2021 USDA EXPLANATORY NOTES – NATURAL RESOURCES CONSERVATION SERVICE

AGENCY-WIDE

PURPOSE STATEMENT

The mission of the Natural Resources Conservation Service (NRCS) is "Helping People Help the Land." The agency accomplishes this mission by providing products and services that enable people to be good stewards of the Nation's soil, water, and related natural resources on non-Federal lands. The establishment of the Soil Conservation Service (SCS) marked the beginning of the Federal government's enduring commitment to assisting in the conservation of natural resources on private lands. Originally authorized by Congress in 1935, to better reflect the broad scope of the agency's mission the agency was later renamed NRCS in the Department of Agriculture Reorganization Act of 1994 (P.L. 103-354, 7 U.S.C. 6901 et seq.). From the beginning, the agency brought a national focus to the emerging resource issues of the Dust Bowl era: prevention of wind and water erosion. Desperate to retain its productive Midwest soils, the Nation turned to SCS for technical guidance and advice on minimizing the impacts of erosion. Although the Dust Bowl has passed, the relationship between landowners and the agency remains.

Over time, the agency's suite of programs expanded and NRCS became a conservation leader for all natural resources: soil, water, air, plants, and animals. Now NRCS supports the rural economy by helping private landowners and producers protect the natural resource base on private lands. Technical assistance provided to farmers, ranchers, and other private landowners supplies the knowledge and tools they need to conserve, maintain, and restore the natural resources on the lands they manage. Financial assistance partially offsets the cost to install conservation practices necessary to safeguard natural resources and improve wildlife habitat.

About 70 percent of the land in the United States is privately owned, making stewardship by private landowners and land managers critical to the health of our Nation's agricultural economy. These are the people who make day-to-day decisions about natural resource use and management on non-Federal lands, and NRCS offers them the technology, technical and

financial assistance needed to benefit the resources, sustain productive lands, and maintain healthy ecosystems.

Science and technology are the critical foundation for effective conservation. NRCS experts from many disciplines come together to help landowners conserve natural resources in efficient, smart, and sustainable ways. Whether developed in a laboratory or on the land, NRCS science and technology helps landowners make the right decisions for every natural resource concern.

NRCS's Conservation Delivery System provides services directly to the landowner or land manager in cooperation with conservation districts. Conservation districts are units of local government created by State law and exist in every county and territory of the United States. Conservation districts are responsible for providing guidance to the agency on local resource concerns and serving as the voice of the local community on resource issues. NRCS also works in partnership with State and local agencies, locally elected or appointed farmer committees, Federal agencies, tribal governments, and private sector organizations to encourage cooperation and facilitate leveraging of the financial and technical resources these groups can offer. By bringing together groups that have a common and vested interest in the local landscape, community, or watershed, NRCS facilitates collaboration among groups that collectively support sustainable agriculture and maintain natural resource quality.

Under this umbrella of agency mission and local cooperation, NRCS employees help landowners and land managers understand the natural processes that shape their environment, how conservation measures can improve the quality of that environment, and what conservation measures will work best on their land. NRCS employees provide these services directly to the customer. Field offices at USDA Service Centers are in nearly every county and territory of the United States. NRCS employees' technical expertise and understanding of local resource concerns and challenges result in conservation solutions that last. *In the words of the first NRCS Chief, Hugh Hammond Bennett – "If we take care of the land, it will take care of us."*

The USDA's Farm Production and Conservation mission area developed and released farmers.gov - a dynamic and mobile-friendly website that delivers information, tools, and first-hand advice built around the needs of the people who grow the Nation's food, fiber, flora, and fuel. The external website serves as the customer gateway and informational counterpart to an authenticated, transactional portal where USDA customers can apply for programs, process technical and financial transactions, and manage accounts. USDA has built farmers.gov around customer needs and ideas through a streamlined, farmer-centered approach – bringing the most usable information together in a new way.

Conservation Operations

The programs funded in the Conservation Operations account are authorized by the Conservation and Domestic Allotment Act of 1935, P.L. 74-46 (16 U.S.C. 590a-590f) and the Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001-2009), as amended. The purpose of Conservation Operations is to provide technical assistance supported by science-based

technology and tools that help people conserve, maintain, and improve the Nation's natural resources. Conservation Operations has four major program components: Conservation Technical Assistance Program; Soil Survey Program; Snow Survey and Water Supply Forecasting Program; and Plant Materials Centers.

Conservation Technical Assistance Program (CTA). The CTA Program has a long history as NRCS's conservation planning program, helping to develop and deliver conservation technologies and practices to private landowners, conservation districts, tribal, and other organizations.

Through the CTA Program, NRCS helps land managers develop comprehensive conservation plans that include activities that reduce soil loss from erosion; address soil, water quality, water conservation, air quality, and agricultural waste management concerns; reduce potential damage caused by excess water and sedimentation or drought; enhance the quality of fish and wildlife habitat; improve the long-term sustainability of all private lands, including cropland, forestland, grazing lands, coastal lands, and developed or developing lands; and facilitate changes in land use as needed for natural resource protection and sustainability.

CTA Program funding is used to:

- Provide conservation technical assistance to individuals or groups of decision makers, and to communities, conservation districts, units of State, tribal and local government, and others to voluntarily conserve, maintain, and improve natural resources;
- Provide collaborative community, watershed, and area-wide technical assistance with units of government so they can develop and implement resource management plans that conserve, maintain, and improve our natural resources at appropriate scales;
- Provide conservation technical assistance to help agricultural producers comply with the highly erodible land conservation (HELC) and wetland conservation (WC) compliance provisions required by the Food Security Act of 1985, as amended;
- Provide conservation technical assistance to aid private landowners in complying with other Federal, State, tribal, and local environmental regulations and related requirements, and prepare them to become eligible to participate in other Federal, State, and local conservation programs;
- Collect, analyze, interpret, display, and disseminate information about the status, condition, and trends of soil, water, and related natural resources so people can make informed decisions for natural resource use and management;
- Assess the effects of conservation practices and systems on the condition of natural resources; and
- Develop, adapt, and transfer effective science-based technologies and tools for assessment, management, and conservation of natural resources;

Soil Survey Program. NRCS's Soil Surveys provide the public with information on the properties, capabilities, and conservation treatment needs of their soils through the use of soil maps and interpretive analyses. Soil Surveys help people make informed land use and

management decisions that take into consideration various soil characteristics and capabilities, ensuring their soil is kept healthy and productive. In addition, it provides soils information and interpretation to individuals or groups of decision-makers, and to communities, States, and others to aid sound decision-making in the wise use and management of soil resources; NRCS conducts Soil Surveys cooperatively with other Federal agencies, Land Grant Universities, State agencies, tribes, and local governments. NRCS's major Soil Survey Program objectives are to:

- Inventory and map the soil resource on all lands of the United States;
- Keep soil surveys relevant to meet emerging and ever-changing needs;
- Interpret the data and make soil survey information available to meet public needs;
- Promote and provide technical assistance in the use of soil survey information; and
- Lead the National Cooperative Soil Survey Program.

Soil Survey information is the foundation of resource planning conducted by land-users and policy makers. Soil Surveys provide vital information needed to support sustainable and productive soils in the United States. Emerging environmental issues (e.g., soil carbon stocks, nutrient management, and healthy soils) require that the soil survey collect and interpret new data to best inform decision makers.

In addition to providing Soil Survey data to the public, NRCS also maintains a National Soil Survey Center that integrates and adds to the current soil science and provides information for the effective application of the Soil Survey to help make good land management possible. The National Soil Survey Center develops national soil policy, technical guidance, procedures, and standards. It conducts soil research investigations, operates a soil survey laboratory, develops handbooks and manuals, provides training, develops and maintains soil survey data systems; and plans regional work conferences.

Within the Soil Survey Program, the Science of Soil Health project is developing and implementing a statistically robust dynamic soil properties and soil health indicators assessment protocol to provide nationwide soils and management data for evaluation of the effects of conservation practices on soil health, soil erosion, carbon sequestration, and other resource issues. These efforts include the development of appropriate database infrastructure allowing USDA to collect, compile, store, and disseminate field- and farm-scale soil carbon and related data received through the agency's Resource Stewardship Evaluation Tool, focused soil survey projects, and state-based assessment and monitoring activities. This project will complement ongoing efforts such as the National Cooperative Soil Survey, the Soil Monitoring project undertaken collaboratively with Colorado State University, the NRCS Rapid Carbon Assessment, the Natural Resources Inventory and the NRCS Soil Health Division/Plant Materials Center cover crop impact study. NRCS initiated the effort in 2016; with the emphasis on soil health in the 2018 Farm Bill, full implementation of the Science of Health network is anticipated by 2023.

Snow Survey and Water Supply Forecasting Program. The program, along with its partners, collects high elevation snow data in the western United States and provides snowpack data and water supply forecasts. Snowmelt irrigates the West, delivering nearly 75 percent of the region's water supply. NRCS field staff collects and reviews data on snow depth, snow water equivalent, and other climate parameters such as precipitation and temperature at over 2,000 remote, high elevation sites. At the present time, 912 of these remote data collection sites (SNOTEL, SnoLite and Hydromet) are automated and provide near real-time data available to the public. The data are analyzed to provide estimates of annual water availability, drought conditions, and flooding potential. The snow and climate data and the water supply forecasts are used by farmers, ranchers, and irrigation districts; municipal and industrial water providers; hydroelectric power utilities; fish and wildlife management; reservoir managers; recreationists; Tribal Nations; Federal, State, and local government agencies including transportation departments; and the countries of Canada and Mexico.

The objectives of the program are to:

- Provide reliable, accurate and timely forecasts of surface water supply to water managers and water users in the west;
- Efficiently obtain, manage, and disseminate high quality data and information on snow, water, climate, and hydrologic conditions; and
- Provide climate data to support NRCS conservation planning tools.

In addition, the Soil Climate Analysis Network provides similar climate information as well as soil moisture and temperature data at lower elevations. The network consists of 224 sites in the 48 contiguous United States, Alaska, Hawaii, and Puerto Rico/Virgin Islands.

Plant Materials Centers (PMCs). NRCS's network of 25 PMCs identify, evaluate, and demonstrate the performance of plants and plant technologies to solve natural resource problems and improve the utilization of our nation's natural resources. PMCs continue to build on their long and successful history of releasing plants for resource conservation that have been instrumental at increasing the commercial availability of appropriate plant materials to the public. PMC activities contribute to reducing soil erosion; increasing cropland soil health and productivity; restoring wetlands, improving water quality, improving wildlife habitat (including pollinators); protecting streambank and riparian areas; stabilizing coastal dunes; producing forage; improving air quality; and addressing other conservation treatment needs.

The results of studies conducted by PMCs provide much of the basis for NRCS vegetative recommendations and conservation practices. This work ensures that NRCS conservation practices are scientifically based, improves the knowledge of NRCS field staff through PMC-led training sessions and demonstrations, and develops recommendations to meet new and emerging natural resource issues. PMCs carry out their work cooperatively with State and Federal agencies, universities, tribes, commercial businesses, and seed and nursery associations. PMC activities directly benefit private landowners as well as Federal and State land managing agencies.

Watershed and Flood Prevention Operations

Through the programs funded in the Watershed and Flood Prevention Operations account, NRCS cooperates with State and local agencies, tribal governments, and other Federal agencies to prevent damage caused by erosion, floodwater, and sediment, to further the conservation, development, utilization, and disposal of water, and advance the conservation and utilization of the land. Authorization includes the Watershed Operations Program authorized by the Flood Control Act of 1944 (P.L. 78-534) and the Watershed Protection and Flood Prevention Program authorized by P.L. 83-566 (16 U.S.C. 1001-1008), as amended.

Congress established the Watershed Program by enacting the Flood Control Act of 1944 (Public Law 78-534) and the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566). Under these authorizations, the USDA Natural Resources Conservation Service (NRCS) has assisted watershed project sponsors in the construction of more than 11,845 flood control dams in 1,271 watersheds in 47 States since 1948 with a maximum individual watershed size of set at 250,000 acres. These projects provide an estimated $2.2 billion in annual benefits in reduced flooding and erosion damages, recreation, water supplies and wildlife habitat.

Emergency Watershed Protection Program. The program reduces hazards to life and property in watersheds damaged by severe natural events. An emergency exists when a watershed is suddenly impaired by flood, fire, drought, wind, or other natural causes that result in threats to life and property. The emergency area need not be declared a national disaster area to be eligible for assistance; however, a Presidential disaster declaration is one method for establishing eligibility. The program is authorized by Section 216 of the Flood Control Act of 1950 (33 U.S.C. 701b-1), as amended, and Sections 403-405 of the Agricultural Credit Act of 1978 (16 U.S.C. 2203-2205), as amended.

Objectives of the program are to provide technical and financial assistance for disaster cleanup, restoration of watershed conveyance, and subsequent stabilizing of streambanks and levees. The program also allows for relocation of properties outside floodplains in lieu of restoration in cases where it is more cost effective. Local people are generally employed on a short-term basis to assist with disaster recovery. Activities include: 1) establishing quick vegetative cover on denuded land, sloping steep land, and eroding banks; 2) opening dangerously restricted channels; 3) repairing diversions and levees; 4) purchasing floodplain easements; and 5) other emergency work.

Watershed Rehabilitation Program

This dam rehabilitation program provides both financial and technical assistance to communities for addressing public health, safety concerns, and environmental impacts of aging dams. The program is authorized under Section 14 of the Watershed Protection and Flood Prevention Act (16 U.S.C. 1012), as amended.

Local communities have constructed more than 11,847 watershed dams with assistance from NRCS from 1948 to 2019. These dams protect America's communities and natural resources with flood control, but many also provide the primary source of drinking water for the area or offer recreation and wildlife benefits. Funding is used for rehabilitation projects to bring the dam up to current safety standards through planning, design, and construction of the rehabilitation project, but may also be used for dam removal. The program may provide up to 65 percent of the total cost of the rehabilitation projects; Federal funds cannot be used for operation and maintenance.

Water Bank Program
The program focuses technical and financial assistance on flooded cropland, flooded hay and pasture land, and flooded forestland. Under the program, landowners and operators have non-renewable ten-year rental agreements to receive annual payments to protect wetlands and provide wildlife habitat by preventing adverse land uses and activities, such as drainage, that would destroy the wetland characteristics of those lands. Program participants who wish to establish or maintain conservation practices may also apply for financial assistance through other NRCS or State financial assistance programs where available.

Mandatory-Farm Bill Programs:

Environmental Quality Incentives Program (EQIP)
EQIP advances the voluntary application of conservation practices to promote agricultural production, forest management, and environmental quality as compatible uses. Conservation practices funded through EQIP help producers improve the condition of soil, water, air, and other natural resources. The program assists owners and operators of agricultural and forest land with the identification of natural resource problems and opportunities in their operation and provides assistance to solve identified problems in an environmentally beneficial and cost-effective manner. The program, which is authorized by Sections 1240 through 1240G and Section 1241(a) of the Food Security Act of 1985, was amended by the Agricultural Act of 2014 and re-authorized through 2019 by Section 60102 of the Improvements to Agriculture Programs Act of 2018. The program was further enhanced by the Agriculture Improvement Act of 2018 (2018 Farm Bill) and funded through 2023. The 2018 Farm Bill enhancements include soil testing and remediation as EQIP practices, allowing advance payments for certain producers, lowering the livestock set-aside to 50 percent, raising the organic EQIP payment limit, and allowing irrigation districts to participate in certain EQIP projects.

Although EQIP specifically addresses resource concerns on working farms and ranches, implementation of the program can create benefits that extend well beyond the farm. Conservation practices funded through EQIP contracts accrue significant environmental benefits, including improved grazing lands, improved air quality, enhanced fish and wildlife habitat, sustainable plant and soil conditions, improved water quality and quantity, reduced soil erosion, and energy conservation that provide important ancillary economic and social benefits.

Conservation Stewardship Program (CSP)

The purpose of CSP is to encourage producers to address resource concerns in a comprehensive manner by undertaking additional conservation activities and improving, maintaining, and managing existing conservation activities. The program, which is authorized by Sections 1238E through 1238G and Section 1241(a) of the Food Security Act of 1985, was amended and re-authorized through 2018 by Sections 2101 and Section 2601 of the Agricultural Act of 2014. However, the 2018 Farm Bill eliminated the program authorized by the 2014 Farm Bill and established a new CSP program that is now a dollar-capped program (and not acre-based) by eliminating the prior $18 per acre payment rate. Moreover, the new CSP is authorized to be more closely aligned with EQIP. For example, the new CSP expands the definition of conservation activities by adding comprehensive conservation plan, soil health planning (including organic), and fosters the use of predictive analytical tools to more accurately measure conservation improvement. Therefore, the enhancements to CSP are in tandem to the enhancements in EQIP.

CSP encourages agricultural and forestry producers to maintain existing conservation activities and to adopt additional ones on their operations. CSP provides opportunities to both recognize excellent stewards and deliver valuable new conservation. The program helps producers identify natural resource problems in their operation and provides technical and financial assistance to solve those problems in an environmentally beneficial and cost-effective manner. CSP addresses seven natural resource concerns (soil quality, soil erosion, water quantity, water quality, air quality, plant resources, and animal resources) as well as energy.

CSP is a voluntary program available through a continuous sign-up process, with announced cut-off dates for ranking and funding applications. This allows producers to submit their applications at any time. Applications are evaluated relative to other applications within similar geographic areas to facilitate a competitive ranking process among applications that face similar resource challenges. The 2014 Farm Bill prescribed the following factors for evaluating and ranking applications:

- Requires that at least two priority resource concerns meet or exceed a science-based stewardship threshold at the time of contract offer, and meet or exceed one additional priority resource concern by the end of the contract;
- Level of conservation treatment on all applicable priority resource concerns at the time of application;
- Degree to which the proposed conservation treatment on applicable priority resource concerns effectively increases conservation performance;
- Number of applicable priority resource concerns proposed to be treated to meet or exceed the stewardship threshold by the end of the contract;
- Extent to which other priority resource concerns will be addressed to meet or exceed the stewardship threshold by the end of the contract period; and
- Extent to which priority resource concerns will be addressed when transitioning from the conservation reserve program to agricultural production.

It should be noted that the 2018 Farm Bill changes the ranking of applications to focus on natural resources conservation and environmental benefits.

Agricultural Conservation Easement Program (ACEP)
ACEP consists of two components: 1) an agricultural land easement component under which NRCS assists eligible entities to protect agricultural land by limiting non-agricultural uses of that land through the purchase of agricultural land easements; and 2) a wetland reserve easement component under which NRCS provides financial and technical assistance directly to landowners to restore, protect and enhance wetlands through the purchase of wetlands reserve easements. ACEP consolidates the purposes of three easement programs that were repealed by the Agricultural Act of 2014: The Wetlands Reserve, Grassland Reserve, and Farm and Ranch Land Protection Programs. ACEP is authorized through 2018 by Sections 1265 through 1265D and Section 1241(a) of the Food Security Act of 1985, as amended by Sections 2301 and 2601 of the Agricultural Act of 2014. The 2018 Farm Bill reauthorizes ACEP, including enhancements to stream the agricultural land easement process, which will continue to build upon prior years' efforts to help farmers and ranchers keep their land in agriculture.

Through the agricultural land easement component, ACEP helps farmers and ranchers keep their land in agriculture. The program also protects grazing uses and related conservation values by conserving grassland, including rangeland, pastureland and shrubland. Eligible entities include Indian tribes, State governments, local governments, or nongovernmental organizations, which have farmland or grassland protection programs that purchase agricultural land easements for the purpose of protecting agriculture use, grazing uses, and related conservation values, by limiting conversion to non-agricultural uses of the land.

Through the wetland reserve easement component, ACEP provides technical and financial assistance directly to private landowners and Indian tribes to restore, protect, and enhance wetlands through the purchase of a wetlands reserve easement or 30-year contract. Wetlands provide habitat for fish and wildlife, including threatened and endangered species, improve water quality by filtering sediments and chemicals, reduce flooding, recharge groundwater, protect biological diversity, and provide opportunities for educational, scientific and limited recreational activities.

To enroll land through agricultural land easements, NRCS enters into cooperative agreements with eligible entities that include the terms and conditions under which the eligible entity is permitted to use ACEP cost-share assistance, including the development of an agricultural land easement plan. This plan will promote the long-term viability of the land.

To enroll land through wetland reserve easements, NRCS enters into a purchase agreement with eligible private landowners or Indian tribes that includes the right for NRCS to develop and implement a wetland reserve restoration easement plan. This plan restores, protects, and enhances the wetlands functions and values of the land. NRCS may authorize enrolled land to be used for compatible economic uses, including activities such as hunting and fishing,

managed timber harvest, or periodic haying or grazing if such uses are consistent with the long-term protection and enhancement of the wetland resources for which the easement was established.

Regional Conservation Partnership Program (RCPP)
RCPP promotes the implementation of conservation activities through agreements between partners and producers. RCPP combines the purposes of four former conservation programs – the Agricultural Water Enhancement Program, the Chesapeake Bay Watershed Program, the Cooperative Conservation Partnership Initiative, and the Great Lakes Basin Program. Through agreements between partners and conservation program contracts directly with producers, RCPP helps implement conservation projects that may focus on water quality and quantity, soil erosion, wildlife habitat, drought mitigation and flood control or other regional priorities. RCPP is authorized through 2018 by Sections 1271 through 1271F of the Food Security Act of 1985, as amended by Section 2401 of the Agricultural Act of 2014 (P.L. 113-79). The 2018 Farm Bill reauthorized RCPP and increased annual funding to $300 million. It creates new opportunities for funding up to 15 projects annual through Alternative Funding Arrangements or Grant Agreements to achieve conservation benefits on a regional or watershed scale. It also directs the Secretary to allocate 50 percent of funds based on a multistate competitive process to be administered at the local level, and further directs the Secretary to allocate 50 percent of funds for projects in Critical Conservation Areas.

RCPP partners include agricultural or silvicultural producer associations or other groups of producers, State or local governments, Indian tribes, farmer cooperatives, municipal water treatment entities, irrigation districts, conservation driven nongovernmental organizations, and institutions of higher education are eligible. Agricultural and nonindustrial private forest lands may enter into RCPP contracts to receive financial and technical assistance as part of a RCPP partner agreement. Producers may receive assistance without a partner, if the land is in a partner project area or a critical conservation area designated by NRCS. RCPP contracts with producers are implemented through the Agricultural Conservation Easement Program, the Environmental Quality Incentives Program, the Conservation Stewardship Program, or the Healthy Forests Reserve Program, and through the Watershed and Flood Prevention Program in critical conservation areas.

RCPP is designed to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales by encouraging partners to cooperate with producers. Producers receive technical and financial assistance through RCPP while NRCS and its partners help producers install and maintain conservation activities. Partners contribute and leverage funding for partnership projects and are required to develop performance metrics and plans and report on the results.

Agricultural Management Assistance Program (AMA)
AMA provides technical and financial assistance in 16 States: Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York,

Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. AMA is funded through the Commodity Credit Corporation. The program is permanently authorized by Section 524(b) of the Federal Crop Insurance Act (7 U.S.C. 1524(b)), as amended. Section 524(b)(4)(B) provides $10 million each year for the program, of which 50 percent is allocated to NRCS.

Under the program, NRCS provides technical and financial assistance to producers to construct or improve water management structures or irrigation structures; plant trees for windbreaks; and take actions to improve water quality. In addition, the Risk Management Agency (RMA) has collaborated with NRCS to provide financial assistance for producers to implement high-tunnel conservation practices. The Agricultural Marketing Service also provides AMA financial assistance to program participants receiving certification or continuation of certification as an organic producer.

Voluntary Public Access and Habitat Incentives Program (VPA-HIP)
The program encourages private landowners to voluntarily make their land available to the public for wildlife-dependent recreation. States and tribes approved for funding in program use the funds as incentives to encourage private landowners of farms, ranches, and forests to make that land available to the public for wildlife-dependent recreation. This may include hunting or fishing. The overall goal of VPA-HIP is to enhance wildlife habitat and management and to boost local economies through activities that attract wildlife enthusiasts.

Feral Swine Eradication and Control Pilot Program
The program is authorized by Sections 2408 of the Agriculture Improvement Act of 2018. The program will be implemented by NRCS and the Animal Plant Health Inspection Service to respond to the threat feral swine pose to agriculture, native ecosystems, and human and animal health.

Healthy Forests Reserve Program (HFRP)
The program assists landowners in restoring, enhancing, and protecting forest ecosystems to: promote the recovery of threatened and endangered species; improve biodiversity; and enhance carbon sequestration. The program is authorized by Sections 501 through 508 of the Healthy Forests Restoration Act of 2003 (P.L. 108-148) as amended by Section 8203 of the Agricultural Act of 2014 (P.L. 113-79). The 2018 Farm Bill authorized enhancements to HFRP including providing that permanent easements are an enrollment option for acreage on Tribal Land and adding that protection of at-risk species is a purpose in the conservation of forest land.

Programmatic and Landscape Conservation Activities
To address critical, regionally important conservation needs, NRCS and its partners have established programmatic and landscape-scale Activities to provide additional support to voluntary conservation on private lands. NRCS has targeted funding to support the Activities through a variety of Farm Bill conservation programs. NRCS technical assistance is also

provided through its CTA Program. Technical and financial support may also come from partners.

Each Activity is intended to raise awareness of a specific resource concern or opportunity, to stimulate interest and commitment for voluntary action, to help focus funding, and to optimize conservation results. By coordinating NRCS's efforts with other Federal agencies, State and local governments, and other groups, efficiency and effectiveness are optimized; additional resources are generated from partners to expand capacity and accelerate action; and mutual support is established for core conservation practices/systems that benefit the watershed, ecosystem, or species of concern.

National Water Quality Initiative. NRCS works with farmers and ranchers in small watersheds throughout the Nation to improve and protect water quality where this is a critical concern. NRCS works collaboratively with the Environmental Protection Agency at the national level to facilitate selection of high-priority watersheds and source water protection areas where NRCS, and partners target outreach and assistance, and demonstrate improvements in water quality. NRCS identifies priority watersheds through the help of local partnerships and State agencies. This strategic approach leverages funds and helps agricultural producers take needed actions to reduce the runoff of sediment, nutrients and pathogens into waterways where water quality is a critical concern. Water quality-related conservation practices benefit agricultural producers by lowering input costs and enhancing the productivity of working lands. Eligible producers receive assistance under EQIP for installing conservation systems that may include practices such as nutrient management, cover crops, and filter strips. In 2017 the initiative increased emphasis on and support of watershed assessment and planning to further target conservation efforts, and in 2019 expanded to include planning and conservation implementation in source water protection areas (both surface and ground water sources). Conservation planning and implementation will continue in 2020.

Longleaf Pine. Longleaf pine forests once covered more than 90 million acres in the Southeastern United States, from east Texas, to Florida, to Virginia. They serve as one of the most diverse ecosystems outside of the tropics. However, 97 percent of the historic forests have been lost and according to Forest Service Forest Inventory and Analysis data only 3.4 million acres of longleaf pine and mixed longleaf pine/oak forest types remained in 2008. These remaining forests provide critical habitat for 29 threatened and endangered species. The Range-Wide Conservation Plan for Longleaf Pine, developed in 2009 by public and private partners in response to the degradation of these ecosystems, calls for restoring, improving, and maintaining eight million acres of longleaf ecosystems by 2024. Since the plan's creation, more than 1.5 million acres of longleaf have been restored. This includes more than 1.2 million acres of longleaf planting, ten million acres of prescribed fire (with multiple treatments to some acres), and over 200,000 acres of land has been legally protected. The NRCS has directly contributed more than 660,000 acres of longleaf conservation through vegetation management practices, prescribed fire, new planting, and conservation easements. Continued coordination between

public and private partners over the next five years will be critical in achieving the initiative's goal. Mississippi River Basin Healthy Watersheds Initiative (MRBI).

The MRBI activity was established in 2010, and covers Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Ohio, South Dakota, Tennessee, and Wisconsin. It was established to improve the health of watersheds within the Mississippi River Basin through the reduction of nutrient runoff, restoration, and enhancement of wildlife habitat, wetland restoration, and maintenance of agricultural productivity. In 2015, the activity was refined to support the Nutrient Reduction Strategies developed by each State to address nutrient losses to the Mississippi River and the Gulf of Mexico. In 2019, the initiative strengthened its emphasis on and support of watershed assessment and planning to further target conservation efforts for water quality benefit, and this initiative will carry forward into 2020.

Working Lands for Wildlife (WLFW)**.** The WLFW activity is designed to provide targeted financial and technical assistance with the aim of producing important outcomes for identified wildlife species. Two-thirds of the land in the lower 48 States is privately owned, and these working farms, ranches and forests produce much of the country's food and fiber. These working lands also provide much of our Nation's open space and the habitats that wildlife need. NRCS assists agricultural producers who want to voluntarily make wildlife-friendly improvements on their land. These conservation activities, or practices, benefit fish and wildlife while boosting the land's resiliency and production. Producers have conserved millions of acres of wildlife habitat, from the sagebrush and grasslands of the West to forests in the East. This work has led to the rebound and recovery of many species, including the Oregon chub, Louisiana black bear, New England Cottontail and greater sage-grouse.

Technical Service Provider Assistance (TSP)
Under the TSP, individuals or entities are certified by NRCS to assist landowners and agricultural producers in applying conservation practices on the land. TSPs expand and accelerate NRCS's ability to plan and apply conservation practices that enhance, restore or conserve the Nation's soil, water, and related natural resources on non-Federal land.

Use of third parties to conduct conservation work is authorized under Section 1242 of the Food Security Act of 1985, as amended, which requires the Secretary of Agriculture to provide technical assistance under the Food Security Act Title XII conservation programs to a producer eligible for that assistance 1) directly; 2) through an agreement with a third-party provider; or 3) at the option of the producer, through a payment to the producer for an approved third-party provider, if available. Section 1242 also requires that USDA establish a system for approving individuals and entities to provide technical assistance to carry out conservation programs and establish the amounts and methods for payments for that assistance. Technical assistance includes conservation planning and conservation practice design and implementation.

Workforce Status and Locations
As of September 30, 2019, NRCS had 8,796 full time employees with permanent appointments. Of this total, 173 employees were in the Washington, DC metropolitan area, and 8,623 employees were located outside of the Washington, D.C. metropolitan area.

Organizational Structure
NRCS is a line and staff organization. The line of authority begins with the Chief and extends down through the Associate Chiefs for Conservation and Operations, Regional Conservationists (Northeast, Southeast, Central, and West), Deputy Chiefs/Chief Executive Officers, Division Directors, State Conservationists and Assistant State Conservationists. Line Officers are responsible for direct assistance to the public. Staff positions provide specialized technical or administrative assistance to Line Officers.

During FY 2019, NRCS had 2,540 offices located across the Nation. This represents the number of locations where NRCS performs mission-related activities (e.g. field offices, State offices, Plant Materials Centers, etc.) and reports at least one full time equivalent (FTE) at the location. In addition, this number includes locations used for conservation testing, research, and storage.

National Headquarters (NHQ)
Primarily located in the Washington, DC metropolitan area, NHQ assumes leadership for all programs which are national in scale and other activities assigned by the Secretary of Agriculture through the Under Secretary for Farm Production and Conservation. The Chief, Associate Chiefs, Regional Conservationists, and Deputy Chiefs/Chief Executive Officers carry out national headquarters functions such as: 1) planning, formulating, and directing programs, and activities; 2) developing program policy, procedures, guidelines, and standards; 3) leading and coordinating with other agencies, constituent groups, and organizations; and 4) strategic planning and development of strategic initiatives.

NRCS Centers
Technological guidance and direction are also provided through the NRCS Centers, including: National Design Construction and Soil Mechanics Center, National Soil Survey Center; National Water and Climate Center; Information Technology Center; National Water Management Center; National Employee Development Center; National Geospatial Center of Excellence; National Agroforestry Center; East, Central and West National Technology Support Centers (NTSCs). NTSCs acquire and/or develop new science and technology to provide cutting-edge technological support and direct assistance, and to transfer technologies to field offices for service delivery. NTSCs also develop and maintain national technical standards and other technological procedures and references. Centers are co-located with other NRCS offices where possible.

State Offices
State offices provide program planning and direction, delivery, and accountability for comprehensive soil, water, air, plant, and animal conservation programs. State offices also have

responsibility for the technical integrity of NRCS activities, technology transfer and training, marketing of programs and initiatives, and program operations and processing. Where possible, State offices partner with other Federal and State agencies to provide solutions to resource concerns. The State Conservationist position leads all activities in each State. The Director position is similar to that of a State Conservationist for the Pacific Islands Area (Hawaii, American Samoa, Guam, Commonwealth of the Northern Mariana Islands, Republic of Palau, Federated States of Micronesia, and Republic of Marshall Islands) and the Caribbean Area (Puerto Rico, U.S. Virgin Islands).

Service Center Offices

Personalized, one-on-one service is provided by NRCS employees located in Service Centers or specialized offices. This service delivery constitutes a majority of NRCS employees who are largely technical in nature. Service Centers and specialized offices support customers to prevent, or solve, natural resource concerns on private lands and in their communities. Service Center staff work side-by-side with employees of local conservation districts and other State conservation agencies to address resource concerns. Service Centers function as a clearinghouse for natural resource information and help customers gain access to knowledge and assistance available from local, State, regional, and/or national sources. These offices are located across the nation in every area where NRCS works and support the delivery of technical or financial assistance to address resource concerns.

Support Offices

Support offices provide critical technical and administrative support for Service Centers and other NRCS offices. Support offices include: offices that provide administrative and technical support to a group of Service Centers; headquarter offices for watershed or river basin planning and construction activities; soil survey and Major Land Resource Areas offices that inventory and map soil resources on private lands; Plant Materials Centers that test, select, and release plants for conservation purposes in selected plant growth regions throughout the United States.

Accountability

NRCS regularly collects program performance data that provide information to support agency strategic and performance planning, budget formulation, workforce planning, and accountability activities. This Accountability Information Management System tracks and evaluates field and State level conservation planning efforts and practice implementation through the Performance Results System (PRS). In addition to the Accountability Information Management System, the agency implements a suite of actions to monitor program compliance and improve accountability.

Compliance Activities

- Closed two of 27 active Office of Inspector General and Government Accountability Office audits in 2019, for a year-end closure rate of seven percent.

