ARKANSAS CONSERVATION NEWS

NATURAL RESOURCES CONSERVATION SERVICE

Third Quarter 2017

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Third Quarter 2017

IRRIGATION WATER MANAGEMENT

Meeting Arkansas's Water Demand. **Pages 6–8**

Promoting the benefits of soil health in Cotton Plant.
Page 3

North Arkansas landowners cope with the worst flooding event since 2011. USDA NRCS Emergency Watershed Protection.
Page 4

Meet four Arkansas producers known as *Nature's Stewards*.
Page 11

Helping People Help the Land

From the State Conservationist

The agricultural water supply in Arkansas is a critical natural resource issue. Irrigated agriculture is essential to food and fiber production in our state. Agriculture accounts for about 80 percent of the country's annual water consumption.

Most of Arkansas has an abundance of good quality groundwater. However, some parts of the state are not so lucky. The groundwater supply in the Mississippi River Valley Alluvial Aquifer and the Sparta Aquifer is being depleted faster than the rate of recharge. Approximately 80 percent of the water used in Arkansas is for irrigating crops. Approximately 71 percent of the statewide water demand is supplied from groundwater sources.

Nationally, Arkansas ranks third among all states for the number of irrigated acres behind Nebraska and California. If this trend continues, it could result in permanent damage to the aquifers and lead to a serious groundwater shortage. Measures have to be taken to protect the state's ground water supply. This can be done by reducing the use of groundwater to sustainable levels through conservation practices and use of excess surface water.

Conservation practices such as irrigation water management encourage the application of water in an amount that meets the crop needs while avoiding extended soil saturation and runoff. By increasing application precision and reducing unneeded applications, water can be conserved and energy can be saved.

Conservation systems in Arkansas are being utilized successfully to collect excess surface runoff water for storage and use during the irrigation season. Conservation practices such as tail water recovery pits, irrigation storage reservoirs, pipelines and pumps are critical to increasing overall efficiencies and reducing water demand.

The USDA Natural Resources Conservation Service (NRCS) has programs to help agriculture producers install systems for water conservation.

Demand for NRCS financial assistance to address water conservation needs on cropland has increased faster than funding has been available in recent years. It speaks to the value that producers see in farm profitability with conservation programs. Although there is a high demand currently for these systems, NRCS continues to provide technical assistance to install conservation practices that save producers money and improve the environmental health of the state.

Working together, I am confident we can address the critical groundwater declines and help to ensure a bright future for irrigated agriculture in Arkansas.

Mike Sullivan, State Conservationist

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USDA United States Department of Agriculture

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Healthy Land and Waters—Naturally:
Promoting the benefits of Soil Health

From the Delta to the Ozarks, Arkansas is blessed with an abundance of natural resources. The USDA's Natural Resources Conservation Service (NRCS) in Arkansas strives to assist farmers, ranchers and foresters in enhancing soil health, water quality and water quantity. Soil health is in the forefront of agriculture discussion. Some agriculture publications have devoted entire issues to the topic of soil health. Why has soil health become so important recently?

Some reasons could be because prices are low, inputs are high, herbicide resistant weeds are getting harder to deal with, and agriculture customers want farmers to produce high quality products with limited or no use of synthetic inputs. How can conservationists address all of these issues and reduce the use of irrigation water along the way, Soil Health!

State Soil Scientist Edgar Mersiovsky, far right, helps demonstrate the impact of soil health and rainfall penetration at the Soil Health Field Day in Cotton Plant.

Soil health practices, along with other management practices promoted by NRCS, in partnership with the University of Arkansas Cooperative Extension Service, can help producers reach these goals. Arkansas NRCS is making an effort to promote Healthy Lands and Water—Naturally, to our district conservationists, soil conservationists, soil conservation technicians, conservation partners and producers on the benefits of soil health through many different avenues.

Recently, one day soil health trainings were held for conservation partners, producers and Arkansas NRCS staff to see demonstrations of what soil health practices have done on producers' operations. Two of these trainings took place on the newly formed Arkansas Soil Health Alliance members' farms. The Arkansas Soil Health Alliance is made up of a group of agriculture producers and professionals, thanks to a grant from Arkansas NRCS. Since its inception, the group has been instrumental in promoting soil health throughout Arkansas.

The alliance's first meeting in Cotton Plant was attended by 200 producers, agricultural professionals and NRCS staff. Ray Archuleta, NRCS regional soil health specialist, was the keynote speaker along with Adam Chappell, owner of Chappell Farms, who also hosted the event. There were demonstrations using the NRCS Rainfall Simulator, farm equipment used to plant cover crops and cash crops, and field visits including a soil pit showing cover crop roots 82 inches deep. With the success of this event, the Alliance is in the planning stages of their next meeting in the near future.

Soil Health isn't a passing fad. It is a key factor to the future of agriculture and environmental sustainability. A growing number of Arkansas farmers are using soil health management systems to improve the health and function of their soil. For additional information on soil health, visit https://www.nrcs.usda.gov/wps/portal/nrcs/main/ar/soils/health/

Above, Arkansas Soil Health Alliance President Robby Bevis discusses the importance of cover crops. Below, producer Adam Chappell addresses the resource concerns he faced with his operation and how cover crops helped him meet those challenges. Bottom left, State Soil Scientist Edgar Mersiovky shows cover crop root depth at the Soil Health Field Day in Cotton Plant.

Photos by Christopher Willis

RISING HIGH

Landowners Coping with the Worst Flooding in North Arkansas Since 2011

USDA Natural Resources Conservation Service (NRCS) district conservationists, technicians and field engineers conducted more than 20 site visits in nine counties to look at damage from the flooding caused by record rainfall in late April.

