2018 President's Budget
Natural Resources Conservation Service

Contents

Purpose Statement

The mission of the Natural Resources Conservation Service 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 formation of the Soil Conservation Service (SCS) marked the beginning of the Federal government's enduring commitment to conserving natural resources on private lands. Originally established by Congress in 1935, the agency was later renamed NRCS to better reflect the broad scope of the agency's mission in the Department of Agriculture Reorganization Act of 1994 (P.L. 103-354, 7 U.S.C. 6962). 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 the last 75 years, the agency expanded its services to become a conservation leader for all natural resources: soil, water, air, plants, and animals. Now, as NRCS, it 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.

Seventy percent of the land in the United States is privately owned, making stewardship by private landowners and land managers absolutely 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."*

Conservation Operations. The programs funded in the Conservation Operations account are 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 (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 (CTA); Soil Survey; Snow Survey and Water Supply Forecasting (SSWSF); and Plant Materials Centers (PMCs).

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 which: 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 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.

Since its inception, CTA funding has provided the agency with the infrastructure and technology needed to proactively address national conservation priorities that have significant impacts on our resources while maintaining a sustainable and productive agriculture sector. At the same time, CTA provides the flexibility required to be responsive to national priorities and ever-evolving conservation technology. The need to maintain technical capacity at the field level is imperative in developing and delivering the needed conservation assistance to landowners on privately owned land.

CTA 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 (HEL) and wetlands conservation (WC) compliance determinations required under the 2014 Farm Bill Conservation Compliance requirements ;
- 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. 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 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 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.

Also within the soil survey program, the agency's Soil Health Monitoring and Enhancement Network is developing and implementing a statistically robust soil carbon monitoring network 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. This network will provide USDA with a farm-scale database to house soil carbon data received through the agency's Resource Stewardship Evaluation Tool. 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 plans for full implementation of the network within 5 years.

Snow Survey and Water Supply Forecasts. The program collects high elevation snow data in the western United States and provides snowpack data and water supply forecasts. NRCS field staff collects and analyzes data on snow depth, snow water equivalent, and other climate parameters at over 2,000 remote, high elevation sites. The program is actively transitioning to a fully automated system that provides near-real time data available on the internet. At the present time, 866 of these remote data collection sites (SNOTEL) are currently automated. The data are used to provide estimates of annual water availability, spring runoff, and summer stream flows. The water supply forecasts are used by individuals, tribes, organizations, and units of government for decisions relating to agricultural production, hydroelectric power generation, fish and wildlife management, municipal and industrial water supply, reservoir management, urban development, flood control, recreation, and water quality management. Western Federal water management agencies include these forecasts in their water management functions. Reports on the snowpack characteristics are used by the ski industry, transportation departments and others to plan their seasonal work in remote mountainous areas.

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 191 sites in the 48 contiguous United States, Alaska, Hawaii, and Puerto Rico/Virgin Islands.

Plant Material 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 which has 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. The work at PMCs is carried out 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.

The Watershed Protection and Flood Prevention Program is available nationwide to protect and improve watersheds up to 250,000 acres in size (small watersheds). Currently, there are approximately 302 active small watershed projects throughout the country. The Watershed Operations Program is available only in areas authorized by statute; these areas cover about 38 million acres in 11 States. Objectives of the program are to provide technical and financial assistance to install watershed improvement measures 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 in authorized watersheds.

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 11,700 watershed dams with assistance from NRCS. 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.

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 and re-authorized through 2018 by Sections 2201 through 2208 and Section 2601 of the Agricultural Act of 2014.

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.

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 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.

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 Program, the Grassland Reserve Program, and the Farm and Ranch Land Protection Program. 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.

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 an Indian tribe, State government, local government, or a nongovernmental organization which has a farmland or grassland protection program that purchases agricultural land easements for the purpose of protecting agriculture use and related conservation values, including 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 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 Title XII 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.

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 an RCPP partner agreement. Producers may receive assistance without a partner if the land is located 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 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 provides AMA financial assistance to producers purchasing crop insurance to reduce revenue risk. 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.

Healthy Forests Reserve Program. 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).

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' 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.

Following are some of the Agency activities of national significance.

National Water Quality. NRCS works with farmers and ranchers in small watersheds throughout the Nation to improve water quality where this is a critical concern. NRCS works collaboratively with the Environmental Protection Agency at the national level to develop a framework for selecting high-priority watersheds where State water quality agencies and NRCS could target outreach and assistance to demonstrate improvements in water quality. NRCS identified priority watersheds through the help of local partnerships and State water quality agencies. Partners sometimes offer financial assistance in addition to NRCS programs. NRCS will continue to coordinate with local and State agencies, conservation districts, nongovernmental organizations and others to implement this activity. This strategic approach leverages funds and provides streamlined assistance to help individual 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 will receive assistance under EQIP for installing conservation systems that may include practices such as nutrient management, cover crops, conservation cropping systems, filter strips, terraces, and in some cases, edge-of-field water quality monitoring.

Sage-Grouse. This activity focuses on protecting and conserving sage-grouse habitat in California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. The objective is to alleviate or reduce threats to sage-grouse habitat and facilitate the sustainability of working ranches. The Sage-Grouse activity targets conservation delivery within high sage-grouse abundance centers or 'core areas' rather than provide palliative care to small and declining populations. NRCS and the U.S. Fish and Wildlife Service completed a range-wide conference report under the Endangered Species Act in which NRCS identified a suite of 40 conservation practices that are beneficial to sage-grouse. Landowners benefit from the conference report because it provides predictability regarding identified conservation activities if sage-grouse are listed under the Endangered Species Act. Recently, NRCS committed to providing Western producers with $211 million in assistance under the sage grouse effort through 2018 to maintain the momentum begun through this activity.

Longleaf Pine. Longleaf pine forests once covered more than 90 million acres in the Southeastern United States, serving as one of the most diverse ecosystems outside of the tropics. Today only 3.4 million acres remain and provide critical habitat for 29 threatened or endangered species. The longleaf pine ecosystem range includes portions of Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. The objective of this activity is to protect and restore longleaf pine forest ecosystems in these States.