OIG AND GAO REPORTS

Table NRCS-1. Completed OIG Reports

ID	Date	Title	Recommendations
10601-0005-31	09/24/2019	NRCS's Environmental Quality Incentives Program-Payment Schedule	Six Recommendations
10601-0007-31	09/26/2019	NRCS's Agriculture Conservation Easement Program	One Recommendation
10601-0006-31	09/18/2019	NRCS' Equitable Relief	Two Recommendations
50024-0003-22	06/24/2019	Adjusted Gross Income Compliance Verification Process	Four Recommendations
50024-0014-11	12/11/2018	US Department of Agriculture's Fiscal Year 2018 Compliance with Improper Payments	N/A
10403-0001-11	05/09/2019	NRCS' FY 2018 Financial Statement Audit	One Recommendation

Table NRCS-2. In-Progress OIG Reports

ID	Date	Title	Results
10702-0001-23	09/10/2019	NRCS's Hurricane Disaster Assistance – Emergency Watershed Protection Program	On going

Table NRCS-3. Outstanding OIG Audit Reports & Recommendations

ID	Date	Title	Recommendations
10601-0002-31	07/30/201	NRCS Conservation Easement Compliance	1, 5, 10
10601-0001-32	09/27/2016	Controls Over the Conservation Stewardship Program	5,6,7,16,20,21,25,26
10601-0004-31 (2)	11/13/2017	NRCS Regional Conservation Partnership Program	1,2
10601-0004-31	06/28/2018	NRCS Regional Conservation Partnership Program	1,2,3,4

Table NRCS-4. In-Progress GAO Reports

ID	Date	Title	Results
GAO 102432	09/10/2019	Federal Efforts in Environmental Justice	On going
GAO 101099	09/19/2016	Reducing Nutrient Pollution	On going
GAO 101963	05/05/2017	San Francisco Bay Watershed Restoration Efforts	On going
GAO 361600	09/25/2014	Federal Actions to Promote Honey Bee Health	On going
GAO 103431	04/09/2019	Wetland Conservation Compliance	On going

Table NRCS-5. Completed GAO Reports

ID	Date	Title	Results
GAO 10-31	01/03/2019	Offshore Oil Spill	No recommendations
GAO 102103	06/11/2019	Assessing Technologies on Water Supplies	No recommendations

Agency-Wide

LEAD-OFF TABULAR STATEMENT

Table NRCS-6. Agency-Wide Lead-off Tabular Statement

Natural Resources Conservation Service	
2020 Appropriation	$1,014,628,000
Change in Appropriation	-184,442,000
2021 Request, Current Law	830,186,000

AVAILABLE FUNDS AND STAFF YEARS

Table NRCS-7. Available Funds and Staff Years

(Dollars in Thousands)

Item	2018		2019		2020		2021	
	Actual	SY	Actual	SY	Enacted	SY	Budget	SY
Private Lands Conservation Operations:								
Discretionary Appropriations	$874,107	4,057	$819,492	3,558	$829,628	3,558	$830,186	3,519
Watershed Rehabilitation:								
Discretionary Appropriations	10,000	-	10,000	1	10,000	1	-	-
Mandatory Appropriations	59,150	1	-	5	-	5	-	-
Watershed and Flood Prevention Operations:								
Discretionary Appropriations	691,000	61	150,000	68	175,000	68	-	-
Mandatory Appropriations	-	-	50,000	-	50,000	-	50,000	-
Supplemental Appropriations	-	-	435,000	-	-	-	-	-
Water Bank Program:								
Discretionary Appropriations	4,000	2	4,000	1	4,000	1	-	-
Farm Security and Rural Investment Programs:								
Mandatory Appropriations	3,819,546	5,469	4,281,358	4,996	5,170,470	4,995	3,908,415	4,995
Sequestration	-255,994	-	-260,019	-	-307,418	-	-	-
Transfers In	120	-	120	-	-	-	-	-
Transfers Out FPAC Business Center	-145	-	-60,228	-	-60,228	-	-60,228	-
Adjusted Appropriation	5,201,784	9,590	5,429,723	8,629	5,871,452	8,628	4,728,373	8,514
Balance Available, SOY	1,980,734	-	2,530,598	-	3,213,416	-	844,998	-
Other Adjustments (Net)	309,263	-	371,199	-	-198,339	-	59,968	-
Total Available	7,491,781	9,590	8,331,520	8,629	8,886,529	8,628	5,633,339	8,514
Lapsing Balances	-8,996	-	-26,689	-	-	-	-	-
Balance Available, EOY	-2,530,598	-	-3,213,417	-	-844,998	-	-455,821	-
Obligations	4,952,187	9,590	5,091,414	8,629	8,041,531	8,628	5,177,518	8,514
Other Funding:								
Gulf Coast Restoration Revolving Fund	700	4	2,143	2	1,000	2	1,000	2
Other Federal and Non-Federal Reimbursements	42,225	104	58,857	113	69,000	113	69,000	113
Total, Other Funding	42,925	108	61,000	115	70,000	115	70,000	115
Total, NRCS	$4,995,112	9,698	$5,152,414	8,744	$8,111,531	8,743	$5,247,518	8,629

PERMANENT POSITIONS BY GRADE AND STAFF YEAR

Table NRCS-8. Permanent Positions by Grade and Staff Year

Item	2018 Actual			2019 Actual			2020 Enacted			2021 Budget		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
SES	18	3	21	12	3	15	12	3	15	12	3	15
SL	-	-	-	-	-	-	-	-	-	-	-	-
GS-15	68	84	152	44	71	115	31	71	102	31	71	102
GS-14	130	180	310	72	138	210	50	150	200	50	149	199
GS-13	74	612	686	16	496	512	12	510	522	12	508	520
GS-12	33	2,734	2,767	9	2,445	2,454	8	2,446	2,454	8	2,398	2,406
GS-11	40	2,159	2,199	11	1,808	1,819	11	1,811	1,822	11	1,805	1,816
GS-10	1	29	30	-	24	24	-	24	24	-	24	24
GS-9	50	1,605	1,655	4	1,426	1,430	5	1,454	1,459	5	1,449	1,454
GS-8	9	369	378	3	323	326	5	324	329	5	323	328
GS-7	11	1,493	1,504	2	1,362	1,364	1	1,322	1,323	1	1,317	1,318
GS-6	4	274	278	-	229	229	-	222	222	-	221	221
GS-5	3	279	282	-	224	224	-	214	214	-	213	213
GS-4	-	134	134	-	163	163	-	9	9	-	9	9
GS-3	1	289	290	-	219	219	-	3	3	-	3	3
GS-2	-	103	103	-	50	50	-	1	1	-	1	1
GS-1	-	2	2	-	5	5	-	-	-	-	-	-
Other Graded	-	9	9	-	-	-	-	-	-	-	-	-
Ungraded	-	-	-	-	-	-	-	-	-	-	-	-
Total Permanent	442	10,358	10,800	173	8,986	9,159	135	8,564	8,699	135	8,494	8,629
Unfilled, EOY	49	1,146	1,195	-	363	363	36	2,276	2,312	-	-	-
Total Perm. FT EOY	393	9,212	9,605	173	8,623	8,796	99	6,288	6,387	135	8,494	8,629
Staff Year Est	397	9,301	9,698	136	8,608	8,744	136	8,607	8,743	135	8,494	8,629

SIZE, COMPOSITION, AND ANNUAL COSTS OF VEHICLE FLEET

Motor Vehicle Fleet

As a field-based agency, NRCS has a significant number of employees who require vehicles to visit field offices, job sites (farms and ranches) and other areas where public transportation is non-existent, uneconomical or inadequate because they drive on agricultural land to provide technical assistance to farmers and ranchers, often transporting large engineering and other field equipment, employees need access to pickup trucks and sport utility vehicles.

NRCS maintains a fleet of vehicles distributed among service centers and field, area and State offices in the 50 States, the Caribbean and the Pacific Basin areas. The majority of the vehicles are owned by the agency, while others are leased through the General Services Administration (GSA). Office locations are assigned vehicles, where multiple employees share vehicles to carry out mission requirements.

Replacement Criteria

To ensure that vehicles are safe and reliable, NRCS requires annual vehicle inspections per Department of Motor Vehicle Regulations. Federal Management Regulation 102-34.280 sets forth

the minimum number of years or number of miles an agency must keep its vehicles before replacement. The agency policy is to replace motor vehicles based on economy and safety requirements.

Fleet Optimization

As part of an optimization strategy, roughly 200 vehicles were eliminated from the NRCS inventory in 2019. This fleet reduction brought the NRCS near its optimal fleet size of 7,520 vehicles. Reorganization efforts taking place within USDA have created a new Farm Production and Conservation (FPAC) Mission Area, of which NRCS is now a part. Fleet management staff within the newly created FPAC Business Center oversee day-to-day operations and establish fleet policy and procedures. The agency continues to focus on optimizing the fleet by eliminating unneeded vehicles.

In addition, a nationwide vehicle sharing program was implemented to support co-located USDA agencies. The vehicle sharing program increases vehicle utilization and decreases costs by maximizing use of current inventory. The sharing program experienced great success in 2019, resulting in over 1.9 million miles of sharing that occurred when other agencies utilized NRCS vehicles. The vehicle sharing program will continue to expand in 2020. To accommodate the vehicle sharing program, the FPAC intends to implement vehicle telematics to simplify vehicle usage recording for field staff, resulting in a slight increase in vehicle operating costs over the next few years.

Table NRCS-9. Size, Composition, and Annual Costs of Motor Vehicle Fleet

Fiscal Year	Sedans and Station Wagons	Lt. Trucks, SUVs, and Vans (4x2)	Lt. Trucks, SUVs, and Vans (4x4)	Medium Duty Vehicles	Heavy Duty Vehicles	Total Vehicles	Annual Operating Costs
2018	406	1,558	5,184	570	17	7,735	$21,109
Change	-20	-92	-77	-21	-	-210	-502
2019	386	1,466	5,107	549	17	7,525	20,607
Change	-	-	-5	-	-	-5	+2,754
2020	386	1,466	5,102	549	17	7,520	23,361
Change	-	-	-	-	-	-	+2,078
2021	386	1,466	5,102	549	17	7,520	25,439

Includes vehicles owned by the agency and leased from commercial sources or GSA.

Excludes acquisiton costs and gains from sale of vehicles as shown in FAST.

SHARED FUNDING PROJECTS

Table NRCS-10. Shared Funding Projects (Dollars in Thousands)

Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
Working Capital Fund:				
Administration:				
Material Management Service	$159	$68	$91	$90
Mail and Reproduction Services	762	771	705	741
Integrated Procurement Systems	1,413	1,326	1,233	1,232
Procurement Operations Services	706	802	1,018	390
Human Resources Enterprise Management Systems	98	121	120	125
Subtotal	3,138	3,088	3,167	2,578
Communications:				
Creative Media & Broadcast Center	389	114	405	228
Finance and Management:				
National Finance Center	2,834	2,520	2,375	2,252
Internal Control Support Services	204	178	153	125
Financial Shared Services	10,447	11,768	13,130	12,887
Subtotal	13,485	14,466	15,658	15,264
Information Technology:				
Client Experience Center	99,875	98,565	116,043	113,456
Department Administration Information Technology Office	-	-	116	116
Digital Infrastructure Services Center	12,162	13,480	17,420	16,763
Enterprise Network Services	-	7,496	5,107	12,561
Subtotal	112,037	119,541	138,686	142,896
Correspondence Management	124	226	227	244
Total, Working Capital Fund	129,173	137,435	158,143	161,210
Department-Wide Shared Cost Programs:				
Advisory Committee Liaison Services	2	2	2	2
Agency Partnership Outreach	801	784	788	788
Honor Awards	2	1	1	1
Human Resources Self-Service Dashboard	63	61	60	-
Human Resources Transformation	95	-	-	-
Intertribal Technical Assistance Network	334	331	345	345
Medical Services	27	23	23	-
Office of Customer Experience	206	265	300	300
People's Garden	51	-	-	-
Personnel and Document Security	144	121	137	137
Physical Security	-	-	591	427
Security Detail	476	440	466	466
Security Operations	1,116	1,071	585	639
TARGET Center	141	125	117	117
USDA Enterprise Data Analytics Services	-	-	544	544
Virtual University	108	-	-	-
Total, Department-Wide Reimbursable Programs	3,565	3,223	3,957	3,766

E-Gov:				
Budget Formulation and Execution Line of Business	8	8	8	9
Enterprise Human Resources Integration	212	212	-	-
E-Rulemaking	14	12	17	17
Financial Management Line of Business	14	14	14	14
Geospatial Line of Business	13	13	13	13
GovBenefits.gov	88	89	72	72
Grants.gov	10	10	27	27
Human Resources Line of Business	32	32	32	32
Integrated Acquisition Environment	137	148	100	100
Total, E-Gov	528	538	283	284
Agency Total	$133,266	$141,196	$162,383	$165,260

ACCOUNT 1: PRIVATE LANDS CONSERVATION OPERATIONS

LEAD-OFF TABULAR STATEMENT

TABLE NRCS-11. Lead-Off Tabular Statement

Private Lands Conservation Operations	
2020 Appropriation	$829,628,000
Change in Appropriation	558,000
2021 Request, Current Law	830,186,000
2021 Request, Including Proposed Legislation	**830,186,000**

APPROPRIATIONS LANGUAGE

The appropriations language follows (new language underscored; deleted language enclosed in brackets):

For necessary expenses for carrying out the provisions of the Act of April 27, 1935 (16 U.S.C. 590a–f), including preparation of conservation plans and establishment of measures to conserve soil and water (including farm irrigation and land drainage and such special measures for soil and water management as may be necessary to prevent floods and the siltation of reservoirs and to control agricultural related pollutants); operation of conservation plant materials centers; classification and mapping of soil; dissemination of information; acquisition of lands, water, and interests therein for use in the plant materials program by donation, exchange, or purchase at a nominal cost not to exceed $100 pursuant to the Act of August 3, 1956 (7 U.S.C. 2268a); purchase and erection or alteration or improvement of permanent and temporary buildings; and operation and maintenance of aircraft, [$829,628,000] $830,186,000, to remain available until September 30, [2021] 2022: Provided, That appropriations hereunder shall be available pursuant to 7 U.S.C. 2250 for construction and improvement of buildings and public improvements at plant materials centers, except that the cost of alterations and improvements to other buildings and other public improvements shall not exceed $250,000: Provided further, That when buildings or other structures are erected on non-Federal land, that the right to use such land is obtained as provided in 7 U.S.C. 2250a[: Provided further, That of the amounts made available under this heading, $5,600,000, shall remain available until expended for the authorities under 16 U.S.C. 1001–1005 and 1007–1009 for authorized ongoing watershed projects with a primary purpose of providing water to rural communities].

In addition, $1,190,609,000, to be available for the same time period and for the same purposes as the appropriation from which transferred, shall be derived by transfer from the Farm Security and Rural Investment Program for technical assistance in support of conservation programs authorized by Title XII of the Food Security Act of 1985, as amended (16 U.S.C. 3801-3862); Section 524(b) of the Federal Crop Insurance Act, as amended (7 U.S.C. 1524(b)); and Section 502 of the Healthy Forests Restoration Act of 2003, as amended (16 U.S.C. 6572): Provided further, That, upon a determination that additional funding is necessary for technical assistance for the purposes provided herein, additional such amounts may be derived by transfer from the Farm Security and Rural Investment Program:

Provided further, That any portion of the funding derived by transfer deemed not necessary for the purposes provided herein may be transferred to the Farm Security and Rural Investment Program: Provided further, That the transfer authority provided under this heading is in addition to any other transfer authority provided elsewhere in this Act.

Explanation of Changes:
The first change (line 10) deletes 2020 appropriation amount and replaces with the 2021 request.

The second change (line 10) in language proposes deletion of "2021" and insertion of "2022" to provide two-year funds availability.

The third change (line 15-18) deletes the language providing funding for authorized ongoing watershed projects with a primary purpose of providing water to rural communities. NRCS will continue to provide assistance to sponsoring local organizations to prepare and implement watershed project plans for authorized ongoing watershed projects with a primary purpose of providing water to rural communities.

The fourth change (lines 19-30)

The 2021 President's Budget proposes renaming the Conservation Operations account to Private Lands Conservation Operations (PLCO) and would consolidate the discretionary and mandatory technical assistance funding into a single account for reporting purposes.

NRCS utilizes both discretionary and mandatory sources of funding to provide technical assistance to help people conserve, maintain, and improve the Nation's natural resources. This technical assistance, supported by science-based technology, provides agricultural producers and others with the knowledge and conservation tools they need to enact conservation activities on the lands they manage. Technical assistance funding also supports mandatory conservation programs managed by
NRCS in the Farm Security and Rural Investment Program (FSRI) account, which is funded by transfers from the Commodity Credit Corporation.

The proposed account would consolidate the technical assistance funding currently provided in the Conservation Operations (discretionary) and FSRI (mandatory) accounts. Of the amounts provided in the FSRI account, $1.19 billion of technical assistance funding would transfer to PLCO, with allowance for additional transfers, if needed.

This proposed change consolidates all technical assistance funding into a single account for transparency purposes and would not increase or decrease the amount available for technical assistance. This proposal also would not change the authorities or the period of availability of the mandatory funding.

PROJECT STATEMENT

Table NRCS-12. Private Lands Conservation Operations (Dollars in Thousands)

Natural Resources Conservation Service
(Dollars in Thousands)

Program/Activity	2018 Actual B.A.	2018 Actual SY	2019 Actual B.A.	2019 Actual SY	2020 Enacted B.A.	2020 Enacted SY	2021 Budget Request B.A.	2021 Budget Request SY	Change from 2020 Enacted B.A.	Change from 2020 Enacted SY
Private Lands Conservation Operations										
Conservation Technical Assistance	$768,844	3,507	$720,326	3,066	$730,160	3,066	$729,476	3,017	-$684	-49
Soil Survey	80,802	468	74,685	419	74,987	419	80,014	419	5,027	-
Snow Survey	9,380	47	9,400	42	9,400	42	11,108	52	1,708	10
Plant Materials	9,481	35	9,481	31	9,481	31	9,588	31	107	-
Watershed Projects	5,600	-	5,600	-	5,600	-	-	-	-5,600	-
Subtotal, Private Lands Conservation Operations	874,107	4,057	819,492	3,558	829,628	3,558	830,186	3,519	558	(39)
Transfers In:										
Congressional Relations	120	-	120		-		-		-	-
Subtotal, Transfers In	120	-	120		-		-		-	-
Total, Discretionary Funding	**874,227**	**4,057**	**819,612**	**3,558**	**829,628**	**3,558**	**830,186**	**3,519**	**558**	**(39)**
Carryover from Prior Years:										
Conservation Technical Assistance	84,279		118,026		83,820		-		-83,820	-
Soil Survey	7,644		18,649		10,421		-		-10,421	-
Snow Survey	958		970		1,788		-		-1,788	-
Plant Materials	2,427		3,378		2,654		-		-2,654	-
Watershed Projects	10,443		9,584		9,638		-		-9,638	-
Subtotal, Carryover	105,751	-	150,607	-	108,321	-	-	-	-108,321	-
Transfers Out	-		-		-		-		-	-
Recoveries, Other	15,466		21,813		-10,145		-		10,145	-
Total Available	**995,444**	**4,057**	**992,032**	**3,558**	**927,804**	**3,558**	**830,186**	**3,519**	**-97,618**	(39)
Lapsing Balances	-8,345		-25,761		-		-		-	-
Balances, Available End of Year	-150,607		-108,321		-		-		-	-
Total Obligations	**836,492**	**4,057**	**857,950**	**3,558**	**927,804**	**3,558**	**830,186**	**3,519**	**-97,618**	(39)
Transfer from Farm Bill TA	-	-	-	-	-	-	1,190,609	4,995	1,190,609	-
Total Adjusted Obligations	**$836,492**	**4,057**	**$857,950**	**3,558**	**$927,804**	**3,558**	**$2,020,795**	**8,514**	**-$97,618**	**(39)**

JUSTIFICATIONS OF INCREASES/DECREASES

A net decrease of $684,000 and decrease in 49 staff years for the Conservation Technical Assistance Program from the FY 2020 Appropriation.

In FY 2021, NRCS proposes to accelerate proven approaches to conservation that generate results at broader scales, leverage tools and resources to gain efficiencies in service delivery and optimize use of existing authorities that will strengthen rural communities. NRCS high-level priorities include:

1. Leverage the roll-out of the Conservation Desktop and the Conservation Application and Ranking Tool with continued integration of our automated business processes (conservation planning and program delivery business practices) to reduce data entry and enhance analytics;
2. Accelerate delivery of conservation planning and program delivery (i.e. streamline conservation planning and program delivery by reducing over 30,000 duplicate program applications and integrating program prioritization into conservation planning efforts. These effort will also improve the agency's ability to convey conservation results (i.e. outcomes as directed in the 2018 Farm Bill) at the field scale and landscape scale (e.g. watershed, river basin, multi-state, etc.), building on partnerships and new science and policy tools to focus resources and create non-traditional incentives via new authorities in the 2018 Farm Bill under EQIP-Incentives, RCPP, and other programs. Our Conservation Technical Assistance (CTA) is the conservation planning component for these programs under Private Lands Conservation Operations.
3. Support farm- and ranch-specific conservation results (i.e. Outcomes) that producers rely on to achieve their economic objectives and regulatory requirements;
4. Enable conservation access to more producers, including beginning farmers and ranchers and socially-disadvantaged producers, and leverage State and local government technical capacity through focused outreach efforts and emphasizing technical and financial assistance opportunities for historically underserved clients; and
5. Review existing authorities to amplify community action to build natural resource based economic opportunities and accelerate preparedness planning related to climate-driven natural resource effects through enhance competition for collaboration with qualified partnerships, and by leveraging non-federal resources.

Specifically, NRCS proposes to:

- Target technical and financial resources to achieve conservation objectives and address the most pressing issues affecting landscape resilience. NRCS will work to protect ecosystems, address water resource concerns, and restore habitat for at-risk species in large-scale ecosystems. NRCS will also bring the best available science and work collaboratively with partners to strategically target conservation investments in priority landscapes to generate the most cost-effective return for producers and taxpayers.

- Leverage partnerships to increase financial resources, expand technical capacity, and accelerate conservation implementation by partnering with State, Federal, and other stakeholders for delivering and assessing conservation investments in healthy soils, and to accelerate efforts to adapt and mitigate the effects of a changing climate on functioning landscapes.
- Inform conservation-based decision-making through prioritized investments in science-based tools and data, including advancing knowledge of dynamic soil properties (how soils change with land use) to improve and develop conservation practices and soil health management systems to help adapt to climate change, to minimize land degradation, and to improve the health of the soil, water, animal, plant, air, and energy ecosystems, such as the Soil Health Monitoring and Enhancement Network (SHMEN). NRCS will support applied research and modeling to identify cost effective strategies to maximize the benefits of improved soil health. Through the Conservation Effects Assessment Project (CEAP) initiatives, NRCS will establish a continuing, statistically-valid survey process to track progress in conservation adoption and conservation investment benefits to the nation's water quality, soil health, and agricultural productivity.

NRCS proposes to continue the investment in the integration and automation of conservation planning and program delivery systems through Conservation Desktop, Mobile Technology, Web based customer services, and Financial Assistance Systems. Integrating these tools creates a more effective, efficient, and sustainable business model for delivering conservation assistance through reduced document handling, reduced decision and approval times, improved access to best-available information and technology, and staffing strategies that are aligned with streamlined processes.

Thus, NRCS and USDA will benefit from a more efficient business model, and, more critically, NRCS customers will benefit by:

- Reducing the average number of trips that clients will have to make to an NRCS field office;
- Enabling NRCS and clients to finalize conservation planning and decision-making while in the field;
- Accelerating the timeline between applying for a program and having a signed contract;
- Accelerating the time between applying a practice and receiving payment for that practice; and

Offering clients 24/7/365 service for many tasks.

Specific changes within the account include:

a. An increase of $2,458,500 for the Farmer.gov Customer Experience Portal program.

This increase will support the connection of conservation desktop and other NRCS systems to farmers.gov as well as provide a single source of interaction for NRCS customers and employee. Making these connections will support the Secretary's vision of a 360° view of

all customers who do business with USDA, allowing producers to see all interactions for their accounts. This effort will provide enhanced customer service and improved understanding of our customers through better system integration and improved operational capabilities. Access to producer information by the producer will be more effective, accessible and available.

b. An increase of $9,155,000 to cover Pay and Benefits Cost increases.

A funding change is requested for the following items:

a. An increase of $3,475,403 for pay costs ($1,591,414 for annualization of the 2020 pay increase and $1,883,988 for the 2021 pay increase).

This increase will allow Agency to continue to meet its objective to meet NRCS customer's needs and ensure adequate resources are available to avoid any disruption or delays in the Conservation Technical Assistance activities.

b. An increase of $2,511,985 for performance awards.

This increase supports the Administration's policy on pay and awards, consistent with objectives outlined in the President's Management Agenda, to enhance workforce development. Without this additional funding, Agency will be unable to absorb these costs in FY 2021, resulting in reductions to planned hiring levels, eroding USDA's ability to meet key Administration priorities contained in this Budget.

c. An increase of $3,167,613 for the Department's increased contribution to the Federal Employees Retirement System (FERS).

This increase will cover the expenses for the mandated increase of USDA's contribution to FERS.

c. A decrease of $5,881,500 and decrease in 10 staff years for Conservation Planning.

The agency plans to achieve this reduction without negatively affecting customer service by:

- Realizing efficiency improvements through the full implementation of improved conservation planning support software including Conservation Desktop, and the Conservation Assessment and Ranking Tool;
- Reducing the investment in national level agreements through strategic targeting to maximize the return on investment;
- Reducing the investments in national above-state initiatives where appropriate; and
- Reviewing the potential and cost to the government if Technical Service Providers deliver more services.

NRCS will continue to seek operational efficiencies across the agency to ensure that appropriated conservation planning funds are spent in the most effective manner at all levels of the organization. The agency will achieve the staffing reduction through attrition.

d. A transfer of $5,852,000 and 39 staff years from the Natural Resources Conservation Service to the Farm Production and Conservation Business Center.

This change will further streamline the FPAC mission area. The proposal will consolidate the NRCS Geospatial Center of Excellence with the existing FPAC Business Center Geospatial capabilities which includes the Aerial Photography Field Office. In addition, it will consolidate State level NRCS Public Affairs Specialists into the National Public Affairs office currently located in the FPAC Business Center.

The consolidation will create a single source of Geospatial information for the FPAC mission area. It will help facilitate the development of common standards which will facilitate data sharing in the future. The consolidation of Public Affairs staff will ensure that FPAC has a consistent message when communicating with the public.

e. A decrease of $564,000 for the decommission of the Customer Service Toolkit.

Reduction of $564,000 for decommissioning of the Customer Service ToolKit.

A net increase of $5,027,354 in funding and no change in staff years for the Soil Survey Program from the FY 2020 Appropriation.

NRCS conducts Soil Surveys cooperatively with other Federal agencies, Land Grant Universities, State agencies, tribes, and local governments. NRCS's major Soil Survey Program objectives are to:

- Inventory and map the soil resource on all lands of the United States;
- Keep soil surveys relevant to meet emerging and ever-changing needs;
- Interpret the data and make soil survey information available to meet public needs;
- Promote and provide technical assistance in the use of soil survey information; and
- Lead the National Cooperative Soil Survey Program.

Soil Survey information is the foundation of resource planning conducted by land-users and policy makers. Soil Surveys provide vital information needed to support sustainable and productive soils in the United States. Emerging environmental issues (e.g., soil carbon stocks, nutrient management, and healthy soils) require that the soil survey collect and interpret new data to best inform decision makers.

In addition to providing Soil Survey data to the public, NRCS also maintains a National Soil Survey Center that integrates and adds to the current soil science and provides

information for the effective application of the Soil Survey to help make good land management possible. The National Soil Survey Center develops national soil policy, technical guidance, procedures, and standards. It conducts soil research investigations, operates a soil survey laboratory, develops handbooks and manuals, provides training, develops and maintains soil survey data systems; and plans regional work conferences.

a. An increase of $3,754,000 to maintain relevant soil survey for all lands of the United States and territories, including Federal and Tribal lands.

The increase in funding will allow NRCS to keep soil survey relevant for all lands of the United States and territories, including Federal and Tribal lands. This is the primary mission of the NRCS and the National Cooperative Soil Survey (NCSS). The NRCS provides the science behind science-based conservation practices and management strategies. Water quality and watershed health used to evaluate conservation practices are key focus areas for NRCS. Conservation practices need supporting data to show landowners and farm managers the strength of using NRCS conservation practices in ensuring the sustainability and health of their soils. Soils data and information will enhance the assessment of watershed health by providing static and dynamic soil properties that affect water quality and that can be used for assessment and modeling.

The funding will support additional soil survey activities for NRCS that will:

- Assess static and dynamic soils information and other data as it relates to evaluating applied conservation practices for multiple land uses.
- Better monitor priority watersheds to assist in evaluation of applied conservation practices. Includes water table monitoring in all watersheds and installation of Soil Climate Analysis Network (SCAN) sites in selected watersheds.
- Collect additional dynamic and static soil property data to fill soil data gaps.
- Generate assessments from data collected in catchments.
- Create digital raster maps of watersheds and provide training to conservation planning staff on using raster data for resource assessment and conservation planning.
- Generate interim and final project report on watershed data and dynamic soil property data, identify strengths and weaknesses of soils data, provide guidance on future watershed projects, and ability of project and soils data to evaluate applied conservation practices.
- Provide States and partners with additional data in support of studying outcomes conservation planning to evaluate applied conservation practices.
- Provide additional point data for CEAP and Outcomes Team for modeling effects of conservation practices on water quality and watershed health.
- Provide accurate measurement of water quality/quantity related temporal soil properties to underpin soil survey and conservation assessments.
- Enhance and expand activities and partnerships in the National Water Quality Initiative (NWQI) and Edge-of-Field Monitoring programs.

Staffing levels must remain at current levels to maintain a cadre of soil scientists to provide detailed soils information to aid decision making by landowners, planners, and policy makers. NRCS is the sole Federal authority and lead in the United States for soil survey. The soil survey program needs to remain a viable enterprise that provides current, complete, consistent, and comprehensive soils information for the public good to enable wise decision making. Decreases in personnel and operational support will mean extended delays in delivering up-to-date core science and technology information for societal and agency needs. Efficiencies have been implemented in the soil survey program, since 2012 when the appropriation was reduced by 15 percent. Staffing decreased by 50 percent, and operating budgets decreased resulting in offices covering up to 12 million acres requiring additional travel to reach customers.

Soil survey information underpins conservation planning in the Conservation Technical Assistance Program, Farm Bill implementation in the Farm Bill Programs, the National Resource Inventory, the Conservation Effects Assessment Projects, and numerous programs in other Federal agencies, State/local agencies, and non-profit organizations.

b. An increase of $1,273,354 to cover Pay and Benefits Cost increases.

A funding change is requested for the following items:

1) An increase of $483,388 for pay costs ($221,347 for annualization of the 2020 pay increase and $262,041 for the 2021 pay increase).

This increase will allow NRCS to continue to meet its customers' needs and ensure adequate resources are available to avoid any disruption or delays in the Soil Survey Program activities.

2) An increase of $349,388 for performance awards.

This increase supports the Administration's policy on pay and awards, consistent with objectives outlined in the President's Management Agenda, to enhance workforce development. Without this additional funding, Agency will be unable to absorb these costs in FY 2021, resulting in reductions to planned hiring levels, eroding USDA's ability to meet key Administration priorities contained in this Budget.

3) An increase of $440,578 for the Department's increased contribution to the Federal Employees Retirement System (FERS).

This increase will cover the expenses for the mandated increase of USDA's contribution to FERS.

A net increase of $1,708,030 in funding and 10 staff years for the Snow Survey and Water Supply Forecasting Program from the FY 2020 Appropriation.

The Snow Survey and Water Supply Forecasting program, along with its partners, collects high elevation snow data in the western United States and provides snowpack data and water supply forecasts. Snowmelt irrigates the West, delivering nearly 75 percent of the region's water supply. NRCS field staff collects and reviews data on snow depth, snow water equivalent, and other climate parameters such as precipitation and temperature at over 2,000 remote, high elevation sites. The snow and climate data and the water supply forecasts are used by farmers, ranchers, and irrigation districts; municipal and industrial water providers; hydroelectric power utilities; fish and wildlife management; reservoir managers; recreationists; Tribal Nations; Federal, State, and local government agencies including transportation departments; and the countries of Canada and Mexico.

The objectives of the program are to:

- Provide reliable, accurate and timely forecasts of surface water supply to water managers and water users in the west;
- Efficiently obtain, manage, and disseminate high quality data and information on snow, water, climate, and hydrologic conditions; and
- Provide climate data to support NRCS conservation planning tools.

In addition, the Soil Climate Analysis Network provides similar climate information as well as soil moisture and temperature data at lower elevations.

a. <u>An increase of $2,200,000 and 10 staff years to expand the number of SNOTEL stations to an additional 28 sites. Continue with conversion to cellular and satellite telemetry.</u>

There is a need to expand the SNOTEL network to provide better coverage of basins that provide annual water supply across the western United States. Increasing the network would improve water supply forecasts and provide real-time climate and snowpack information for basins which are presently measured monthly. This better serves our customers for planning agricultural practices with predicted spring and summer irrigation supplies, as well as critical information for water managers, hydroelectric power generation, recreation, fire hazard prediction, flooding potential and many other users.

The increase in funding will improve network coverage for better assessment of potential water supplies and improve forecasting. Many basins need additional data collection sites in order to improve analysis which customers have requested additional SNOTEL stations to provide. The requested amount would cover personnel costs, equipment, travel and data processing.

Many other programs use SNOTEL information and water supply forecasts for assessing risk from drought, flooding, and crop insurance. Increasing the network provides a better product for other programs to use. If not funded, the network will remain at its current number of 868 SNOTEL stations.

b. An increase of $158,030 to cover Pay and Benefits Cost increases.

A funding change is requested for the following items:

1. An increase of $59,991 for pay costs ($27,470 for annualization of the 2020 pay increase and $32,521 for the 2021 pay increase).

This increase will allow Agency to continue to meet its objective to NRCS customer's needs and ensure adequate resources are available to avoid any disruption or delays in the Snow Survey Program activities.

2. An increase of $43,361 for performance awards.

This increase supports the Administration's policy on pay and awards, consistent with objectives outlined in the President's Management Agenda, to enhance workforce development. Without this additional funding, Agency will be unable to absorb these costs in FY 2021, resulting in reductions to planned hiring levels, eroding USDA's ability to meet key Administration priorities contained in this Budget.

3. An increase of $54,678 for the Department's increased contribution to the Federal Employees Retirement System (FERS).

This increase will cover the expenses for the mandated increase of USDA's contribution to FERS

c. A decrease of $650,000 in program activity funding for the Snow Survey and Water Supply Forecasting Program.

This decrease is necessary to accommodate the priority to increase SNOTEL sites while meeting budget target objectives. The decrease in funding will be managed through cost savings and efficiencies in the program. The remaining funding is needed to maintain network at present size and maintenance schedule. SNOTEL is highly valued as a climate network for conservation planning and assessing drought.

A net increase of $107,000 in funding and no change in staff years for Plant Material Centers Program from the FY 2020 Appropriation.

NRCS's network of 25 Plant Material Centers (PMCs) identify, evaluate, and demonstrate the performance of plants and plant technologies to solve natural resource problems and improve the utilization of our nation's natural resources. PMCs continue to build on their long and successful history of releasing plants for resource conservation that have been instrumental at increasing the commercial availability of appropriate plant materials to the public. PMC activities contribute to reducing soil erosion; increasing cropland soil health and productivity;

restoring wetlands, improving water quality, improving wildlife habitat (including pollinators); protecting streambank and riparian areas; stabilizing coastal dunes; producing forage; improving air quality; and addressing other conservation treatment needs.

a. An increase of $107,000 to cover Pay and Benefits Cost increases.

A funding change is requested for the following items:

1. An increase of $40,619 for pay costs ($18,600 for annualization of the 2020 pay increase and $22,019 for the 2021 pay increase).

   This increase will allow Agency to continue to meet its objective to NRCS customer's needs and ensure adequate resources are available to avoid any disruption or delays in the Plant Material Centers activities.

2. An increase of $29,359 for performance awards.

   This increase supports the Administration's policy on pay and awards, consistent with objectives outlined in the President's Management Agenda, to enhance workforce development. Without this additional funding, Agency will be unable to absorb these costs in FY 2021, resulting in reductions to planned hiring levels, eroding USDA's ability to meet key Administration priorities contained in this Budget.

3. An increase of $37,021 for the Department's increased contribution to the Federal Employees Retirement System (FERS).

   This increase will cover the expenses for the mandated increase of USDA's contribution to FERS.