Many Arkansas counties received more than 6–8 inches of rain and some more than 10 inches according to the National Weather Service.

"We've identified 15 sites that qualify for Emergency Watershed Program (EWP) funding," said Walt Delp, state conservation engineer. "We'll forward those sites to NRCS headquarters for funding consideration."

EWP provides financial and technical assistance to address public safety and restoration efforts on private and public lands. Public and private landowners are eligible for assistance, but must be represented by a project sponsor that must be a legal subdivision of the State, such as a city, county, township or conservation district. EWP provides a federal cost share rate of 75 percent of the construction cost of emergency measures and debris removal. The sponsor is responsible for the remaining 25 percent of the cost.

EWP assistance includes installing stream bank protection devices to protect infrastructure, removing debris and sediment from waterways that can cause further damage from flooding, stabilizing levees; reseeding damaged areas; and in some cases, purchasing floodplain easements on eligible land.

"The debris from the recent storms may cause additional flooding, stream bank erosion, impairment of the watershed, as well as an imminent threat to bridge structures and adjacent homes. We have NRCS personnel in every affected county in Arkansas assisting conservation districts and assessing where we can help," said Mike Sullivan,

(left to right) Randy Riley, Madison County Water Facilities Board president; Thom Dodd, Madison County district conservationist; Todd Stringer, Northwest Area project engineer; and Alan McGhee, area civil engineering technician, observe flood damage threatening county utilities along Wharton Creek. Photo by Creston Shrum

Arkansas NRCS state conservationist.

"Once a site receives funding, NRCS and the sponsor finalize an agreement detailing the responsibilities of each party. This includes how the sponsor will provide their 25 percent of the construction cost, who is responsible for completing the final design, and who will be contracting for the work," Delp said. "After this, either the sponsor or NRCS will hire a contractor to complete the work. NRCS will require an inspector to be on site to document that the contractor completes the work according to the approved plans and specifications."

Other NRCS flooding assistance included:

- Conducted a teleconference and webinar for 75 people including several county judges and potential project sponsors.
- Working with state emergency services to ensure a coordinated approach as well as with other agencies; Farm Service Agency, Rural Development, United States Army Corp of Engineers, and Federal Emergency Management Agency.
- Issued a state-wide media release to let people know about our EWP services in response to flood events.

For more information about EWP, visit http://www.nrcs.usda.gov/wps/portal/nrcs/main/ar/programs/financial/ewp, or contact Walt Delp at walter.delp@ar.usda.gov or contact your local USDA Field Service Center.

At right, Greg Howard, NRCS civil engineer technician in Walnut Ridge, discusses the EWP program with Lawrence County Judge John Thomison. Photo by Cager Ridge

Brian Gawf, Team 2 civil engineering technician, explains the assistance available from NRCS to Orin Rodgers, whose home is threatened by streambank erosion caused by flooding on Jimmie Creek in Marion County. Cubie Harris (left), NRCS hydraulic engineer, surveys the damage. Photo by Creston Shrum

A low-water bridge on County Road 3001 sustained major erosion underneath the concrete slab in Marion County. Photo by Cubie Harris

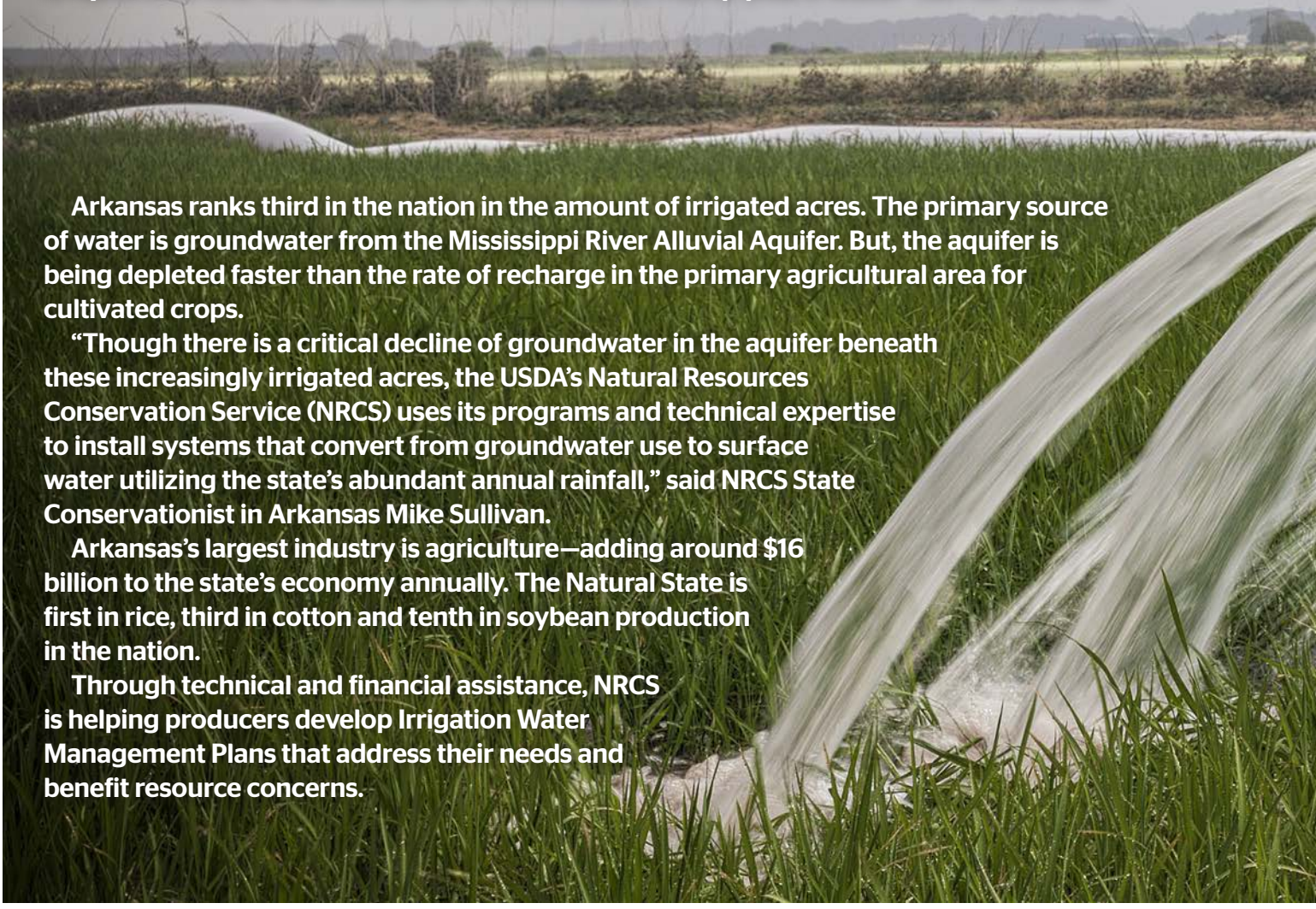
A flooded center pivot in a Jackson County field along Highway 14. Photo by Christopher Willis

