program	Interest Rates
Farm Operating- Direct	1.250%	Farm Ownership - Direct, Joint Financing	2.500%
Farm Operating- Microloan	1.250%	Farm Ownership - Down Payment	1.500%
Farm Ownership - Direct	2.250%	Emergency Loan - Amount of Actual Loss	2.250%
Farm Ownership - Microloan	2.250%	Effective as of October 1, 2020	

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Conservationist

Monthly meetings are held on
the 3rd Thursday 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

October is Bat Appreciation Month (continued from page 2)

Wind energy is another problem for bats. Experts estimate hundreds of thousands of bats die each year in the US. The mortality of bats in conjunction with wind energy is due to the spinning blades of the wind turbine. This creates rapid pressure changes which can cause blood vessels to rupture killing the bat. Bat Conservation International



Hawaiian Hoary Bat

Photo credit: https://en.wikipedia.org/wiki/Hawaiian_hoary_bat

in collaboration with the Bat and Wind Energy Cooperative are doing research to understand why bats are so susceptible to wind turbine injury and death.

Bats are good for us. It is estimated that without bats US Farmers would have to spend over 3.5 billion dollars more on pest control than they do now. Most bats eat insects but some bats are pollinators and eat nectar. Globally, bats are the main pollinators for over 500 species of flowers in at least 67 plant families. These plants rely on bats to reproduce. We wouldn't have tequila if it weren't for the lesser long-nose bat's thirst for agave nectar

The sources for the information in the article came from the US Fish and Wildlife Services, US Geologic Services, and the Bat Conservation International.