A decrease of $5,600,000 in funding for Watershed Projects from the FY 2020 Appropriation.

NRCS will continue to provide assistance to sponsoring local organizations to prepare and implement watershed project plans for authorized ongoing watershed projects with a primary purpose of providing water to rural communities.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table NRCS-13

State/Territory/Country	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Alabama	$8,610	49	$8,260	47	$8,933	47	$10,966	47
Alaska	4,265	23	4,192	27	4,533	27	6,300	27
Arizona	6,155	43	6,362	41	6,880	41	9,567	41
Arkansas	12,561	50	11,928	52	12,899	52	12,133	52
California	17,702	110	17,192	109	18,592	109	25,433	109
Colorado	13,090	87	11,797	72	12,758	72	16,800	72
Connecticut	3,159	25	3,583	24	3,875	24	5,600	24
Delaware	2,352	17	2,338	13	2,528	13	3,033	13
District of Columbia	296,848	1,159	378,943	483	409,796	483	112,698	444
Florida	7,381	60	7,703	55	8,330	55	12,833	55
Georgia	10,140	52	9,745	47	10,538	47	10,966	47
Hawaii	6,412	35	6,008	30	6,497	30	7,000	30
Idaho	9,147	67	8,420	59	9,106	59	13,766	59
Illinois	12,781	96	11,062	71	11,963	71	16,566	71
Indiana	10,267	73	9,888	78	10,693	78	18,200	78
Iowa	20,713	165	21,760	152	23,532	152	35,466	152
Kansas	15,938	127	16,068	119	17,376	119	27,766	119
Kentucky	10,530	83	10,723	80	11,596	80	18,666	80
Louisiana	9,600	65	10,256	67	11,091	67	15,633	67
Maine	4,074	37	4,645	37	5,023	37	8,633	37
Maryland	5,098	37	5,295	35	5,726	35	8,167	35
Massachusetts	3,029	23	3,611	22	3,905	22	5,133	22
Michigan	10,160	67	10,433	62	11,282	62	14,466	62
Minnesota	9,491	65	9,441	66	10,210	66	15,400	66
Mississippi	11,575	71	9,239	66	9,991	66	15,400	66
Missouri	24,726	131	23,692	119	25,621	119	27,766	119
Montana	13,469	87	11,827	73	12,790	73	17,033	73
Nebraska	14,196	112	14,221	112	15,379	112	26,133	112
Nevada	3,268	25	3,764	23	4,070	23	5,367	23
New Hampshire	2,765	28	3,162	26	3,419	26	6,067	26
New Jersey	4,225	33	4,942	34	5,344	34	7,933	34
New Mexico	7,676	16	6,283	14	6,795	14	3,267	14
New York	8,359	71	9,283	63	10,039	63	14,700	63
North Carolina	7,732	54	9,031	51	9,766	51	11,900	51
North Dakota	13,210	95	13,745	94	14,864	94	21,933	94
Ohio	8,503	45	10,091	49	10,913	49	11,433	49
Oklahoma	12,803	107	12,110	107	13,096	107	24,966	107
Oregon	9,815	44	8,951	39	9,680	39	9,100	39
Pennsylvania	8,965	85	8,622	69	9,324	69	16,100	69
Puerto Rico	3,567	28	3,469	29	3,751	29	6,767	29
Rhode Island	2,004	13	2,268	13	2,453	13	3,033	13
South Carolina	5,728	41	5,051	28	5,462	28	6,533	28
South Dakota	10,293	81	11,088	84	11,991	84	19,600	84
Tennessee	10,775	89	13,866	82	14,995	82	19,133	82
Texas	32,955	182	31,625	189	34,200	189	44,099	189
Utah	6,216	45	6,715	41	7,262	41	9,567	41
Vermont	3,901	30	4,039	29	4,368	29	6,767	29
Virginia	6,751	58	7,404	58	8,007	58	13,533	58
Washington	11,057	67	8,981	71	9,712	71	16,566	71
West Virginia	8,167	48	6,711	40	7,257	40	9,333	40
Wisconsin	12,371	77	11,047	55	11,946	55	12,833	55
Wyoming	6,477	46	7,070	52	7,646	52	12,133	52
Distribution Unknown	55,440	285	-	-	-	-	-	-
Obligations	836,492	4,709	857,950	3,558	927,804	3,558	830,186	3,519
Lapsing Balances	8,345	-	25,761	-	-	-	-	-
Transfer from Farm Bill TA	-	-	-	-	-	-	1,190,609	4,995
Bal. Available, EOY	150,607	-	108,321	-	-	-	-	-
Total, Available	$995,444	4,709	$992,032	3,558	$927,804	3,558	$2,020,795	8,514

CLASSIFICATION BY OBJECTS
Table NRCS-14

Item No.	Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
	Personnel Compensation:				
	Washington D.C.	$94,584	$65,325	$67,350	$124,845
	Personnel Compensation, Field	218,184	212,857	219,456	532,235
11	Total personnel compensation	312,768	278,182	286,806	657,080
12	Personal benefits	121,705	116,487	119,166	267,150
13.0	Benefits for former personnel	-15	100	9	9
	Total, personnel comp. and benefits	434,458	394,769	405,981	924,239
	Other Objects:				
21.0	Travel and transportation of persons	14,971	14,133	16,043	25,940
22.0	Transportation of things	2,390	3,300	3,705	5,183
23.1	Rental payments to GSA	14,504	16,021	16,659	36,444
23.2	Rental payments to others	32,707	31,934	33,531	78,581
23.3	Communications, utilities, and misc. charges	4,121	947	962	6,172
24.0	Printing and reproduction	683	361	410	744
25	Other contractual services	-	-509	-	-
25.1	Advisory and assistance services	-	-	-	2,718
25.2	Other services from non-Federal sources	149,248	179,300	206,436	486,732
25.3	Other goods and services from Federal sources	1,556	1,458	1,530	3,418
25.4	Operation and maintenance of facilities	150,560	163,542	185,216	351,440
25.5	Project Services	-	1,158	-	2,932
25.6	Medical Care	-	365	-	58
25.7	Operation and maintenance of equipment	798	1,698	1,700	2,603
26.0	Supplies and materials	8,177	7,058	7,771	13,690
31.0	Equipment	19,918	40,244	45,605	77,885
32.0	Land and structures	2,157	2,044	2,100	1,712
41.0	Grants, subsidies, and contributions	-12	-10	-	-
42.0	Insurance claims and indemnities	232	124	141	244
43.0	Interests and dividends	26	14	16	60
44.0	Refunds	-2	-1	-	-
	Total, Other Objects	402,034	463,181	521,824	1,096,556
99.9	Total, new obligations	$836,492	$857,950	$927,804	$2,020,795
	DHS Building Security Payments (included in 25.3)	$1,556	$1,458	$1,530	$3,418
	Position Data:				
	Average Salary (dollars), ES Position	$177,889	$177,705	$180,371	$183,076
	Average Salary (dollars), GS Position	$71,897	$72,038	$74,271	$75,385
	Average Grade, GS Position	10.0	10.0	10.0	10.0

Note: The position data reported above is representative of data collected across all funding sources provided to NRCS, including, but not limited to Conservation Operations, Watershed Rehabilitation (Technical Assistance), Watershed and Flood Prevention Operations (Technical Assistance), Water Bank Program (Technical Assistance), and Farm Security and Rural Investment Program (Technical Assistance).

The 2021 Budget includes the Technical Assistance from the Farm Security and Rural Investment account per the legislative proposal.

STATUS OF PROGRAMS

Conservation Operations is authorized by the Soil Conservation and Domestic Allotment Act of 1935 (P.L. 74-46; 16 U.S.C. 590a-590f) and the Soil and Water Resources Conservation Act of 1977 (RCA) (16 U.S.C. 2001-2009). The purpose of Conservation Operations is to provide technical assistance supported by science-based technology and tools that help people conserve, maintain, and improve the Nation's natural resources. Conservation Operations has four major program components - Conservation Technical Assistance (CTA); Soil Survey; Snow Survey and Water Supply Forecasting (SSWSF); and Plant Materials Centers (PMCs).

Discretionary funding in the Conservation Operations account provides for the development and delivery of a major portion of the products and services associated with four of the Agency's five business lines:

1) Conservation Planning and Technical Consultation
2) Conservation Implementation
3) Natural Resource Inventory and Assessment
4) Natural Resource Technology Transfer

The fifth business line, Financial Assistance, is funded primarily through mandatory conservation programs that are authorized and funded through the farm bill.

Conservation Technical Assistance (CTA) Program

NRCS is the principal agency within USDA for providing conservation technical assistance to private landowners, conservation districts, Indian tribes, and other organizations. Through the Conservation Technical Assistance (CTA) Program, NRCS helps land managers reduce soil loss from erosion; address soil and water quality, water conservation, air quality, and agricultural waste management concerns; reduce potential damage caused by excess water and sedimentation or drought; enhance the quality of fish and wildlife habitat; improve the long-term sustainability of all lands, including cropland, forestland, grazing lands, coastal lands, and developed or developing lands; and facilitate changes in land use as needed for natural resource protection and sustainability.

The CTA Program provides agricultural producers and others with the knowledge and conservation tools they need to conserve, maintain, and improve the natural resources on the lands they manage. Through the CTA Program, conservation professionals and partners translate science, professional judgment, and sensitivity to land managers so they can take appropriate actions on their farms, ranches, and watersheds to conserve resources, enhance the environment, and ensure the commercial viability of agriculture.

Technical assistance starts with a science-based assessment of the resource concerns and opportunities on farms and ranches and in watersheds. Conservation professionals then provide farmers and ranchers with the best options for addressing resource concerns and taking advantage of opportunities. Trained conservationists understand the synergies of

various conservation practices and activities and can recommend the best strategies to get desired results on the land. Through the development of a conservation plan, resource-related problems are addressed as producers and NRCS work together to use information gleaned from the planning process to make decisions, implement plans, and put conservation practices in place.

Technical assistance does not stop with implementation; it includes annual follow-up or reassessment to determine the effectiveness of the plan for the land manager. Technical assistance is an ongoing process of science-based assessment, action, reassessment, and adjusted action. Science-based technical assistance helps producers understand how their operations affect the environment and how they can manage their operations to make a profit and improve natural resources. It connects what happens on one farm with what happens on neighboring farms so that measurable natural resource improvements can be made on the broader landscape. Finally, technical assistance is about innovation - developing, testing, and transferring new conservation practices and systems that better meet the needs of producers and the environment.

Conservation technical assistance addresses at the local level natural resource conservation issues that are of state and national concern. NRCS leadership establishes CTA Program national priorities and initiatives on an annual or multi-year basis to focus resources on specific program objectives. States may establish additional priorities and initiatives for the CTA Program. NRCS has a full array of processes to focus CTA Program resources on national and state priorities and initiatives. These processes include, but are not limited to:

- Strategically positioning staff to address natural resource needs through conservation planning;
- Allocating program funds to address natural resource needs;
- Establishing short-term and long-term performance measures and goals;
- Formulating, enhancing, and expanding partnerships;
- Developing and transferring new and innovative technologies;
- Delivering conservation planning and other technical assistance to help producers meet eligibility requirements for USDA programs and other Federal, state, and local conservation programs;
- Conducting technical and program evaluations and assessments;
- Conducting resource inventories and assessments;
- Developing and delivering training to support conservation planners and conservation planning activities;
- Providing tailored conservation planning and assistance to meet unique needs

of a diverse customer base;

- Expanding technical capacity, including the use of technical service providers; and

- Developing public information and outreach strategies.

Current Activities

In 2019, CTA Program continuing activities included:

- Using new technologies and conservation practices that addressed emerging challenges and opportunities such as organic production systems, on-farm energy management, air quality improvement, and enhancement of pollinator populations;

- Providing assistance to improve soil health and productivity in states impacted by the historic drought;

- Protecting wildlife through the Working Lands for Wildlife (WLFW), a partnership between NRCS and the U.S. Fish and Wildlife Service (FWS) to use technical assistance with financial assistance to combat the decline of wildlife species;

- Addressing a growing number of niche enterprises that include aquaculture, specialty crops, sustainable, and organic farming;

- Engaging producers who are new to production agriculture and have higher demands for technical assistance or have not previously participated in NRCS programs but who are critical in solving the identified resource concerns in special initiative areas;
- Entering into agreements with conservation partnerships in order to leverage local funds and provide additional technical assistance;

- Accelerating focused technical assistance through landscape conservation initiatives such as the Great Lakes Restoration Initiative, Sage Grouse Initiative, Gulf of Mexico Initiative, and the Mississippi River Basin Healthy Watersheds Initiative;

- Addressing growing demand for pre-program conservation planning support for Farm Bill programs such as the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Regional Conservation Partnership Program (RCPP); and

- Designing natural resource conservation systems to reduce the risk of loss and mitigate the effects of climatic events such as drought, fire, and flood.

- Leveraging the innovative technology and agribusiness applications of the private sector in a collaborative effort to improve the tailored products and assistance provided to customers;

- Bolstering the credibility and technical acumen of staff and partners by strengthening the conservation planner certification program; and

- Attending to the unique needs of urban agricultural customers across the Nation through the delivery of customized conservation planning and technical assistance.

- In 2019, NRCS developed conservation plans covering 27.1 million acres. In accordance with those plans and utilizing CTA Program support, conservation practices and systems designed to improve soil quality were applied to 5.7 million acres of cropland.

- CTA Program support also contributed to the owners and managers of grazing and forest lands in applying conservation practices to improve 11.7 million acres.

- Nearly 16.5 million acres of agricultural land had conservation practices applied as designed by the agency to improve off-site water quality.

- Nearly 361,000 acres had conservation practices applied to improve irrigation water use efficiency, reducing costs to the producer, groundwater withdrawals, and surface runoff.

- Almost 7.3 million acres had conservation practices and systems applied to improve wildlife habitat.

- Creation, restoration, and enhancement of wetlands, which provide critical wildlife habitat, were implemented on nearly 9,000 acres.

There continues to be a growing demand for technical assistance, and the agency has continued to manage and invest in human capital to ensure the right skills are in the right location to deliver high quality products and services. In addition, the agency continues work to improve and streamline internal business processes to accelerate service delivery; expand conservation partnership and build new alliances for cooperative approaches that conserve and protect natural resources; develop and use electronically-based technology to provide a more customer-focused service; and strengthen the ability to develop innovative technology while addressing new and

emerging conservation challenges.

Grazing Lands Conservation

Grazing lands comprise an economic resource base in all 50 States and provide food, fiber, clean air and water, wildlife habitat, and open space. According to the National Resource Inventory (NRI), the 528 million acres of privately-owned range and pasture lands make up over 27 percent of the total acreage of the contiguous 48 States. These lands constitute the largest private land use category, exceeding both forestlands (21 percent) and cropland (18 percent). Properly managed grazing land has multiple benefits, including reduced storm water runoff, improved carbon storage in the soil, and continued availability of habitat for wildlife species. In 2019, conservationists helped ranchers and farmers understand the basic principles of rangeland and pastureland soil health; installed facilitating practices (such as pipelines, tanks, ponds, fences, and erosion control structures) as needed; and began the management regimen necessary to conserve, protect, and properly utilize these resources.

NRCS works with the Society for Range Management, American Forage and Grassland Council, and other range and grazing entities to assist in technology development and transfer, and infusion of discipline science into NRCS technical assistance. The agency partners with the National Grazing Lands Coalition, a nongovernmental nationwide consortium of individuals, organizations, and agencies working together to maintain and improve the management and the health of the Nation's grazing lands. This coalition spurred major increases in the knowledge and skills of conservationists with the planning and application of conservation of grazing land management, facilitating adoption of grazing conservation practices. In 2019, conservation practices were applied to over 26.2 million acres of grazing land. The agency partners with the National Cattlemen's Foundation to recognize outstanding ranch and farm managers and conservationists through the Environmental Stewardship Awards. This program encourages all producers in America to strive for better land management on their farm or ranch for future generations.

NRCS uses the NRI Grazing Land On-Site Data Survey to evaluate and document the environmental conditions of rangelands and pastureland across private lands in America. Our interagency agreement with the Bureau of Land Management (BLM) expands grazing lands NRI onto non-forested BLM lands to provide a statistically based sample design that is common to both agencies.

NRCS's Ecological Site Information System and ecological site descriptions (ESDs) continue to provide the capability to produce automated ESDs from the data stored in its database. The pasture state of ecological sites provides important information needed for conservation planning on the pasture land use. Joint policy between NRCS, BLM, and U.S. Forest Service pools the agencies' technical resources behind the development and use of ESDs to describe site characteristics, plant communities, and use interpretations for grazing land and forestland. ESD development training is ongoing and all three agencies

provide staff support and participation. This technology improves land management planning capabilities for agencies and the public by providing consistency among the agencies' classification, technology development, planning, and blueprints for ecological improvement of grazing lands across the Nation and will have implications and applications in other countries.

NRCS continues to work closely with partners and universities to improve the grazing land curriculum. In 2019, four new training courses were developed for employees. They are Grazing Land Economics, Vegetation Monitoring and Data Interpretation, Rangeland Ecology II, and Prescribed Grazing.

Clean Water Activities

NRCS promotes the implementation of conservation practices on America's working lands to address key water quality issues and help safeguard the Nation's streams, lakes, rivers, and coastal and ocean resources. These conservation practices help mitigate the potential environmental risks posed by agricultural operations and the impairment of water resources by nutrients, sediment, and pesticides. NRCS works with the agricultural community to implement conservation actions to address water quality resource concerns at the field, farm, and watershed scales. The agency also provides the leadership needed to enhance coordination with the Environmental Protection Agency (EPA), U.S. Geological Survey, Army Corps of Engineers, National Oceanic and Atmospheric Administration, and other Federal agencies in areas of mutual interest. Specific areas in which the agency provides technical leadership include: erosion control and sediment management; nutrient management; conservation practices, activities, and enhancements; tools for assessing and addressing agricultural water pollution; and technical knowledge transfer to producers, partners, and the public.

NRCS target efforts underway protect and conserve water quality, including several national and regional conservation initiatives. One effort, the National Water Quality Initiative (NWQI), began in 2012 to implement conservation practices in priority watersheds so that agriculture no longer contributes to water quality impairment and stream segments may eventually be delisted from the EPA's 303(d) list of impaired streams. Each State has identified watersheds in which to concentrate NRCS efforts and coordinate with State water quality agencies. In 2019, the agency made financial assistance available to help farmers and ranchers implement conservation systems in 201 priority watersheds and provided technical assistance for development of watershed assessments in 59 watersheds. Also, in 2019, NRCS initiated a source water protection pilot working to address threats to 15 public water supplies in nine states. In 2019, the initiative increased emphasis on watershed assessment and planning to further target conservation efforts by requiring all watersheds receiving financial assistance to have a watershed assessment that identifies critical treatment areas. Landowners and producers participating in the initiative receive conservation payments to work on the land in a sustainable way that provides cleaner water while keeping the land productive into the future. State water quality agency partners report that 27 percent of NWQI monitoring

watersheds show an improvement in water quality in at least one of the NWQI-monitored pollutants (2016 data). Further, 81 percent of these improvements can be attributed to or associated with agriculture conservation practices implemented by farmers and ranchers.

The Mississippi River Healthy Watersheds Initiative (MRBI) is a similar initiative with a primary goal of assisting Hypoxia Task Force States in implementing their nutrient loss reduction strategies. MRBI watersheds have watershed assessments and specific metrics designed to target and measure impacts of conservation practice implementation. Communities benefit by having clean waterways, safer drinking water, and healthy habitat for fish and wildlife.

In 2019, NRCS initiated efforts to address source water protection based on the 2018 Farm Bill provisions. NRCS State Conservationist worked with community water systems and other drinking water partners to develop local priority areas to address water quantity and quality threats to drinking water.

During 2019, the agency continued to provide leadership through the development, advancement, and demonstration of new and innovative approaches for water quality conservation. Below are some of these activities and advancements:

- NRCS serves as the lead USDA agency for providing conservation technical assistance for water quality improvement. A major component of this assistance is provided through the establishment of national conservation practice standards (CPSs). In 2019, the agency completed updates to several CPSs that protect, maintain, or improve water quality, including Nutrient Management (Code 590) and Pest Management Conservation System (Code 595). Associated resources including technical notes are being updated to coordinate with new standards. For Pest Management, resources are being developed to coincide with the standard's new focus on prevention, avoidance, and monitoring activities in addition to mitigation for suppression strategies for tillage and/or pesticide use. Practice use is being analyzed and investigated to determine barriers to broader implementation.

- Voluntary edge-of-field water quality monitoring enables agricultural producers and scientists to quantify the benefits of conservation to water quality. Through edge-of-field monitoring, NRCS works with producers and conservation partners to measure the amount of nutrients and sediment in water runoff from a field and compare improvements under different conservation systems. During the first six years of edge-of-field water quality monitoring, the agency provided about $6.5 million for over 40 monitoring projects collecting water quality data across the country.

- The release of nutrients from agricultural operations is a recognized source of contamination for the Nation's waterways. Comprehensive Nutrient Management Plans (CNMPs) are an effective voluntary tool for addressing these water quality problems associated with agriculture. In 2015, NRCS CNMP policy and procedures were revised to make the plan and its implementation more streamlined and useful to agricultural operations. In 2019, 410 CNMPs were written and funded by NRCS.

- NRCS released its 2018-2020 Chesapeake Bay Watershed Action Plan, describing its priority resource concerns of water quality, soil health, wildlife habitat, and principles for working with farmers and landowners to restore and improve the Chesapeake Bay Watershed using science-based conservation, partnerships and voluntary conservation programs. In fiscal year 2019, NRCS implemented practices on 442,670 acres for water quality, 310,219 acres for soil health, and 54,559 acres for wildlife habitat, exceeding 2019 goals and reaching 86 percent of the agency's three-year natural resource priority goals.

- NRCS has a goal of putting conservation systems on four million acres in the Chesapeake Bay Watershed by 2025. Since 2010, NRCS has worked with farmers and ranchers to put conservation on over 2.3 million acres, over 150,000 new acres of which were implemented in 2019.

- Collaborations with agricultural groups, States, Universities, and other Federal agencies continued to provide aggregated data about voluntary conservation practice implementation by NRCS customers which is helping States meet Chesapeake Bay total maximum daily load goals.

- In collaboration with the Agricultural Research Service (ARS), NRCS continues to support, deploy, and expand the geographic range for the Agricultural Conservation Planning Framework (ACPF) planning tool. The ACPF is based on a holistic planning concept utilizing geographic information system tools and high-resolution geospatial data to determine suitable locations for conservation practices. ACPF analysis results provide an inventory of conservation opportunities in fields, below fields, and in riparian zones where water quality improvement and other ecosystem services can be realized. ACPF results provide a planning resource that enables local conservationists and landowners to identify preferred practices and locations suited to their own landscape and farms. In 2019, NRCS funded an agreement with ARS to provide NRCS the tools and recommendations necessary for field offices and watershed planning partners to use ACPF for watershed planning and

outreach. This project will work both within the Upper Midwest in States that are already in the ACPF database (Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin) as well as at least three new States in order to adapt the ACPF for use in other regions of the country.

National Resources Inventory (NRI) Program

NRCS collects, analyzes, interprets, and delivers data and information on natural resources through the NRI program and CEAP. Several pieces of legislation authorize the NRI, but the Rural Development Act of 1972 (7 U.S.C. 1010a) is recognized as the statute that specifically articulates the NRI program. CEAP is authorized under the Soil and Water Resources Conservation Act of 1977 (RCA) as amended by section 2804 of the Food, Conservation, and Energy Act of 2008 (16 U.S.C. 2001-2009).

Natural resources data and information, conservation program data, and data from other Federal and non-Federal sources are compiled in the NRI. This data provides the basic scientific information necessary to inform sound natural resource planning and decision-making at many landscape levels. The NRI is a national assessment of natural resource conditions and trends on non-Federal lands, including privately-owned land, tribal and trust lands, and lands controlled by State and local governments. In all, the NRI provides information on over 80 percent of the Nation's land area. Data and analyses from the NRI are indispensable for developing appropriate and effective conservation programs and sound agricultural policy, and for informing national farm policy discussion through the Farm Bill process. The NRI program is designed with the capacity to provide data for assessing outcomes of existing legislative mandates, such as the appraisals required by the RCA and the periodic Farm Bills. NRI data provides the scientific basis for the development of practical programs and sensible policies that support and promote agricultural development, expand the economy, restore and preserve the quality of the environment, and advance social values. In addition, the data from the Grazing Land NRI Onsite Data Study are used in the CEAP-Grazing Lands conservation effects modeling efforts to further enhance optimization of conservation practice application on the nation's grazing lands.

The NRI is a statistical survey that inventories scientifically selected sample sites in every county across the United States and locations in the Caribbean and Pacific Island areas. From 1977 to 1997, NRI was conducted on five- year cycles. Since 2001, a statistically sound subset of the 800,000 NRI sample sites nationwide has been selected every year for data collection. Collecting NRI data on an annual basis allows the agency the flexibility and capability to gather scientific information on emerging natural resource issues. The most valuable aspect of the NRI is its ability to capture long-term trends. This trending information is instrumental in evaluating the effects of conservation programs and policies over time. Major releases of NRI data are mandated by law and scheduled for every five years. The NRI is performed in cooperation with the Iowa State University Center for Survey Statistics and Methodology. The 2019 NRI activities included:

NRI Production Work

The Remote Sensing Laboratories (RSLs) staff completed data collection on the 2017 NRI from images of over 72,200 sample sites and approximately 215,000 points. The RSLs staff also processed 90 percent of the 72,157 images for the 2018 NRI. The contracts for acquiring aerial photography for over 72,000 segments for the 2019 NRI have been awarded.

On-site Data Collection on Non-Federal Grazing Lands

The partnership with the National Employee Development Section (EDS) of the Farm Production and Conservation (FPAC) Business Center continued to deliver NRI Grazing Land Train-the-Trainer courses. Four national trainings were held during 2019 in Tucson, AZ, Atmore, AL, Troy, NY, and Rapid City, SD. In 2019, data collection was conducted on 1,600 non-Federal range sites and 750 non-Federal pasture sites. Summary tables of NRI rangeland on-site data used in Ecological Site Description (ESD) development were updated with associated PRISM climate data and on-site data collected through 2017. Similar tables were constructed from NRI pastureland on-site data for use in Forage Suitability Group development.

On-site Data Collection on Bureau of Land Management (BLM) Lands

In 2019, NRCS and BLM implemented their continuing interagency agreement to monitor rangeland resources by expanding NRI data collection on BLM lands with intensified sampling in core sage-grouse habitat. The five-year agreement that began in September 2016, continues the collaborative work that started in 2011. A survey system, developed with BLM funding, provides scientifically credible information on the status of non-forested BLM lands in 13 Western and Midwestern States. In 2019, NRCS collected data on over 1,500 sites on BLM lands. Adoption of standardized NRI protocols on BLM-managed landscapes enhances NRCS's leadership on grazing lands, benefits BLM surveys by providing a well-proven sampling framework and enables compilation of a consistent and comprehensive database. Combining information derived from NRI data collected on BLM-managed lands with data obtained from NRI points on non-Federal lands provides a statistically sound, virtually seamless, area-wide representation of all grazing lands in the western U.S.

Conservation Effects Assessment Project (CEAP)

CEAP is a multi-agency effort designed to quantify the effects of conservation practices on agricultural land, and to provide a scientific basis for managing the agricultural landscape for environmental quality. Findings from assessments completed under CEAP are used to guide USDA conservation policy and program development and to help conservationists, farmers, and ranchers, make more informed conservation decisions.

Under CEAP, assessments of the effects of conservation practices and current agricultural

management are carried out at national, regional, and watershed scales. National assessments are conducted for cropland, grazing lands, wetlands, and wildlife. Various models are used to evaluate hypothetical management scenarios and to assess the potential of USDA conservation programs to meet the Nation's conservation goals. Watershed assessment studies provide more detailed, in-depth assessments of smaller areas, which can inform local decision-making and improve modeling capacities.

CEAP continues to provide assessments of the conservation efforts in various NRCS Initiative areas: the Mississippi River Basin Healthy Watersheds Initiative, the Chesapeake Bay Watershed Initiative and related Executive Order, the Great Lakes Restoration Initiative, the National Water Quality Initiative, the Sage-Grouse Initiative, the Lesser- Prairie Chicken Initiative, the Migratory Bird Habitat Initiative, and the Working Lands for Wildlife Initiative.

Assessments conducted by all components of CEAP at regional and watershed scales inform the prioritization of conservation needs which enable the agency to focus resources in more effective ways to benefit the American public. CEAP-Watersheds and CEAP-Wildlife components are working to support the Conservation Initiatives Outcomes Team within the agency to help identify and document measurable outcomes of on-the-ground conservation efforts. The GIS Laboratory of the Resource Assessment Branch is also contributing critical information and analysis to this team effort in addition to the materials provided by the following CEAP components.

The 2019 CEAP activities included:

Cropland Assessment

In 2018-2019, the process-based, field-scale APEX model (Agricultural Policy/Environmental eXtender Model) was improved in several ways based on CEAP-1 and Special Studies findings. These improvements will enable more realistic comparisons between CEAP-1 and CEAP-2 outputs and will better ground evidence-based agency decision- making. Model improvements include increased capacity to capture the impacts of grazing animals on nutrient and soil dynamics; improved soil carbon modeling capacity through a more precise simulation of biological mixing functions and more realistic representation of soil carbon response to tillage impacts; inclusion of the impacts of high temperature stresses on yields; and better capacity to simulate woody crops, including orchards, vineyards, timber, and nut trees.

The CEAP-Cropland component scientists participated in several collaborative efforts with interagency and university groups related to potential improvements in conservation efforts in the context of numerous initiatives, including the Greenhouse Gas Initiative, Mississippi River Basin Healthy Watersheds Initiative, and the National Water Quality Initiative.

The CEAP-Cropland and CEAP-Watersheds components have representation on the Great Lakes Commission's Advisory Board for the recently launched effort,

Researching the Effectiveness of Agricultural Programs (REAP). Both CEAP components also continue to inform interagency Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA) efforts and provide perspectives to the Science and Solutions effort, which brings together the regional State Agricultural Agencies, local NRCS offices, and academia.

Grazing Lands Assessment
As with other CEAP components, the Grazing Lands component relies on key partners in completing assessments.

Primary CEAP-Grazing Lands component activities and accomplishments in 2019 include the following:

- Completed the agency's first study on Ecosystem Service Valuation on rangeland in the Central Great Plains. The study monetized 12 ecosystem services that occur to varying degrees with the implementation of NRCS rangeland Conservation Practices. A key finding revealed that the implementation of two predominant conservation practices (Brush Management and Prescribed Grazing) increased the economic value of non-market ecosystem services by $2.28 to $4.93 per acre per year in the region. Those two practices also improved land health metrics, putting them on a positive trend, compared to no practice implementation. This effort required extensive literature review, common economic valuation methodology, knowledge of both quantified and qualified practice effects on resource concerns, and baseline land health data. Main project goals include increasing awareness of the agroecological non-market benefits of conservation practices that are not currently being accounted for, building potential for including ecosystem service-based incentive payments in NRCS programs, and illustrating the flow of conservation benefits from individual ranches to the broader social/ecological communities. The study clearly showed that conservation benefits extend beyond the fence line, which has been a key consideration for use of Farm Bill funds on grazing lands. Incorporating these findings into the conservation planning process and extending our analysis area to the Southern Great Plains are the next two phases to this ground-breaking approach by CEAP-Grazing Lands.

- Completed the first project on forest conservation practice effectiveness and optimization on private and adjacent public forest and rangelands to support the Climate Change Building Block EQIP allocation. This unique project models the environmental effects of conservation practices on forest and adjacent rangelands. We used simulation

modeling of different forest practice designs to reduce wildfire risk in the western U.S., particularly on dry forest landscapes. Quantifying risk reduction metrics and biodiversity metrics shows we can increase landscape diversity, increase meadow patch-size and numbers, reduce soil erosion, reduce risk of wildfire ignition and spread, and improve water quality by designing NRCS forest conservation practices in a way that mimics nature. This work provides the baseline for a forestland conservation treatment optimization strategy that will be further tested in additional Western forest/rangeland co-mingled landscapes. The results have been submitted to a peer-reviewed journal and are expected to be in press in 2020. All spatial layers from this project have potential use in the NRCS CART framework, to bring more informed conservation techniques to field office planners and their cooperators and expand the CEAP-Grazing Lands assessment framework.

- Completed initial parameterization of more than 30 native plants for use in APEX modeling by the CEAP Modeling Team, as they undertake grazing land modeling efforts. Also completed all major phases of a GUI (graphical user interface) for the APEXgraze model and conveyed that to the CEAP Modeling Team for their use in efforts to streamline modeling with APEX on grazing lands.

- Completed nine MLRA woody plant canopy cover maps and estimations for the Rangeland Brush Estimation Toolbox (RaBET) with ARS-Tucson. This provides a remote sensing woody plant map and canopy cover estimation technique using no-cost imagery. Beta-testing on RaBET, with training to Arizona, Colorado, Utah, Texas, and Nebraska NRCS staff, was performed throughout 2019. Improvements and additional MLRA coverage will be ready for more field office testing in 2020. The RaBET team has joined forces with the CEAP-Grazing Lands VGS team and two USFWS Joint Ventures, resulting in more effective training sessions, data exchange, and ground-truthing of the canopy cover values generated via remotely-sensed data. This RaBET tool is essential for efficient and effective conservation planning, evaluation of conservation effects, documentation of Farm Bill funds to treat woody plant concerns, and helping states developing their statewide resource assessments.

- Enhanced coordination within NRCS at multiple levels to develop an agency-wide, all land-use database with a field-friendly user interface. This database, "VGS", will link to the agency's Conservation Desktop and is aligned with goals in the Conservation Delivery Streamlining

Initiative (CDSI). It will fill a vast agency need to inventory, organize, analyze, and interpret complex datasets to answer questions at multiple scales related to effectiveness of our conservation and program delivery, and provide direct support to new science and technology tools such as ecological site descriptions and improved design of conservation practices.

Wetlands Assessment

Assessments initiated in prior years were continued in 2019 to evaluate the effects of wetland conservation practices and programs quantifying ecosystem services (e.g., water quality, flood control, biodiversity) provided by major wetland types. Four regional investigations are ongoing: (1) the Prairie Pothole Region, (2) the High Plains, (3) the California Central Valley and Upper Klamath River Basin, and (4) the Mid-Atlantic Rolling Coastal Plain and Coastal Flats. Data collection and model development for the major wetland types in regional assessments are focused on wetland ecosystem services, including floodwater storage, habitat quality, pollinators, biotic conservation and sustainability, erosion and sedimentation, nutrient rate and transport, carbon sequestration, and greenhouse gas emissions. In 2019, the CEAP-Wetlands National Assessment focused on:

- Developing CEAP-Wetlands modeling that provides NRCS with the capacity to simulate and forecast changes in wetland functions or ecosystem services provided by wetlands and associated lands resulting from conservation practices and programs, land treatments, climate change, and other factors.

- Calibrating and validating the depressional (prairie potholes, playas) and riverine wetland algorithms within the Integrated Landscape Model (ILM) linked to the primary CEAP model (APEX) and the NRI to improve the statistical reliability of model output at multiple scales and broaden its conservation application.

- Developing a sampling manual detailing CEAP-Wetlands data collection methods and remote sensing-based protocols that document spatial and temporal changes and effects of wetland conservation practices and programs. Utilizing the ILM efforts and methods outlined in the manual, predictive regression models can be applied to predict ecosystem services provided by playa wetlands and determine the effects that conservation practices have on those services. In addition, critical information from historic, current, and future condition estimates can be provided to inform management of the important unique depressional wetlands in the High Plains region.