LIFE BY THE DROP

By Creston Shrum and Walt Delp

How multiple methods and technologies are reducing groundwater use to increase sustainable agriculture

Arkansas's row crop producers are using innovative methods to ensure their crops receive the proper amount of moisture throughout the growing season. While cropland in the Arkansas delta is abundant, many years water can be scarce.



Arkansas ranks third in the nation in the amount of irrigated acres. The primary source of water is groundwater from the Mississippi River Alluvial Aquifer. But, the aquifer is being depleted faster than the rate of recharge in the primary agricultural area for cultivated crops.

"Though there is a critical decline of groundwater in the aquifer beneath these increasingly irrigated acres, the USDA's Natural Resources Conservation Service (NRCS) uses its programs and technical expertise to install systems that convert from groundwater use to surface water utilizing the state's abundant annual rainfall," said NRCS State Conservationist in Arkansas Mike Sullivan.

Arkansas's largest industry is agriculture—adding around $16 billion to the state's economy annually. The Natural State is first in rice, third in cotton and tenth in soybean production in the nation.

Through technical and financial assistance, NRCS is helping producers develop Irrigation Water Management Plans that address their needs and benefit resource concerns.

Conservation on the Ground

The Morris Farm, established in 1892 in Lonoke County, has the distinction of producing the first rice crop in Arkansas in 1902. The first irrigation well in the state was also dug on the farm. In the early 1980s, the Morris' constructed a 60-acre reservoir containing approximately 600-acre-feet of water storage to help with their irrigation needs.

Now, Richard Morris, his son, daughter-in-law and daughter farm 1,320 acres primarily growing rice, corn and soybeans. And, thanks to the addition of a 17 acre reservoir, a 1,329-foot-long tailwater pit, land-leveling, pipe drops and underground pipelines installed through a 2016 NRCS Environmental Quality Incentives Program (EQIP) contract, the farm is able to irrigate with 100 percent surface water. The farm gained 133-acre-feet of water storage through the reservoir and tailwater pit.

"We've recognized the need for a sustainable water source for years," said Richard. "By converting our operation to 100 percent surface water, we're able to ensure a consistent water supply, reduce pumping costs and increase productivity."

The Morris's will reduce their pumping costs by 90 percent compared to a similar system pumping groundwater in the area.

Other Arkansas producers are using EQIP to save water, improve water quality and reduce pumping costs through other irrigation water management practices.

Steve Stevens, a Desha County farmer, uses poly-pipe with holes sized to evenly distribute the water on every acre of his 4,300 acres of row crops. This computerized hole selection results in 25 percent less water used and tens of thousands of dollars saved in pumping cost every year. He has used EQIP funding to monitor the success of computerized hole selection as well as other conservation practices. Monitoring shows less than 10 percent of the water and nutrients applied runs off the field.

Robby Bevis, a Lonoke County farmer, has planted cover crops with financial assistance on his farm. This results in more organic matter in the soil, lower soil temperatures and higher water holding capacity. Bevis has reduced the amount

Continues Page 8

On The Cover: Mike Hamilton, extension irrigation education area specialist for the University of Arkansas System Division of Agriculture, instructs Lonoke Service Center soil conservationist Morgan Morrissett about poly- pipe hole placement at the Morris Farm.
Photo by Creston Shrum

Spread: The Morris Farm recently installed poly-pipe on a rice field in Lonoke County. Poly-pipe allows for energy cost savings, irrigation water use savings and reduction of labor cost. This method distributes water evenly, improving irrigation efficiency and reducing excessive water runoff.

Photo and layout by Christopher Willis

Conservation on the Ground

At top, a fill pipe empties into a reservoir on the Morris Farm in Lonoke County. Above, Robby Bevis planting corn into cover crops in Lonoke County.