Bay-Delta. The Bay-Delta activity covers important estuary ecosystems within California's Sacramento/San Joaquin River Delta and the San Francisco Bay Estuary (Bay-Delta). The Bay-Delta supplies water for 22 million people, and supports a $28 billion a year agriculture industry in California. NRCS has made the Bay-Delta a nationally recognized conservation activity based on a Federal and State partnership in support of balancing water quality concerns, water supply, and ecosystem restoration in the Central Valley.

Gulf of Mexico. NRCS and its conservation partners developed this activity in response to the Deepwater Horizon oil spill and it incorporates what the public and communities requested through their input into the Gulf Coast Ecosystem Restoration Task Force Strategy to restore the Gulf Coast. Through this activity, NRCS assists farmers and ranchers to address water quality and wildlife resource concerns with voluntary conservation in priority areas along seven major rivers that drain to the Gulf.

Lesser Prairie-Chicken. NRCS developed this activity to provide landowners assistance in priority areas of the lesser prairie-chicken's current and historic range for the protection, enhancement, and expansion of suitable habitat, while also helping agricultural producers sustain their agricultural operations. Lesser prairie-chicken populations can be found in parts of Colorado, Kansas, New Mexico, Oklahoma, and Texas. Because of habitat loss and population decline, the lesser prairie-chicken is Federally-listed as a threatened species. NRCS hopes to aid in the sustainability and population increase of the lesser prairie-chicken and has cooperated with the U.S. Fish and Wildlife Service to develop a conference opinion for the lesser prairie-chicken, through which farmers and ranchers can receive predictability under the Endangered Species Act.

Mississippi River Basin Healthy Watersheds (MRB). The MRB 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.

Ogallala Aquifer (OA). The OA activity is designed to reduce the quantity of water removed from the aquifer and to improve water quality using conservation practices on cropland and rangeland. Nebraska, Texas, Kansas, Colorado, New Mexico, Oklahoma, South Dakota, and Wyoming are all part of the OA activity. Groundwater withdrawal from the aquifer exceeds the natural recharge rate and intensive agricultural practices have increased the potential for long-term water quality degradation. The goals of the OA activity are to re-establish the equilibrium of water recharge and water removal from the aquifer over time, and to maintain water quality.

North Central Wetlands Conservation. The Prairie Pothole Region of North Dakota, South Dakota, Minnesota, and Iowa, is critical to North American waterfowl. Under the terms and conditions of 7 CFR 12.6, NRCS is required to make certified wetland determinations in this region, and to identify the sites that meet applicable wetland criteria.

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.

Repealed Programs. The Agricultural Act of 2014 repealed several Title XII Conservation Programs as of the date of enactment, including three easement programs – the Wetlands Reserve, Grassland Reserve, and Farm and Ranch Lands Protection Programs; three financial assistance programs – the Agricultural Water Enhancement, Wildlife Habitat Incentive, and Chesapeake Bay Watershed Programs; and the Cooperative Conservation Partnership Initiative. The purposes for many of these programs have been transferred to other programs, including new programs authorized by the current Act. For example, the purposes of the easement programs are now served by ACEP, while the purposes of the Agricultural Water Enhancement and Chesapeake Bay Watershed Programs and the Cooperative Conservation Partnership Initiative are now served by the RCPP. The purposes of the Wildlife Habitat Incentive Program are now included in EQIP.

The Agricultural Act of 2014 includes language for the repealed programs that preserves the validity of existing contracts, agreements, and easements (i.e., those entered into before the date of enactment of the Agricultural Act of 2014). There is also language that makes unobligated funding that was made available for the repealed programs between 2009 and 2013 available to carry out those existing contracts, agreements, and easements. When the prior year funding is exhausted, the Agricultural Act of 2014 allows the Secretary to use funding from the successor programs (ACEP, RCPP, and EQIP, as appropriate), to continue to carry out those existing contracts, agreements, and easements.

Conservation Security Program. The Conservation Security Program was a voluntary program that provided financial and technical assistance for the conservation, protection, and improvement of natural resources on tribal and private working lands. It provided payments for producers who practice good stewardship on their agricultural lands and provided incentives for those who wanted to do more. Under the 2008 Farm Bill, NRCS is not authorized to enter into new Conservation Security Program contracts but continues to make payments to producers with five- to ten-year contracts from prior years.

The program was authorized by Section 2002 of the 2002 Farm Bill, which amended the Food Security Act of 1985 by adding Chapter 2, Subchapter A, Conservation Security Program. Section 2301(b) of the 2008 Farm Bill stipulated that a Conservation Security Program contract may not be entered into or renewed after September 30, 2008. Pursuant to Section 1241(a)(3) of the Food Security Act of 1985, as amended by Section 2601(a) of the Agricultural Act of 2014, the Secretary shall make payments on contracts entered into before September 30, 2008, using such sums as are necessary.

Workforce Status and Locations. As of September 30, 2016, NRCS had 10,226 full time employees with permanent appointments. Of this total, 390 employees were located in the Washington, DC metropolitan area, and 9,836 employees were located outside of the Washington, D.C. metropolitan area.

Organizational Structure. Natural Resources Conservation Service (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, 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 2016, NRCS had 2,517 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. Although this appears to reflect a decrease in the number of office locations reported, no NRCS office locations were closed in 2016. NRCS leases office space throughout the nation in tandem with the other Service Center Agencies, the Farm Service Agency (FSA), which is the lead agency on the majority of the leases, and Rural Development (RD). The change in the number of office locations reported reflects the updating of data records by the Service Center Agencies, which allowed the agency to review system records and remove warehouse and storage space and other duplicate or erroneous data records from the data tracking system.

National Headquarters (NHQ). Primarily located in the Washington, D.C. 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 Natural Resources and Environment. The Chief, Associate Chiefs, Regional Conservationists, and Deputy Chiefs carry out national headquarters functions such as: 1) planning, formulating, and directing programs, budgets, 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.