- Linking other CEAP-Wetlands findings with those of other CEAP components into the ILM and APEX models to address cumulative practice and program effects across multiple scales.

- Documenting the effectiveness of conservation practices and working lands treatments within the broader regional study framework to improve modeling results and translating those results to improve on-the-ground conservation.

Wildlife Assessment

CEAP-Wildlife regional projects and publications completed in 2019 include:

- CEAP Conservation Insight—Conifer Removal Benefits Sage-Grouse, Other Sagebrush Birds, and Rangeland Productivity.
- Habitat Ecology of Native Pollinators and Imperiled Migratory Songbirds within Early-successional Deciduous Forests.
- CEAP Conservation Insight—LPCI Practices Benefit Lesser Prairie-Chickens and Ranchers.
- Southwestern Willow Flycatchers: Habitat Features and Effects of Livestock Grazing on their Habitat.
- Effects of Working Grassland Management on Lesser Prairie-Chicken Resource Selection Within Home Ranges and During Dispersal Events.

Some assessments initiated in prior years were continued in 2019, including assessments of the effects of conservation practices associated with the Working Lands for Wildlife (WLFW) effort involving golden-winged warblers, New England cottontails, southwestern willow flycatchers, bog turtles, and gopher tortoises. Additionally, work continued producing science-based outcome reporting and technical tools for effective delivery of the Lesser Prairie-Chicken and Sage Grouse Initiatives (LPCI and SGI, respectively). Assessment studies were initiated for WLFW 2.0-featured species, including Northeastern turtles, hellbender, and Nebraska Sandhills prairie grouse. While CEAP-Wildlife continued to support outcome-based monitoring and science support for the WLFW landscape initiative, assessments to address additional priorities were initiated in 2019. These include an assessment of the effects of cover crops applied in crop fields in Tennessee on upland gamebirds and other birds of conservation concern, an assessment of how conservation practices applied under the LPCI directly or indirectly affect the health of beef cattle, and an assessment of the benefits and effects of various cropland tillage practices on native ground nesting bees in the Southeastern U.S.

As part of CEAP-Wildlife's support of outcome-based monitoring and science support for the Sage Grouse Initiative in partnership with the University of Montana and others, CEAP Wildlife continued to support development and use of the Rangeland Analysis Platform (RAP), including initiating detailed assessments of the ecological and economic implications of encroached conifer treatment and removal across the west.

CEAP-Watershed Assessment Studies

Long-term watershed assessment projects, conducted in partnership with ARS and universities, continue to be a significant element of CEAP as they document measurable outcomes of conservation on water quality in small watersheds. The scale and detail of these small watershed assessments (HUC 10-12) are directly applicable to conservation planning and a watershed-based approach of targeted NRCS Area-wide Conservation Initiatives and programs. A major effort continues to be summarizing and extending lessons learned across the projects, adding value to the individual watershed case studies, and applying insights directly to NRCS core business elements. Emphasis continues to be on working collaboratively within NRCS on water quality conservation initiatives and the RCPP to provide support and translate key findings into program guidance and design.

Significant CEAP-Watershed Assessment impacts and accomplishments in 2019 include:

- Applied tools and lessons learned from CEAP-Watershed Assessments to the approach for the National Water Quality Initiative (NWQI) watershed assessment requirement.

- Efforts have continued in 2019 to develop and evaluate innovative or existing conservation practice standards for water quality improvement. These include practices such as saturated riparian buffers, phosphorous removal structures, blind inlets, riparian buffer effectiveness (in a joint project with the Farm Service Agency), bioreactors, drainage water management, cover crops, conservation crop rotation, irrigation water management, and specific nutrient management approaches within the 4Rs that are effective for no-till, tile drained, or cover cropped areas.

- Continued support for the development and evaluation of a new small watershed-scale conservation planning tool, the Agricultural Conservation Planning Framework (ACPF). This tool, developed by USDA ARS and others with funding from NRCS CEAP and CIG, is largely based on findings, insights, and assessment techniques developed as part of CEAP-Watersheds projects and data. Several additional CEAP-Watersheds will assess and develop this tool in 2020 to refine it under different physiographic and hydrologic conditions in priority regions of the U.S. as part of a new NRCS pilot project.

- Findings from CEAP-Watersheds were utilized by Vermont State staff and conservation partners in the Lake Champlain Basin to learn more about the sources and hydrologic pathways of nutrients and sediment at a water quality workshop in April 2019. Findings are being used to identify effective systems of conservation practices to address phosphorus reduction strategies for Lake Champlain. A new CEAP-Watershed Assessment Study was announced in Vermont this year. It has strong producer and partner support and will include outcome assessment both at the watershed and edge-of-field scales of innovative conservation practices.
- Natural Resource Technology Transfer

NRCS ensures field employees have the appropriate resources and necessary training to utilize the latest scientific research and technology for natural resources assessment, conservation planning, conservation system installation, and program delivery.

Key activities in 2019 included:

- Implementation of improved national strategies to certify employees and partners who provide conservation assistance to land managers have the knowledge, skills, and ability to provide reliable service. In 2018, NRCS expanded these requirements to include ecological (vegetative and management) conservation practice job approval authority. The new certification criteria and the expanded job approval authority both rely on a strong commitment to technical training to ensure NRCS and its partners have the skills needed to meet customers' expectations.

- As part of NRCS's goal of making the latest technology available to our field offices, staff from many areas of S&T develop or provide training on a wide range of topics.

- Farm Production and Conservation (FPAC) staff in the Employee Development Section (EDS) delivered numerous live webinars, reaching over 12,000 participants, providing certification and continuing education credits for attendees. NRCS continued an agreement with the University of Wisconsin Cooperative Extension Service to enhance the Agency's capability to provide the amount and variety of technical training needed to meet the planner certification requirements by offering a series of interactive on-line training modules and instructor guides of in-field training. NTSC staff also support Employee Development Section (EDS) training efforts by serving as cadre members, course developers, and course reviewers.

- Development of a national HEL Determination Tool: This tool was created with the field office in mind, enabling them to improve internal efficiencies and external customer service by decreased response times for HEL determinations. The tool creates greater product consistency in making determinations and in generating a determination map, corresponding transmittal letter and technical documentation. Nationwide on average, NRCS completes 60,000 HEL determinations a year. This tool can save an estimated 2.5 hours per determination and up to 53 staff years per year nationally. The tool can utilize Light Detection and Ranging (LiDAR) data to evaluate potentially highly erodible (PHEL) soils offsite.
- Helping to Address Harmful Algal Blooms: In response to the 2019 appropriation conference report guidance, ESD initiated collaboration with other Deputy areas, to coordinate with NIFA, ARS and university partners to invest $5M through cooperative agreements focused on development of innovative phosphorus removal strategies where agricultural runoff has contributed nutrients to a waterbody address harmful algal blooms.

Highly Erodible Land (HEL) Conservation Compliance

Highly erodible land is made up of soils that have a high vulnerability to increased erosion due to wind and water. This vulnerability is higher when the land is cropped than when the land is in permanent vegetative cover. Participants in USDA programs (including Federal crop insurance) are required to protect their HEL cropland from excessive soil erosion in order to comply with the HEL regulations at 7 CFR Part 12 and statutory provisions of 16 U.S.C. Sections 3801, 3811, 3812a, and 3814. USDA program participants must implement a conservation plan or system on HEL cropped land that provides for a substantial reduction in soil erosion. In addition, when breaking out native vegetation after 1985, a program participant must implement a plan or system that results in no substantial increase in soil erosion. The agency classifies about 101.1 million acres, or approximately 27 percent of America's cropland, as HEL.

As part of the technical responsibilities of implementing the HEL provisions, NRCS HEL determinations to identify cropland fields that are highly erodible and subject to the provisions. In 2019, over 50,000 HEL determinations were conducted nationwide. The agency also provides conservation planning assistance on HEL.

Wetlands Conservation (WC) Compliance

NRCS's responsibilities for wetlands conservation compliance are detailed in Title XII of the Food Security Act of 1985 (16 U.S.C. Sections 3801 and 3821 to 3824). The agency responsibilities include: making wetland determinations, resolving determination appeals, developing mitigation and restoration plans, determining minimal effect exemptions, and implementing scope and effect evaluations for the installation of new drainage systems and maintenance of existing systems.

One of the NRCS' significant responsibilities for WC involves conducting wetland determinations, to identify wetlands subject to the provisions, in violation of the provisions, or that are eligible for a specific exemption to the provisions. In 2019, over 24,000 wetland determinations were conducted nationwide.

A compliance status review is an inspection of a cropland tract to determine whether the USDA participant is in compliance with the HEL or WC provisions of the Food Security Act of 1985. Compliance status reviews are conducted annually in every State on farm and ranch lands that are associated with a person who has received USDA benefits and are subject to the HEL or WC provisions, or both. The compliance status review process requires employees to make an onsite determination when a violation of the HEL/WC provisions is suspected and ensures that only qualified employees report violations. In addition, the agency reviews HEL or WC tracts of cropland owned or operated by any government employee who receives benefits at least once every 3 years.

Penalties for noncompliance with the HEL or WC provisions range from a Good Faith Exemption issued by the Farm Service Agency (FSA), to a determination by FSA that the producer is ineligible for any government payment and must pay back any current and/or prior year funding. The compliance review year runs from January 1 to December 31. The results of the 2018 reviews, which are displayed in the table below, show that a high percentage of program participants are following approved conservation plans or systems and follow the HEL and WC requirements.

In 2018, compliance reviews were conducted on 23,926 tracts, which included approximately 3.8 million acres of cropland. A total of 456 tracts, or 1.3 percent of the total reviewed, were found to not be in compliance: 308 tracts had HEL violations, and 148 tracts had potential WC violations. Of the 23,470 tracts that complied, approximately 1,123 tracts or 4.8 percent were deemed to be in compliance because they had been issued variances or exemptions as provided by statute or regulation. This indicates a low rate of noncompliance, with exemptions provided due to extenuating circumstances. Data from the past four years suggest that conservation measures prescribed are being effectively implemented on our most vulnerable land.

Table NRCS-14. Summary of Tract Reviews and Tracts Out of Compliance

	2015	**2016**	**2017**	**2018**
Total Tracts Reviewed	10,725	21,919	23.944	23,926
Tracts Out of Compliance	358	492	479	456
Percent out of Compliance	3.3	2.2	2.0	1.9
Number of States Recording Noncompliance	29	37	37	34

CTA Customer Assistance

The CTA program is the backbone of the agency's conservation delivery system. Many customers begin their relationship with NRCS through requests for assistance that later evolve into a conservation plan that may include cost-share assistance through mandatory (Farm Bill) programs.

In 2019, over 880,000 customers received abbreviated technical assistance, and over 100,000 customers received comprehensive planning assistance. Results from this assistance over all NRCS programs are:

- 27.5 million acres covered under written conservation plans;
- 34.1 million acres treated with conservation practices to improve water quality;
- 26.9 million acres of grazing and forest lands conservation;
- 9.4 million acres of wildlife habitat improvement; and
- 12.8 million acres of conservation applied on the ground to improve soil quality.

NRCS' field staff work with state agencies and local partners to deliver conservation technical and financial assistance. Our clients invest in conservation to achieve results for their business and for the land. During 2019, these non-Federal partners contributed an estimated $106.0 million of in-kind goods and services and over $128.0 million in financial assistance toward addressing local resource concerns. These voluntary arrangements allow NRCS and its partners to get far more conservation on the ground than either entity could accomplish separately.

NRCS implemented Conservation Desktop (CD), one of three integrated systems (Conservation Desktop, Mobile Planning Tool, and Conservation Client Gateway), to support the Conservation Delivery Streamlining Initiative. CD is an internally-facing, map-based tool for field conservationists to efficiently develop science-based conservation plans and practice schedules to support implementation. CD also helps field staff with the management of Farm Bill conservation program contracts. The first release of CD to NRCS field conservationists was in July 2017, with subsequent releases in December 2017, June 2018, and March 2019. In early October 2019, a completed CD release replaced and exceeded the current functionality of the Customer Service Toolkit. Currently, CD has about 1,000 users nationally, a number that will increase to nearly 8,000 once states complete training of all field staff and partners. CD will be integrated in 2020 with the Conservation Assessment and Ranking Tool (CART) used for performing science-based resource inventories, assessments, and ranking.

Technical Service Providers (TSP)

TSPs expand and accelerate NRCS's ability to plan and apply conservation practices that enhance, restore, or conserve the Nation's soil, water, and related natural resources on non-Federal land. TSPs assist landowners and agricultural producers in applying conservation practices on the land. TSPs may be individuals or entities such as private businesses, nonprofit organizations, Indian tribes, or state and local governments. TSPs provide participants in USDA conservation programs with convenient access to technical

services, quality work, and professional one-on-one technical assistance. TSPs develop conservation plans; perform selected compliance studies; plan, design, and implement conservation practices; and evaluate completed conservation practices.

The TSP program provides eligible participants with consistent, science-based, site-specific practices designed to achieve conservation objectives on land active in agricultural, forestry, or related uses. The program is national in scope and is offered throughout the United States and its territories.

To become a certified TSP, individuals or entities must enter into a certification agreement with NRCS. TSPs must meet education, experience, and credential requirements that are established for each conservation practice and Conservation Activity Plan (CAP). This ensures that technical assistance is provided in accordance with the agency's statement of work associated with each conservation practice and plan development criteria for each CAP. All conservation practices and CAP criteria are reviewed and updated annually. TechReg is the current website that maintains certification criteria and hosts a publicly accessible registry of certified TSPs. NRCS will be updating this system in 2020. NRCS also has a TSP website that contains other information for TSPs and customers:
http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/tsp

Currently, there are 1,212 individuals and more than 100 businesses serving as certified TSPs that are available to help program participants apply conservation efforts through programs such as the Environmental Quality Incentive Program (EQIP), Agricultural Conservation Easement Program, Conservation Reserve Program, Conservation Stewardship Program, Conservation Technical Assistance Program, and Watershed programs

TSPs continue to play the primary role in the planning and implementation of CAPs in EQIP. The agency offered 14 approved CAPs, and two additional CAPs will be offered during 2020.

A producer must work with a certified TSP to adopt a CAP. In 2019, a total of 3,906 CAPs were obligated in EQIP, covering 13 resource areas: nutrient management; forest management; grazing management; comprehensive nutrient management plan; agricultural energy management plan; integrated pest management; irrigation water management; transition to organic; fish and wildlife habitat; pollinator habitat enhancement; prescribed burning management plan; herbicide resistance weed conservation plan; and drainage water management.

International Conservation

Through the International Conservation Program, NRCS provides leadership to promote, enhance, and strengthen the conservation of natural resources globally. The program helps foreign governments develop, use, and protect their natural resources. NRCS shares scientific and technological information about conserving natural

resources with other countries.

The agency cooperates with other Federal agencies in providing technical assistance in natural resource conservation to countries affected by disasters, conflicts, or mismanagement of natural resources. NRCS assists other Federal agencies by arranging meetings between agency specialists and foreign visitors who are interested in how the agency provides technical and financial assistance to private landowners and works with other countries on scientific and exchange projects that benefit both countries. In 2019, a soil health specialist presented on the topic: Soil Health and was one of three speakers at the "Digging Deep into Regen Ag Workshop held near Coaldale, Alberta, Canada. Benefits included the exchange of information regarding the integration of cover crops and livestock into cropping systems, along with gardening and green houses. Monitoring the soil food web and carbon impacts are two of the more important components which were shared. Information gained will be shared with North Dakota clients and others. A team of soil scientists and agronomist traveled to Columbia to work on the collaborative project Cacao for Peace which provides alternative economic means to local farmers for growing cacao as a legal, high-value crop in place of the lucrative, but illegal and risky, coca, which provides the main ingredient for cocaine production. To achieve the overarching goal of optimized cacao production, the team portion of the project was mapping regional soil characteristics to promote a deeper understanding of spatial variability of soil characteristics and cadmium.

A major focus of the International Programs Division is coordinating meetings with foreign representatives. During 2019, the division arranged for 22 staff members to meet with 98 foreign visitors from 47 countries. The division also aided 22 agency employees on international travel to 14 countries for foreign meetings. An engineer attended the Northeast Agricultural and Biological Conference (NABEC) in Quebec City, Canada and gave a presentation on "Bedded Pack Facilities". It was an opportunity to network and exchange thoughts and ideas with other engineers from academia, government, and the private sector from all over Northeast United States and Eastern Canada. There were nearly 80 participants from government, academia, and private industry. Thoughts and ideas were discussed and exchanged that can be implemented into the everyday work of engineers and as an agency.

Scholarship Programs

In 2019, NRCS participated in the USDA 1890 National Scholars Program, a partnership between USDA and the 1890 Land-Grant Universities. This program is intended to increase the number of students enrolling in agriculture, food, natural resource sciences, and other related programs in pursuit of a bachelor's degree at any of the Nation's 1890 Land Grant Universities, all of which are Historically Black Colleges and Universities. In 2019, the agency obligated approximately $725,000 for scholarships and career training for students enrolled in this program, referred to as "Scholars". Applicants include inbound freshmen and rising college sophomores and juniors. Students must maintain a minimum Grade Point Average (GPA) of 3.0 and are required to work during the

summers as conservation interns. Currently there are 54 Scholars in the agency, 24 were selected in 2019.

In past years, NRCS participated in the USDA 1994 Tribal Scholars Program-designed to strengthen the long-term partnership between USDA and the 1994 Land-Grant Institutions. The objective is to promote NRCS as an employer of choice for diverse populations, with an emphasis on American Indian/Alaska Native (AIAN) tribal students. The program offers a unique strategy for sharing information and ideas focused on best practices in outreach to American Indian/Alaska Natives interested in careers in Agriculture and Natural Resource management.

In 2019, NRCS obligated $100,000 towards a new Human Resources Initiative to establish a third-party internship program with the Intertribal Ag Council (IAC). This program will help foster and cultivate AIAN undergraduate and graduate students as future leaders interested in agricultural careers in public service. The purpose of this initiative is to further develop the partnership between NRCS and the Intertribal Ag Council. Such a partnership will provide financial support and strengthen the USDA-NRCS diversity recruitment mission in support of the Natural Resource Career Development Program (NRCDP), which was modeled after the Hispanic Recruitment Initiative. Through the NRCDP, up to 10 college and high school students will be selected to participate in a third-party internship and placed in NRCS offices across the country. Additionally, the program includes educational activities organized by the partner institution, which will focus on American Indian students. These students will receive guidance in the areas of NRCS career fields, course requirements to meet NRCS key job series; resume building, the Pathways Program, and navigating through USAJOBS when applying for Federal internships and positions. The program will help prepare students to become more competitive for NRCS Pathways opportunities, with an overall objective of creating a career path toward permanent employment with NRCS. There were no new Tribal Scholars in 2019, but as outlined in the cooperative agreement, 10 third-party interns are expected starting 2020.

Outreach Partnerships

In 2019 NRCS entered into agreements with 27 different entities with an investment of approximately $9.1 million to assist in conducting program outreach to historically underserved populations. By strengthening existing partnerships and establishing new partnerships with public and private entities, NRCS extended its' reach to a broader cross section of the American public.

Through these partnership efforts, NRCS is successfully demonstrating how its' many unique conservation programs play a vital role in helping address natural resource, economic and social challenges faced in rural, suburban and urban landscapes. As a result, NRCS is:

1. Demonstrating the connection between food, agriculture, community and a sustainable environment.
2. Expanding access to affordable fresh and local foods.
3. Stimulating economic development.

Small, Limited Resource, and Beginning Farmers and Ranchers

NRCS assists small, limited resource, beginning, and socially-disadvantaged farmers and ranchers by creating opportunities for transparent dialogue, promoting open partnerships, coordinating economic viability through innovative conservation programs, increasing program access and services in persistent poverty communities, and expanding program participation avenues by improving internal guidelines.

In 2019, NRCS programs, including the Environmental Quality Incentives Program, the Conservation Stewardship Program, Regional Conservation Partnership Program, and the Agricultural Management Assistance Program, provided assistance to Historically Underserved customers, which include beginning, limited resource, and/or socially-disadvantaged producers.

The following are contracts and financial provided to these customers.

- $170 million in financial assistance on 4611 contracts with socially disadvantaged farmers and ranchers to treat approximately 2,600,00 acres.

- $412 million in financial assistance on 13,039 contracts with beginning farmers and ranchers to treat approximately 2,000,000 acres.

- $28 million in financial assistance on 1032 contracts with limited resource farmers and ranchers to treat approximately 130,000 acres.

- $27 million in in financial assistance on 1167 contracts with veteran farmers and ranchers to treat approximately 100,000 acres.

StrikeForce Initiative

The USDA's StrikeForce for Rural Growth and Opportunity Initiative works to address the unique set of challenges faced by many of America's rural communities. Through StrikeForce, USDA is leveraging resources and collaborating with partners and stakeholders to improve economic opportunity and quality of life in the rural communities.

In 2019 the Strike Force County list includes 970 counties in 26 States:
States are Alabama, Alaska, Arkansas, Arizona, Colorado, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nevada, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia and the U.S. territory of Puerto Rico. The following are contracts and financial assistance provided to these customers in the Strike Force Counties.

- $604 million in financial assistance in 18,145 contracts to treat approximately 8 million acres.

The historically underserved summaries within the Strike Force counties are:

- $100 million in financial assistance on 2,943 contracts with socially disadvantaged farmers and ranchers to treat approximately 1,900,000 acres.

- $152 million in financial assistance on 4,485 contracts with beginning farmers and ranchers to treat approximately 772,000 acres.

- $9 million in financial assistance on 453 contracts with limited resource farmers and ranchers to treat approximately 55,000 acres.

- $13.5 million in in financial assistance on 559 contracts with veteran farmers and ranchers to treat approximately 50,000 acres.

Assistance to American Indians and Alaskan Natives

In 2019, the agency continued to increase tribal participation in financial assistance programs among the 573 Federally-recognized tribal governments to strengthen conservation activities on tribal lands. The agency's objectives are to: operate within a government-to-government relationship with Federally-recognized Indian Tribes; consult to the greatest extent practicable with Indian Tribal Governments before taking actions that affect Federally-recognized Indian Tribes; assess the impact of agency activities on tribal trust resources and assure that interests are considered before the activities are undertaken; and remove procedural impediments to working directly with tribal governments on conservation activities that affect trust property or government rights of the Tribes.

Federally-recognized Tribes can work with NRCS to receive technical assistance through CTA and financial assistance through the mandatory programs. Assistance to Tribal governments is offered along with conservation planning, partnerships, grants, financial assistance programs, and training through the agency outreach efforts. Employees are trained in tribal culture and protocol. The agency has 50 offices, including 42 full-time and eight part-time offices, located on or near tribal lands. There are approximately 195 agency tribal liaisons assisting the 573 Federally-recognized Tribes.

In 2019, NRCS partnered with nine Tribal entities to provide assistance in reaching out to all the Tribes during the rule comment periods o for the following programs: Environmental Quality Incentives Program, including Conservation Innovation Grants; Regional Conservation Partnership Program; Conservation Stewardship Program; Voluntary Public Access and Habitat Incentives Program; and the Agricultural Conservation Easement Program.

NRCS and BIA partnership efforts to better serve Indian Country

At the present NRCS is exploring how to provide more conservation planning in Indian Country to ensure that all of the resource concerns of our Tribal Leaders, Tribal producers, and the BIA. We are reviewing and discussing with the BIA their Agriculture Resource Management Planning (ARMP) process to see if we can adopt in lieu of our conservation plans.

Weather Stations to support agricultural operations on Tribal Lands

Native Americans are located across the United States (34 States and 573 Federally recognized Indian Tribes) and many are involved in agriculture. These tribal farmers and ranchers require adequate decision support tools to maintain productive and profitable systems. Management of water availability is one of the primary issues surrounding agricultural production. Weather variables, such as rainfall, soil moisture, and soil temperature, are key to proper management and timing of operational decisions. In limited locations, tribes have benefited from having access to advanced weather information from stations installed on their lands. These stations have been important, but most are not connected to NRCS Soil Climate Analysis Network (SCAN) so data are not readily available to others in the surrounding region.

Partnership to Support Tribal Farmers, Ranchers, and Communities

A Partnership agreement was developed with the American Indian Higher Education Consortium that provides the Agency's first interactions with all 37 Tribal Community Colleges and Universities (TCUs) on their opportunities to participate in the 2014 Farm Bill conservation programs through education and community outreach. A major component of this agreement is collaboration on climate change in Indian Country. Participating TCUs help to promote sustainable agricultural and natural resource management systems, thereby helping protect culturally and economically important Tribal lands and water resources.

Four TCUs were selected as a pilot and funded to implement the project in their communities: Salish Kootenai College in Pablo, Montana; Stone Child College in Box Elder, Montana; Little Big Horn College in Crow Agency, Montana; and College of Menominee Nation in Keshena, Wisconsin. The colleges finalized the hiring of their student teams, which worked through the summer and into the fall semester on their community outreach activities outlined in the scope of work under the partnership agreement.

Program Activities/Participation

In 2019, American Indian and Alaska Natives were awarded the following:

- Environmental Quality Incentives Program contracts totaling $37,734, 756;
- Regional Conservation Partnership Program proposals totaling $2,839,382;
- Conservation Stewardship Program 341 contracts totaling $13,685,922; and
- Agriculture Management Assistance Program contracts totaling $35,423.

Regional Tribal Conservation Advisory Councils

To strengthen working relationships with Tribes, three advisory councils were established in 2012. The Agency continues to work with these councils to assist in establishing regular and meaningful consultation, and collaboration with tribal representatives and officials in the development of Federal policy that has tribal implications. The councils assist NRCS's Chief, Regional Conservationists, and State Conservationists in strengthening government-to-government relationships and clarifying lines of communication and consultation with American Indian Tribes. During 2019, all three councils held at least one meeting.

Tribal Conservation Districts (TCD)

There are 56 TCDs established under tribal laws, and they are essential to delivering conservation planning and conservation programs assistance in Indian Country. These TCDs are recognized by the Secretary of Agriculture.

Accountability

NRCS regularly collects program performance data that provide information to support agency strategic and performance planning, budget formulation, workforce planning, and accountability activities. The Accountability Information Management System tracks and evaluates field and State level conservation planning efforts, and practice implementation through the Performance Results System (PRS). In addition to the Accountability Information Management System, the agency implements a suite of actions to monitor program compliance and improve accountability.

Compliance Activities

- None conducted in 2019. Closed three of 27 active Office of Inspector General and Government Accountability Office audits in 2018 for a year-end closure rate of 11 percent.
- Closed 8 of the 11 active Office of Inspector General and one Government Accountability Office audit in 2019, for a year-end closure rate of 72 percent. One of the 11 audits closed was considered Departmental High-Priority for Agency action. The 2019 NRCS audits included 15 total recommendations, of which 14 were closed.

Soil Survey Program

Soil survey is an essential tool for regional and local conservation planning that allows people to manage natural resources. Understanding and managing soil as a strategic natural resource helps sustain the health and economy of the Nation. Scientists and policy makers use soil survey information in studying climate change and evaluating the sustainability and environmental effects of land use and management practices. Soil surveys provide input data that computer simulation models use to predict the dynamics of carbon, nutrients, and water in soils. Planners, engineers, farmers, ranchers, developers, and home owners use soil surveys to evaluate soil suitability and make management decisions for farms, home sites, subdivisions, commercial and industrial sites, and wildlife and recreational areas.

National Cooperative Soil Survey

NRCS is the lead Federal agency for the National Cooperative Soil Survey (NCSS), a partnership of Federal land management agencies, State agricultural experiment stations, private consultants, and State and local governments. The NCSS promotes the use of soil information and develops policies and procedures for conducting soil surveys and producing soil information. The agency provides the scientific expertise to enable the NCSS to develop and maintain a uniform system for mapping and assessing soil resources that allows soil information from different locations to be shared regardless of which agency collects it. The agency provides most of the training in soil surveys to Federal agencies and assists with their soil inventories on a reimbursable basis.

Standards and Mechanisms for Soil Information

NRCS is responsible for developing the standards and mechanisms for soil information on national tabular and spatial data infrastructure required by Executive Order 12906. NRCS is continually enhancing the National Soil Survey Information System and producing publications that are accessible to the public through the internet at *http://soils.usda.gov*. The Soil Data Warehouse houses archived soil survey data. Web Soil Survey distributes published soil surveys, making it easier to keep soil information current for daily public access. The agency refreshes the official national soil survey data annually to better meet the needs of modelers and researchers in addition to meeting agency and Departmental compliance program requirements. The SoilWeb mobile application is becoming a popular tool for individuals to derive soil information at Global Positioning System (GPS) located points. Web-based delivery mechanisms that simplify the interpretation and delivery of soils data are evolving at a rapid pace.

Current Activities

The primary focus of the Soil Survey Program is to provide current and consistent map interpretations and data sets of the soil resources of the United States. This includes providing useful information to the public in a variety of formats (e.g., electronic, and web-based). The program will continue to focus on maintaining quality soil information and helping people understand and use the soil resource in a sustainable manner. The National Cooperative Soil Survey (NCSS) is integral to maintaining quality soil information. Key program elements include:

Soils Inventory

Mapping procedures are based on physiographic rather than administrative boundaries. Soil surveys based on natural landscape boundaries are more efficient to produce, and provide consistent, quality data for assessing and planning the use and protection of landscape units (watersheds or ecosystems). Physiographic surveys provide consistent data that can be used easily by landowners with holdings in multiple jurisdictions, or by community, State, or regional planners. A primary challenge is to complete the initial soil survey for the entire country. This challenge also includes completing surveys on Indian Tribal land holdings and on public lands controlled by the Forest Service (FS), Fish and Wildlife Service (FWS), Bureau of Land

Management (BLM), National Park Service, Department of Energy, and Department of Defense. Public lands are important to include with private lands when planning land use and conservation for watersheds, landscapes, or ecological sites. NRCS is working cooperatively within the NCSS to accomplish these goals. In 2019, the Soil and Plant Science Division implemented the collection of Dynamic Soil Properties (DSP), which are those properties that change with land use and management. Dynamic soil properties are used to measure and predict the response of soils to disturbances caused by human and non-human factors. Dynamic soil properties link traditional soil inventories to advancing areas of soil health, conservation, and management practices. There is an increasing demand for dynamic soil property data to inform management activities, to better assess the effect of these ecosystem services, and to provide more detailed and site-specific information for model development and applications.

Ecological Inventory

Ecological sites are interpretive groups of soil survey map units. These Ecological Site Descriptions (ESD) are the basis for individual field, farm, and watershed conservation planning and larger scale modeling projects such as the CEAP, NRI, and Soil Health Assessment. An ecological site database is linked to soils data to provide the capability to support conservation planning. Joint policy, in the form of Memorandum of Understanding and common Handbook guidance, among the BLM, NRCS, and the FS efficiently pools the agencies' technical resources for the development and use of ecological sites to describe site characteristics, plant communities, and land use interpretations for rangeland, grazing land, and forestland. This technology improves land management planning capabilities for agencies and the public by providing consistency among the agencies' classification, technology development, planning and accomplishment reporting. To get ESDs to end users quickly, in 2015 a Provisional Ecological Site (PES) initiative was established to organize by 2020 all the existing soil survey information across the continental United States into provisional ecological sites suitable to guide conservation planning decisions. Soil scientists and natural resource specialists organize existing information and ensure consistency in both descriptions and interpretations, and link to conservation planning software and training. In 2019, 310 million acres were updated with ecological site information bringing the total land area updated with ecological site information, since 2015, to 1.265 billion acres, or 66 percent of the lower 48 States.

During 2019, a new version of the Ecosystem Dynamic Interpretive Tool (EDIT) was released. The tool is a collaborative project with USDA-Agricultural Research Service (ARS) Jornada Experimental Range and New Mexico State University. The newly released version includes automatic links to soil survey information via the SoilWeb application.

EDIT is also available to users who want to enter and manage site-specific data via the Land Potential Knowledge System (LandPKS). EDIT information is available at https://edit.jornada.nmsu.edu/.

In 2019, NRCS staff were detailed to a project to include all common land uses (crop, range, pasture, forest) in Ecological Site Descriptions-State and Transition Models. State and Transition Models organize interpretations for all major uses of land to allow users to compare changes in

ecosystem services as land use changes and to provide a common basis for selecting appropriate conservation practices and evaluating effects of both land use and land management decisions.

Kellogg Soil Survey Laboratory (KSSL)

In 2019, the KSSL conducted analysis and validation on more than 8,700 soil samples collected from individual soil horizons that represent more than 700 soil profiles (pedons). The KSSL scientific soil archive now contains over 250,000 samples. The soil samples analyzed in 2019 come from NRCS and other agency clientele that include Soil Survey Field Offices, State Soil Scientists, Resource Soil Scientists, University Cooperators, NGOs, Plant Materials Centers, NRI Soil Monitoring Network, the National Ecological Observatory Network, and outreach activities such as collegiate soil judging. During 2019, the KSSL recorded more than 208,000 analytical results on chemical, physical, mineralogical, and biological soil properties by more than 50 different analytical methods. This quantitative data is essential for the National Cooperative Soil Survey and NRCS programs such as Conservation Technical Assistance and Farm Bill Programs. National programs and research projects depend on KSSL data for soil classification, soil screening and assessment, soil health, and dynamic soil properties.

KSSL is the primary laboratory providing quantitative analyses to support National Cooperative Soil Survey and NRCS activities around the Nation. In addition, The KSSL develops and maintains standard soil laboratory procedures specifically applicable to Soil Survey and Soil Health programs, it provides technical consultation and reference samples to other soil laboratories and it participates in lab testing comparisons. In 2019, the KSSL provided leadership in the standardization of analytical methods through participation in the Food and Agriculture Organization of the United Nations Global Soil Analysis Network (GLOSOLAN). The quantitative soil data produced by the KSSL serves as input for models and interpretations for land use and management, baseline data to assess Soil Health, and measured values to determine effectiveness of conservation practices and programs (e.g., CEAP, Environmental Policy Integrated Climate model, Revised Universal Soil Loss Equation).

Over the last eight years, the KSSL has been assembling a mid-infrared (MIR) spectral library, similar to international efforts using soil spectrometry as a low-cost tool for the rapid prediction of soil carbon and other properties. The growing KSSL MIR spectral library represents over 80,000 legacy samples from the KSSL soil archive, the largest public collection in the United States with over 400,000 specimens. Geographically and taxonomically constrained calibration models are being developed for use by NRCS soil survey field offices in proof-of-concept pilot projects for rapid prediction of organic carbon and organic matter, a topic of great interest for soil health and soil resource assessment. For the first pilot project calibration models were prepared from several thousand Mollisol samples from the Great Plains. Results show low error of prediction for soil organic carbon and soil organic matter. MIR spectrometry allows rapid data collection while assuring data quality and consistency with a tool that any NRCS field soil scientist can use for soil survey and soil health investigations.

An updated version of the NCSS Characterization Database was published in 2019.

This product is maintained and delivered by the Kellogg Soil Survey Laboratory of the NRCS, Soil and Plant Science Division. It delivers a comprehensive soil laboratory dataset of chemical, physical, and mineralogical properties from over 64,000 sample sites, which are the result of 120 years of inventorying soils of the United States and Territories. The database is used by a wide range of customers, including farmers, ranchers, internal USDA staff, other Federal agencies, nonprofit organizations, local governments, and university partners.