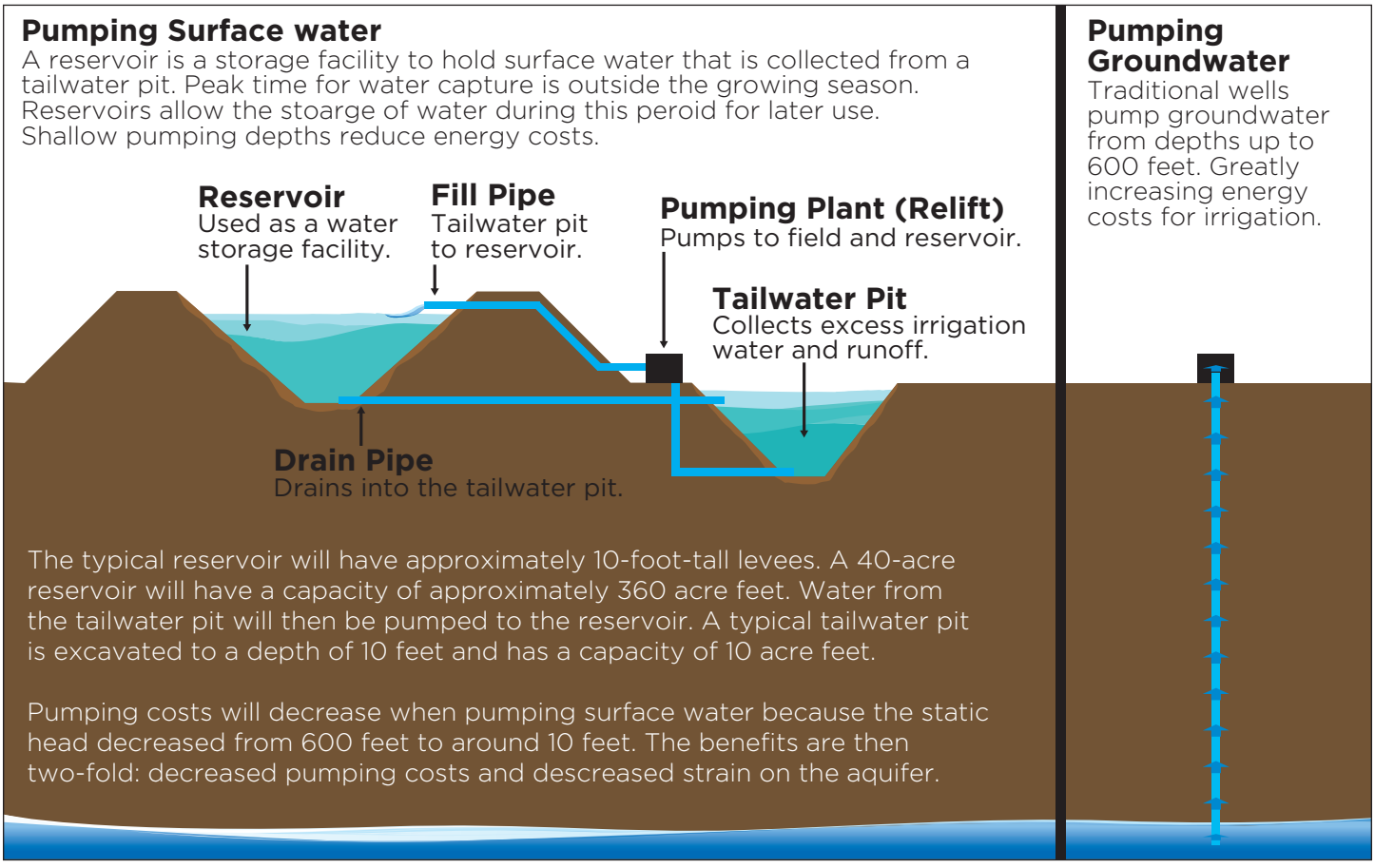
Continued from Page 7

of water used for irrigation by 25 to 30 percent.

Mark Isbell, of Isbell Family Farms in Lonoke County, uses alternative wetting and drying for growing his rice. This practice entails dropping the water level in the rice paddies to less than 1-inch deep before pumping the water back on the field. By doing this, the fields capture any rain that falls during the summer months—resulting in a savings of 25 to 40 percent of the normal water used, depending on the amount of summer rainfall. In addition to water savings and reduced pumping costs, he is also reducing greenhouse gas emissions from the rice fields.

"These producers prove there are several methods to reduce the dependence on groundwater and with a systems approach using various practices sustainability can be attained," Sullivan said. "These producers are not only increasing their profitability, but protecting one of Arkansas's most valuable natural resources.

"The problem is large. It requires an all-in approach, using multiple methods and techniques, to reduce or eliminate over use of groundwater and help achieve sustainable agriculture in the future," Sullivan said.



$22 Million in Conservation Innovation Grants Invest in Innovative Approaches

The USDA Natural Resources Conservation Service (NRCS) announced recently that the agency will award more than $22.6 million to drive public and private sector innovation in resource conservation. The agency is investing in 33 projects nationwide through its competitive Conservation Innovation Grants (CIG) program, which helps develop the tools, technologies, and strategies to support next-generation conservation efforts on working lands and develop market—based solutions to resource challenges.

"The Conservation Innovation Grant program is an example of government at its best, providing seed money to help spur cutting-edge projects," said NRCS Acting Chief Leonard Jordan. The projects announced focus on conservation finance and pay-for-success models to stimulate conservation adoption; data analytics for natural resources; water management technologies and approaches; and historically underserved farmers, ranchers and private forest landowners.

The 2017 CIG awards bring the total NRCS investment to nearly $286.7 million for 711 projects since 2004.