Centers. Technological guidance and direction is 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 in order 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 for program operations. Where possible, State offices partner with other Federal and State agencies to provide solutions to resource concerns or issues. 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 (State of Hawaii, Territory of American Samoa, Territory of Guam, Commonwealth of the Northern Mariana Islands, Republic of Palau, Federated States of Micronesia, Republic of Marshall Islands) and the Caribbean Area (Puerto Rico, U.S. Virgin Islands) offices.

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 Material 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.

- Conducted ten Quality Assurance Compliance Reviews, two States operational reviews, ten national easements program delivery reviews, and ten civil rights reviews to ensure compliance is monitored throughout the agency on a consistent basis. NRCS's priority is to improve agency quality assurance and quality controls by reforming financial processes, streamlining business processes, enhancing the workforce, and increasing information quality.
- Highly Erodible Land and Wetlands Conservation Compliance reviews were completed on 10,725 tracts of cropland in 2015 and on 21,716 tracts, comprising approximately 3.7 million acres, of cropland in 2016
- At the beginning of 2016 there were 21 open Office of Inspector General (OIG) and General Accountability Office (GAO) audits with 35 open recommendations. Eight additional audits were engaged during the year. Seven audits and 23 recommendations were closed. Four of the closed audits were considered to be Departmental High Priority. Five audit Management Decisions were reached, adding 25 recommendations to address. Twenty two audits and 37 recommendations remained open at the end of the year.
- Processed 294 Freedom of Information Act (FOIA) and Privacy Act requests and reported summary data to the USDA Chief FOIA officer.

Data Collection, Management, and Analysis.

- Security of Data – Continued to upgrade agency accountability software applications and hardware security to correctly safeguard all private and sensitive information, including Personally Identifiable Information, in order to remain in compliance with the Federal Information Security Management Act and National Institute of Standards and Technology Special Publication 800-53.
- Completeness of Data –Numerous data quality mechanisms within the PRS ensure the completeness of each performance record entry. Each performance record must adhere to a set of quality assurance requirements during the upload process. Business rules, definitions, and internal controls enforce accountability policies or business requirements and diagnose potential entry errors. Error reports are generated for managers at multiple levels, including the Strategic Planning and Accountability Deputy Area, to review for completeness or rejected entries. State Conservationists annually certify that the data is complete.
- Reliability of Data – The data reported for performance measures was determined within the PRS based on information validated and received from the National Planning and Agreements Database (NPAD). NPAD receives data from both Customer Service Toolkit (Toolkit), the agency's approved conservation planning software, and the Program Contracts System (ProTracts). ProTracts is a web-enabled application used to manage NRCS conservation program applications, cost-share contracts, and program funds. Conservation plans are developed in consultation with the customer, created with Toolkit, and warehoused in the NPAD. Applied conservation practices are date-stamped, geo-referenced, and linked to a variety of agency data enabling detailed quality-assurance reviews. Periodic reviews are conducted by State office and headquarters personnel to assess the accuracy of reported data.
- Linking Performance to Programs. To ensure program accountability and evaluate program efficiency, data on performance measures for conservation applied must be linked to the program that funded the practice and staff time needed to carry out each activity. Where more than one program is used to apply practices on the same land unit, each program is credited under the performance measure. The chief sources of data for these performance measures are NPAD for all conservation practices, and the National Easement Staging Tool for all easement-related data.

Completed and On-going Audits.

2016 Government Accountability Office (GAO) and Office of Inspector General (OIG) closed audits:

- GAO 361251, Nonpoint Source Water Pollution: Greater Oversight and Additional Data Needed for Key Environmental Protection Agency (EPA) Water Program (GAO-12-335), (November, 2010). Final report issued July 3, 2012. Closed for the Natural Resources Conservation Service (NRCS) effective June 9, 2016.
- GAO 361647, Coordination of Efforts to Collect Information From Farmers by the United States Department of Agriculture's (USDA's) Farm Service Agency (FSA), Risk Management Agency (RMA) and NRCS (June, 2015). Slides delivered to requester and will not be published. Closed for NRCS effective January 14, 2016.
- GAO 441286, Federal Disaster Assistance Expenditures (May 2015). Final report issued September 22, 2016. Report has no USDA recommendations. Closed for NRCS effective September 22, 2016.
- OIG 10401-0003-11, NRCS Financial Statement Audit Fiscal Year (FY) 2013 (February, 2013). Final report issued December 9, 2013. Closed for NRCS effective August 5, 2016.
- OIG 10401-0004-11, NRCS Financial Statement Audit FY14 (February, 2014). Final report issued November 13, 2014. Closed for NRCS effective June 10, 2016.
- OIG 10601-0001-31, Environmental Quality Incentives Program (EQIP) (December, 2012). Final report issued July 24, 2014. Recommendation 3 and entire audit closed effective November 18, 2015.
- OIG 10703-0001-AT, ARRA-Rehabilitation of Flood Control Dams (September, 2010). Final report issued March 25, 2013. Recommendation 1 and entire audit closed January 21, 2016.