National Soil Survey Center

In 2019, the Soil Survey Program entered into agreements with multiple NCSS partners to use their expertise in innovative research and new technology development to achieve efficiencies in assessing and delivering soil and ecological site information. These investments are the foundation for information delivery of the future.

Technical Soil Services

Technical Soil Services (TSS) provides five basic types of service: technical policy and program services; planning services; site-specific soil investigations, testing, interpretation, and evaluation; expert services for judicial requests; and information services. These services are primarily provided through the USDA Service Centers. TSS also supports new and innovative models of conservation delivery such as the Conservation Assessment and Ranking Tool (CART) and Conservation Desktop. In 2019, over 155,000 hours of TSS were delivered to internal and external customers; wetland and highly erodible land compliance, onsite investigations, technical consultations, and delivering maps, presentations, and training comprised over 75 percent of the services delivered.

Web Soil Survey

The Web Soil Survey website, http://websoilsurvey.nrcs.usda.gov/app/, provides soil data and information produced by the NCSS to the public. The agency operates the website that provides access to the largest natural resource information system in the world. NRCS's soil maps and data are available online for 96 percent of the continental United States. The site is updated and maintained as the single authoritative source of soil survey information. The Web Soil Survey is used directly for conservation planning via Conservation Desktop.

Digital Soil Surveys

The NCSS develops and maintains two scales of soil surveys:

- Soil Survey Geographic Data Base (SSURGO) is used primarily by landowners, townships, counties or parishes, and watershed hydrologic units for planning and resource management. SSURGO contains the most detailed level of soil information; vector and raster formation for SSURGO are available; and
- United States General Soil Map is used primarily for multi-county, State, river basin planning and resource management and monitoring.

Acres Mapped

During 2019, soil scientists mapped or updated 44.9 million acres; another 17,000 acres were mapped or updated by other Federal, State, and local agencies in cooperation with NRCS bringing the total of soil survey acres mapped to 1.97 billion. Of the 1.97 billion acres of soil survey acres mapped, 94 percent of private lands are completed, and 67 percent of Federal lands have a soil survey inventory.

Soil mapping priorities are directed toward completion of all previously unmapped private lands and updating mapping and interpretations to meet current user needs and requirements.

Conservation planners use soils data to choose, implement, maintain, and evaluate conservation practices. In 2019, the value to producers as a result of soils data being used by conservation planners is estimated at $887 million. The metric uses the obligation data from certified conservation practices, planned or implemented, that are dependent on soils data. Cover crops ($106 million), brush management ($61 million), sprinkler system ($61 million), fence ($55 million), and irrigation pipeline ($47 million) were the top five conservation practices in terms of dollars obligated.

Ecological Site Descriptions were developed and linked to 310 million acres of soil survey information, including Major Land Resource Area (MLRA) seven covering the Columbia Basin area in Washington and Oregon; the Northern Rolling High Plains (MLRA 58B) in Wyoming and Montana; the Southern Desertic Basins, Plains, and Mountains (MLRA 42) in New Mexico and Texas; and the Southern Coastal Plain (MLRA 133A) in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Ecological Site Descriptions are a tool for conservation planners to understand how conservation practices can affect ecological sites and the necessary inputs to move ecological sites from one State to another.

Soils Information and Soil Surveys used interactively online

In 2019, soils information was the most requested information on the NRCS web site. The top information requests, by number of visits, are: Soil Surveys by State (414,500), general Soil Survey Information (300,000), Soil Classification (77,700) Official Series Descriptions (72,600), and Soil Texture Calculator (61,400).

Soil surveys used interactively online are accessed via Web Soil Survey, SoilWeb, Soil Data Explorer, Series Extent Explorer, and Soil Data Access. Users can view summaries of soil types for any geographic location where NRCS soil data exists. In 2019, the Web Soil Survey website logged over 2.4 million user visits and accessed data for over 3.1 million areas of interest. Customers generated over 2.2 million printed documents. Customers downloaded data over 314,000 soil datasets. Users can view summaries of soil types for any geographic location where NRCS soil data exists. SoilWeb was developed in collaboration between the University of California-Davis Soil Resource Lab and NRCS.

The website is available at http://casoilresource.lawr.ucdavis.edu/soilweb. The SoilWeb interface received about 206,810 visits, Soil Data Explorer 71,293 visits, and Series Extent Explorer 50,349 visits. Soil Data Access (SDA) is the name of a suite of web services and applications whose purpose is to meet requirements for requesting and delivering soil survey spatial and tabular data that are not met by the Web Soil Survey and Geospatial Data Gateway websites. Customers queried soil data using SDA over 122.6 million times. Combine this with Web Soil Survey and SoilWeb applications and soil data has been supplied over 126 million times in 2019.

NRCS leadership recognizes the foundational role soils information for the agency to continue to efficiently and effectively provide technical assistance and support to landowners. The increasing availability of geospatially referenced natural resource data (e.g. soil, climate, land cover) and the expansion of computing resources and web feature services provide the opportunity to provide field staff with an unprecedented amount of information to help support and inform their discussions with landowners. The new Conservation Assessment Ranking Tool (CART) modernizes and streamlines NRCS' conservation planning and program delivery, reduces workload on field staff, and improves the customer experience by creating an efficient assessment and application process. The tool combines and analyzes geospatially-referenced data and site-specific information provided by the landowner within a decision support system framework. Soils information is used in the assessment part of CART; documentation for soils data inputs into CART are at https://jneme910.github.io/CART/.

Snow Survey and Water Supply Forecasting (SSWSF) Program

The Snow Survey and Water Supply Forecasting (SSWSF) Program is the foremost collector of high-elevation snow data in the western United States. Snowmelt irrigates the West, delivering nearly 75 percent of the region's water supply. SSWSF provides snowpack information, water supply forecasts, and other climatic data to water users and managers throughout the West. NRCS field staff and cooperators gather snow depth, snow water equivalent, and other parameters such as precipitation, temperature, and soil conditions, at thousands of remote mountain sites. These data are analyzed to provide estimates of water availability, drought conditions, and flooding potential. The snow data and water supply forecasts are used by farmers, ranchers, and irrigation districts; municipal and industrial water providers; hydroelectric power utilities; fish and wildlife management; reservoir managers; recreationists; Tribal Nations; Federal, State, and local government agencies; and the countries of Canada and Mexico.

The SSWSF Program furnishes water and climate information, along with direct assistance for natural resource management, in 13 States: Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming. The National Water and Climate Center (NWCC), located in Portland, Oregon, provides leadership and technology backing to the NRCS State Offices, with support on field equipment, data collection, database management, and water

supply forecast delivery.

Because snowmelt provides a majority of the water supply in the West, the information provided by the SSWSF Program is critical. The demographic, physical, and political landscape of the western United States is changing rapidly, and there is increasing competition over water for irrigation, municipal and industrial use, and in-stream requirements, such as river-based recreation, aesthetic enjoyment, fish and wildlife habitat, and hydroelectric power generation. These increasing water demands require more precise management of this valuable resource and it starts with evaluating the snowpack.

In addition to an immense contribution to western water supply management, NRCS Snow Survey data are used routinely in matters of commerce and public safety. Road closure determination, avalanche mitigation, NOAA weather modeling and streamflow forecasting all rely on SSWSF data. With extreme conditions, such as the high snowpack that occurred this past year in the Sierras or the record-breaking "snow drought" in southeast Alaska, the SSWSF data, products, and forecasts are consulted extensively, affording crucial early preparation to alleviate either drought impacts or flood damages.

The SSWSF Program has been operating since 1935 and is world-recognized for its historical record of high-elevation snow data. The Program is designated as a cooperative effort because it operates with assistance from, and in cooperation with, both public and private entities that rely on consistent and accurate water supply and hydrograph timing forecasts. Although most funding and field efforts are through the agency, the partners and cooperators provide a share of the financial burden and contribute to data-collection activities. The SSWSF Program collects and distributes data from over 1,400 manually measured snow courses, aerial markers, and cooperator sites in the U.S. and in watersheds that drain into the United States. The SSWSF also maintains 912 automated Snow Telemetry (SNOTEL), SnoLite, and hydromet sites. Finally, the NWCC operates 224 automated Soil Climate Analysis Network (SCAN) stations across the United States.

Snow courses are locations where the snow is manually measured, often on a monthly schedule. SNOTEL sites collect a suite of hydrometeorological data at high-elevation settings, and report these data hourly, in real-time, using a telemetry communication process. Sensor measurements typically include snow water equivalent, snow depth, precipitation, and air temperature. Soil moisture sensors are being added at many SNOTEL sites as well. SnoLite sites are similar to SNOTEL sites but with fewer sensors. Installation of the automated telemetered sites provides up-to-date information while reducing costs and safety concerns resulting from humans manually obtaining measurements at these remote locales. SCAN stations focus on gathering soil information and are crossing over into the SNOTEL network at some locations, with the addition of automated snow pillows. All of these valuable data play a key role in flood forecasting, water supply determination, and climate change evaluation.

The economic and societal values of the SSWSF Program are provided in the agency released report "A Measure of Snow." For a summary of the report:

https://www.wcc.nrcs.usda.gov/ftpref/downloads/factpub/MeasureofSnowSummary.pdf.

Current Activities

Water Supply Forecasts

Water supply forecasts, which predict the volume of snowmelt runoff available for the spring and summer, are issued from January through June, in collaboration with the National Weather Service (NWS) and other Federal and State agencies. During the 2019 season, forecasts were delivered for over 600 streamflow locations. The SSWSF Program also distributed peak flow, recession, and threshold forecasts, along with surface water availability index values. In total, the program published 6,700 water supply forecasts in water year 2019.

In addition, automated models that ingest current SNOTEL climate data, tracked daily forecast trends for 322 points, providing up-to-date guidance to water resource managers and augmenting the official volume forecasts.

Site Upgrades and Installations in Snow Survey

During the past year, three new SNOTEL sites were installed, two in Alaska and a third in the mountains above Salt Lake City. In Utah, the Snow Survey staff worked cooperatively with the city's Department of Public Utilities in developing the site, supporting flood mitigation and drinking water supply. New SnoLite sites were set up in Alaska and Oregon, and three SnoLites were added in Colorado, a collaboration between the Colorado Snow Survey and the National Center for Atmospheric Research (NCAR) to improve understanding of hydrologic systems to maximize conservation management. Five new snow courses currently are being sited in the Kenai Mountains of Alaska. In addition, five new Tribal SCAN sites were placed in Alaska, Oklahoma, and Wisconsin. Colorado had to decommission the North Mountain snow course because of its remoteness and lack of available staff in the vicinity with sufficient snow machine training. In Alaska, Kachemak Creek SNOTEL was decommissioned due to a land use agreement.

All SNOTEL sites require summer maintenance to check sensor calibrations, re-set the precipitation gage, and perform general site upkeep. As part of the maintenance, data loggers, radios, transducers, sensors, plumbing, electrical wiring, and snow pillows are replaced. Hazard trees were removed.

Upgrades from meteorburst to modern telemetry technology continue to occur at sites across the West, reducing equipment costs and increasing reliability. Sites were switched to cellular, GOES, and Iridium modems. Montana now has converted 73% of its sites, and the other states also are rapidly moving towards a majority of sites with newer telemetry. Alaska already uses Iridium but has undertaken some conversions to GOES, and may move more to cellular, looking to reduce costs. This past year, over 60 SCAN sites were updated and maintained across the country.

Investigative Research at Sites

Numerous investigations are underway across the Program, including a study of methods of air temperature measurement, testing pillow colors and the effect on snow accumulation and ablation, snow pillow versus snow scale comparisons, and determination of the best telemetry methods. Heated tipping buckets to measure precipitation were added at sites this year to compare to the cumulative storage gage. Montana set up a snow temperature profile experiment, measuring temperatures at various depths, to see if timing of snowmelt onset and streamflow peaks can be better predicted.

SNOTEL Sites Affected by Disasters, Vandalism, Land ownership

This year, SNOTEL sites were spared from wildfire, but two snow courses were burnt over. Fire, even from past years, alters the landscape, affecting snow accumulation, snowmelt, and the resulting streamflow runoff. The historical relationship between snow and streamflow is the foundation for water supply forecasts.

As new vegetation grows and takes hold, it can take years to restore equilibrium and for the area to be re-established. This holds true as well for areas that are logged or affected by beetle kill. Logging operations altered the canopy this year at Indian Rock SNOTEL in Washington.

Vandalism and animal damage remain concerns. Vandals destroyed a snow pillow in Oregon. Across the West, bears, moose, and rodents damaged snow pillows, precipitation plumbing, wiring, and sensors.

Plant Materials Centers (PMC)

NRCS's Plant Materials Centers (PMCs) develop vegetative solutions to critical natural resource concerns. PMCs focus on priorities such as soil stabilization, soil health and productivity, water and air quality, enhancement of pollinator habitat to support agricultural production, habitat for at-risk species such as sage grouse, and restoring productivity to degraded landscapes. PMCs directly support the agency mission by providing scientifically sound plant information and tools used by conservation planners, partners, producers, and private landowners.

PMCs develop technology and information for the use, establishment, and maintenance of plants for a wide variety of natural resource conservation practices; provide training and education to staff, partners, and the public; assess and characterize plant attributes to provide data and information important in the operation of predictive models and effective management of climate impacted plant resources; and assemble, evaluate, and release seed and plants to provide for the commercial production of plant materials that protect and conserve our natural resources.

The Field Office Technical Guide (FOTG) delivers Plant Materials Program information directly to field staff and partners in conservation planning. PMC staff tailor vegetative information to the unique conditions of the areas they serve and provide extensive training to field staff and partners on the selection and establishment of vegetation adapted to specific resource concerns. Program information is available to the public at http://www.plant-materials.nrcs.usda.gov.

Plant Materials Program information improves the condition of natural resources on private and public lands. On private lands, program information supports the successful implementation of Farm Bill programs such as the EQIP, CSP, and CRP administered by Farm Service Agency (FSA).

The Plant Materials Program uses a multidisciplinary approach to solving natural resource problems, drawing from staff expertise in agronomy, biology, soils, forestry, and horticulture. Plant Materials Program activities are coordinated with NRCS technical specialists, other governmental agencies, nongovernment organizations, and the private sector. The program regularly cooperates with the Agricultural Research Service, the Forest Service, the Department of Interior Bureau of Land Management, and State and local departments of transportation, wildlife, and natural resource agencies. Nongovernmental organizations include universities, native plant societies, wildlife organizations, and industry partners such as commercial seed and plant growers. These partnerships enhance the development of plant materials information, accomplishing work that would not be possible for PMCs or their partners acting alone. These partnerships also provide a conduit for sharing technical information developed by PMCs to audiences well beyond NRCS.

NRCS's network of PMCs is the only national organization that develops and tests vegetation to address our Nation's natural resource challenges. The agency operates 25 PMCs and works closely with other entities for the development of plant materials products needed by the agency. Each PMC addresses the high-priority conservation concerns within unique ecological areas. When appropriate, PMCs coordinate among locations to evaluate vegetative technology and solutions that influence large regions of the United States.

Current Activities

In 2019, NRCS continued its efforts to improve the operations and mission of PMCs to produce products needed by field staff and conservation partners. The following are highlights of PMC activities:

Technology Development and Transfer. PMCs provide agency staff, conservation partners, and the public with information needed to successfully get natural resource conservation on the ground. Plant Materials Program studies resulted in over 86 new technical documents to the plant materials website. PMCs continue to increase efforts to tailor plant materials information for specific conservation purposes and to support the agency initiatives. In 2019, the program continued its efforts to reduce redundancy in technical materials through the development of regional plant materials technical notes released under the NRCS National Technology Support Centers (NTSC). The Central NTSC issued a regional technical note titled "Yield and Quality of Perennial Cool-Season Grasses on Saline Soils in the Northern Great Plains."

At the end of 2019, there were over 2,850 documents available on the PMCs' website. The website enhancement continues, with special features, improved linkages to technical topics, national and regional program documents, and connections with other NRCS websites. Plant Materials updates, released as GovDelivery emails to over 80,000 subscribers, continue to disseminate new information monthly. Program staff answer increasing numbers of "Ask the

Expert" inquiries, online feedback forms and, emails with plant-related questions. These actions are improving the accessibility and usefulness of the plant materials website for all users.
Plant Materials Program staff conducted 92 technical training sessions for over 2,000 field staff and conservation partners. Training included: 1) selecting, planting, and managing cover crops; 2) improving soil health; 3) selecting and establishing conservation plants; 4) plant identification; 5) planning a conservation planting; 6) enhancing pollinator habitat; 7) improving the productivity of range and pasture land; 8) restoration after invasive species removal; 9) importance of vegetative covers for preventing erosion; and 10) use of farm equipment. Technical knowledge of the NRCS field staff is improved by holding many of these PMC trainings in conjunction with Conservation Planner Certification training sessions. PMCs provided field days, tours and presentations to 1,074 participants

ACCOUNT 2: DISCRETIONARY AND MANDATORY – WATERSHED AND FLOOD PREVENTION OPERATIONS

LEAD-OFF TABULAR STATEMENT

Table NRCS-16. Lead-off Tabular Statement

Watershed and Flood Prevention Operations	
2020 Appropriation	$175,000,000
Change in Appropriation	-175,000,000
2021 Request, Current Law	0

PROJECT STATEMENT

Table NRCS-17 *Project Statement* (*Dollars in Thousands)*

NATURAL RESOURCES CONSERVATION SERVICE
WATERSHED AND FLOOD PREVENTION OPERATIONS
(Dollars in Thousands)

	2018 Actual		2019 Actual		2020 Enacted		2021 Budget Request		Change from 2020 Enacted	
Program/Activity	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY
Direct Appropriations:										
Watershed and Flood Prevention Operations:										
Small Watershed P.L. 83-566:										
Technical Assistance	$22,500	15	$15,000	16	$15,750	16	$0	-	-$15,750	-16
Financial Assistance	127,500		85,000		89,250		0		-89,250	
Subtotal, Small Watershed P.L. 83-566	**150,000**	**15**	**100,000**	**16**	**105,000**	**16**	**0**	**0**	**-105,000**	**-16**
Flood Prevention Operations P.L. 78-534:										
Technical Assistance	0	0	7,500	0	10,500	0	0	0	-10,500	0
Financial Assistance	0		42,500		59,500		0		-59,500	
Subtotal, Small Watershed P.L. 78-534	**0**	**0**	**50,000**	**0**	**70,000**	**0**	**0**	**0**	**-70,000**	**0**
Emergency Watershed Protection Program:										
Technical Assistance	108,200	46	75,718	52	0	52	0	0	0	-52
Financial Assistance	432,800		359,282		0		0		0	
Subtotal, Small Watershed P.L. 83-566	**541,000**	**46**	**435,000**	**52**	**0**	**52**	**0**	**0**	**0**	**-52**
Total, Discretionary Funding	**691,000**	**61**	**585,000**	**68**	**175,000**	**68**	**0**	**0**	**-175,000**	**-68**
Mandatory Funds:										
Watershed Flood and Prevention Operations:										
Technical Assistance	0	0	15,558	0	15,558	0	15,558	0	0	0
Financial Assistance	0		34,442		34,442		34,442		0	
Total, Mandatory Funding	**0**	**0**	**50,000**	**0**	**50,000**	**0**	**50,000**	**0**	**0**	**0**
Carryover from Prior Years:										
Small Watershed P.L. 83-566	121,114		159,985		217,883		0		-217,883	
Emergency Watershed Protection Program	251,111		624,730		776,266		0		-776,266	
Flood Prevention Operations Program P.L. 78-534	6,258		6,258		55,742		0		-55,742	
Watershed Flood and Prevention Operations	0		0		0		0		0	
Subtotal, Carryover	**378,483**		**790,974**		**1,049,891**		**0**		**-1,049,891**	
Sequestration	0		0		-2,950		0		2,950	0
Recoveries, Other	54,758		30,603		-35,672		0		35,672	
Total Available	**1,124,241**	**61**	**1,456,577**	**68**	**1,236,269**	**68**	**50,000**	**0**	**-1,186,269**	**-68**
Lapsing Balances	0		-548		0		0		0	
Balances, Available End of Year	-790,974		-1,049,891		0		0		0	
Total Obligations	**$333,267**	**61**	**$406,138**	**68**	**$1,236,269**	**68**	**$50,000**	**0**	**-$1,186,269**	**-68**

JUSTIFICATIONS

A decrease of $175,000,000 and 68 staff years for Watershed and Flood Protection Program from the FY 2020 Appropriation.

The FY 2021 Budget does not request funding for the Small Watersheds P.L.-566 program.

Funding for the Emergency Watershed Protection Program is typically provided through Emergency Supplemental Appropriations in response to needs following actual disasters. Emergency activities vary from year-to-year depending on the number of natural disasters that occur, making emergency funding needs difficult to predict. Emergency assistance will be evaluated and addressed as disasters arise. No funding is requested in the 2021 Budget.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table NRCS-18 *Geographic Breakdown of Obligations and Staff Years*

State/Territory/Country	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Alabama	$1,764	-	$53	-	$160	-	-	-
Alaska	10,222	-	874	2	2,662	2	-	-
Arizona	620	-	26	-	79	-	-	-
Arkansas	707	-	2,631	2	8,009	2	-	-
California	6,584	-	4,185	-	12,738	-	-	-
Colorado	3,292	-	23,907	6	72,772	6	-	-
Connecticut	450	-	1,803	1	5,488	1	-	-
District of Columbia	2,169	-	3,711	2	11,234	2	-	-
Florida	96,659	-	16,641	3	50,653	3	-	-
Georgia	1,137	-	2,613	-	7,953	-	-	-
Hawaii	53	-	5,314	-	16,177	-	-	-
Illinois	275	-	61	1	186	1	-	-
Indiana	4,573	-	2,776	-	8,450	-	-	-
Iowa	111	-	27	-	82	-	-	-
Kansas	3,814	-	748	-	2,276	-	-	-
Kentucky	515	-	-3	-	-	-	-	-
Louisiana	6,562	-	16,060	1	48,885	1	-	-
Maine	79	-	-	-	-	-	-	-
Maryland	-	-	6,770	-	20,608	-	-	-
Massachusetts	8,112	-	2,364	1	7,196	1	-	-
Michigan	790	-	83	1	253	1	-	-
Mississippi	36,207	-	36,325	4	110,571	4	-	-
Missouri	42,086	-	2,772	8	8,439	8	-	-
Montana	1,181	-	-	-	-	-	-	-
Nebraska	6,009	-	1,550	2	4,719	2	-	-
Nevada	-	-	300	-	913	-	-	-
New Hampshire	98	-	999	-	3,040	-	-	-
New Jersey	361	-	135	1	411	1	-	-
New Mexico	19	-	770	-	2,345	-	-	-
New York	1,870	-	16,527	3	50,306	3	-	-
North Carolina	277	-	1,252	-	3,811	-	-	-
North Dakota	-	-	2,237	-	6,810	-	-	-
Ohio	91	-	786	-	2,394	-	-	-
Oklahoma	5,005	-	1,850	-	5,632	-	-	-
Oregon	24,122	-	1,895	4	5,767	4	-	-
Pennsylvania	351	-	6,471	1	19,698	1	-	-
Puerto Rico	7,928	-	4,051	7	12,331	7	-	-
Rhode Island	2,709	-	846	1	2,575	1	-	-
South Carolina	28	-	2,304	-	7,012	-	-	-
South Dakota	6	-	99	-	302	-	-	-
Tennessee	2,833	-	5,487	2	16,701	2	-	-
Texas	28,570	-	195,416	9	594,839	9	-	-
Utah	13,817	-	30,220	4	91,988	4	-	-
Vermont	38	-	1,406	-	4,279	-	-	-
Washington	-	-	-17	-	-	-	-	-
West Virginia	5,059	-	128	-	388	-	-	-
Wisconsin	156	-	286	-	869	-	-	-
Wyoming	5,910		1,401	2	4,264	2	-	-
Distribution Unknown	48	-	-	-	-	-	$50,000	-
Obligations	333,267	-	406,138	68	1,236,269	68	50,000	-
Lapsing Balances	-	-	548	-	-	-	-	-
Bal. Available, EOY	790,974	-	1,049,891	-	-	-	-	-
Total, Available	$1,124,241	-	$1,456,577	68	$1,236,269	68	$50,000	-

CLASSIFICATION BY OBJECTS

Table NRCS-19 *Classification by Objects*

Item No.	Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
	Personnel Compensation:				
	Washington D.C.	$893	$253	$261	-
	Personnel Compensation, Field	5,429	7,362	7,590	-
11	Total personnel compensation	6,322	7,615	7,851	-
12	Personal benefits	2,150	2,467	2,523	-
	Total, personnel comp. and benefits	8,472	10,082	10,374	
	Other Objects:				
21.0	Travel and transportation of persons	1,097	1,070	3,257	-
22.0	Transportation of things	-	132	402	-
23.3	Communications, utilities, and misc. charges	1	-	-	-
25.1	Advisory and assistance services	2,365	9,691	29,499	-
25.2	Other services from non-Federal sources	32,752	55,992	170,438	$15,558
25.4	Operation and maintenance of facilities	4,295	6,382	19,427	-
25.5	Research and development contracts	1,745	93	283	-
25.7	Operation and maintenance of equipment	-	20	61	-
26.0	Supplies and materials	17	53	161	-
31.0	Equipment	189	333	1,014	-
32.0	Land and structures	2,320	7,291	22,194	-
41.0	Grants, subsidies, and contributions	280,014	314,999	979,159	34,442
43.0	Interest and Dividends	-	1	-	-
	Total, Other Objects	324,795	396,057	1,225,895	50,000
99.9	Total, new obligations	$333,267	$406,138	$1,236,269	$50,000
	Position Data:				
	Average Salary (dollars), ES Position	$177,889	$177,705	$180,371	-
	Average Salary (dollars), GS Position	$71,897	$72,038	$74,271	-
	Average Grade, GS Position	10.0	10.0	10.0	-

Note: The position data reported above is representative of data collected across all funding sources provided to NRCS, including, but not limited to Conservation Operations, Watershed Rehabilitation (Technical Assistance), Watershed and Flood Prevention Operations (Technical Assistance), Water Bank Program (Technical Assistance), and Farm Security and Rural Investment Program (Technical Assistance).

STATUS OF PROGRAMS

The Watershed and Flood Prevention Operations (Watershed Operations) account includes the Flood Prevention Operations Program authorized by the Flood Control Act of 1944 (P.L. 78-534), and the Watershed Protection and Flood Prevention Program authorized by (P.L. 83-566; 16 U.S.C. 1001-1008). Through Watershed Operations, the Secretary of the Department of Agriculture is authorized to provide technical and financial assistance to State entities and local governments and tribes (project sponsors) for planning and installing watershed projects.

The Flood Control Act authorizes the Secretary of the Department of Agriculture to install watershed improvement measures in 11 watersheds to reduce flood, sedimentation, and erosion damage; improve the conservation, development, utilization, and disposal of water; and advance the conservation and proper utilization of land. Working in cooperation with soil conservation districts, and other local sponsoring organizations, the agency prepares detailed sub-watershed plans, that outline soil and water management problems and proposals to alleviate the problems. Proposals can include estimated benefits and costs, cost-sharing arrangements, and operation and maintenance arrangements.

Watershed and Flood Prevention Operations

The Watershed Protection and Flood Prevention Act provides for cooperation between the Federal Government and the States and their political subdivisions in a program to prevent erosion, floodwater, and sediment damage; to further the conservation, development, utilization, and disposal of water; and to further the conservation and proper utilization of land in authorized watersheds.

Current Activities

In 2019, the agency received $150 million in discretionary funding, and $50 million in mandatory funding to support Watershed Operations. NRCS will provide funding to five remedial, 37 new, and 18 backlog projects in 19 States. In selecting projects for funding, the agency balanced the needs of remedial, backlog, and new projects.

The estimated Federal cost for each watershed, and total Federal obligations through 2019 are listed in the table below:

Table NRCS-19. Flood Prevention Project

Flood Prevention Project	Estimated Total Federal Cost	Obligations (cumulative $)
Buffalo Creek Watershed, NY (Complete)[a/]	$7,827,746	$6,287,347
Middle Colorado River Watershed, TX	71,111,062	63,062,722
Coosa River Watershed, GA and TN (Complete)[a/]	18,999,247	18,264,485
Little Sioux River Watershed, IA	98,581,921	94,500,075
Little Tallahatchie River Watershed, MS	69,501,448	76,321,851

Flood Prevention Project	Estimated Total Federal Cost	Obligations (cumulative $)
Los Angeles River Watershed, CA (Complete)[a/]	60,597,017	60,297,017
Potomac River Watershed, MD, PA, VA, and WV	201,227,958	149,525,524
Santa Ynez River Watershed, CA	41,386,536	40,786,536
Trinity River Watershed, TX	331,241,632	211,172,331
Washita River Watershed, OK and TX	202,491,055	194,288,752
Yazoo River Watershed, MS	252,957,352	327,764,801
Total	1,355,922,974	1,242,271,441

a/ The Buffalo Creek Watershed was completed and closed in 1964 and reopened in 1992 for repairs. The Coosa River Watershed was completed and closed in 1981. The Los Angeles River Watershed was completed.

Status of Watershed Projects Authorized by the Watershed Protection and Flood Prevention Act

Watershed project plans are prepared by local sponsoring organizations with assistance from agency staff and submitted for approval with requests for Federal funding authorization. Watershed projects are limited to 250,000 acres and cannot include any single structure that provides more than 12,500 acre-feet of floodwater detention capacity, or more than 25,000 acre-feet of total capacity, although the 250,000 acre limitation only applies for activities undertaken for the primary purpose of flood prevention.

Emergency Watershed Protection Program (EWPP)

The Emergency Watershed Protection Program (EWPP) is authorized by Section 216 of the Flood Control Act of 1950 P.L. 81-516 (33 U.S.C. 701b-1), and Sections 403-405 of the Agricultural Credit Act of 1978 P.L. 95-334 (16 U.S.C. 2203-2205). The Federal Agriculture Improvement and Reform Act of 1996 amended Section 403 by including the purchase of floodplain easements as an emergency measure authorized under this program.

EWPP was established in response to emergencies created by natural disasters, including floods, wildfires, windstorms, and other natural occurrences.

The program work includes removing debris from stream channels, road culverts, and bridges; reshaping and protecting eroded banks; correcting damaged drainage facilities; repairing levees and structures; reseeding damaged areas; and purchasing floodplain easements.

EWPP projects (except for the purchase of floodplain easements) must be sponsored by a legal subdivision of the State, including any city, county, general improvement district, or conservation district, or by an Indian Tribe or tribal organization, as defined in Section 4 of the Indian Self-Determination and Education Assistance Act. Public and private landowners are eligible for assistance but must be represented by a project sponsor.

Sponsors are responsible for securing land rights to do repair work, necessary permits, and the local share of the funding, and for getting the work installed. NRCS may provide up to 75 percent of the construction cost of emergency measures (or up to 90 percent within limited resource areas as identified by Department of Commerce Census data). The remaining funding must come from local sources as cash or in-kind services. Work can be done through either Federal or local contracts. EWPP work is not limited to a set of prescribed measures and is determined on a case-by-case basis. It is not necessary for a national emergency to be declared for an area to be eligible for assistance.

The 2019 supplemental appropriations act provided $435 million in funding for the EWPP. With this funding, NRCS was able to address recovery and floodplain easement needs resulting from major disasters, such as Hurricane Florence and historic Midwest severe storms and flooding in Iowa, Missouri, Kansas, Oklahoma Arkansas, and other States. NRCS was also able to clear the backlog of requests and address current emergency recovery requests received in 2019.

EWPP Floodplain Easements

NRCS may purchase Emergency Watershed Protection Program Floodplain Easements (EWPP-FPE) on floodplain lands that have been impaired or impacted within the last 12 months, have a history of repeated flooding (i.e., flooded at least twice during the past ten years), or have been damaged by a specific natural disaster, for which Congress allocated funding. Under the floodplain easement option, a landowner voluntarily sells a permanent conservation easement to NRCS that provides NRCS the full authority to restore and enhance the floodplain's natural functions and values. Since the program's inception in 1996, most of the purchased floodplain easements involved undeveloped agricultural lands, but a small portion of the purchased easements involved rural land with residences or other structures present. In recent years, the number of easement transactions involving urban and suburban lands with homes present has dramatically increased. This trend can be attributed to the agency's use of EWPP-FPE as part of the response to Hurricane Sandy, and other recent natural disasters. Hurricane Sandy's impact was focused on densely-populated areas of Connecticut, New Jersey, and New York, resulting in a large increase of floodplain easement transactions involving properties in residential areas with homes present. Floodplain easements are only available as part of a larger strategy intended to minimize future flood damage, by removing valuable infrastructure from flood prone areas while prohibiting their future development and restoring the floodplain function. This type of easement purchase requires a local sponsor that will purchase the underlying land, in fee title, once the floodplain easement is acquired by NRCS.

NRCS may pay up to 100 percent of the costs associated with the restoration of EWPP-FPEs. The goal of EWPP-FPE restoration is to restore and return the floodplain to its natural condition. Restoration measures used to accomplish this goal include the removal of buildings or other structures from the floodplain and the reestablishment of the floodplain's functions, and values through the installation of structural and non-structural conservation practices. To the extent practicable, NRCS restores the natural features and characteristics of the floodplain by recreating topographic diversity and reestablishing

native vegetation. EWPP-FPE landowners can assist with implementation of the easement restoration plan.

Upon enrollment in EWPP-FPE, landowners retain certain rights to the property, including quiet enjoyment, controlled public access, and undeveloped recreational use such as hunting and fishing. A landowner may obtain authorization from the agency to engage in other activities, through the Compatible Use Authorization Process, provided the agency determines the activities will further the protection and enhancement of the floodplain easements.

Current Activities

The table below reports the number of easements enrolled in EWPP-FPE through the end of 2019.

Table NRCS-20. Cumulative Program Activity (Through End of 2019)

Enrolled Easements (Permanent)	**Cumulative**
Number of Easements	1,668
Number of Acres	185,491
Closed Easements (Permanent)	**Cumulative**
Number of Easements	1,609
Number of Acres	185,465
Restored Easements	**Cumulative**
Number of Easements	1,413
Number of Acres	184,401

Additional Supplemental Appropriations for Disaster Relief Act, 2019 – EWPP-FPE

As previously stated, Congress appropriated $435.0 million for the NRCS Watershed and Flood Prevention Operations on June 14, 2019, to address the consequences of Hurricanes Michael and Florence, and wildfires occurring in calendar year 2018, tornadoes and floods occurring in calendar year 2019, and other natural disasters. Of this appropriation, $217.5 million has been designated for FPE enrollments in the impacted States of Arkansas, Illinois, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Dakota, and Wisconsin. Approximately $113 million has been reserved for these States, with the remainder available to these and other States as they request funding to participate in FPE. These States have received 659 applications for possible enrollment of 110,044 acres with an estimated cost of $455 million.