Annually, about 10 percent of CIG funding is set aside to support efforts to benefit farmers, ranchers and forest landowners who historically have not had equal access to agricultural programs because of race or ethnicity; who have limited resources; who are military veterans interested in farming or ranching; or who are beginning farmers or ranchers. Ten projects totaling $5,141,856 were selected in 2017 because they will benefit historically underserved agricultural producers and forest landowners. In Arkansas, the White River Irrigation District received $600,000

White River Irrigation District (AR) $600,000 Internet of Agriculture (IoAg) Network and Services Platform

White River Irrigation District proposes to develop, test and validate an Internet of Agriculture (IoAg) Network and Service Platform that will provide precision agricultural data to enable farmers to increase crop yield, minimize cost, reduce water usage, and improve conservation of natural resources. The primary work will be carried out in the Grand Prairie Region of Arkansas to

leverage a large US Army Corps of Engineers water distribution and water management project that has resulted in extensive investment in automated on-farm data acquisition, data transfer, and control systems. Similar technologies have been tested and implemented in home automation and monitoring, health care, commercial building and energy conservation. This project adopts the methodology and applies it to the agricultural and environment sector.

"CIG invests in innovative, on-the-ground conservation technologies and approaches, with the eventual goal of wide-scale NRCS adoption to address water quality and quantity, air quality, energy conservation, and environmental markets, among other natural resource issues," said Arkansas State Conservationist Mike Sullivan.

CIG is funded through the Environmental Quality Incentives Program (EQIP). The maximum grant is $2 million per project, and the length of time for project completion is three years. The CIG projects are designed to engage EQIP-eligible producers in on-the-ground conservation activities that speed up the transfer and adoption of innovative conservation technologies and approaches.

Download the full list of projects: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/.

To view the list through an interactive map: http://arcg.is/2qduOym

Notify NRCS of Any Changes on Your Operations

USDA Natural Resources Conservation Service (NRCS) program participants have the responsibility of notifying the agency of changes that take place on their operations. This notification needs to be done at your local NRCS Field Service Center and should be done in writing. Any changes that are made to your contract(s) could affect your payment or could even cause you to be accessed with penalties.

If you are participating in any NRCS program, please make sure you carry out conservation practices in accordance to job sheets or designs. Please do not start any practice until your contract has been approved or you will not be eligible for that practice and it may cause your application to be ineligible. If a design is required, please make sure you have one from NRCS before you begin installation.

For additional information, contact Kenneth Lee, assistant state conservationist for programs, at kenneth.lee@ar.usda.gov, or visit your local USDA field service center.

NRCS Announces July 17, 2017, Application Deadline for the "Keeping It in the Family Project" to assist African American Forestland Owners

The USDA's Natural Resources Conservation Service (NRCS) has allocated $300,000 to assist with the implementation of woodland management practices in Arkansas. The Keeping it in the Family (KIITF) project is designed to provide assistance to socially disadvantaged forest landowners in seven counties by helping them install woodland management practices leading to economically productive and sustainable forest lands.

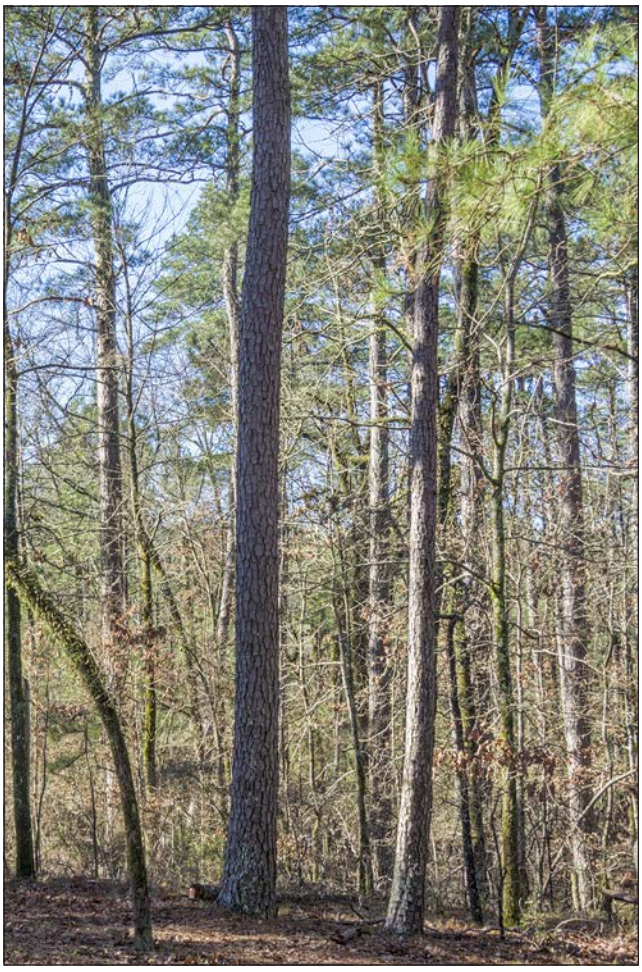
The project is offered in Columbia, Hempstead, Howard, Little River, Nevada, Ouachita and Union counties.

"This funding will enhance the assistance NRCS is providing socially disadvantaged forest landowners," said Mike Sullivan, NRCS state conservationist in Arkansas. "The health of our forests and our rural communities very often go hand in hand. NRCS works with private landowners to increase economic and other opportunities for families and businesses that make their homes near woodlands. This assistance also helps decrease the threat of wildfire and restore forest habitat."

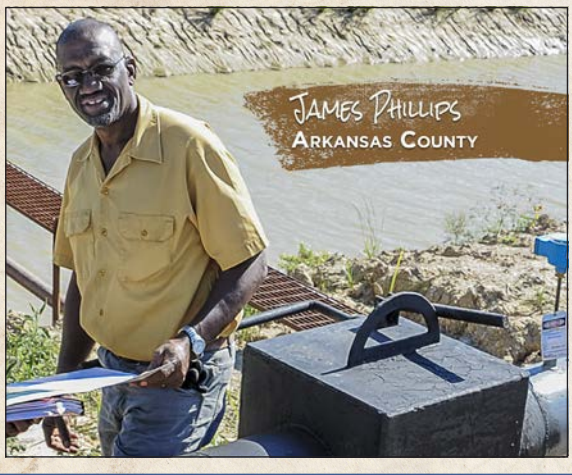
Forest landowners can apply for financial assistance through NRCS at their local USDA Field Service Center. The deadline to apply is July 20, 2017. This is a voluntary program to assist with the installation of forest land conservation practices to help restore, maintain and enhance woodlands.