2016 Government Accountability Office (GAO) and Office of Inspector General (OIG) active audits:

- GAO 100307, Environmental Quality Incentives Program (EQIP) (September, 2015). Review ongoing.
- GAO 101099, Reducing Nutrient Pollution (September, 2016). Review ongoing.
- GAO 100340, Federal Funding for Harmful Algal Blooms Research (September, 2015). NRCS provided no USDA comment response to GAO draft report on September 13, 2016.
- GAO 361397, USDA Payments to the Deceased (GAO-13-503), (April 2012). Final Report issued June 28, 2013. Statement of Action has one NRCS recommendation that remains open.
- GAO 361600, Federal Actions to Promote Bee Health (September, 2014), Final report issued March 11, 2016. USDA Statement of Action signed August 25, 2016. NRCS has responsibilities in USDA address of two open recommendations.
- OIG 10099-0001-31, NRCS's Administration of Easement Programs in Wyoming (March, 2013). Final report issued September 27, 2013. Recommendations 3 through 6 are closed. Recommendations 1, 2 and 7 remain open.
- OIG 10401-0005-11, NRCS Financial Statement Audit FY 2015 (February, 2015). Final report issued November 11, 2015. Recommendations 1 through 5 are open.
- OIG 10401-0007-11, NRCS' Balance Sheet for FY 2016 (February, 2016). Review ongoing.
- OIG 10601-0001-23, Controls over Land Valuations for Conservation Easements (September 2013). Final report issued September 28, 2015. Recommendation 2 is open. Recommendations 1, 3 through 5 and 7 through 10 are closed. Management decision has not been reached for Recommendation 6.
- OIG 10601-0001-32, NRCS Conservation Stewardship Program (October 2013). Final report issued September 27, 2016. NRCS reached management decision on 11 of 26 audit recs with final report issuance. Recommendations 6, 11 through 15, 19, 20, and 23 through 25 are open. Response on recommendations 1 through 5, 7 through 10, 16 through 18, 21, 22, and 26 are needed for Management Decision.
- OIG 10601-0002-23, NRCS' Actions on Its Internal Risk Assessment Results Report (September, 2016). Audit in progress.
- OIG 10601-0002-31, NRCS Conservation Easement Compliance (May 2013). Final report issued July 30, 2014. Recommendations 1, 2, 4 through 6, 10, and 11 remain open. Recommendations 3 and 6 through 9 are closed.
- OIG 10601-0003-31, NRCS: Wetland Conservation Provisions in the Prairie Pothole Region (August 2014). Field work in progress.
- OIG 10601-0004-31, NRCS Regional Conservation Partnership Program (RCPP) Controls (September, 2016). Audit in progress.

- OIG 10601-0004-KC, NRCS Conservation Security Program (CSP) (November 2006). Final report issued June, 2009. Recommendations 1 through 7 and 10 through 23 are closed. Recommendations 8 and 9 remain open.
- OIG 50024-0009-11, USDA's Fiscal Year 2015 Compliance with Improper Payment Requirements (November, 2015). Final report issued May 13, 2016. Single NRCS recommendation is open.
- OIG 50501-0008-12, Fiscal Year 2015 Federal Information Security Management Act (FISMA) (March, 2015). Final report issued November 10, 2015. No report recommendation directed to NRCS.
- OIG 50024-0010-11, EO 13520, Reducing Improper Payments, High-Dollar Overpayments Reports Review for Fiscal Year 2015 (November, 2015). Final report issued September 2, 2016. No OIG recommendations in report.
- OIG 50501-0012-12, FY 2016 Federal Information Security Management Act (FISMA) Audit (March, 2016). Audit in progress.
- OIG 50601-0003-22, Coordination of USDA Farm Program Compliance – FSA, RMA, and NRCS (October 2014). Discussion Draft received July 29, 2016. NRCS provided a no comment response to FSA on September 9, 2016.
- OIG 50601-0005-31, USDA Monitoring of Highly Erodible Land and Wetland Conservation Violations (March, 2015). Final report issued June 21, 2016. All 6 recommendations remain open.
- OIG 50601-0006-31, Reviewing the Integrity of USDA’s Scientific Research Program (March, 2016). Audit in progress.

Available Funds and Staff Years (SYs)
(Dollars in thousands)

Item	2015 Actual		2016 Actual		2017 Estimate		2018 President's	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Private Lands Conservation Operations:								
Discretionary Appropriations	$846,428	5,327	$850,856	5,085	$849,240	5,920	$766,000	5,400
Watershed Rehabilitation:								
Discretionary Appropriations	12,000	1	12,000	7	11,977	1	-	-
Mandatory Appropriations	153,120	32	73,262	1	-	-	-	2
Farm Security and Rural Investment Programs:								
Mandatory Appropriations	3,518,706	4,627	3,587,787	4,832	3,775,440	4,764	3,655,127	4,848
Watershed and Flood Prevention Operations:								
Discretionary Appropriations	78,581	31	157,000	51	103,140	51	-	-
Water Bank Program:								
Discretionary Appropriations	4,000	-	4,000	1	3,992	1	-	-
Rescission	-	-	-20,054	-	-1,000	-	-274,670	-
Sequestration	-278,096	-	-270,672	-	-286,225	-	-259,256	-
Transfer In	144	-	144	-	-	-	-	-
Adjusted Appropriation	4,334,883	10,018	4,394,323	9,977	4,456,564	10,737	3,887,201	10,250
Balance Available, SOY	1,396,988	-	1,756,552	-	2,058,339	-	276,464	-
Other Adjustments (Net)	-94,316	-	71,563	-	-84,318	-	273,000	-
Total Available	5,637,555	10,018	6,222,438	9,977	6,430,585	10,737	4,436,665	10,250
Lapsing Balances	-40,299	-	-21,007	-	-	-	-	-
Balance Available, EOY	-1,756,552	-	-2,058,339	-	-276,464	-	-12,216	-
Obligations	3,840,704	10,018	4,143,092	9,977	6,154,121	10,737	4,424,449	10,250
Other Federal and Non-Federal Reimbursements	91,218	172	65,568	178	105,658	178	81,374	128
Total, NRCS	3,931,922	10,190	4,208,660	10,155	6,259,779	10,915	4,505,823	10,378