ACCOUNT 3: DISCRETIONARY AND MANDATORY – WATERSHED REHABILITATION PROGRAM

LEAD-OFF TABULAR STATEMENT

Table NRCS-21

Watershed Rehabilitation Program	
2020 Appropriation	$10,000,000
Change in Appropriation	-10,000,000
2021 Request, Current Law	-

PROJECT STATEMENT

Table NRCS-18. *Project Statement* (*Dollars in Thousands)*

Farm Production and Conservation Natural Resources Conservation Service (Dollars in Thousands)	2018 Actual		2019 Actual		2020 Enacted		2021 Budget Request		Change from 2020 Enacted	
Program/Activity	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY
Discretionary Appropriations:										
Watershed Rehabilitation:										
Technical Assistance	$4,000	0	$5,000	1	$2,000	1	$0	0	-$2,000	-1
Financial Assistance	6,000		5,000		8,000		0		-8,000	
Total, Discretionary Funding	**10,000**	**0**	**10,000**	**1**	**10,000**	**1**	**0**	**0**	**-10,000**	**-1**
Mandatory Funds:										
Small Watershed Rehabilitation:										
Technical Assistance	$1,774	1	$0	5	$0	5	$0	0	$0	-5
Financial Assistance	57,376		0		0		0		0	
Total, Mandatory Funding	**59,150**	**1**	**0**	**5**	**0**	**5**	**0**	**0**	**0**	**-5**
Carryover from Prior Years:										
Watershed Rehabilitation	-43,008		-47,658		-53,145		0		53,145	
Small Watershed Rehabilitation	69,587		86,513		121,513		0		-121,513	
Subtotal, Carryover	26,579		38,855		68,368		0		-68,368	
Sequestration	-3,904		0		0		0		0	0
Recoveries, Other	2,626		46,091		-20,637		0		20,637	
Total Available	**94,451**	**1**	**94,946**	**6**	**57,731**	**6**	**0**	**0**	**-57,731**	**-6**
Lapsing Balances	-203		-93		0		0		0	0
Balances, Available End of Year	-38,855		-68,369		0		0		0	0
Total Obligations	**$55,393**	**1**	**$26,484**	**6**	**$57,731**	**6**	**$0**	**0**	**-$57,731**	**-6**

JUSTIFICATIONS

A decrease of $10,000,000 and 1 staff year for Watershed Rehabilitation from the FY 2020 Appropriation.

No funds are requested in the 2021 Budget. Maintenance, repair and operation of these dams will be the responsibility of local project sponsors.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table NRCS-19. Watershed Rehabilitation Program Geographic Breakdown of Obligations and Staff Years

State/Territory/Country	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Colorado	$400	-	$43	-	$94	-	-	-
Connecticut	639	-	189	1	412	1	-	-
Delaware	-	-	-	-	-	-	-	-
District of Columbia	588	1	331	1	718	1	-	-
Florida	-	-	-	-	-	-	-	-
Georgia	1,855	-	5,551	1	12,100	1	-	-
Idaho	-	-	1	-	2	-	-	-
Kansas	216	-	402	-	876	-	-	-
Kentucky	955	-	802	-	1,748	-	-	-
Louisiana	-	-	826	-	1,801	-	-	-
Massachusetts	367	-	1,414	-	3,082	-	-	-
Mississippi	620	-	221	-	482	-	-	-
Nebraska	-	-	552	-	1,203	-	-	-
New Hampshire	-	-	40	-	87	-	-	-
New Jersey	-	-	723	-	1,576	-	-	-
North Dakota	500	-	1,258	-	2,742	-	-	-
Oklahoma	15,145	-	2	-	4	-	-	-
Oregon	1,204	-	-	-	-	-	-	-
Pennsylvania	3,755	-	327	-	713	-	-	-
South Dakota	-	-	-1	-	-	-	-	-
Tennessee	24	-	446	1	972	1	-	-
Texas	18,695	-	11,147	2	24,299	2	-	-
Utah	4,185	-	2,196	-	4,787	-	-	-
Virgin Islands	4,617	-	-	-	-	-	-	-
Virginia	1,580	-	-	-	-	-	-	-
Washington	-	-	-1	-	-	-	-	-
Wyoming	26	-	15	-	33	-	-	-
Distribution Unknown	23	-	-	-	-	-	-	-
Obligations	55,393	1	26,484	6	57,731	6	-	-
Lapsing Balances	203	-	93	-	-	-	-	-
Bal. Available, EOY	38,855	-	68,369	-	-	-	-	-
Total, Available	$94,451	1	$94,946	6	$57,731	6	-	-

CLASSIFICATION BY OBJECTS

Table NRCS-20. Watershed Rehabilitation Program Classification by Object

Item No.	Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
	Personnel Compensation:				
	Washington D.C.	$33	$117	$121	-
	Personnel Compensation, Field	107	627	646	-
11	Total personnel compensation	140	744	767	-
12	Personal benefits	50	254	260	-
13.0	Benefits for former personnel	-	-	-	-
	Total, personnel comp. and benefits	190	998	1,027	-
	Other Objects:				
21.0	Travel and transportation of persons	10	2	4	-
23.1	Rental payments to GSA	-	2	2	-
23.3	Communications, utilities, and misc. charges	-1	-2	-	-
25.1	Advisory and assistance services	1,831	958	2,132	-
25.2	Other services from non-Federal sources	9,351	9,918	22,076	-
25.4	Operation and maintenance of facilities	-909	1,846	4,109	-
26.0	Supplies and materials	23	1	1	-
31.0	Equipment	15	-6	-	-
32.0	Land and structures	750	188	418	-
41.0	Grants, subsidies, and contributions	44,133	12,579	27,962	-
	Total, Other Objects	55,203	25,486	56,704	-
99.9	Total, new obligations	$55,393	$26,484	$57,731	-
	Position Data:				
	Average Salary (dollars), ES Position	$177,889	$177,705	$180,371	-
	Average Salary (dollars), GS Position	$71,897	$72,038	$74,271	-
	Average Grade, GS Position	10.0	10.0	10.0	-

Note: The position data reported above is representative of data collected across all funding sources provided to NRCS, including, but not limited to Conservation Operations, Watershed Rehabilitation (Technical Assistance), Watershed and Flood Prevention Operations (Technical Assistance), Water Bank Program (Technical Assistance), and Farm Security and Rural Investment Program (Technical Assistance).

STATUS OF PROGRAMS

The Watershed Protection and Flood Prevention Act (P.L. 83-566), as amended by the Watershed Rehabilitation Amendments of 2000 (Section 313 of P.L. 106-472), authorizes NRCS to assist communities to address public health and safety concerns, and environmental impacts of aging dams. The amendment allowed the agency to provide technical and financial assistance for the planning, design, and implementation of rehabilitation projects that may include upgrading or removing dams past their useful life.

The purpose of the Watershed Rehabilitation Program is to extend the service life of dams and bring them into compliance with applicable safety and performance standards, or to decommission the dams so they no longer pose a threat to life and property.

Since 1948, local communities have constructed 11,847 watershed dams with assistance from NRCS. Local sponsors provide leadership in the program and secure land rights and easements needed for construction. NRCS provided technical assistance and cost sharing for construction. Local sponsors assumed responsibility for the operation and maintenance of the structures once they were completed. These dams protect America's communities, infrastructure, and natural resources with flood control, and many provide the primary source of drinking water in the area or offer recreation and wildlife benefits.

Some communities protected by these watershed dams are now vulnerable to flooding since many dams have reached, or will soon reach, the end of their design life. By December 2019, approximately 6,470 watershed dams will have reached the end of their originally designed life-span. That total will increase to approximately 6,578 by December 2020. More than half of the 11,847 watershed dams in the Nation are beyond their design life. Over time, dam spillway pipes have deteriorated, and reservoirs have filled with sediment. More significantly, the area around many dams have changed as homes and businesses have been built on what was once agricultural land. Thus, a dam failure could pose a serious threat to the health and safety of those living downstream and to the communities that depend on the reservoir for drinking water. Dam failure could also cause serious adverse environmental effects.

The highest priority of the Watershed Rehabilitation Program is to rehabilitate dams that pose the greatest risk to public safety. The agency classifies these dams as high hazard potential in the national dam safety classification system. Dams classified in the three-tier system as low or significant hazard potential to public safety will not be planned for rehabilitation until all high-hazard potential dam project requests from public sponsors have been rehabilitated.

Dams installed through the Watershed Protection and Flood Prevention Act (the Watershed Operations Program, specifically Public Law 83-566), Pilot Watershed Projects authorized by the Agriculture Appropriation Act of 1953, and the Resource Conservation

and Development Program are eligible for rehabilitation assistance.

The Watershed Rehabilitation Program provides up to 65 percent of the total cost for dam rehabilitation projects, which includes the acquisition of land, easements, rights-of-way, project administration, non-Federal technical assistance, and construction. The agency provides technical assistance to conduct technical studies; develop rehabilitation plans; develop environmental impact statements or environmental assessments; prepare the engineering designs; and provide construction management services, including construction inspection. Local sponsors are required to provide 35 percent of the total project cost.

The implementation strategy for the Watershed Rehabilitation Program has three phases, all of which require a request from a local public sponsor: 1) conduct a dam assessment to evaluate the condition of the dam, including safety hazards, and provide preliminary alternatives for rehabilitation; 2) prepare project plans and designs for implementation; and 3) implement the dam rehabilitation plan. Partnerships among local communities, State governments, and NRCS leverage services and funds to allow many projects to move quickly through the planning and implementation stages.

Annually, the agency ranks all dam rehabilitation funding applications for planning, design, and construction based on a numerical risk index and failure index that relates to the overall condition of a dam and the population at risk downstream of the dam.

The Architectural and Engineering (A&E) Service contract awarded in 2013 expired in January 2018. The agency solicited for a new national contract in 2017 for A&E firms to perform dam assessments, rehabilitation planning, engineering designs, and construction inspection services under the agency's guidance. In 2018, the agency awarded four regional contracts with A&E firms. Also, some sponsors have used their own professional technical staff or acquired technical services as part of their "in-kind" contribution to meet their 35 percent cost-share requirement.

Sponsors have used many innovative means to obtain the funds necessary to address the rehabilitation of aging dams that were threatening their local communities. They have used the sale of bonds dedicated to dam safety and rehabilitation, levied taxes on beneficiaries, obtained grants, used State appropriations, sought voluntary land rights from private landowners, and provided in-kind services using existing staff.

Current Activities

In 2019, the Watershed Rehabilitation Program received $12 million in discretionary funding and $24 million in mandatory funding. This investment in watershed rehabilitation recognizes the critical role of these watershed structures in flood management, water supply, erosion control, agricultural productivity, recreation, and wildlife habitat. This funding helps to repair aging infrastructure, creates jobs and commerce, and protects homes and families.

The agency continued to provide funding and promoted assessments of high-hazard potential dams, monitored costs, and examined the rehabilitation program to ensure

equitable delivery in economically-disadvantaged areas. The agency utilized $2.3 million to complete 118 dam assessments. Only projects funded for planning, design, and construction are included in the chart below. Dam assessments are not included.

Table NRCS-25. Summary of Watershed Rehabilitation Projects and Allocations as of September 30, 2019

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2019	Number of Dams Rehabilitated	2019 Federal Allocations of Mandatory Funds	2019 Federal Allocations of Discretionary Funds a/
Alabama	1	1	-	-
Arizona	12	3	$24,600,000	-
Arkansas	7	1		-
California	1	-	600,000	-
Colorado	4	-	50,000	-
Connecticut	4	-	-	-
Georgia	28	6	2,957,526	$2,455,702
Hawaii	-	-	-	-
Idaho	-	-	-	25,000
Illinois	-	-	-	-
Indiana	1	1	-	-
Iowa	4	4	-	-
Kansas	8	3	13,962	286,038
Kentucky	4	1	60,000	550,000
Louisiana	3	-	-	1,050,000
Maine	-	-	-	-
Massachusetts	9	1	-	1,529,792
Maryland	1	-	-	-
Minnesota	-	-	-	-
Mississippi	24	17	220,000	-
Missouri	2	2	-	-
Montana	-	-	-	-
Nebraska	14	9	864,380	-
Nevada	1	-	2,819,000	-
New Hampshire	5	-	40,000	-
New Jersey	1	-	255,000	-
New Mexico	8	4	198,000	-

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2019	Number of Dams Rehabilitated	2019 Federal Allocations of Mandatory Funds	2019 Federal Allocations of Discretionary Funds a/
New York	3	-	-	-
North Carolina	2	-	-	-
North Dakota	6	1	60,000	-
Ohio	10	8	-	-
Oklahoma	56	38	-	-
Oregon	3	-	-	-
Pennsylvania	13	1	160,000	-
South Carolina	-	-	-	-
Tennessee	7	2	-	-
Texas	49	24	5,236,700	5,000,000
Utah	24	10	1,146,000	-
Vermont	4	-	-	-
Virginia	16	12	-	-
Washington	-	-	-	-
West Virginia	8	1	-	-
Wisconsin	11	11	-	-
Wyoming	1	-	-	-
Total	**355**	**161**	**39,280,568**	**10,896,532**

a/ Discretionary funds include carryover funds, prior year recoveries, and annual funds for project planning, design, and implementation.

In 2019, 117 assessments of high hazard dams were conducted. These assessments provided communities with technical information about the condition of their dams, and alternatives for rehabilitation of dams that do not currently meet Federal dam safety standards.

Project Status and Benefits

From 2000 through 2019, 355 dams have been funded for rehabilitation. Of the 355 dams, 247 dams in 25 States were authorized for rehabilitation. There are 107 dams in the planning phase that are subject to funding priorities. Of the 247 dams that were authorized for rehabilitation, 161 have been completed and 87 are in progress.

The following table summarizes the benefits for both agricultural and non-agricultural lands provided by the completed projects:

Table NRCS-26. Benefits for lands provided by the completed projects

Average annual floodwater damage reduction benefits	$9,383,748
Average annual non-floodwater damage reduction benefits	$7,754,549
Number of people with reduced risk downstream from the dams	45,302
Number of people who benefit from project action	519,652
Number of homes and businesses benefiting from project action	18,755
Number of farms and ranches benefiting from project action	1,037
Number of bridges downstream which benefit from project action	401

ACCOUNT 4: DISCRETIONARY - WATER BANK PROGRAM

LEAD-OFF TABULAR STATEMENT

Table NRCS-21. Water Bank Program Lead-Off Tabular Statement

Water Bank Program	
2020 Appropriation	$4,000,000
Change in Appropriation	-4,000,000
2021 Request, Current Law	-

PROJECT STATEMENT

Table NRCS-22. Project Statement

Farm Production and Conservation
Natural Resources Conservation Service
(Dollars in Thousands)

	2018 Actual		2019 Actual		2020 Enacted		2021 Budget Request		Change from 2020 Enacted	
Program/Activity	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY	B.A.	SY
Discretionary Appropriations:										
Water Bank Program:										
Technical Assistance	$400	2	$400	1	$400	1	$0	0	-$400	-1
Financial Assistance	3,600		3,600		3,600		0		-3,600	
Total, Discretionary Funding	**4,000**	**2**	**4,000**	**1**	**4,000**	**1**	**0**	**0**	**-4,000**	**-1**
Carryover from Prior Years:										
Water Bank Program	520		394		1,035				-1,035	0
Subtotal, Carryover	520	0	394	0	1,035	0	0	0		
Transfers Out	0		0		0		0		0	0
Recoveries, Other	130		17		0		0		0	0
Total Available	**4,650**	**2**	**4,411**	**1**	**5,035**	**1**	**0**	**0**	**-5,035**	**-1**
Balances, Available End of Year	-394		-1,035		0		0		0	0
Total Obligations	**$4,256**	**2**	**$3,376**	**1**	**$5,035**	**1**	**$0**	**0**	**-$5,035**	**-1**

JUSTIFICATIONS

A decrease of $4,000,000 and 1 staff year for the Water Bank Program from the FY 2020 Annualized Continuing Resolution.

No funds are requested in the 2021 Budget.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table NRCS-23. Geographic Breakdown of Obligations and Staff Years

State/Territory/Country	2018 Actual	SY	2019 Actual	SY	2020 Enacted	SY	2021 Budget	SY
Minnesota	$577	1	$231	-	$344	-	-	-
North Dakota	3,484	1	2,767	1	4,126	1	-	-
South Dakota	195	-	379	-	565	-	-	-
Obligations	4,256	2	3,376	1	5,035	1	-	-
Bal. Available, EOY	394	-	1,035	-	-	-	-	-
Total, Available	$4,650	2	$4,411	1	$5,035	1	-	-

CLASSIFICATION BY OBJECTS

Table NRCS-24. Classification by Objects

Item No.	Item	2018 Actual	2019 Actual	2020 Enacted	2021 Budget
	Personnel Compensation:				
	Washington D.C.	-	-	-	-
	Personnel Compensation, Field	$134	$77	$79	-
11	Total personnel compensation	134	77	79	-
12	Personal benefits	52	31	32	-
	Total, personnel comp. and benefits	186	108	111	-
	Other Objects:				
25.4	Operation and maintenance of facilities	-718	-613	-	-
31.0	Equipment	5	23	23	-
41.0	Grants, subsidies, and contributions	4,783	3,858	4,901	-
	Total, Other Objects	4,070	3,268	4,924	-
99.9	Total, new obligations	$4,256	$3,376	$5,035	-
	Position Data:				
	Average Salary (dollars), ES Position	$177,889	$177,705	$180,371	-
	Average Salary (dollars), GS Position	$71,897	$72,038	$74,271	-
	Average Grade, GS Position	10.0	10.0	10.0	-

Note: The position data reported above is representative of data collected across all funding sources provided to NRCS, including, but not limited to Conservation Operations, Watershed Rehabilitation (Technical Assistance), Watershed and Flood Prevention Operations (Technical Assistance), Water Bank Program (Technical Assistance), and Farm Security and Rural Investment Program (Technical Assistance).

STATUS OF PROGRAMS

Section 748 of the Water Bank Act (16 U.S.C. 1301-1311) authorized the Water Bank Program (WBP). The purposes of the WBP include: 1) preserving and improving major wetlands as habitat for migratory waterfowl and other wildlife; 2) conserving surface waters; 3) reducing soil and wind erosion; 4) contributing to flood control; 5) improving water quality; 6) improving subsurface moisture; and 7) enhancing the natural beauty of the landscape. The intent of the program is to keep water for the benefit of migratory wildlife.

WBP contracts are non-renewable, ten-year rental agreements to compensate landowners for maintaining lands as wetlands in lieu of draining the lands for agricultural production. Rental payments are made annually. WBP agreements for each participating farm or ranch become effective on January 1, of the calendar year in which the agreement is approved. Financial assistance is not available for conservation practices through WBP. Participants who wish to establish or maintain conservation practices may apply for financial assistance through other NRCS or State financial assistance programs.

WBP participants are not subject to the Farm Bill payment eligibility requirements, including the highly erodible land and wetland conservation provisions, or the adjusted gross income limitations. The rental rates, for the 2019 program, were as follows:

- $50 per acre per year for cropland;
- $35 per acre per year for pasture and rangeland (grazing lands); and
- $20 per acre per year for forestland.

NRCS determines whether land is eligible for enrollment and whether, once found eligible, lands may be included in the program based on the likelihood of successful protection of wetland functions, and values when considering the cost of the agreement. Land placed under an agreement shall be specifically identified and designated for the period of the agreement. A person must:

- Be the owner of eligible land for which enrollment is sought for at least two years preceding the date of the agreement unless new ownership was acquired by will or succession because of death of the previous owner; or

- Have possession of the land by written lease over all designated acreage in the agreement for at least two years preceding the date of the agreement unless new ownership was acquired by will or succession because of death of the previous owner and will have possession over all the designated acreage for the agreement period.

An agreement shall be executed for each participating farm. The agreement shall be signed by the owner or operator of the designated acreage and any other person who, as landlord, tenant, or share cropper, will share in the payment or has an interest in the designated acreage. There may be more than one agreement for a farm. The designated acreage in the agreement must:

- Be maintained for the agreement period in a manner which will preserve, restore, or improve the wetland character of the land;
- Not be drained, burned, filled, or otherwise used in a manner which would destroy the wetland character of the acreage;
- Not be used as a dumping area for draining other wetlands, except where the state conservationist determines that such use is consistent with the sound management of wetlands and is specified in the conservation plan;
- Not be used for agricultural purposes, including cropping, haying, or grazing, for the life of the agreement;
- Not be hayed unless authorized under limited circumstances, such as severe drought; and
- Not be grazed unless necessary to enhance the wetland functions and values of the land under agreement.

An annual status review is performed to note the progress in maintaining designated wetland acreage, and the need for technical assistance. Failure to maintain the designated wetland acreage may result in noncompliance or a reduction in rental payments.

Current Activities

In 2019, $4 million in financial and technical assistance was available for approval of new WBP ten-year rental agreements. Over $3.3 million was obligated to 83 agreements covering 8,437 acres. The first-year rental agreement payments were issued in September 2019.

ACCOUNT 5: FARM SECURITY AND RURAL INVESTMENT PROGRAMS

PROJECT STATEMENT
Table NRCS- 25

Natural Resources Conservation Service
Farm Security and Rural Investment Programs
(Dollars in Thousands)

Program/Activity	2018 Actual B.A.	2018 Actual SY	2019 Actual B.A.	2019 Actual SY	2020 Enacted B.A.	2020 Enacted SY	2021 Budget Request B.A.	2021 Budget Request SY	Change from 2020 Enacted B.A.	Change from 2020 Enacted SY
Mandatory Funds:										
Environmental Quality Incentives Program	$1,929,150	2,797	$1,750,000	2,642	$1,750,000	2,600	$1,800,000	2,601	$50,000	1
Conservation Stewardship Program (2018)	0	0	700,000	93	725,000	635	750,000	$635	25,000	0
Conservation Stewardship Program (2014)	1,440,281	1,425	893,743	1,302	1,835,355	669	508,300	669	-1,327,055	0
Agricultural Conservation Easement Program	250,000	347	450,000	321	450,000	367	450,000	371	0	4
Regional Conservation Partnership Program	100,000	78	300,000	65	300,000	77	300,000	77	0	0
Conservation Reserve Program (TA Only)	95,115	630	95,115	515	95,115	637	95,115	637	0	0
Agricultural Management Assistance	5,000	5	5,000	7	5,000	5	5,000	5	0	0
Voluntary Public Access and Habitat Incentive Program	0	0	50,000	0	0	0	0	0	0	0
Feral Swine Eradication and Control Pilot Program	0	0	37,500	0	0	0	0	0	0	0
Agricultural Water Enhancement Program	0	10	0	1	0	0	0	0	0	0
Chesapeake Bay Watershed Program	0	12	0	5	0	0	0	0	0	0
Farm and Ranch Lands Protection Program	0	13	0	1	0	0	0	0	0	0
Grassland Reserve Program	0	1	0	0	0	0	0	0	0	0
Wetlands Mitigation Banking Program	0	4	0	4	0	0	0	0	0	0
Wetlands Reserve Program	0	105	0	27	0	0	0	0	0	0
Wildlife Habitat Incentives Program	0	42	0	13	0	0	0	0	0	0
Total, Mandatory Funding	**3,819,546**	**5,469**	**4,281,358**	**4,996**	**5,160,470**	**4,990**	**3,908,415**	**4,995**	**-1,252,055**	**5**
Discretionary Funds:										
Wetlands Mitigation Banking Program	$0	0	$0	0	$5,000	4	$0	0	-$5,000	-4
Urban Agrucutre and Innovative Production	0	0	0	0	5,000	1	0	$0	-5,000	-1
Total, Discretionary Funding	**0**	**0**	**0**	**0**	**10,000**	**5**	**0**	**0**	**-10,000**	**-5**
Carryover from Prior Years:										
Farm Security and Rural Investment Programs	1,469,401		1,549,768		1,985,801		844,998		0	
Subtotal, Carryover	1,469,401	0	1,549,768	0	1,985,801	0	844,998	0	0	0
Transfers Out	-145		-60,228		-60,228		-60,228		0	0
Rescissions	0		0		0		0		0	0
Sequestration	-252,090		-260,019		-304,468		0		304,468	0
Recoveries, Other	236,283		272,675		4,428		59,968		55,540	0
Total Available	**5,272,995**	**5,469**	**5,783,554**	**4,996**	**6,796,003**	**4,995**	**4,753,153**	**4,995**	**-902,047**	**0**
Lapsing Balances	-448		-287		0		0		0	0
Balances, Available End of Year	-1,549,768		-1,985,801		-844,998		-455,821		389,177	0
Total Obligations	**$3,722,779**	**5,469**	**$3,797,466**	**4,996**	**$5,951,005**	**4,995**	**$4,297,332**	**4,995**	**-$512,870**	**0**
Transfer to PLCO Account	-	-	-	-	-	-	**-$1,190,609**	**-4,995**	1,190,609	4995
Total Adjusted Obiligations	**$3,722,779**	**5,469**	**$3,797,466**	**4,996**	**$5,951,005**	**4,995**	**$3,106,723**	**0**	**$677,739**	**4,995**

Farm Security and Rural Investment Programs

The Agriculture Improvement Act of 2018 amended Title XII of the Food Security Act of 1985, reauthorizing some programs, and creating the Feral Swine Eradication and Control Pilot Program that is administered jointly by NRCS and APHIS. A number of conservation programs were extended in the 2021 Budget's baseline based upon scorekeeping conventions.

Total available budget authority is shown net of sequester, and transfers. FY 2018 sequestration was applied at 6.6 percent, FY 2019 sequestration was applied at 6.2 percent, and FY 2020 sequestration is applied at 5.9 percent.

PROPOSED LEGISLATION

Farm Security and Rural Investment Account

Proposal

The Budget proposes legislative changes to NRCS conservation programs. Specifically, the Budget proposes to:

- Reduce funding for the Agricultural Conservation Easement Program (ACEP) by $40 million per year; and
- Eliminate the Conservation Stewardship Program (CSP).

Currently, the agency administers five mandatory conservation programs: The Agricultural Conservation Easement Program (ACEP); the Conservation Stewardship Program (CSP), the Environmental Quality Incentives Program (EQIP), the Regional Conservation Partnership Program (RCPP); and the Agricultural Management Assistance Program (AMA).

These proposals are designed to streamline and reform conservation program funding to the most environmentally sensitive land and to those producers that most need the aid. These proposals would:

- Maintain the authorized funding for EQIP per year, supporting conservation on working agricultural land, while reducing funding for ACEP by $40 million per year. EQIP receives the most funding and has the largest customer base for the mandatory conservation programs.

Eliminate the Conservation Stewardship Program (CSP). Initially enacted as a “green payment” program, CSP payments are based, in part, upon a farmer's existing level of conservation adoption. The program has struggled to demonstrate outcomes and may provide payments that overcompensate for enhancements. This proposal streamlines NRCS conservation programs, maintains funding for working lands conservation, and helps leverage partner funding to increase the reach of these programs.

Budget Impact

Agricultural Conservation Easement Program

Item	2021	2022	2023	10 Year Total
Budget Authority (millions)	-$40	-$40	-$40	-$400
Outlays (millions)	-$7	-$12	-$23	-$306

Conservation Stewardship Program

Item	2021	2022	2023	10 Year Total
Budget Authority (millions)	-$750	-$800	-$1,000	-$9,550
Outlays (millions)	-$150	-$310	-$510	-$7,550

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS - 2019 ACTUALS

Table NRCS-26

State/Territory/Country	ACEP	AMAP	AWEP	CBWP	CRPG	CSPG	CSTP	EQIP	FRPP	GRPG	HFRP	RCPP	VPAP	WHIP	WMBP	WREPG
Alabama	$1,359	-	-	-	$1,197	-	$16,526	$36,192	-	-	-	$500	-	-	-	$36
Alaska	205	-	-	-	56	-	1,378	13,153	-	-	-	89	-	$12	-	-
Arizona	14,781	-	-	-	69	-	5,561	39,950	-	-	-	1,507	-	-	-	-1
Arkansas	17,609	-	$4	-	598	-	76,520	62,795	-	-	-	124	-	91	-	10
California	15,905	-	147	-	255	-	10,535	116,791	-	-	-	5,726	-	89	-	31
Colorado	15,906	-	-	-	623	-	32,406	58,422	-$3	-	-	83	-	-	-	-1
Connecticut	4,772	$284	-	-	47	-	610	4,723	-1	-	-	90	-	35	-	-
Delaware	2,392	61	-	-	100	-	1,870	8,867	-	-	-	279	-	-	-	-
District of Columbia	57,135	-	-	-$1	8,086	-$2	54,961	95,928	10,473	$24	$4	5,461	$250	-	$197	78
Florida	29,659	-	-	-	160	-	5,458	25,728	-	-	-	467	-	13	-	-5
Georgia	3,639	-	-	-	384	-	67,124	60,841	-	-4	-	7,547	-	-	83	55
Hawaii	256	269	-	-	96	-	1,935	16,753	-	-	-	194	-	-	-	1
Idaho	3,791	-	-	-	194	-	10,076	25,219	-	-	-	197	-	-	-	34
Illinois	7,550	-	-	-	7,020	-	48,768	18,834	-	-	-	339	-	25	5	3
Indiana	12,827	-	-	-	4,301	-	18,730	30,230	-	-	-	78	-	1	-	740
Iowa	15,470	-	-	-	8,094	-	54,688	45,968	-	-	-	862	-	-	78	957
Kansas	4,943	-	-	-	1,420	-	61,792	46,149	1	1	-	607	-	-	-	90
Kentucky	12,298	-	-	-	1,249	-	13,768	23,972	-	-	-	493	-	-	-	454
Louisiana	23,882	-	-	-	335	-	58,045	36,520	-	-	-	117	-	63	-	5,761
Maine	1,211	821	-	-	60	-	1,132	16,754	-	-	-	302	-	-	-	-
Maryland	1,586	292	-	54	1,190	-	2,975	18,561	-7	-	-	919	-	-	-	192
Massachusetts	4,521	229	-	-	38	-	518	4,645	1	-	-	18	-	60	-	-
Michigan	6,110	-	35	-	1,111	-	16,471	28,515	-	-	-	2,512	-	-	10	164
Minnesota	1,985	-	-	-	8,108	-	53,162	36,582	-11	-	-	1,771	-	-	19	10,823
Mississippi	23,360	-	-	-	1,829	-	100,518	62,393	-	1	-	122	-	-	-	2,934
Missouri	14,902	-	-	-	3,036	-	60,827	48,819	-	-	-	1,015	-	54	31	1,722
Montana	22,717	-	-	-	676	-42	45,035	32,299	-	-	-	86	-	-	-	199
Nebraska	5,492	-	-3	-	2,283	-	84,772	37,640	-2	-	-	779	-	0	16	586
Nevada	213	193	-	-	46	-	864	8,519	-	-	-	2,868	-	10	-	440
New Hampshire	5,252	67	-	-	37	-	1,336	6,682	-1	-	-	40	-	20	-	1
New Jersey	2,144	88	-	-	136	-	735	7,509	-	-	-	249	-	125	-	14
New Mexico	565	-	-	-	321	-	24,978	33,239	-	-	-	207	-	12	-	1
New York	3,191	383	-	125	1,170	-	8,317	18,195	-	-	-	412	-	97	-	455
North Carolina	5,973	-	-	-	677	-	8,871	27,549	-	-	-	2,673	-	-	-	6
North Dakota	1,144	-	2	-	2,550	-	49,088	26,748	-	-	-	214	-	-	-	15
Ohio	9,978	-	-	-	5,331	-	11,519	33,200	-	-	-	107	-	-	7	-
Oklahoma	1,282	-	-	-	348	-	77,432	30,413	-	-	50	53	-	10	-	239
Oregon	4,035	-	77	-	901	-	36,544	32,365	-	-	-	1,576	-	33	-	1,074
Pennsylvania	3,480	489	-	246	3,132	-	12,483	36,820	-6	174	-	562	-	46	-	117
Puerto Rico	117	-	-	-	40	-	725	14,685	-	-	-	19	-	-	-	-
Rhode Island	1,068	108	-	-	21	-	436	3,618	11	-	-	91	-	52	-	-
South Carolina	1,200	-	-	-	206	-	16,007	36,524	-	-	-	27	-	159	-	133
South Dakota	8,584	-	-	-	2,787	-	73,424	27,639	-	-	-	77	-	16	80	182
Tennessee	12,912	-	-	-	729	-	16,431	45,314	1	3	-	263	-	-	-	343
Texas	10,314	-	-	-	2,645	-	81,200	136,306	-	-4	-	737	-	131	-	5
Utah	5,085	108	-	-	101	-	11,756	29,913	-	-	-	72	-	-	-	-
Vermont	5,173	266	-	-	107	-	1,150	19,336	4	-	-	40	-	-	-	-1
Virginia	2,077	-	-	46	1,108	-	13,515	36,215	-	-	-	658	-	-	-	90
Wake Island	4,201	-	-	-	503	-	25,268	22,086	-	-	-	874	-	26	-	140
Washington	2,351	674	-	87	104	-	5,326	15,067	-	-	-	346	-	180	-	35
Wisconsin	5,062	-	-	-	2,141	-29	47,221	37,930	-	-	-	505	-	-	-	139
Wyoming	6,487	69	-	-	141	-	8,406	18,213	25	26	-	3,552	-	6	-	52
Obligations	428,147	4,403	262	558	77,899	-73	1,439,193	1,757,329	10,486	222	54	48,503	250	1,367	526	28,342
Total, Available	**$428,147**	**$4,403**	**$262**	**$558**	**$77,899**	**-$73**	**$1,439,193**	**$1,757,329**	**$10,486**	**$222**	**$54**	**$48,503**	**$250**	**$1,367**	**$526**	**$28,342**

STATUS OF PROGRAMS

Agricultural Conservation Easement Program (ACEP)

The Agricultural Conservation Easement Program (ACEP) is authorized by subtitle H of title XII of the Food Security Act of 1985, as amended by Section 2301 of the 2014 Farm Bill (P. L. 113-79) and sections 2601-2605 of the Agricultural Improvement Act of 2018 (2018 Farm Bill). ACEP consolidates the purposes and functions of three former easement programs that are no longer authorized: Farm and Ranch Lands Protection Program (FRPP), the Grassland Reserve Program (GRP), and the Wetlands Reserve Program (WRP). Lands enrolled under these former easement programs are enrolled in ACEP. ACEP is funded by the Commodity Credit Corporation (CCC) and administered by NRCS. ACEP is a voluntary program through which NRCS provides financial and technical assistance to help conserve agricultural lands and wetlands, and their related benefits by directly acquiring or funding the acquisition of conservation easements on private or tribal lands. ACEP has two components - ACEP-Agricultural Land Easements (ACEP-ALE) and ACEP-Wetland Reserve Easements (ACEP- WRE).

ACEP-ALE helps farmers and ranchers keep their land in agriculture and continue as working lands. The program also protects grazing uses and related conservation values by conserving grassland, including rangeland, pastureland, and shrubland. ACEP-ALE easements require partnership with cooperating entities, which include Indian Tribes, State and local governments, or nongovernmental organizations (NGOs) that are committed to the long-term conservation of agricultural lands.

ACEP-ALE protects the Nation's most valuable lands for production of food, feed, and fiber by providing matching funds to ensure productive farmlands and ranchlands remain in agricultural use. By enrolling in ACEP-ALE, farmlands and ranchlands under commercial development pressures can remain productive and sustainable. Keeping land in agricultural use also reduces the amount of urban pollution (nitrogen, phosphorus, and sedimentation) from land that would otherwise be converted to lawns and impervious surfaces such as pavement and buildings. Ultimately, this assists with efforts in managing the Total Maximum Daily Load (TMDL) of nutrients flowing into public waters such as the Chesapeake Bay and the Mississippi River.

Through ACEP-WRE, NRCS provides technical and financial assistance directly to private landowners and Indian Tribes who voluntarily agree to restore, protect, and enhance wetlands through the sale of a permanent or 30-year wetland reserve easement to NRCS, or through a 30-year contract (tribes only). These wetland easements/contracts provide numerous benefits to the public that extend well beyond the footprint of the protected area. Wetlands provide habitat for fish and wildlife, including threatened and endangered species, improve water quality by filtering sediments and chemicals, reduce flooding, recharge groundwater, protect biological diversity, and provide opportunities for outdoor education, scientific, and recreational activities. The goal of ACEP-WRE is to achieve the greatest wetlands functions and values, along with optimum wildlife habitat, on every acre enrolled in the program, which is accomplished by restoring wetlands and associated habitats that were converted for agricultural use and have a high likelihood of

successful restoration.