"As with all NRCS programs, participation is completely voluntary," Sullivan said. "This project incorporates the same practices that landowners have been voluntarily implementing for years, boosting soil and air quality, cleaning and conserving water and enhancing wildlife habitat."

For additional information on the KIITF project, contact University of Arkansas at Pine Bluff professor Dr. Henry English at 870-575-7246 or englishh@uapb.edu, or USDA StrikeForce Coordinator Charlie Williams at 870-633-3055 or charlie.williams@ar.usda.gov.



CONSERVATION STEWARDSHIP PROGRAM



Years farming: 37
Crops/livestock: Rice, Soybeans
Years in CSP: 7
Acres enrolled in CSP: 300 acres
Enhancements applied:

- Discontinue burning crop residue
- Leave standing grain crops unharvested to benefit wildlife
- Early successional habitat between first rice crop and ratoon crop
- Apply phosphorus below surface
- Apply enhanced efficiency fertilizer products Intermittent flooding of rice fields
- Drift control utilizing drift control nozzles
- GPS, targeted spray applications

Benefits as a result of participating in CSP:

- Increased rice and soybean yield
- Increased wildlife habitat and food
- Increased soil health

"Through the conservation stewardship program and the practices I am already doing on my farm, it's good for the environment. It's all beneficial for the watersheds and for the wildlife. It also beneficial for my yields and helps my bottom line."

U.S. Rice Farmers Embrace Sustainable Agriculture and Earn First-Ever Carbon Credits for Rice Production

On June 14, 2017, Terra Global Capital and the American Carbon Registry (ACR) announced the first ever issuance and sale of the greenhouse gas emission reduction offset credits from the sustainable production of rice in California and states in the Mid-South. To reduce methane, rice farmers implemented a variety of groundbreaking voluntary conservation practices that included alternate wetting and drying and early drainage of their fields and crop residue management. In addition to generating verified carbon offset credits, these practices also resulted in reduced energy consumption as well as the reduced use of millions of gallons of water, a critical resource in both regions.

The conservation practices were implemented by two farmers in California and five farmers in Arkansas and Mississippi who took a leadership role in piloting the practices and participating in generation and sale of carbon offset credits.

The sale of the carbon offset credits, managed by Terra Global Capital, to Natural Capital Partners on behalf of its client Microsoft, rewards the farmers for their activities and demonstrates credibly measured environmental benefits.

A diverse group of like-minded partners guided the farmers through the process, including NRCS, Terra Global Capital, ACR, California Rice Commission, White River Irrigation District and the Environmental Defense Fund (EDF). This public private partnership was funded through the NRCS CIG Program and Entergy Corporation's Environmental Initiatives Fund.

Meet four Arkansas farmers—collectively known as *Nature's Stewards*—through the NRCS interactive ESRI storymap: http://arcg.is/2slKHYp

Conservation Client Gateway: Conservation Assistance at Your Fingertips

Conservation Client Gateway is a secure web portal that lets producers work with the Natural Resources Conservation Service (NRCS). Farmers, ranchers, foresters and land managers, whether operating as individuals or authorized representatives of business entities, can track their payments, report completed practices, request conservation assistance, and electronically sign documents.

Conservation Client Gateway provides users the flexibility to determine when they want to engage with NRCS online and when they prefer in-person conservation planning assistance at the local USDA Field Service Center

For more information about Conservation Client Gateway, visit www.nrcs.usda.gov/clientgateway or visit your local USDA Service Center.

Pea Ridge Landowner Workshop

The USDA Natural Resources Conservation Service (NRCS) along with Arkansas Game & Fish (AG&F) and other conservation partners were on hand at the Pea Ridge Landowner Workshop May 20 to highlight quail habitat restoration.

The inaugural event brought in 250 people from the surrounding area.

NRCS used the rainfall simulator to demonstrate the importance of proper management for forests and pastures and the effects on water quality.

Continuously grazed pastures provide little habitat for quail. Using rotational grazing with some areas dedicated to native warm season grasses improves habiat and increases water quality.

Proper forest management using more open woods also has a positive impact on quail and water quality.

At top, local Boy Scouts learn about soil health. At bottom, AG&F Biologist Jeff Taverner discusses grassland management with the rainfall simulator.
Photos by Patsi Henderson

NRCS Aquires Soil Boring Machine

NRCS Geologist Chris King (in blue shirt) and Soil Scientist Nelson Rolong examine a soil sample using a Giddings Model 25-SCT soil boring machine in Lonoke County. Arkansas NRCS recently aquired the trailer-mounted unit; capable of boring down to 30 feet, depending on subsurface conditions. It has the ability to push a 3-foot long sampling tube, extracting a continuous soil core. The Giddings is based at the Conway Field Service Center, and is shared between the soils and engineering staff. This unit can assist with a variety of investigations, including animal waste management, irrigation reservoirs, Emergency Watershed Protection, and PL-566 structures. Shallow bedrock, rocky soils, slope and access issues may restrict use of the Giddings probe. Contact Chris King, geologist or Richard Vaught, soil scientist, regarding potential investigations. Photo by Christopher Willis

USDA United States Department of Agriculture

Outreach and Assistance for Socially Disadvantaged Farmers, Ranchers and Veteran Farmers and Ranchers Program

Applications are being solicited through the Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers and Veteran Farmers and Ranchers Grant Program (also known as the "2501 Program") from community-based and non-profit organizations, institutions of higher education, and Tribal entities to provide outreach and technical assistance to socially disadvantaged and veteran farmers and ranchers. The deadline for applications is August 7, 2017.