Permanent Positions by Grade and Staff Year Summary

Item	2015 Actual			2016 Actual			2017 Estimate			2018 President's Budget		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
SES.....	23	4	27	23	3	26	23	3	26	23	3	26
GS-15.....	92	68	160	90	76	166	75	76	151	74	76	150
GS-14.....	210	189	399	202	188	390	134	187	321	126	184	310
GS-13.....	108	601	709	103	585	688	66	560	626	61	543	604
GS-12.....	64	3,045	3,109	62	2,947	3,009	42	2,793	2,835	40	2,694	2,734
GS-11.....	68	2,576	2,644	64	2,452	2,516	34	2,256	2,290	31	2,131	2,162
GS-10.....	1	32	33	1	31	32	1	29	30	1	28	29
GS-9.....	26	1,883	1,909	28	1,773	1,801	28	1,598	1,626	28	1,487	1,515
GS-8.....	18	477	495	17	456	473	10	422	432	9	401	410
GS-7.....	34	1,617	1,651	32	1,549	1,581	16	1,443	1,459	15	1,375	1,390
GS-6.....	3	432	435	3	408	411	1	370	371	1	346	347
GS-5.....	6	339	345	5	373	378	1	373	374	1	373	374
GS-4.....	20	278	298	18	233	251	4	162	166	3	117	120
GS-3.....	3	136	139	3	168	171	1	168	169	1	168	169
GS-2.....	5	24	29	5	24	29	1	24	25	1	24	25
GS-1.....	-	5	5	-	4	4	-	2	2	-	1	1
Other Graded Positions……	-	-	-	-	6	6	-	6	6	-	6	6
Ungraded Positions……..	-	-	-	-	6	6	-	6	6	-	6	6
Total Perm. Positions.....	681	11,706	12,387	656	11,282	11,938	437	10,478	10,915	415	9,963	10,378
Unfilled, EOY..	304	1,994	2,298	266	1,446	1,712	-	-	-	-	-	-
Total, Perm. Full-Time Employment, EOY.....	377	9,712	10,089	390	9,836	10,226	437	10,478	10,915	415	9,963	10,378
Staff Year Est...	383	9,807	10,190	391	9,764	10,155	437	10,478	10,915	415	9,963	10,378

Size, Composition and Cost of 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, and often transport 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, others are leased through the General Services Administration (GSA). In 2016, the agency began the process of converting approximately 2,100 of its owned vehicles to leased status. The vehicles are assigned to an office location, and several employees use a single vehicle. Efforts are made to share vehicles with other co-located USDA agencies when feasible to minimize the number of vehicles at a location and maximize their use in the most efficient and cost-effective manner.

To ensure that vehicles are safe and reliable, NRCS requires annual vehicle inspections per States' motor vehicle regulations. The 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.

Changes to the motor vehicle fleet. At the end of 2016, NRCS had a fleet of 8,753 vehicles, of which 8,368 were agency owned, and 385 were GSA leased vehicles. The agency fleet decreased by 22 vehicles from 2015 to 2016. In 2016, a greater emphasis was placed on replacing agency owned vehicles with more fuel efficient GSA leased vehicles where the vehicle requirements lend themselves more appropriately to a leased vehicle. In addition, 2016 was a time of transition as the agency consolidates vehicle management through headquarters staff rather than State based management. The headquarters-based fleet management staff will continue to progress in fleet management improvements through 2017. When the new structure is completely staffed and trained, greater oversight will be provided from headquarters to improve vehicle accountability, fleet sizing, fleet composition and analysis of expense tracking.

Development of the Vehicle Management Strategy. In 2015, NRCS contracted for a Vehicle Allocation Methodology (VAM) Survey to assess the utilization and value of each vehicle in its fleet. VAM Survey results have been used to guide vehicle acquisition decisions throughout 2015 to 2017. Within the next year, the agency plans to conduct an updated VAM Survey, with emphasis placed on eliminating unneeded vehicles and replacing vehicles with more efficient vehicle types.

Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type[1]								Annual Operating Costs ($ in 000) 2/
	Sedans and Station Wagons	Light Trucks, SUVs, and Vans		Medium Duty Vehicles	Ambu-lances	Buses	Heavy Duty Vehicles	Total Number of Vehicles	
		4x2	4x4						
2015	736	2,558	4,986	426	-	-	69	8,775	16,600
Change	-115	+310	-337	+165	-	-	-45	-22	-3,279
2016	621	2,868	4,649	591	-	-	24	8,753	13,321
Change	-	-	-	-	-	-	-	-	-
2017	621	2,868	4,649	591	-	-	24	8,753	13,321
Change	-	-	-	-	-	-	-	-	-
2018	621	2,868	4,649	591	-	-	24	8,753	13,321

[1] Vehicles reported are both agency-owned and GSA-leased.

[2] The FY16 annual operating cost was reported from the Wright Express (WEX) fleet card program.

PRIVATE LANDS CONSERVATION OPERATIONS

The estimates include appropriations language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Private Lands Conservation Operations

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. 428a); purchase and erection or alteration or improvement of permanent and temporary buildings; and operation and maintenance of aircraft, [$850,856,000]$766,000,000, to remain available until
1 September 30, [2017]2019: *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
2 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: *Provided further*, That of the amounts made available under this heading, $5,000,000 shall remain available until expended for the authorities under section 13 of the Flood Control Act of December 22, 1944 (Public Law 78–534) for authorized ongoing projects with a primary purpose of watershed protection by stabilizing stream channels, tributaries, and banks to reduce erosion and sediment transport].

3 In addition, $985,050,000, 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.

The first change in language proposes deletion of “2017” and insertion of “2019” to provide two year funds availability.

The second change in language proposes deletion of language for authorized ongoing watershed projects with a primary purpose of providing water to rural communities and for authorized ongoing projects with a primary purpose of watershed protection by stabilizing stream channels, tributaries, and banks to reduce erosion and sediment transport.

The third change proposes insertion of language to allow the transfer of funds from the Farm Security and Rural Investment Program for technical assistance in support of conservation programs. See page 27-19 for more details on the Private Lands Conservation Operations Appropriation Language Changes.

Private Lands Conservation Operations – Appropriations Language Changes

Explanation of Changes:

The 2018 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 this funding to provide technical assistance that helps 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, $985 million 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 reporting 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.