Over 50 percent of the Nation's wetlands in the lower 48 States have been lost since colonial times, and the greatest potential for restoration exists on private lands, which make up 70 percent of the land ownership in the country.

Over 80 percent of lands on which restoration is economically feasible are in private ownership. To achieve successful restoration that maximizes benefits to both the landowners and the public, ACEP-WRE focuses on: 1) enrolling marginal lands that have a history of crop failures or low production yields; 2) restoring and protecting wetland values on degraded wetlands; 3) maximizing wildlife benefits; 4) achieving cost-effective restoration with a priority on benefits to migratory birds; 5) protecting and improving water quality; 6) reducing the impact of flood events; 7) increasing ecosystem resilience; and 8) promoting scientific and educational uses on wetland easement of ACEP-WRE projects.

To enroll land through ACEP-ALE, NRCS enters into cooperative agreements with cooperating eligible entities.

NRCS requires certain terms and conditions under which the cooperating entity is eligible to receive NRCS ACEP cost-share assistance. For example, each agricultural land easement must be subject to an easement plan that promotes the long-term agricultural viability of the land.

To enroll land through ACEP-WRE, NRCS enters into purchase agreements with eligible private landowners or Indian tribes that include the right for NRCS to develop and implement a wetland restoration plan. The plans are designed to restore, protect, and enhance the wetlands functions and values of the land. NRCS may authorize wetland reserve easement lands to be used for compatible economic uses, including activities such as hunting and fishing, managed timber harvesting, or periodic haying or grazing if such uses are consistent with the long-term protection and enhancement of the wetland resources for which the easement was acquired.

ACEP is available on all lands in any of the 50 States, the District of Columbia, Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands given the following eligibility criteria:

- ACEP-ALE - cropland, rangeland, grassland, pastureland, and nonindustrial private forest land. NRCS prioritizes applications that protect agricultural uses and related conservation values of the land and those that maximize the protection of contiguous acres devoted to agricultural use; and

- ACEP-WRE - farmed or converted wetlands that can be successfully and cost- effectively restored. NRCS prioritizes applications based on the land's potential for protecting and enhancing wetland habitat for migratory birds and other wildlife.

ACEP-ALE: NRCS uses a continuous signup under which eligible entities may submit applications for funding. Upon receipt of the applications from an eligible entity, each NRCS State office evaluates the entities, land, and landowners for eligibility and ranks and prioritizes the applications based on established criteria. NRCS awards funds to the eligible entities that submit the applications for the highest-ranking parcels of land for which the state office has ACEP funding. NRCS priorities include farms and ranches that face the greatest pressure to convert productive agricultural land to non-agricultural uses or grasslands to non-grazing uses, have access to appropriate agricultural markets, contain prime soils or other soils of significance, have adequate infrastructure and agricultural support services, are located near other parcels of land that can support long-term agricultural production, or contain grasslands of special environmental significance.

ACEP-WRE: To apply for ACEP-WRE, landowners may submit applications at any time to their local USDA Service Center. NRCS determines landowner and land eligibility, ranks each application using ranking criteria developed with input from the State Technical Committee, and makes tentative funding selections. NRCS priorities for ACEP-WRE include the extent to which ACEP-WRE purposes would be achieved on the land, the significance of the wetland functions, and values that would be restored and protected, (including the value of the easement for protecting and enhancing habitat for migratory birds and other wildlife, the conservation benefits of obtaining an easement, the cost-effectiveness of enrolling the land to maximize environmental benefit per dollar expended, and whether Federal funds are being leveraged).

ACEP-ALE: NRCS and eligible entities sign a cooperative or grant agreement to obligate ACEP funds. The cooperating, eligible entities acquire the conservation easements and then hold, monitor, manage, and enforce the acquired easements. Generally, the Federal share for any easement acquisition cannot exceed 50 percent of the appraised market value of the conservation easement. Where NRCS determines that grasslands of special environmental significance will be protected, NRCS may contribute up to 75 percent of the market value of the agricultural land easement. Each conservation easement deed must include a provision granting the United States the right of enforcement to protect the Federal investment. To help ensure the long-term agricultural viability of the land, each ACEP-ALE easement must be subject to an agricultural land easement plan.

ACEP-WRE: NRCS and an eligible landowner sign an Agreement to Purchase a Conservation Easement to enroll land and obligate ACEP funds. NRCS acquires and holds the easement and is responsible for the restoration, monitoring, and enforcement of that easement. NRCS may enroll eligible land through various ACEP-WRE enrollment options:

- *Permanent Easements*, which are conservation easements in perpetuity. NRCS pays 100 percent of the easement value for the purchase of the easement and between 75 to 100 percent of the restoration costs.

- *30-Year Easements*, which expire after 30 years. Under these easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement and between 50 to 75 percent of the restoration costs.

- *Term Easements*, which are easements that are for the maximum duration allowed under applicable State laws. NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement and between 50 to 75 percent of the restoration costs.

- *30-year Contracts*, which are only available to enroll acreage owned by Indian tribes. Program payment rates are commensurate with 30-year easements.

For ACEP-WRE, all costs associated with recording the easement in the local land records office, including recording fees, charges for abstract, survey and appraisal fees, and title insurance, are paid by NRCS, as part of its acquisition of the wetland reserve easement.

ACEP-ALE: In addition to helping landowners and eligible entities develop conservation easement deeds and agricultural land easement plans, NRCS provides technical assistance through verification of the eligibility of the entity, landowner, and land; assessment of the risk of hazardous materials; evaluation and ranking applications; development of cooperative agreements; review of deeds, title, and appraisals; and payment processing.

ACEP-WRE: NRCS conducts ecological and cost ranking and develops a preliminary site-specific restoration plan for the offered acres, using input from State wildlife agencies, and the Department of the Interior's Fish and Wildlife Service. Once the landowner accepts an offer, NRCS acquires the easement or executes the contract, completes restoration designs, and implements the conservation practices necessary to restore the identified habitats on the easement, contract, or easement area.

NRCS helps landowners throughout the life of the project under ACEP-WRE. After the initial completion of the restoration activities, NRCS works cooperatively with the private landowners to develop management and maintenance plans; conduct monitoring and enforcement; identify enhancement or repair needs; and provide biological and engineering advice on how to achieve optimum results for wetland-dependent wildlife or other desired ecosystem services.

Current Activities

In 2019, $245 million in ACEP financial assistance funding was used to enroll an estimated 159,031 acres of farmland, grasslands, and wetlands through 459 new ACEP enrollments.

Enrollment is defined as the point at which the landowner, and NRCS enter into the agreement authorizing NRCS to proceed with the purchase of the easement or 30-year contract. The agency also closed 400 ACEP easements which protected 163,157 acres during 2019.

ACEP-ALE Enrollment. NRCS processed ACEP-ALE applications on over 248,505 acres, including applications for ACEP-ALE on acres of grasslands of special environmental significance. Available funding allowed for the enrollment of applications for ACEP-ALE. Enrollment is defined as the point at which the cooperating entity, and NRCS enter into the cooperative agreement authorizing the cooperating entity to proceed with the purchase of the easement.

In 2019, NRCS enrolled a total of 88,426 acres in 199 new ACEP-ALE enrollments through 133 agreements (see table below). This includes 117 general agricultural land easements and 16 agricultural land easements on grasslands of special environmental significance. The average project size was 355 acres in general ALE, and 2,932 acres in ALE on grasslands of special environmental significance.

Table NRCS-35. Agreement Types

Agreement Type	2019 Agreements	2019Acres Enrolled
ALE	117	41,519
ALE-Grasslands of Special Environmental Significance	16	46,907
Total	133	88,426

Since the inception of ACEP in 2014, NRCS has cumulatively enrolled 996 parcels in the ALE component of ACEP on 651,297 acres and has closed 499 easements on 317,019 acres. The table below shows ACEP-ALE cumulative enrollments and closings.

ACEP-WRE Enrollment. In 2019, NRCS processed ACEP-WRE applications on over 408,829 acres. NRCS estimates the funding needed for enrollment of new acres in a given year by projecting the number of acres by enrollment option (i.e. permanent easements, 30-year easements, or 30- year contracts with Indian Tribes), and the geographic rate cap for the location of the acres to be enrolled.

In 2019, the agency enrolled a total of 38,514 acres in 260 new ACEP-WRE enrollments, or approximately nine percent of the demand for ACEP-WRE enrollment (see table below). The average project size was 148 acres.

Table NRCS-36. Contracts

2019	2019 Agreements	2019 Acres Enrolled
Contracts		
30-year contracts with Tribes	-	-
Total (Contracts Only)	-	-
Easements		
30-year easement	5	386
Permanent easement	255	38,128
Total	260	38,514

Since the inception of ACEP in FY 2014, NRCS has cumulatively enrolled 1,592 applications in the WRE component of ACEP on 285,152 acres and closed 1,056 easements on 187,144 acres. The below table shows ACEP- WRE cumulative enrollments and closings.

Table NRCS-37. 2014-2019 ACEP-WRE Cumulative Enrollments and Closings

2014 - 2019	Applications Enrolled Cumulative Number	Applications Enrolled Cumulative Acres	Easements Closed Cumulative Number	Easements Closed Cumulative Acres
Contracts				
30-year contracts with Tribes	3	670	N/A	N/A
Total (Contracts Only)	3	670	N/A	N/A
Easements				
30-year easement	148	34,302	102	15,234
Permanent easement	1,441	250,181	954	171,910
Total	1,589	284,483	1,056	187,144

Agricultural Management Assistance

Agricultural Management Assistance (AMA), authorizes the Secretary of Agriculture to use $10.0 million of Commodity Credit Corporation (CCC) funds for financial assistance in selected states where participation in the Federal Crop Insurance Program is historically low. Section 524(b) identifies the following states as eligible for AMA: Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. AMA is administered jointly by NRCS, the Risk Management Agency (RMA), and the Agricultural Marketing Service (AMS).

NRCS administers the conservation provisions of the AMA program, which provides financial

assistance to agricultural producers to address water management, water quality, and erosion control issues by incorporating conservation into their farming operations. By statute, the agency receives 50 percent of the funds apportioned to AMA each fiscal year. With AMA funds, producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming.

AMA addresses the following national priorities:

- Reducing non-point source pollution, such as nutrients, sediment, pesticides, or excess salinity in impaired watersheds consistent with total maximum daily loads, where available;
- Reducing surface and groundwater contamination;
- Promoting conservation of ground and surface water resources;
- Reducing emissions, such as particulate matter, nitrogen oxides, volatile organic compounds, and ozone precursors and depleters that contribute to air quality impairment violations of National Ambient Air Quality Standards;
- Reducing unacceptably high levels of soil erosion and sedimentation on agricultural land; and
- Promoting at-risk species habitat conservation.

Like other financial assistance programs, AMA implementation is derived from a contract based on a conservation plan containing highly effective conservation practices to help mitigate the negative effects of resource concerns on the landscape and to the environment.

The practices most frequently utilized in conservation plans and AMA contracts include:

- Seasonal high tunnels to control the growing environment and improve plant health;
- Irrigation pipelines to convey irrigation water in an efficient and effective manner;
- Irrigation water management to assist clients in more effective and efficient management of water;
- Micro irrigation systems to deliver water more consistently;
- Cover crops to help improve soil health, reduce erosion, and improve air quality;

- Fencing installation to assist in the management of livestock grazing, ; and
- Brush management to control invasive species and increase land productivity.

The conservation provisions developed by the agency make program implementation flexible enough to allow states the opportunity to use it to meet their resource needs. States individually determine the resource concerns to be addressed, eligible practices, applicant ranking criteria, ranking processes, and cutoff dates for ranking applications. States are responsible for within-state fund allocations, payment methods, and public outreach and information activities. Participants may use AMA in conjunction with other USDA conservation programs.

Applicants must own or control the land, which must be within a State in which the program is authorized and comply with the adjusted gross income limitation provisions of the Food Security Act of 1985. Eligible land includes cropland, rangeland, grassland, pastureland, nonindustrial forestland, and other private land that produces crops or livestock where risk may be mitigated through operation diversification or change in resource conservation practices.

Participation in AMA is voluntary, and the agency works with the applicant to develop the required conservation plan. A contract may be for a period not to exceed ten years, and participants must agree to maintain cost-shared practices for the life of the practice. In addition, they may contribute to the cost of a practice through in-kind contributions, which may include personal labor, use of personal equipment, donated labor or materials, and on-hand or approved used materials.

Current Activities

In 2019, over $3.5 million in CCC funds for financial assistance was obligated for 217 AMA contracts covering 3,993 acres.

AMA provides many producers a first-time opportunity to address natural resource concerns on their lands. For example, many producers have not been able to participate in the Environmental Quality Incentives Program (EQIP) due to the eligibility requirement that land must have been irrigated for two of the previous five years to receive EQIP funding. A number of these EQIP-ineligible producers are small-acreage or specialty-crop farming operations that provide high dollar value products to the public. By helping to mitigate the risks associated with these kinds of agricultural enterprises, AMA helps agriculture remain a valuable segment of local economies.

Agricultural Water Enhancement Program

Section 2510 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246) established the Agricultural Water Enhancement Program (AWEP) by amending section 1240I of the Food Security Act of 1985 (16 U.S.C. 3839aa- 9). Section 2706 of the Agricultural Act of 2014 (the 2014 Farm Bill) (P.L. 113–79) repealed AWEP. However, Section 2706 also provided transitional

language that ensured prior enrollments will continue to be provided technical and financial assistance by NRCS. The 2014 Farm Bill consolidated AWEP into the Regional Conservation Partnership Program (RCPP.

The purpose of AWEP was to promote improved ground and surface water conservation and water quality by leveraging the Federal government's investment in natural resources conservation, with services and resources of other eligible partners. Eligible partners included Federal, State, and local entities, as well as local conservation districts, whose conservation goals complement the agency's mission.

AWEP was specifically created to address serious surface and ground water shortages and water quality concerns in many agricultural areas, and AWEP followed the established national priorities for the Environmental Quality Incentives Program (EQIP).

Through AWEP, eligible partners submitted proposals for funding. The proposals were evaluated, and successful applicants entered into multi-year agreements with NRCS to promote ground and surface water conservation and improve water quality on eligible agricultural lands in a specific geographic area. In evaluating partnership proposals, priority was given to those that:

- Included a high percentage of agricultural land and producers in the region or other appropriate area;
- Resulted in high levels of applied agricultural water quality and water conservation activities;
- Significantly enhanced agricultural activity;
- Allowed for monitoring and evaluation;
- Assisted agricultural producers in meeting a regulatory requirement that might otherwise reduce the economic scope of the producer's operation;
- Projected achieving the project's land and water treatment objectives within no more than five years;
- Included conservation practices supporting conversion of agricultural land from irrigated to dryland farming;
- Leveraged AWEP funds with funds provided by partners; and
- Assisted producers in areas with high-priority water quantity concerns in the following regions: Eastern Snake Plains Aquifer, Puget Sound, Ogallala Aquifer, Sacramento River Basin, Upper Mississippi River Basin, Red River, or Everglades.

AWEP contracts provided technical and financial assistance directly to eligible producers to do the following:

- Construct or improve irrigation systems and increase irrigation efficiency; and

- Implement conservation practices to improve water quality and mitigate the effects of drought by conversion to less water-intense agricultural commodities or to dryland farming.

Eligible program participants receive a payment amount that includes up to 75 percent of the incurred costs to implement one or more structural, vegetative, or land management practices, and up to 100 percent of estimated foregone income. Limited resource farmers, beginning farmers, and landowners or operators that are socially disadvantaged receive up to 90 percent of the incurred costs and up to 100 percent of foregone income.

Total conservation payments are limited to $300,000 per person or legal entity during any six-year period, regardless of the number of farms or contracts. Applicants must be an agricultural producer, have control of the land for the life of the contract, develop an AWEP plan of operations, and be compliant with statutory payment eligibility provisions and limitations, including highly erodible land compliance, wetland conservation compliance, adjusted gross income limitations, and protection of tenants and sharecroppers.

Current Activities

The 2014 Farm Bill repealed the authority to enter into new AWEP agreements and contracts. As a result, NRCS is assisting producers to implement existing contracts. In 2019, the assistance provided to the producers helped to implement more than 40 practices for $217,170 in payments for the completed practices. Currently, 15 AWEP contracts on 3,552 acres remain active.

Chesapeake Bay Watershed Program

The Chesapeake Bay Watershed Program (CBWP) was authorized by Section 1240Q of the Food Security Act of 1985, as amended by Section 2605 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246). Authority for new funding for CBWP expired at the end of 2013. Section 2709(a) of the 2014 Farm Bill (P.L. 113–79) repealed the Chesapeake Bay Watershed Program. However, Section 2709 also provided transitional language that ensured prior enrollees will continue to be provided technical and financial assistance by NRCS. The purposes and activities of CBWP were consolidated into the Regional Conservation Partnership Program (RCPP) authorized by the 2014 Farm Bill and amended by the 2018 Farm Bill.

The Chesapeake Bay is a national treasure, constituting the largest estuary in the United States and one of the largest and most biologically productive estuaries in the world. However, water pollution in the Chesapeake Bay is preventing the attainment of existing State water-quality standards and the "fishable and swimmable" goals of the Clean Water Act.

CBWP helped agricultural producers improve water quality and quantity, and restore, enhance,

and preserve soil, air, and related resources in the Chesapeake Bay Watershed through the implementation of conservation practices. These conservation practices reduce soil erosion and nutrient levels in ground and surface water; improve, restore, and enhance wildlife habitat; and help address air quality and related natural resource concerns. CBWP encompassed all tributaries, backwaters, and side channels, including their watersheds, which drain into the Chesapeake Bay. This area includes portions of the States of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

CBWP funding supported the Chesapeake Bay Program, a regional initiative that helped Federal and State agencies, local governments, nonprofit groups, and citizens address resource concerns, and reach mutually established goals for clean and sustainable ecosystems. CBWP funding also supported Executive Order 13508, Chesapeake Bay Protection and Restoration. This Executive Order declared the Chesapeake Bay a national treasure and ushered in a new era of shared Federal leadership, action, and accountability. Thus, CBWP priorities were also national priorities and included focusing on high priority watersheds, focusing and integrating Federal and State programs, accelerating conservation adoption, and accelerating development of new conservation technologies.

Section 2709 of the 2014 Farm Bill authorizes NRCS to use any funds made available for CBWP prior to October 1, 2013, to carry out contracts, agreements, and easements entered into prior to February 7, 2014, the enactment date of the 2014 Farm Bill. Therefore, financial assistance under CBWP is used to support existing contracts.

All remaining technical assistance through CBWP is used to help agricultural producers implement their existing contracts.

Current Activities

In 2019, all CBWP-related activities focused on implementing existing contracts. The assistance provided to producers helped implement 79 practices for $137,691 in payments for the completed practices. Currently, 11 CBWP contracts on 1,581 acres remain active.

Implementation of existing CBWP contracts continues to play an important role in the improvement of water quality by addressing numerous natural resource concerns:

- Nitrogen, phosphorous, sediment, and chemical contaminants make achieving water quality goals throughout the Chesapeake Bay and its watershed a challenge;
- Low or fluctuating populations of fish and shellfish, including American and hickory shad, river herring, striped bass, eel, weakfish, bluefish, flounder, oysters, and blue crabs continue to be a concern. These various populations hold tremendous ecological, commercial, and cultural value; and
- development leads to continued loss of habitats and agricultural land.

Conservation Stewardship Program

The 2018 Farm Bill reauthorized CSP through 2023 and changed the program from acre-based to a cash-based program. In addition, the Grassland Conservation Initiative (GCI) was added to CSP. The Commodity Credit Corporation funds CSP.

CSP provides opportunities to recognize excellent stewards and deliver valuable new conservation. CSP encourages agricultural and forestry producers to maintain existing conservation activities and adopt additional activities on their operations. The program helps producers identify natural resource problems in their operation and provides technical and financial assistance to solve those problems in an environmentally beneficial and cost-effective manner.

CSP addresses priority resource concerns as identified at the national, State, or local level. Below are examples of how the program addresses some priority concerns:

- Soil erosion - reducing the amount of soil lost through wind, sheet and rill erosion from cropland, stream banks, and farm roads;
- Soil quality - increasing soil organic matter, reducing compaction, reducing organic matter oxidation, removing soil contaminants, and utilizing nutrient cycling;
- Water quantity - mitigating the impact of excess water, improving water usage through irrigation efficiency, and selecting crops based on available moisture;
- Water quality - reducing the negative impact of transported sediments, nutrients, pesticides, salinity, and pathogens on surface and subsurface water sources;
- Air quality - reducing the contribution of agricultural operations to airborne soil particles and greenhouse gas emissions, controlling chemical spray drift, and reducing odors from livestock operations;
- Plant resources - improving the quantity, diversity, health, and vigor of plants while creating conditions for recognized threatened and endangered species to reestablish;
- Animal resources - improving the cover, food, and water available for domestic and wildlife species and improving habitat for aquatic and recognized threatened and endangered species; and
- Energy - promoting energy efficiencies for on-farm activities.

CSP is a voluntary program available through a continuous sign-up process, with announced cut-off dates for ranking and funding applications. This allows producers to submit their applications at any time. NRCS evaluates applications that face similar natural resource problems using a competitive ranking process.

CSP is available to all producers, regardless of operation size or crops produced, in all 50 States, the District of Columbia, and the Caribbean and Pacific Island areas. Even though the program is national in scope, the agency did not establish national targeted resource concerns. Instead, states determine five targeted resource concerns that are of respective specific concern or for geographic areas within the State.

To be eligible for CSP, an applicant must meet each of the following three components - applicant, land, and stewardship threshold eligibility. Individuals, legal entities, joint operations, or Indian Tribes may apply. To be accepted, the applicant must have effective control of the land, and be the operator of record within the FSA records system. An operator of record waiver can be approved by NRCS where sufficient evidence of control exists. Eligible lands include cropland, pastureland, rangeland, non-industrial private forestland, associated agricultural land, farmstead, agricultural land under the jurisdiction of an Indian tribe, and other private agricultural land on which resource concerns related to agricultural production could be addressed.

Once applicant and land eligibility are determined, NRCS uses a science-based stewardship threshold for each resource concern to assess an applicant's existing and planned conservation activities. These activities must meet or exceed the stewardship threshold for at least two resource concerns at the time of the application, as well as one additional resource concern by the end of the CSP contract. In 2017, NRCS began using new tools to evaluate applications, including a web-based Conservation Activity Evaluation Tool (CAET) to assist customers and planners with the specific land use evaluations of the overall land use management systems that are part of the agricultural operations. NRCS uses CAET to determine eligibility for the program, and to document customer decisions to adopt conservation activities. The evaluations provide estimates of the applicant's current and future conservation levels. The tool also increases awareness of which conservation activities can be adopted to meet additional resource concerns on the operation. Eligible applications are then ranked using an Application Evaluation and Ranking Tool (AERT), similarly to the AERT used in other conservation programs.

CSP provides participants with two possible types of payments. An annual payment is available for installing new conservation activities and maintaining existing conservation activities. A supplemental payment may be earned by participants already receiving an annual payment who also adopt or improve a resource-conserving crop rotation. CSP pays participants for conservation performance of existing activities in place at the time of supplemental payment enrollment based on resource concerns met at the time of enrollment, the higher the performance, the higher the payment. Payment rates and estimated costs incurred for new conservations activities are documented in the developed and approved NRCS payment schedules. New conservation activities adopted through CSP must meet NRCS technical standards and nationally developed enhancement job sheets to earn program payment. States develop supplements to the job sheets to address additional local conditions and resource concerns. CSP contracts are for a five-year period, and payments are made as soon as practicable after October 1, of each fiscal year for contract activities installed and maintained in the previous fiscal year. Contract terms for CSP establish that payments to a person or legal

entity may not exceed $40,000 in any year, and $200,000 during any five-year period. However, joint operations may qualify for up to $400,000 over the term of the initial contract period.

CSP offers technical assistance to producers to address resource concerns in a comprehensive manner. Through the planning process, the agency helps producers, including forestry land owners, identify natural resource problems in their operation and provide technical and financial assistance to solve those problems in an environmentally beneficial and cost-effective manner.

Partnerships have been created with Federal, State, and local entities, including the National Association of Conservation Districts, State Associations of Conservation Districts, and local conservation districts to deliver a program beneficial to participants and the environment. Cooperation is formed with Federal, State, and local partners to address local and national conservation issues. Through interactive communication between the local community, local interest groups, and state and Federal agencies, the partnership provides the entities with information and resources needed to address local priorities and implement state and national programs such as CSP.

Current Activities

In 2019, CSP provided more than $460.4 million in financial assistance funding for new enrollments, as shown in the two state distribution tables below. These funds will be used to treat over 6.3 million acres. CSP funds also support conservation initiatives focused on targeted areas through the following land conservation initiatives: Lesser Prairie Chicken Initiative, Longleaf Pine Initiative, Ogallala Aquifer Initiative, Sage Grouse Initiative, and Mississippi River Basin Initiative.

Table NRCS-38. 2019 CSP - Classic Enrollment

State	Acres Treated	Financial Assistance ($ Obligated)
Alabama	52,714	$4,994,399
Arizona	170,566	2,015,298
Arkansas	147,127	20,592,729
California	72,329	2,424,727
Caribbean Region	952	201,153
Colorado	124,587	6,320,964
Connecticut	26	67,580
Delaware	1,882	226,344
Florida	19,155	905,462
Georgia	77,112	15,036,986
Hawaii	1,789	570,657
Idaho	33,801	1,864,367
Illinois	121,795	11,806,461
Indiana	44,132	4,816,776
Iowa	107,589	14,067,097
Kansas	226,875	12,351,693
Kentucky	29,314	5,416,887
Louisiana	64,647	8,874,607

State	Acres Treated	Financial Assistance ($ Obligated)
Maine	2,589	370,179
Maryland	10,575	1,412,400
Massachusetts	43	9,702
Michigan	78,151	8,181,670
Minnesota	163,488	20,426,144
Mississippi	257,992	49,559,101
Missouri	123,293	17,220,912
Montana	380,551	12,730,517
Nebraska	467,707	22,085,053
Nevada	1,257	183,786
New Hampshire	43,358	639,885
New Jersey	272	47,820
New Mexico	233,392	2,720,813
New York	21,335	1,322,088
North Carolina	42,776	4,600,671
North Dakota	262,184	15,987,524
Ohio	27,544	3,407,025
Oklahoma	264,672	13,755,017
Oregon	214,524	9,251,707

State	Acres Treated	Financial Assistance ($ Obligated)
Pacific Island Area	96	461,416
Pennsylvania	28,885	3,857,002
Rhode Island	329	49,988
South Carolina	63,811	6,283,909
South Dakota	674,890	27,596,751
Tennessee	65,479	6,687,628
Vermont	4,991	710,191
Virginia	28,907	4,922,872
Washington	25,704	3,351,052
West Virginia	7,419	1,465,003
Wisconsin	120,325	15,319,243
Wyoming	82,477	1,334,258
Grand Total	**5,482,537**	**384,253,701**

Source: NRCS Protracts October 2019, official end-of-year dataset.

Table NRCS-39. 2019 CSP – GCI

State	Acres Treated	Financial Assistance ($ Obligated)
Alabama	21,354	$1,916,368
Arizona	1,105	99,455
Arkansas	16,243	1,479,370
California	21,164	1,904,865
Colorado	9,817	883,770
Connecticut	2,009	180,900
Delaware	16,245	1,449,752
Florida	4,932	444,150
Georgia	21,354	1,916,368
Idaho	1,105	99,455
Illinois	843	75,920
Indiana	1,320	118,945
Iowa	2,037	183,495
Kansas	35,619	3,181,820
Kentucky	2,252	202,830
Louisiana	40,998	3,679,551
Maine	84	7,550
Maryland	927	83,445

State	Acres Treated	Financial Assistance ($ Obligated)
Massachusetts	844	75,970
Michigan	744	66,990
Minnesota	691	62,260
Mississippi	12,252	1,100,239
Missouri	27,800	2,502,030
Montana	15,900	1,431,260
Nebraska	15,119	1,361,165
New Jersey	749	63,145
New Mexico	14,176	1,273,525
New York	2,181	196,435
North Carolina	4,403	385,460
North Dakota	6,745	607,200
Ohio	1,455	131,065
Oklahoma	138,113	12,450,989
Oregon	3,430	308,775
Pennsylvania	1,143	102,863
South Carolina	6,287	566,130
South Dakota	9,365	843,125
Tennessee	15,299	1,377,866

State	Acres Treated	Financial Assistance ($ Obligated)
Texas	356,251	32,042,650
Utah	3,103	63,145
Virginia	3,974	357,970
Washington	977	87,995
West Virginia	2,009	180,975
Wisconsin	719	64,785
Wyoming	5,951	526,045
Grand Total	**849,088**	**76,138,066**

Source: NRCS Protracts October 2019, official end-of-year dataset.

Environmental Quality Incentives Program
Sections 2301-2309 of the 2018 Farm Bill reauthorized and revised the Environmental Quality Incentives Program (EQIP) (16 U.S.C. 3839aa).

America faces serious environmental challenges that can be addressed through financial and technical assistance delivered through EQIP. Federal, State, tribal, and private lands face pressing environmental concerns that pose risks to the long-term sustainability of our natural resources. For example, regulation of on-farm air pollution poses challenges to agriculture, while changing growth and marketing conditions for producers, high costs for energy, and the desire on the part of many producers to reduce greenhouse gas emissions are some of the new challenges faced by today's agriculture industry. To meet these and other challenges to agricultural sustainability, EQIP promotes the voluntary application of land-based conservation practices and activities that maintain or improve the condition of the soil, water, plants, and air; conserve energy; and address other natural resource concerns.

EQIP is carried out in a manner that optimizes conservation benefits. EQIP provides:

- Technical and financial assistance to help farmers and ranchers that face the most serious threats to soil, water, plants, and air conserve energy and address related natural resources concerns;
- Assistance to farmers and ranchers in complying with Federal, State, and local environmental regulatory requirements;
- Assistance to farmers and ranchers in making beneficial, cost-effective changes to cropping systems; grazing systems; manure, nutrient, pest, or irrigation management systems; or land uses to conserve and improve soil, water, air, and related natural resources; and
- Consolidated and simplified conservation planning and implementation to reduce the administrative burden on producers.

National Priorities - EQIP statutory provisions require that at least 50 percent of the financial assistance funds for EQIP be targeted to livestock-related operations, including both confined livestock operations and grazed lands. With input from the public, agricultural and environmental organizations, Conservation Districts, agencies, and other partners, NRCS has the following national priorities for EQIP:

- Reduction of nonpoint source pollution, such as nutrients, sediment, pesticides, or excess salinity in impaired watersheds consistent with TMDLs, where available;
- Reduction of contamination from agricultural point sources, such as concentrated animal feeding operations;

- Reduction of surface and groundwater contamination and conservation of surface and groundwater resources;
- Reduction of emissions, such as particulate matter, nitrogen oxides, volatile organic compounds, and ozone precursors and depleters, that contribute to air quality impairment violations of National Ambient Air Quality Standards;
- Reduction in soil erosion and sedimentation;
- Promotion of at-risk species habitat conservation; and
- Promotion of energy conservation.

To participate in EQIP, both the land and the applicant must be eligible. Eligible land includes cropland, rangeland, pastureland, private nonindustrial forestland, Tribal land, and other farm or ranch lands. The land must have an identified natural resource concern that poses a serious threat to soil, water, air, or related resources by reason of agricultural production activities with respect to soil type, terrain, climatic conditions, topography, flooding, saline characteristics, or other natural resource factors. Publicly-owned land is eligible when the land is under the control of an eligible producer for the contract period, is included in the participant's operating unit, and the participant has written authorization from the government agency to apply conservation practices. For irrigation-related practices, the land must have been irrigated for two out of the last five years. However, a limited waiver to this irrigation history requirement is available for limited resource and socially disadvantaged farmers and ranchers (including Tribal entities) when the land has not been irrigated for reasons that are beyond the producer's control.

An eligible applicant must be an agricultural producer, have control of the land for the life of the contract, develop an EQIP plan of operations, and be in compliance with statutory payment eligibility provisions and limitations, including highly erodible land compliance, wetland conservation compliance, adjusted gross income limitations, and protection of tenants and sharecroppers. Eligible applications are accepted year-round at local USDA Service Centers, but cut-off dates that vary by State are established to allow ranking and approval.

The agency works with the participant to develop the EQIP plan of operations, which forms the basis of the EQIP contract. The plan may be developed with technical assistance or EQIP may provide financial assistance to the participant to obtain the services of an agency-certified technical service provider (TSP) who develops a conservation plan or EQIP plan of operations for the offered acres initially determined eligible. The plan identifies the conservation practices and activities that will be implemented through EQIP.

Implementation of conservation practices must contribute to an improvement in the identified natural resource concern as determined through the application evaluation and

ranking process. Conservation practices include structural practices, land management practices, vegetative practices, forest management practices, conservation activities, and other improvements that achieve the program purposes. Conservation activities supported through EQIP may include the development of specialized plans such as comprehensive nutrient management plans, agricultural energy management plans, dryland transition plans, forest management plans, integrated pest management, and other similar plans. To earn program payment, these plans, activities, and practices must meet NRCS technical standards adapted for local conditions.

EQIP payment rates may be up to 75 percent of the estimated incurred costs and up to 100 percent of income foregone related to implementing certain conservation practices. Historically underserved producers, including socially disadvantaged, limited resource, or beginning farmers and ranchers, and tribal members, may be eligible for payment rates up to 90 percent for the estimated incurred costs and up to 100 percent of income foregone. Payment rates and estimated incurred costs are documented in agency developed and approved payment schedules. Contracts have a maximum term of not more than 10 years.

Total EQIP conservation payments are limited to $450,000 in financial assistance per person or legal entity for contracts entered into between 2018 through 2022, regardless of the number of contracts. Tribal entities themselves are not subject to payment limitations provided they certify that no individual tribal member exceeds their individual payment limitation.

The agency cooperates with Federal, State, and local partners to address local and national conservation issues, and to complement their conservation programs. Partners include the National Association of Conservation Districts, State Associations of Conservation Districts, and local conservation districts in an effort to deliver a program beneficial to program participants and the environment. Through interactive communication between the local community, local interest groups, and State and Federal agencies, EQIP provides the partners with information and resources needed to address local priorities and implement State and national programs.

Joint Chiefs' Landscape Restoration Partnership – Through the Joint Chiefs' Landscape Restoration Partnership (LRP), NRCS and Forest Service are combining resources and coordinating activities to restore landscapes across ownership boundaries. The aim of the partnership is to reduce wildfire threats to communities and landowners, protect water quality and supply, and improve habitat for at-risk species seamlessly across public and private lands. By working across agency lines on adjacent public and private lands, conservation work in the project areas will be more efficient and effective. Projects selected for the Joint Chiefs' LRP demonstrate strong collaborations with local partners and readiness to implement the restoration work. These cross-boundary projects address priority conservation needs in that landscape while delivering benefits to local communities. Thirteen new three-year-long projects in nine States were selected in 2019. Currently, 30 projects across 21 States and United States territories are being

implemented. For 2019, these projects represent 452 contracts, more than $13.5 million in financial assistance, and approximately 80,000 acres.