You can view the full announcement (Opportunity Number: OAO-011) as posted onto www.grants.gov for additional information at: https://www.grants.gov/web/grants/search-grants.html?keywords=OAO-011

The Office of Advocacy and Outreach will host two teleconferences on July 13 and July 27 at 1:00pm CST to address any clarifying questions from the public on this funding opportunity. You can join the call with the following call-in instructions for sessions: Telephone: 1-888-455-1685, Passcode: 2570498#

NRCS State Leaders Discuss Role Agency Plays in Conservation, Water Quality, and Soils in Arkansas to International Visitors

By Edgar Mersiovsky

The Cochran Fellowship Program's Eastern Europe and Eurasia Region supported a training program for seven Fellows from Turkmenistan and five Fellows from Uzbekistan. The group included representatives from the chief accountant/ag consultant, university instructors, extension workers, political-economist specialists, and translators.

Poor soil quality is a major issue in Turkmenistan and Uzbekistan. The soil is poor in minerals and the problem is aggravated by heavy salinization caused by intensive cotton growing and tilling.

Many farmers still use Soviet-era technology and methodology for farming. Some land is potentially arable, or was arable and is now degraded.

Through soil enriching practices, this land can become arable, and healthier soil is also more resilient to climate change impacts for the farmers.

The University of Arkansas, Pine Bluff (UAPB) hosted the group and developed a training agenda that included topics on U.S. legislation on environmental resources, U.S. water codes, and government incentives on crop production with the Arkansas Farm Bureau.

They met with Arkansas Natural Resource Conservation Service (NRCS) to learn the role of NRCS with particular attention focused on government regulations/incentives on crop production and the role of NRCS in protecting the nation's natural resources.

Mike Sullivan, state conservationist, presented an overview of the conservation efforts in Arkansas and answered question concerning how the government works with the farmers. Walt Delp, state conservation engineer, gave a presentation on irrigation water management. Corey Farmer, program specialist, gave a talk on how government programs benefit the environment and how the agency works with the farmers. Edgar Mersiovsky, state soil scientist, gave a presentation of the soils in Arkansas.

The group spent the rest of the week with Dr. Nathan Slaton, Agricultural Experiment Station Testing Services, Dr. Leo Espinoza, state extension soil scientist, Dr. Sixte Ntamatungiro, associate professor of agronomy/soil science, UAPB, Dr. Hao Chen, assistant professor, UAPB, and Dr. Nelson Rolong, assistant state soil scientist, NRCS.

The group learned of the soil testing procedures in Arkansas, soil conditions and salinity, crop productivity and water management.

After spending a week in Arkansas, the group spent a week touring southwest Texas.

State Conservationist Mike Sullivan informs a group of Fellows from Turkmenistan and Uzbekistan about the geological composition of Arkansas and what conservation means to the state. Photo by Christopher Willis

Local Led Conservation– A Way of Doing Business

In early spring, conservation districts across the state convened local led workgroups to provide advice to Natural Resources Conservation Service (NRCS) concerning the implementation of conservation programs in their respective districts.

The locally led conservation effort is the foundation of NRCS's conservation program delivery process. The local work group supports the locally led conservation effort by coordinating USDA programs with other Federal, State, and local conservation programs to provide an integrated solution to addressing natural resource concerns. Locally led conservation is based on the principle that community members are best suited to identify and resolve local natural resource problems.

Examples of the types of advice local led workgroups provide NRCS include:

- Conditions of the natural resources and the environment,
- The local application process, including ranking criteria and application periods,
- Identifying the educational and training needs of producers,
- Cost-share rates and payment levels and methods of payment,
- Eligible conservation practices,
- The need for new, innovative conservation practices,
- Public outreach and information efforts, and
- Program performance indicators.

Members of the Greene County Local Workgroup convene to discuss issues in their district.

While NRCS typically requests feedback from the local led workgroup by March 31 each year, it is important to keep in mind that locally led conservation is a way of doing business, not a process or a program. It is bigger than one farm bill, one fiscal year or any individual program. Locally led conservation is focused on voluntary, non-regulatory, incentive based approaches and involves the community in the assessment of natural resource needs, solutions of problems, and determination of priorities.

NRCS does not lead the locally led process rather is directly involved by supporting the process and providing technical information upon request. Examples of the types of support provided by NRCS include:

- Providing assistance in identifying conservation needs.
- Providing assistance in assembling and analyzing natural resource inventories and data.
- Explaining appropriate USDA conservation programs and services.
- Providing technical and program advice to the community stakeholders.
- Providing information on socioeconomic factors involved in determining conservation needs and implementing strategies to include socially and economically disadvantaged groups in the locally led effort.

Local led conservation is the cornerstone to helping NRCS ensure programs and activities in the state are addresses priority natural resource concerns.

Earth Team Volunteers Gather Irrigation Water Management Data in Arkansas's Delta

By HOLLY ANDERSON

Josh Barnhill has worked as irrigation specialist for the Greene County Conservation District (GCCD) for a little over a year.

His position is funded under an agreement between GCCD, Arkansas Natural Resources Commission (ANRC), and Natural Resources Conservation Service (NRCS). The position filled a much needed gap in offering technical assistance to producers in the critical groundwater decline area of the Delta. He covers Greene, Clay, Craighead, Poinsett, and also assists in Mississippi County as needed.