PRIVATE LANDS CONSERVATION OPERATIONS

Lead-off Tabular Statement
Current Law

Budget Estimate, 2018	$766,000,000
2017 Annualized Continuing Resolution	849,240,000
Change in Appropriation	-83,240,000

Proposed Legislation

Budget Estimate, Current Law 2018	$766,000,000
Change Due to Proposed Legislation	985,050,000
Net 2018 Request	+1,751,050,000

PRIVATE LANDS CONSERVATION OPERATIONS

Summary of Increases and Decreases
(Dollars in thousands)

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
Discretionary Appropriations:					
Conservation Technical Assistance	$742,272	-$572	+$9,028	-$83,053	$667,675
Soil Survey	80,000	-	-152	-152	79,696
Snow Survey	9,300	-	-18	-17	9,265
Plant Materials	9,400	-	-18	-18	9,364
Watershed Projects	5,600	-	-5,600	-	-
Watershed Protection	-	+5,000	-5,000	-	-
Total	846,572	+4,428	-1,760	-83,240	766,000
Transfer from Mandatory Programs	-	-	-	+985,050	985,050
Total Private Lands Conservation Operations	846,572	+4,428	-1,760	+901,810	1,751,050

PRIVATE LANDS CONSERVATION OPERATIONS

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Conservation Technical Assistance.....	$742,272	4,772	$741,700	4,536	$750,728	5,390	-$83,053 (1)	-490	$667,675	4,900
Soil Survey.....	80,000	462	80,000	453	79,848	403	-152 (2)	-	79,696	403
Snow Survey.....	9,300	53	9,300	52	9,282	50	-17 (3)	+2	9,265	52
Plant Materials.....	9,400	40	9,400	44	9,382	77	-18 (4)	-32	9,364	45
Watershed Projects.....	5,600	-	5,600	-	-	-	-	-	-	-
Watershed Protection.....	-	-	5,000	-	-	-	-	-	-	-
Total Adjusted Approp.....	846,572	5,327	851,000	5,085	849,240	5,920	-83,240	-520	766,000	5,400
Rescissions, Transfers, and Seq. (Net).....	-144	-	-144	-	-	-	-	-	-	-
Total Appropriation.....	846,428	5,327	850,856	5,085	849,240	5,920	-83,240	-520	766,000	5,400
Transfers In:										
Congressional Relations.....	144	-	144	-	-	-	-	-	-	-
Total.....	144	-	144	-	-	-	-	-	-	-
Bal. Available, SOY.....	61,416	-	125,604	-	118,957	-	-118,957	-	-	-
Other Adjustments (Net).....	26,872	-	9,545	-	-17,636	-	+17,636	-	-	-
Total Available.....	934,860	5,327	986,149	5,085	950,561	5,920	-184,561	-520	766,000	5,400
Lapsing Balances.....	-39,855	-	-20,767	-	-	-	-	-	-	-
Bal. Available, EOY.....	-125,604	-	-118,957	-	-	-	-	-	-	-
Total Obligations.....	769,401	5,327	846,425	5,085	950,561	5,920	-184,561	-520	766,000	5,400
Proposed Language Changes:										
Transfer from Farm Bill TA.....	-	-	-	-	-	-	+985,050	+4,848	985,050	4,848
Adjusted Obligations.....	769,401	5,327	846,425	5,085	950,561	5,920	+800,489	+4,328	+1,751,050	+10,248

PRIVATE LANDS CONSERVATION OPERATIONS

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Conservation Technical Assistance	$667,547	4,772	$737,984	4,536	$844,178	5,390	-$176,503	-490	$667,675	4,900
Soil Survey	80,003	462	79,250	453	83,612	403	-3,916	-	79,696	403
Snow Survey	8,636	53	9,510	52	10,430	50	-1,165	2	9,265	52
Plant Materials	7,622	40	9,075	44	12,340	77	-2,976	-32	9,364	45
Watershed Projects	5,593	-	5,606	-	-	-	-	-	-	-
Watershed Protection	-	-	5,000	-	-	-	-	-	-	-
Total Obligations	769,401	5,327	846,425	5,085	950,561	5,920	-184,561	-520	766,000	5,400
Lapsing Balances	39,855	-	20,767	-	-	-	-	-	-	-
Bal. Available, EOY	125,604	-	118,957	-	-	-	-	-	-	-
Total Available	934,860	5,327	986,149	5,085	950,561	5,920	-184,561	-520	766,000	5,400
Transfer In	-144	-	-144	-	-	-	-	-	-	-
Bal. Available, SOY	-61,416	-	-125,604	-	-118,957	-	+118,957	-	-	-
Other Adjustments (Net)	-26,872	-	-9,545	-	17,636	-	-17,636	-	-	-
Total Appropriation	846,428	5,327	850,856	5,085	849,240	5,920	-83,240	-520	766,000	5,400
Proposed Language Changes:										
Transfer from Farm Bill TA	-	-	-	-	-	-	+985,050	+4,848	985,050	4,848
Adjusted Appropriations	-	-	-	-	-	-	+985,050	+4,848	+985,050	+4,848

Justification of Increases and Decreases

(1) A net decrease of $83,053,000 in funding and 490 staff years for Conservation Technical Assistance ($750,728,000 and 5,390 staff years available in 2017).

CTA is the foundation for NRCS's ability to deliver effective conservation. CTA provides the flexibility to work with agricultural producers to prepare foundational conservation plans so that they can wisely invest in conservation actions on their operations, as well as with partner organizations to develop innovative responses to conservation challenges and opportunities. Base funding for CTA will continue to provide important technical assistance helping land managers to 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 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.

In 2018, NRCS will continue 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 agriculture and rural communities. More specifically, NRCS will:

- Gain actionable data and information on key factors affecting producer adoption, implementation, and endurance of conservation plans and associated practices, and their contribution to cost effective achievement of environmental benefits. To further this effort, NRCS plans to:
    - engage agency employees, districts, etc. to determine some of the social factors that may promote or hinder interest in and adoption of conservation planning, including perspectives, needs, and critical gaps to be addressed.
    - evaluate existing datasets for opportunities to better use available data to improve conservation targeting, and for existing data that can help inform understanding of the level of conservation adoption that occurs outside of USDA programs and financial assistance.
    - conduct a statistically valid and representative survey in priority watersheds to assess producer adoption of key conservation measures such as structural practices and cover crops.
    - review the available Conservation Effects Assessment Project data to identify management data that can help identify key demographic, operational, or related factors that affect conservation planning and implementation adoption.
    - initiate development of a recurring producer-based survey to understand key factors affecting producer adoption and maintenance of conservation measures.
    - continue efforts to better define producer motivation for adoption and sustaining conservation measure, including work with an external entity to evaluate social motivational factors affecting interest and participation in the Resource Stewardship effort.