Current Activities

In 2019, EQIP financial assistance obligations totaled over $1.5 billion in 41,471 active or completed contracts covering an estimated 13 million acres. In addition to regular EQIP projects, these funds also supported projects in initiatives focused on environmental benefit and agricultural production as compatible goals, such as air quality, on-farm energy conservation, migratory bird habitat in the Mississippi River Basin, organic production, and high tunnel systems.

Air Quality – In 2019, approximately $37.3 million in financial assistance was obligated to eight states through the National Air Quality Initiative to help producers meet requirements of the Clean Air Act. Through this initiative, NRCS provides assistance to farmers and ranchers to reduce air pollution generated from agricultural operations in areas designated by the Environmental Protection Agency as non-attainment areas for ozone and particulate matter. At the end of 2019, 728 contracts were in the active or completed contract status, representing more than 211,680 acres. During 2019, $13.1 million was paid out for applied practices.

Organic Production – The Organic Initiative is a nationwide special initiative that provides assistance to organic producers, as well as producers in the process of transitioning to organic production. In 2019, $5.6 million was obligated in EQIP funds to 348 active and completed contracts, treating approximately 25,758 acres in organic production, or in transition to organic production. One critical benefit of the Organic Initiative is sustaining the natural physical, biological, and chemical properties of the soil, which is vital to organic production.

EQIP is popular among producers, and demand for the program is high across the country. Nationally, slightly over 27.7 percent of qualifying projects (valid applications which met all program requirements) were funded in 2019, as the table below shows.

Table NRCS-40. 2019 Total EQIP Program Demands

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Alabama	5,185	1,733	971	33.42	$16,478	$16,000,138
Alaska	125	30	33	24.00	357,804	11,807,532
Arizona	417	148	119	35.49	95,442	11,357,598
Arkansas	10,526	1,317	6208	12.51	36,152	224,431,616
California	4,073	1,661	1062	40.78	55,238	58,662,756
Colorado	2,102	814	439	38.73	55,298	24,275,822

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Connecticut	154	86	-	55.84	33,441	-
Delaware	496	178	231	35.89	40,010	9,242,310
Florida	1,721	488	662	28.36	39,677	26,266,174
Georgia	7,501	1875	3417	25.00	25,524	87,215,508
Hawaii	394	166	111	42.13	72,199	8,014,089
Idaho	1,291	409	333	31.68	41,015	13,657,995
Illinois	2,764	420	1163	15.20	29,195	33,953,785
Indiana	2,942	1503	679	51.09	15,663	10,635,177
Iowa	5,281	1,342	1731	25.41	25,458	44,067,798
Kansas	3,080	1,213	653	39.38	26,926	17,582,678
Kentucky	3,021	619	1217	20.49	26,334	32,048,478
Louisiana	2,621	683	903	26.06	40,379	36,462,237
Maine	1,425	569	425	39.93	21,758	9,247,150
Maryland	1,001	341	230	34.07	35,170	8,089,100
Massachusetts	333	178	37	53.45	20,194	747,178
Michigan	3,384	1623	793	47.96	16,078	12,749,854
Minnesota	5,195	1302	2203	25.06	20,544	45,258,432
Mississippi	12,342	2520	6234	20.42	19,050	118,757,700
Missouri	6,907	1,102	2,645	15.95	35,035	92,667,575
Montana	1,704	311	366	18.25	76,117	27,858,822
Nebraska	4,746	1701	1145	35.84	16,629	19,040,205
Nevada	230	62	70	26.96	99,260	6,948,200
New Hampshire	392	224	44	57.14	21,261	935,484
New Jersey	872	207	130	23.74	23,219	3,018,470
New Mexico	2,126	348	1020	16.37	70,524	71,934,480
New York	1,194	324	112	27.14	46,401	5,196,912
North Carolina	2,329	616	609	26.45	31,305	19,064,745
North Dakota	1,600	466	275	29.13	42,873	11,790,075
Ohio	4,910	1496	1568	30.47	17,777	27,874,336
Oklahoma	6,526	824	2,429	12.63	26,213	63,671,377
Oregon	983	529	139	53.81	40,174	5,584,186
Pennsylvania	3,397	447	1410	13.16	56,302	79,385,820
Rhode Island	190	129	28	67.89	17,998	503,944
South Carolina	2,698	867	876	32.13	31,702	27,770,952
South Dakota	4,118	849	741	20.62	24,890	18,443,490

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Tennessee	3,920	1,437	780	36.66	23,608	18,414,240
Texas	8,237	3911	1389	47.48	26,392	36,658,488
Utah	1,796	428	710	23.83	56,701	40,257,710
Vermont	946	305	273	32.24	41,052	11,207,196
Virginia	1,337	607	275	45.40	42,293	11,630,575
Washington	1,095	300	409	27.40	48,768	19,946,112
West Virginia	2,070	497	363	24.01	18,516	6,721,308
Wisconsin	4,400	1534	967	34.86	23,205	22,439,235
Wyoming	879	200	221	22.75	64,016	14,147,536
Pacific Basin	136	34	28	25.00	19,353	541,884
Puerto Rico	2,462	498	567	20.23	21,652	12,276,684
Grand Total	149,574	41,471	49,443	27.73	31,075	1,536,461,146

Source: Protracts as of October 2019.

Unfunded applications include pre-approved, deferred, and eligible. Estimated Value of Unfunded Applications ($) determined from number of unfunded valid applications multiplied by average contract amount.

Conservation Innovation Grants (CIG)

CIG are authorized as part of the Environmental Quality Incentives Program (EQIP) (16 U.S.C. 3839aa-8). CIG stimulates the development and adoption of innovative conservation approaches and technologies in conjunction with agricultural production. CIG projects transfer conservation technologies, management systems, and innovative approaches (such as market-based systems) to agricultural producers, NRCS staff, and the private sector.

Annually, NRCS publishes Notices of Funding Opportunities (NFOs) for a national competition, and for State competitions. In addition to the CIG Classic national and state opportunities, the 2018 Farm Bill introduced another competition at the national level called On-Farm Conservation Innovation Trials (OFT). CIG Classic and OFT complement each other, with CIG Classic funding pilot projects, field demonstrations, and on-farm conservation research of promising technologies or approaches and OFT funding wider-scale adoption and evaluation of innovative conservation approaches such as those proven effective in CIG Classic and in partnership with agricultural producers. OFT funding is used to help mitigate the risk and incentivize farmers to implement innovative practices, approaches and technologies.

Implementation of the 2019 CIG updates was slightly delayed with the December 2018, passage of the Farm Bill. Awards have not yet been finalized. Total national funding, including CIG Classic and the new OFT component, is estimated to be $37.5 million. All 2019 awards for the

two national funding opportunities will be awarded by February 2020. In 2019, the CIG Classic national competition had four priority areas - Pollinator Habitat, Water Quantity, Urban Agriculture, and Increasing the Pace and Scale of Conservation Adoption. CIG Classic received a total of 87 proposals that were submitted for panel review. OFT also had four priority areas - Irrigation Management Technologies, Precision Agriculture Technologies and Strategies, Management Technologies and Strategies, and Soil Health. OFT received 67 proposals that were submitted for panel review.

In addition to the above, 27 State offices held State-level CIG competitions in 2019 and are expected to award an additional $6 million of EQIP funding through these State-focused projects. Most State projects have been funded, but information is currently being shared with the national office, and 2019 totals will not be finalized until December 2019.

Current Activities

CIG is currently going through the approval process to get a final list of projects, to fund for 2019 awards under CIG Classic and OFT. Once selections are made, agreements are expected to be finalized by February 2020.

Farm and Ranch Lands Protection Program

The Farm and Ranch Lands Protection Program (FRPP) was authorized by Subchapter C of Chapter 2 of Subtitle D of Title XII of the Food Security Act of 1985 (16 U.S.C. 3838h et seq.), as amended. Section 2704 of the Agricultural Act of 2014 (P.L. 113-79) (the 2014 Farm Bill) repealed FRPP. However, Section 2704 also provided transitional language that ensures NRCS has authority to provide prior enrollees technical and financial assistance to complete work on prior year FRPP enrollments as needed. FRPP protected lands by providing matching funds to keep productive farm and ranch lands in agricultural use. The purposes and functions of FRPP were consolidated into the Agricultural Land Easements component of the Agricultural Conservation Easement Program (ACEP-ALE). Lands enrolled under FRPP are considered enrolled in ACEP-ALE and are eligible to receive financial and technical assistance services authorized under ACEP.

Section 2704 of the 2014 Farm Bill authorized the continued validity of FRPP contracts, agreements, and easements, and authorized any unobligated FRPP funds made available between 2009 to 2013 to be used to support FRPP activities entered into prior to February 7, 2014, the date of enactment of the 2014 Farm Bill. Upon exhaustion of these prior year FRPP funds, the 2014 Farm Bill authorizes the use of ACEP funds to carry out these FRPP activities.

In addition to helping landowners and entities develop conservation easement deeds and conservation plans, NRCS may use FRPP prior year funds to provide technical assistance, as needed, for existing FRPP enrollments to complete activities such as final verification of the eligibility of the entity, landowner, and land; completion of hazardous materials assessments; enforcement of the terms of cooperative agreements; final review of deeds, title, and appraisals; and payment processing on lands enrolled into FRPP prior to February 7, 2014.

Current Activities

The 2014 Farm Bill repealed FRPP and combined its purposes with the Wetlands Reserve Program and the Grassland Reserve Program to create ACEP. No new enrollments of FRPP occurred in 2019. The acquisition and closing of all FRPP-funded conservation easements have been completed as of 2018.

Table NRCS-41. Cumulative Program Activity Through 2019

Closed Easements (Permanent)	Cumulative
Number of Easements	4,315
Number of Acres	1,066,010
Financial Assistance Funding	$668,794,600

Grassland Reserve Program

The Grassland Reserve Program (GRP) was authorized by Sections 1238 N through Q of the Food Security Act of 1985 (P.L. 99-198), as amended. Section 2705 of the Agricultural Act of 2014 (P.L. 113-79) (the 2014 Farm Bill) repealed GRP. However, Section 2705 also provided transitional language that ensured prior enrollments will continue to be provided technical and financial assistance by NRCS. The 2014 Farm Bill combined the purposes and functions of GRP into the Agricultural Land Easement component of the Agricultural Conservation Easement Program (ACEP-ALE). Lands previously enrolled in GRP are now considered enrolled in ACEP-ALE, and the repeal of GRP does not affect the validity or terms of any contract, agreement, or easement entered into prior to the 2014 Farm Bill enactment.

Section 2705 of the 2014 Farm Bill authorized the continued validity of GRP contracts, agreements, and easements, and authorized any unobligated GRP funds made available between 2009 to 2013 to be used to support GRP activities entered into prior to February 7, 2014, the 2014 Farm Bill enactment date. The 2014 Farm Bill also authorized the use of ACEP funds to carry out these GRP activities.

GRP technical assistance includes development of grazing management plans, reviews of restoration measures, guidance on management activities, and biological advice to achieve optimum results considering all grassland resources. The 2014 Farm Bill authorized GRP prior year funds to be used by NRCS to provide ongoing technical assistance to existing GRP enrollments.

Current Activities

The 2014 Farm Bill repealed GRP and combined its purposes with the Wetlands Reserve Program and the Farm and Ranch Lands Protection Program to create ACEP. No new additional enrollment of GRP lands has occurred since 2013; however, contracts and easements signed prior to February 7, 2014, continue to be serviced by the agency. All GRP agreements for easements have completed the acquisition of the conservation easement. Enrollments include current active and completed agreements, but do not include cancelled or expired agreements.

Table NRCS-42. FY 2009 to FY 2013 GRP Enrollment Summary

No. of Agreements	391
No. of Acres Enrolled	266,133
Financial Assistance Funding	$320,641,800

Information regarding GRP rental contracts is available from the Farm Service Agency.

Healthy Forests Reserve Program

Title V of the Healthy Forests Restoration Act of 2003 (P.L. 108-148) authorized the establishment of the Healthy Forests Reserve Program (HFRP). The Food, Conservation, and Energy Act of 2008 (P.L. 110-246) amended the program to provide mandatory funding through the Commodity Credit Corporation. The 2014 Farm Bill made minor changes to HFRP by adding a definition of the term "acreage owned by Indian tribes", identifying HFRP as a contributing program (or "covered program") authorized to accomplish the purposes of RCPP, replacing mandatory funding with authorization of appropriations, and authorizing the use of conservation operation funds for HFRP stewardship responsibilities. The 2018 Farm Bill amended the provisions.

HFRP assists landowners in restoring, enhancing, and protecting forest ecosystems in order to: 1) promote the recovery of threatened and endangered species; 2) improve biodiversity; and 3) enhance carbon sequestration. HFRP provides financial assistance for specific conservation actions completed by the landowner. The agency's Chief solicits project proposals that state conservationists have developed in cooperation with partnering organizations. States with approved projects provide public notice of the availability of funding within the selected geographic area(s). HFRP offers four enrollment options:

- 10-year restoration agreement. The landowner may receive 50 percent of the average cost of the approved conservation practices.

- 30-year contract (equivalent to the value of a 30-year easement). The landowner may receive 75 percent of the easement value of the enrolled land plus 75 percent of the average cost of the approved conservation restoration practices. This option is only available on acreage owned by Indian Tribes.

- 30-year easement. The landowner may receive 75 percent of the easement value of the enrolled land plus 75 percent of the average cost of the approved conservation practices.

- Permanent easement. The landowners may receive 100 percent of the easement value of the enrolled land plus 100 percent of the average cost of the approved conservation practices.

Only privately held land, including acreage owned by Indian tribes, is eligible for HFRP enrollment. The definition of land owned by Indian tribes was expanded in the 2014 Farm Bill to include land that is held in trust by the United States for Indian tribes or individual Indians. In addition, to be eligible, the landowner must commit to restoring, enhancing, or measurably increasing the likelihood of recovery of an at-risk species. At-risk species include threatened or endangered species or candidates for the Federal or state threatened or endangered species list. Landowners must also improve biological diversity or increase carbon sequestration on enrolled land. For all enrollment options, landowners develop a restoration plan that includes practices necessary to restore and enhance habitat for at-risk species. Technical assistance is provided to help landowners develop and comply with the terms of their HFRP restoration plans.

Landowners may receive "safe harbor" assurances from the regulatory agencies for land enrolled in HFRP if they agree, for a specified period, to protect, restore, or enhance their land for threatened or endangered species habitat. In exchange, landowners avoid future regulatory restrictions on the use of that land under the Endangered Species Act.

The agency provides financial assistance payments consistent with enrollment in either a single payment or in ten or fewer annual payments, as agreed to between the agency and the landowner. Cost-share payments are also provided upon a determination that an eligible conservation practice or an identifiable component of the conservation practice has been established in compliance with appropriate standards and specifications.

In coordination with the Department of the Interior's Fish and Wildlife Service and the Department of Commerce's National Marine Fisheries Service, the agency provides technical assistance to landowners through the development of healthy forests management conservation plans for land eligible for enrollment in HFRP. The conservation plan integrates compatible silvicultural practices and habitat considerations to protect, restore, and enhance forest ecosystems for the recovery of threatened and endangered species and candidate species. Technical assistance continues to be provided to the landowner after the project is enrolled by reviewing restoration measures and providing guidance on management activities and biological advice to achieve optimum results.

Current Activities

Cumulatively, 102 agreements have been enrolled, encompassing approximately 675,535 acres.

Table NRCS-43. Cumulative Program Activity (Through 2019)

Closed Easements (Permanent and 30-Year)	Cumulative
Number of Easements	86
Number of Acres	21,026
Active and Completed Restoration Cost-Share Agreements	Cumulative
Number of Agreements	16
Number of Acres	654,509
Summary	Cumulative Summary
Total Agreements Enrolled	102
Total Acres	675,535

Regional Conservation Partnership Program

RCPP was reauthorized by the 2018 Farm Bill. Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges on a regional or watershed scale.

The purpose of RCPP is to further the conservation, restoration, and sustainable use of soil, water, wildlife, and related natural resources on eligible land. It encourages eligible partners to cooperate with producers in meeting or avoiding the need for regulatory requirements related to agricultural production. Through RCPP, NRCS and State, local, and regional partners coordinate resources to help producers install and maintain conservation activities in selected project areas. Partners leverage RCPP funding in project areas, and report on the benefits achieved. The goal is to implement projects that will result in the installation and maintenance of eligible activities that affect multiple agricultural or non-industrial private forest operations on a local, regional, State, or multi-State basis. RCPP offers new opportunities for the agency to work with partners to encourage locally-driven innovation and create high-performing solutions, harness innovation, accelerate the conservation mission, launch bold ideas, and demonstrate the value and efficacy of voluntary, private lands conservation.

The 2018 Farm Bill changes included the following:

- RCPP is now a standalone program with its own funding of $300 million annually. Moving forward, landowners and agriculture producers will enter into RCPP contracts, and RCPP easements.

- Enhanced Alternative Funding Arrangement (AFA) provision—NRCS may award up to 15 AFA projects, which are more grant-like and rely more on partner capacity to implement conservation activities.

- Three funding pools reduced to two—The National pool was eliminated. Partners must

apply to either the Critical Conservation Area (CCA) or State/Multistate funding pool.

- Emphasis on project outcomes—All RCPP projects must now develop and report on their environmental outcomes.

As a result of the changes to RCPP, there are new RCPP conservation activities that include a range of on-the-ground conservation activities implemented by eligible farmers, ranchers, and forest landowners. These activities will be completed in new RCPP contracts (rather than utilizing the covered program contracts), that will allow for greater flexibilities for partners requesting to implement the projects. The new types of activities are:

- Land management/land improvement/restoration practices – Similar to the traditional EQIP/CSP-like contracts with practices to address the resource concern(s) identified on the land.

- Land rentals – Short-term rental contracts that will supplement the transition from one farming practice to another. This will not replace of the traditional CRP programs.

- Entity-held easements – Similar to the traditional ACEP-ALE easement in which there is a partnership between a partner holding the easement and NRCS.

- United States-held easements – Similar to the traditional ACEP-WRE easement in which the United States Government purchases and holds the long-term easement for wetlands.

- Public works/watersheds – Similar to the P.L.-566 watershed plans and implementation to address large scale watershed concerns.

Applicants can propose to employ any combination of these eligible activity types as part of an RCPP project.

NRCS funds approved partner proposals by entering into agreements with an eligible partner to implement a project that will assist producers with installing and maintaining qualified activities on eligible land. Partners contribute a significant portion toward meeting the overall costs of the project scope. RCPP-eligible partners include agricultural or silvicultural producer associations, farmer cooperatives or other groups of producers, State or local governments, Indian Tribes, municipal water treatment entities, water and irrigation districts, conservation-driven non-governmental organizations, and institutions of higher education. Partner contributions are used to leverage the financial benefits of the project, to increase the natural resources being protected utilizing RCPP funds. The partnership agreement details the arrangement

between the agency, and the partner, including the programs being offered and any alternative funding arrangements.

The RCPP project selection process is outlined through announcements for program funding (APF) posted on www.grants.gov, and the NRCS website. Project selections occur after applicants submit proposals utilizing the web-based application system for RCPP. Proposals are then evaluated utilizing criteria published in the APF by a State Technical Review Team. Review teams provide recommendations to the National Leadership Review team to consider available funding, geographic diversity, applicant diversity, and other factors in making the final award decisions.

Projects receive financial assistance based on the terms agreed upon between NRCS and the participating partners. RCPP operates by providing funds directly to landowners and producers. The delivery of RCPP financial assistance is individually tailored to each project and based upon the needs and delivery options described in the proposal. RCPP financial assistance may also be delivered through partners under an alternative funding arrangement. Technical assistance is either provided directly to producers and landowners, or through the partners for the implementation of practices and activities.

Current Activities

NRCS released the FY 2019 APF for RCPP on September 3, 2019 and is accepting applications for proposals until December 3, 2019. It is anticipated that 50 percent of the RCPP funding will be designated to critical conservation areas (CCA) projects, and 50 percent to projects in the State/multistate category. It is anticipated that final award announcement will occur in March 2020.

Voluntary Public Access and Habitat Incentive Program

The Voluntary Public Access and Habitat Incentive Program (VPA-HIP) was authorized by Section 1240R of the Food Security Act of 1985 (P.L. 99-198), as amended (16 U.S.C. 3839bb-5). The program was reauthorized by the 2018 Farm Bill with an authorized funding level of $50 million for the period covering 2019 through 2023. The Commodity Credit Corporation funds VPA-HIP.

VPA-HIP is a competitive grant program that provides opportunities to State and Tribal governments to promote programs encouraging owners and operators of privately held farm, ranch, and forest land to voluntarily make land available for public access for hunting, fishing, nature watching, hiking, and other wildlife-dependent recreation. The program was previously administered by the USDA Farm Service Agency, but it is now being administered by NRCS.

Only State and Tribal Governments are eligible to apply, through a competitive grants process, for funds from this program. Owners of private forest, farm, or ranchlands are eligible to receive funds from the State or Tribal Government awardees in a manner consistent with the proposals submitted to the agency, and in compliance with the

conditions of the established formal agreements between NRCS and the awardees.

VPA-HIP awardees use the Federal funds to lease land from participating landowners for public use, and to enhance wildlife habitat. VPA-HIP awards include funds for technical assistance to identify and/or improve existing quality wildlife habitat on private lands and provide outreach to socially-disadvantaged and historically-underserved landowners. VPA-HIP awardees use technical assistance funds to update maps and other information to ensure the public is aware of locations providing opportunities for wildlife-dependent recreation. NRCS State offices collaborate with VPA-HIP awardees in providing needed technical assistance.

Current Activities

As of November 11, 2019, the total number of acres made available through VPA-HIP was 6,918,507.

In 2019, grantees worked to complete their agreements, or entered into no-cost extensions to assist with closeout activities.

In September 2019, NRCS published an NFO that made $50 million available. NRCS anticipates making project selections and completing formal grant agreements with selected awardees in the second quarter of 2020.

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) was authorized by Section 1237 of the Food Security Act of 1985 (P.L. 99- 198), as amended, to assist landowners and tribes in restoring and protecting wetlands. WRP was repealed by Section 2703 of the Agricultural Act of 2014 (P.L. 113-79) on February 7, 2014. However, Section 2703 also provided transitional language that ensured prior enrollments will continue to be provided technical and financial assistance. WRP was a voluntary program that provided technical and financial assistance to eligible landowners, enabling them to protect and restore valuable wetland ecosystems, including associated habitats such as uplands, riparian areas, and forest lands. WRP purposes were rolled into the Wetland Reserve Easements component of the Agricultural Conservation Easement Program (ACEP-WRE). Lands previously enrolled in WRP are now considered enrolled in ACEP-WRE and are eligible to receive financial and technical assistance services authorized under ACEP. The repeal of WRP does not affect the validity or terms of any contract, agreement, or easement entered into prior to the enactment of the Agricultural Act of 2014.

Prior to its repeal, WRP provided landowners four options to enroll acreage: permanent easements, 30-year easements, restoration cost-share agreements, or 30-year contract (on acreage owned by an Indian tribe only).

The 2014 Farm Bill also authorized the agency to use prior year unobligated WRP funds from FYs 2009-2013 to continue to implement certain restoration and closing activities on WRP projects enrolled prior to February 7, 2014, the date of enactment of the 2014 Farm

Bill. Authorized activities include restoration of the easement site and acquisition-related costs such as title reports, hazardous substance evaluations, due diligence, boundary surveys, and easement closings.

Prior year WRP funding continues to be used to provide ongoing technical assistance to existing WRP easements and contracts entered into prior to the 2014 Farm Bill enactment date. Authorized activities include: completion of due diligence, easement closings, boundary surveys, restoration planning and design, and restoration implementation.

Current Activities

The 2014 Farm Bill repealed WRP and combined its purposes with the Farm and Ranch Land Protection Program and the Grassland Reserve Program to create ACEP. No new enrollments of WRP occurred in 2019; all closings to date related to WRP enrollments have been completed.

The table below shows the total cumulative acres and number of closed WRP easements protected.

Table NRCS-44. WRP Cumulative Enrolled Easements, Restoration Cost-Share Agreements and Contracts with Tribes and Closed Easements

Agreement Type	Cumulative Agreements	Cumulative Acres
Enrolled Permanent Easements	10,853	2,096,300
Enrolled 30-year Easements	2,716	424,555
Restoration Cost-Share Agreement	707	101,658
30-Year Contract with Tribes	15	2,890
Total	14,291	2,625,403
Agreement Type	Cumulative Easements	Cumulative Acres
Closed Permanent Easements	10,853	2,096,300
Closed 30-Year Easements	2,716	424,555
Total	13,569	2,520,855

Table NRCS-45. Emergency Wetlands Reserve Program (EWRP) Cumulative Closed Permanent Easements

Agreement Type	Cumulative Agreements	Cumulative Acres
Closed Easements	731	84,035

The types of wetlands restored through WRP varies from vernal pools in the west and northeast to bottomland hardwood forests in the southeast, prairie potholes in the upper Midwest, coastal marshes, and mountain meadows, but consist primarily of floodplain forests and emergent marsh wetlands. Restoration and protection of these varied and valuable wetland types account for 85 percent of the acreage enrolled in WRP, while the remaining 15 percent of WRP acres includes adjacent upland habitats that provide nesting habitat and buffer area to the wetland

areas. Most acres offered into WRP occur in areas that, despite having been drained or cleared for agricultural production, are still subject to frequent flooding or prolonged saturation, making them ideally suited for restoration and usually marginal for agricultural production.

Wetlands Mitigation Banking Program

The Wetland Mitigation Banking Program is a first-of-its-kind program funded through the 2014 Farm Bill, with revisions in the 2018 Farm Bill. Wetland mitigation provides a legal mechanism for agricultural producers to maintain their eligibility for USDA program benefits if they convert agricultural wetlands. In particular, a producer may offset the loss of wetland functions and values resulting from a conversion activity by restoring, enhancing, or creating wetland functions and values on a different site. Through a mitigation bank, producers can purchase offsetting wetland "credits" which come from previously drained (prior to 1985) wetlands that have been restored and approved for wetland mitigation.

NRCS accepts grant proposals to establish mitigation banks for agricultural producers. The intent of the program is for qualified third parties to operate and manage all aspects of a wetland mitigation bank with oversight by NRCS. Eligible entities included federally-recognized Indian tribes, state, and local units of government; for-profit entities; and nongovernmental organizations.

Program funds may be used to pay for:

- Administrative functions—management of funds and development of the banking instrument
- Identification of suitable mitigation projects and performance of functional assessments to determine credit allotment options
- Design and formulation of mitigation plans
- Market research and contracting for mitigation activities
- Oversight of implementation of the restoration projects according to design
- Tracking and management of wetland mitigation data
- Land surveys and title searches

NRCS uses a grant agreement to provide program funds to each selected applicant. The project budget period, amount of Federal assistance, terms and conditions of the award, and reporting requirements are described and provided to the selected applicants as part of this process.

Subsequently, awardees work with NRCS to develop a mitigation banking instrument that provides full details for development, establishment, and operation of a mitigation banking program. Mitigation banking instruments are developed in conjunction with national and state NRCS staff oversight and are subject to NRCS approval.

Eligible entities receiving funds will ensure the following wetlands receive priority for mitigation under the NRCS Wetland Mitigation Banking Program (note that the wetland designation labels are those used by NRCS for implementation of the wetland compliance provisions of the Food Security Act of 1985):

- Farmed Wetland (FW)
- Farmed Wetland Pasture (FWP)
- Wetland (W) less than five acres in size that is predominantly bordered by land that has been cropped eight of the past ten years when the wetland is designated as degraded according to a functional assessment tool
- Converted Wetland (CW) that, prior to conversion, qualified under one of the items of above, as determined by NRCS staff

Activities funded by this program are for the sole purpose of assisting agricultural producers with wetland conservation compliance.

Current Activities
Third parties in ten states have been awarded financial assistance to establish wetland banks, including Georgia, Illinois, Iowa, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, and South Dakota.

- Ten grant agreements are complete.
- Ten applicants completed mitigation banking instruments describing operating procedures and are available to work directly with USDA participating producers to mitigate small temporary and seasonal wetlands using their respective wetland banks. They are:
    - Georgia – CORBLU Ecology Group, LLC
    - Illinois – Illinois Conservation Exchange
    - Iowa – Iowa Ag Mitigation
    - Michigan – Michigan Department of Natural Resources
    - Minnesota – Minnesota Board of Water and Soil Resources
    - Missouri – Minton Environmental Consultants, LLC
    - Nebraska – Westervelt Ecological Services
    - North Dakota – North Dakota Wetland Partners
    - Ohio – North Coast Regional Council of Park Districts
    - South Dakota – Dakota Wetland Partners

Wildlife Habitat Incentive Program

The Wildlife Habitat Incentive Program (WHIP) was authorized by Section 1240N of the Food Security Act of 1985 (16 U.S.C. 3839bb-1), as amended. NRCS administered WHIP with funds made available through the Commodity Credit Corporation. Section 2707 of the Agricultural Act of 2014 (P.L. 113–79) repealed WHIP. However, Section 2707 also provided transitional language that ensured prior enrollees will continue to be provided technical and financial

assistance by NRCS. WHIP provided assistance to agricultural landowners for the protection, restoration, or enhancement of upland wildlife habitat, wetland wildlife habit, threatened and endangered species, fisheries, and other types of habitat. Focused efforts on fish and wildlife habitats also contributed to more sustainable use of resources and reduced greenhouse gas emissions. The purposes of WHIP were consolidated into EQIP by the 2014 Farm Bill.

Financial Assistance. Section 2707 of the 2014 Farm Bill authorized the use of unobligated WHIP funds from 2009 through 2013 to be used to support contracts entered into WHIP prior to the date of enactment of the 2014 Farm Bill. A WHIP contract may be modified to increase funds provided the increased cost is the result of a valid contract modification within the original contract scope and intent.

Technical Assistance. The agency and its partners provided program participants with an assessment of wildlife habitat conditions, recommendations for practices to improve these habitat conditions, and a wildlife habitat development plan that incorporates practices and strategies for maximizing habitat for target species. All remaining technical assistance through WHIP will be used to help agricultural producers implement their existing contracts.

Current Activities

The 2014 Farm Bill repealed the authority to enter into new WHIP contracts. As a result, priority was shifted to assist producers to implement existing contracts. In FY 2019, the agency worked with producers to implement 367 practices and made nearly $1.2 million in payments for the completed practices. Currently, 181 WHIP contracts on 42,197 acres remain active.

Feral Swine Eradication and Control Pilot Program

The Feral Swine Eradication and Control Pilot Program (FSCP) was authorized by Section 2408 of the Agriculture Improvement Act of 2018 (P.L. 115-334). The Farm Bill provided $75 million in mandatory funding for 2019 through 2023, and this funding is equally divided between NRCS and the Animal and Plant Health Inspection Service (APHIS) to carry out the pilot program.

The objective of FSCP is to pilot collaborative efforts to address the threat that feral swine pose to agriculture, native ecosystems, human health, and animal health. Feral swine are an invasive species that damage agricultural crops, degrade natural systems, and can carry diseases that can be passed on to livestock and humans. Estimates of the damage caused by this invasive species, as well as associated control costs, exceed $2 billion annually in the United States. Feral swine are inhabitants across the United States, but the heaviest concentrations are found in the Southeastern portion of the country, and stretch as far west Texas and Oklahoma, with high populations also found in California.

Pilot areas for FSCP are identified collaboratively by NRCS and APHIS States personnel in consultation with the State technical committee. FSCP is delivered within pilot areas through

three coordinated components. First, APHIS works directly to control feral swine populations. Second, NRCS provides funding to partner organizations to provide technical and financial assistance to agricultural producers for on-farm trapping and other means of feral swine control. Partner organizations also provide other services, including pre- and post-project damage assessments, and other means to assess progress in control efforts. Finally, NRCS provides technical and financial assistance for restoration of damage caused by feral swine after those populations have been controlled.

Delivery of FSCP is prioritized to those States that have the highest and most damaging feral swine populations. The existing APHIS National Feral Swine Damage Management Program has proved effective in addressing emerging populations in conjunction with States. The pilot program builds upon and expands work already underway by APHIS' National Feral Swine Damage Management Program to reduce damages inflicted by feral swine, in areas with high population densities and in partnership with local government, the private sector, industry, and academia.

In 2019, USDA has identified 20 pilot projects and has prepared for project implementation beginning in early 2020. These pilot projects have been identified in 10 of the 11 States that APHIS has determined have the highest density of feral swine. These States are: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, and Texas. California did not identify pilot projects for implementation in 2020.

In June of 2019, NRCS solicited partner proposals to carry out NRCS-funded activities. This solicitation closed in August 2019. Partners submitted 34 proposals, and at least one proposal was received for activities in each of the pilot areas. NRCS will announce selected proposals early in 2020.

AGENCY-WIDE PERFORMANCE

The Natural Resources Conservation Service (NRCS) works with farmers, ranchers and forest landowners across the country to help them boost agricultural productivity and protect natural resources through conservation. NRCS' approach combines locally-led solutions with science and research; landowner stewardship; partnerships; and proven conservation practices to produce results for agriculture and the environment.

SUMMARY OF PERFORMANCE

NRCS has six Key Performance Indicators that support USDA Strategic Goal 5: Strengthen the Stewardship of Private Lands through Technology and Research

Cropland with conservation applied to improve soil quality (Million Acres) – Environmental Quality Incentives Program (EQIP)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Million Acres	3.1	3.4	3.1	Met	3.1	3.1

Cropland with conservation applied to improve soil quality (Million Acres) – Conservation Technical Assistance (CTA)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Million Acres	6	5.7	5.9	Needs Improvement[1]	6	6

Tons of sediment prevented from leaving cropland and entering waterbodies (Million Tons)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Million Tons	5.3	6.3	5.7	Met	5.7	5.7

Working land protected by conservation easements (Thousand Acres)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Thousand Acres	163	178	140	Met	163	163

Contract Implementation Ratio (CIR %)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Percent	N/A 2018	87	87	Met	87	87

Annual Practice Implementation Rate (PIR %)

	2018 Actual	2019 Actual	2019 Target	2019 Result	2020 Target	2021 Target
Percent	N/A 2018	55	53	Met	53	53

[1] Progress towards soil quality under CTA is delayed due to soils seasonality and disasters delaying implementation of soil health related practices.

Selected Past Accomplishments Toward Achievement of the Key Outcomes:

USDA's NRCS is the world leader in delivering science-based conservation planning. The Department has a unique system of more than 3,000 service delivery points that offer technical and financial assistance to producers on their farms, ranches, and woodlands. The 2018 Farm Bill provides some new opportunities for customers as well as field-office streamlining to assist customers. NRCS also continues to refine tools developed in FY 2019 to better align staff with conservation work. Private-sector investment in natural resources conservation has grown significantly over the last few decades, and NRCS continues to engage with private partners in carrying out conservation planning and activities. It is critical that such investments achieve the conservation outcomes that meet producer and societal expectations. In 2019, non-Federal partners contributed an estimated $107 million of in-kind goods and services and over $128 million in financial assistance toward addressing local resource concerns. These voluntary arrangements allow NRCS and its partners to get far more conservation on the ground than either entity could accomplish separately.

Selected Accomplishments Expected at the FY 2021 Proposed Resource Level:
In 2021, NRCS will continue to develop and streamline its technical tools and assistance by partnering with scientific research institutions and private industry experts to enhance the conservation planning process and results. In addition, program delivery will be streamlined to further focus efforts on the outcomes using a variety of tools and process improvements. Additional training on new Key Performance Indicators will be provided to field staff throughout FY 2020. NRCS is also developing tools to partially automate field office work related to inventory assessment and application ranking. There is also continued development of processes and tools that integrate budget and performance to address resource concerns.