Jake Pillow is a new Earth Team member but has worked for some time with the Greene County Friends of Conservation, an important NRCS partner. The Irrigation Water Management (IWM) system will help Jake make informed, water-saving irrigation decisions based on scientific data specific to conditions on his land.

According to Adam Eades, Greene County NRCS district conservationist, Jake's system is one of the first, more advanced levels of IWM installed under the EQIP program. The work done on Jake's farm will lay the ground work for future projects.

"Irrigation scheduling is one of our hardest IWM components to educate on," said Eades. "When we sell advanced levels of IWM to other customers, it will be the work on his farm that gives NRCS increased knowledge of the different parts of the system."

Jake has volunteered time to help NRCS gather data Barnhill can use to set up similar systems across a four county area.

"Jake exemplifies the use of the Friends of Conservation as an important part of Arkansas's Earth Team program. We use producers help in the field to accomplish many tasks that we could not do alone," Eades said.

Josh Barnhill, Greene County Conservation District (GCCD) irrigation specialist, works with Jake Pillow, Greene County Friends of Conservation Earth Team volunteer, to set up a sensor to monitor weather and evapotranspiration. Photo submitted

2017 NRCS Pathways Student Interns

Back (left to right): Alexx Ivey, Seth Boles, Kayla Smith, Arkansas State Conservationist Mike Sullivan, Kalycya Hawkins, Jacob Hollis. Front: Lucas Head, Haylie Dobbs, Madeline Oxner, Johnniesha Frazier, Rachel Schlais, Jaylan Haskin. Photo by Christopher Willis

The U.S. Department of Agriculture Pathways Program offers opportunities for students and recent graduates of accredited schools and universities to work in the agricultural, science, technology, math, environmental, business, management, and many other career fields.

The internships allow students to explore Federal careers while still in school and getting paid for the work performed.

Students who successfully complete the program may be eligible for conversion to a permanent job in federal civil service.

For more information visit https://www.usda.gov/our-agency/careers/usda-pathways-programs

Mentoring Program Open for Enrollment

Grazing Land Specialist Jeremy Huff demonstrates to NRCS staff how to properly install an insulator for electric fencing. Photo by Christopher Willis

The 2017 Natural Resources Conservation Service (NRCS) Employee Mentoring Program enrollment deadline is July 17, 2017.

Mentoring provides employees with opportunities to develop new knowledge, skills or experiences. Mentoring's aim is to broaden employee functional experience, assist in developing goals, and cultivate new opportunities.

All employees are eligible to participate in mentoring—supervisory approval is necessary for both mentors and protégés.

The program is designed to last on a formal basis for a period of one year.

For more information or to access the mentoring portal please visit http://www.eservices.usda.gov/usdamentoring or contact Mentoring Program Coordinator Melissa LeCrone at 501-301-3119 or via email at melissa.lecrone@ar.usda.gov.

Two Chiefs' Partnership Awards Recipients recognized during NRCS State Technical Committee Meeting on May 23

(From left to right) Joe Fox, Scott Simon, Patti Turpin, Martha Manley, Mike Sullivan, Ted Zawislaki, Norman Wagoner, Chris Wolkonowski, Bill Holiman, Adrian Baber, and Melvin Tobin. Photo by Reginald Jackson

The USDA Natural Resources Conservation Service (NRCS) State Technical Committee met May 23 at the Arkansas Natural Resources Commission Office in Little Rock. During the meeting, winners of the 2015 Two Chiefs' Partnership award were announced for participation in the Western Arkansas Woodland Restoration Project (WAWRP). The project was recognized for restoring ecosystems by reducing fuel loads, enhancing wildlife habitat on public lands, and creating employment opportunities in chronically impoverished counties.

During the three year project which began in 2014, the partners implemented conservation practices on 13,939 acres, as well as fuel reductions on 2,097 acres of wildland urban interface, and 7,229 acres of non-wildland urban interface forests.

The partner agencies who contributed to the success of the project and received the award are:

- US Forest Service, Ozark-St. Francis National Forest
- US Forest Service, Ouachita National Forest
- USDA NRCS Arkansas
- Arkansas Forestry Commission
- Arkansas Game and Fish Commission
- National Wild Turkey Federation
- The Nature Conservancy
- US Fish and Wildlife Service
- Arkansas Natural Heritage Commission
- Arkansas Association of Conservation Districts
- Arkansas Natural Resources Commission
- Central Hardwood Joint Venture
- Central Arkansas Water

The WAWRP aimed to double the conservation activity on private lands in 29 counties and on the Ozark-St. Francis and Ouachita National Forests.

NRCS received funding for the voluntary installation of forest land conservation practices to help restore, maintain and enhance more open woodland. Key conservation practices included forest stand improvement (thinning), prescribed burning, firebreaks, tree and shrub planting and forage and biomass planting.

Funding for the U.S. Forest Service (USFS) allowed forest managers in the Ouachita National Forest to implement actions to improve water quality, restore aquatic habitat in the Ouachita and Cossatot River watersheds, and helped restore healthy forest communities.

The forests and woodlands in the Ozark-St. Francis National Forest provide significant benefits for society. Habitat Restoration in the Sylamore Ranger District of the Ozark-St. Francis National Forest improved rare communities such as glades and areas used by threatened and endangered species.

The project built upon existing projects with local partnerships already in place. By leveraging technical and financial resources and coordinating activities on adjacent public and private lands, the conservation work by NRCS and USFS was more efficient and effective in these watersheds.

State Conservation Engineer Walt Delp received the 2017 Federal Employee of the Year Professional, Technical and Legal Award from the Federal Executive Association of Arkansas.
Photo by Christopher Willis