- Leverage partnerships. NRCS will collaborate with natural resource partners to implement Ecological Site Descriptions to interpret and project changes in vegetative communities based on both natural disturbances and management activities to inform and guide conservation planning, programs, and natural resources management. NRCS will target and coordinate with partners (National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, Federal Emergency Management Agency, Forest Service, Animal and Plant Health Inspection Service, and others) the data and technology tools required for rapid response and recovery to disasters in order to mitigate damage to natural and human resources and minimize economic impacts.

- 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 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 conservation and improved soil health. Through the Conservation Effects Assessment Project 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 will continue to assess and optimize its office space to ensure the agency is able to provide service to our customers in a cost-effective manner. This will be especially critical as CDSI continues to be implemented because the new technology will likely change how NRCS interacts with its customers. States will continue to lead this effort because they have the greatest knowledge regarding local needs. However, NRCS will continue to provide an incentive to States that voluntarily reduce their physical footprint by using space as a factor in the fund allocation process to States. States that reduce space costs will be able to realize additional resources to support boots on the ground conservation activities.

a. An increase of $8,944,000 for pay costs ($2,605,000 for annualization of the 2017 pay increase and $6,339,000 for the 2018 pay increase).

The increase for pay will enable NRCS to maintain a staffing level critical to the Agency's mission. The pay cost funds are needed to avoid any disruption or delays in the Conservation Technical Assistance program activities and will be used to pay the increased salaries and benefits cost for the 4,900 staff years.

b. An increase of $6,600,000 to continue the investment in the Conservation Delivery Streamlining Initiative (CDSI), which will improve the cost effectiveness, timeliness, and accountability of NRCS's program delivery.

NRCS will continue the investment in the CDSI. CDSI implements 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.

2018 will be a critical year for the implementation of CDSI, with the need for development cost to roll out the Mobile Planning Tool (MPT), in addition to Integrated Conservation Desktop, to field staff, which is part of the overall lifecycle cost of the investment. The integration results in a fully connected DSI applications suite, where Conservation Client Gateway (CCG), Conservation Desktop (CD-TA & CD-FA), and Mobile Planning Tool (MPT) work together, and the workflows that are shared between the three applications, move through each application seamlessly, and result in the intended outcome, a completed conservation plan, a completed request for assistance, or a completed conservation contract for NRCS's easements or conservation programs. Integrated Conservation Desktop, when fully developed and deployed, will replace siloed planning

and financial assistance applications that currently cause field staff to do redundant work and data entry in the performance of their duties.

To accomplish this will require the acquisition of mobile devices ($4.5 million); development of the CDSI Core Services ($1.2 million), which fully supports the development and delivery of Conservation Client Gateway Version 4.0, Conservation Desktop – Financial Assistance for Integrated Easements (NEST replacement), and Conservation Desktop – Financial Assistance for Integrated Financial Assistance (ProTracts replacement); and leveraging the Conservation Desktop / Mobile Planning Tool, Version 5 through Version 9 – 6 total new releases of CD/MPT ($.9 million).

The outcome to the NRCS internal customers is a single application, CDSI, with three primary components, CCG, CD, and MPT that are interconnected and working effectively and efficiently together. The CDSI tool suite will provide the field conservation a single user interface/user experience, in where they can accomplish nearly 100% of their daily work assignments through CDSI applications, versus the several siloed, stand along applications that are used by field conservationists today.

c. A decrease of $98,597,000 in funding and 490 staff years for Conservation Planning and Compliance.

NRCS will take specific steps to further increase the role of the private sector in conservation planning, with a strong focus on plans requiring higher levels of technical expertise and where private sector leadership has proven successful, but has not been fully realized since the 2002 Farm Bill. Principally through the Environmental Quality Incentives Program (EQIP), and both its Technical Service Provider (TSP) and Conservation Activity Plan (CAP) provisions, private sector entities have proven they have the higher-level skills and desire to work collaboratively with NRCS to accomplish farmer/rancher conservation, production, and economic objectives for their operations. To date, private sector participation in this opportunity has been inconsistent across the nation because of capacity issues, programmatic challenges, and lack of a robust, consistent NRCS supporting infrastructure. To accomplish the growth of private sector conservation planning opportunities, especially for plans requiring higher levels of specialized expertise, NRCS will:

1. Establish and deliver an easily accessible and user friendly **consistent nationwide training** program for private sector entities that ensures their understanding of the agency's technical standards, processes, systems, and tools to support their development of specialized plans to support the implementation of conservation systems consistent with an integrated farm or ranch conservation plan meeting NRCS requirements.

2. Enhance its **certification program** for private sector entities to ensure that a conservation planner certified by NRCS meets the requirements for knowledge, skills, and experience so the farmer or rancher can have full confidence that the specialized conservation plan meets the same quality requirements that NRCS holds it conservation planners to.

3. Establish and operate a **robust quality assurance process** for private sector entities that deliver specialty conservation plans in collaboration with NRCS.

4. **Enhance the opportunities to use EQIP** to share in the cost of the development of specialized conservation plans to meet farmer and rancher objectives for conservation, economic, and production benefits.

5. **Enhance its coordination with private sector entities** to better ensure that NRCS and these entities work in cooperation and do not duplicate efforts, but rather work in a complementary manner.

6. **Employ sound continuous improvement processes** so lessons learned are applied and joint efforts with NRCS will result in quality conservation plans that lead to "conservation on the ground" in a streamlined, efficient, and effective manner.

The increased role in private sector conservation will result in a net discretionary funding reduction of $98,597,000 and 490 staff years. Staff years will be reduced through attrition in the year of execution.

(2) A net decrease of $152,000 in funding and no change in staff years for the Soil Survey Program ($79,848,000 and 403 staff years available in 2017).

The National Cooperative Soil Survey (NCSS) is a nationwide partnership of Federal, regional, State, and local agencies and private entities and institutions that promote and provide technical assistance in the use of soil surveys. This partnership works to cooperatively investigate, inventory, document, classify, interpret, disseminate, and publish information about soil resources on all lands of the United States. Through administration of the Soil Survey Program, NCSS ensures that soil surveys maintain their relevancy in order to meet the emerging and ever-changing needs of producers. Additionally, NCSS collaborates with State technical staff and partners to develop ecological site descriptions and interpret aggregated data that better address the needs of the public.

In 2018, NCSS will continue to fund mapping and interpretative analyses efforts that provide the public with information on the properties, capabilities and conservation treatment needs of their soils through soil surveys. The program provides soil maps, databases, and soil interpretative data for all lands of the U.S. as well as direct technical support to the American public.

Also within the soil survey program, the agency's Soil Health Monitoring and Enhancement Network is developing and implementing a statistically robust soil carbon monitoring network 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. This network will provide USDA with a farm-scale database to house soil carbon data received through the agency's Resource Stewardship Evaluation Tool. This project will complement ongoing efforts such as the NCSS.

a. An increase of $1,166,000 for pay costs ($313,000 for annualization of the 2017 pay increase and $853,000 for the 2018 pay increase).

The increase for pay will enable NRCS to maintain a staffing level critical to the Agency's mission. The pay cost funds are needed to avoid any disruption or delays in the Soil Survey program activities and will be used to pay the increased salaries and benefits cost for 403 staff years.

b. A decrease of $1,318,000 and no change in staff years within program activities.

The decrease in funding will be managed through cost savings and efficiencies in the administration of the program. The Soil Survey Program within NRCS provides information to meet current and future needs, interpret soil and ecosystem services for various uses, and makes these data and information available for public use. NRCS will deliver the program through the following activities:

- Harmonize soils data across county and State lines, including multiple land uses, new and archived information to develop new digital soil mapping efforts to meet geospatial modeling requirements for multiple needs. Develop data models and collect validation data for dynamic soil properties to allow the prediction of management and natural disturbance effects on ecosystem services at various spatial and temporal scales;
- Standardize and maintain policy and protocols for the taxonomic, soil property and ecological site information and to make data collection, storage, and delivery more efficient and effective;

- Develop integrated technical tools and information to assist planners and land managers predict and assess soil health, ecosystem and landscape sustainability and implement sustainable management systems; and
- Develop innovative data sharing and information delivery tools and products to reach multiple stakeholders from underserved audiences to the most technically advanced.

(3) A net decrease of $17,000 in funding and an increase of 2 staff years for the Snow Survey and Water Supply Forecasting Program ($9,282,000 and 50 staff years available in 2017).

The Snow Survey and Water Supply Forecasting (SSWSF) Program's mission is to measure snow and other climatic data in order to provide water supply forecasts and products that interpret the effect of current and future weather conditions on conservation practices. The Nation's freshwater supply, shaped by rainfall, snowmelt, runoff and infiltration, is distributed unevenly across the landscape, throughout the seasons, and from year to year. In many areas, concerns are growing about the adequacy of the available ground and surface water supply and the quality of the water to support intended uses. The SSWSF program collects and analyzes data on depth and water equivalent of the snowpack to provide estimates of annual water availability, spring runoff, and summer stream flows in western States and Alaska.

In 2018, SSWSF Program will continue to fund snowpack data and water supply forecasts to ensure the continued success of the program for NRCS to provide land managers and users with snow pack data and water supply forecast for the Western United States, including water managers, other agencies, and municipalities. NRCS continues to transition its SSWSF data collection system to provide completely automated data collection, which will improve safety while ensuring accurate forecasts. Currently, snowpack and related climatic data is recorded automatically through the SNOTEL system and manually at Snow Courses. The effort to convert essential Snow Courses to SNOTEL sites will continue, resulting in field labor cost savings, additional daily climate stations, and a safer work environment for program and partnered personnel.

a. An increase of $122,000 for pay costs ($36,000 for annualization of the 2017 pay increase and $86,000 for the 2018 pay increase).

The increase for pay will enable NRCS to maintain a staffing level critical to the Agency's mission. The pay cost funds are needed to avoid any disruption or delays in the Snow Survey program activities and will be used to pay the increased salaries and benefits cost for the 52 staff years.

b. A decrease of $139,000 in funding and an increase of 2 staff years for program activities.

The decrease in funding will be managed through cost savings and efficiencies in the administration of the program. NRCS will continue to make available critical snow/water forecasting data to Western States and water managers, other agencies, municipalities and others. NRCS will continue to partner with individuals; Federal, State, and local governments; Tribal councils; and Canadian and Mexican agencies to administer the snow survey activities and collect valuable climate data. Federal partners include the National Weather Service, United States Forest Service, Bureau of Reclamation, Army Corps of Engineers, Bureau of Land Management, United States Geological Survey, Bonneville Power Administration, and NRCS field offices.

(4) A net decrease of $18,000 in funding and 32 staff years for the Plant Materials Centers ($9,382,000 and 77 staff years available in 2017).

The Plant Materials Program provides landowners application-oriented vegetative technology and plant selections that are an integral part of the conservation practices that farmers and ranchers install. The NRCS network of geographically distributed PMCs is positioned to contribute regionally-adapted plants that enhance soil health, reduce runoff, increase soil water-holding capacity, increase carbon sequestration, increase nitrogen

fixation, provide wildlife habitat, including pollinators, enhance drought tolerance, reduce soil-borne diseases, and provide numerous other contributions to the rural economy.

The work of PMCs increases the resiliency of our agricultural ecosystems and aquafers by providing appropriate plants and planting recommendations for unique geographic locations and environmental conditions. For example, PMCs have started a coordinated evaluation of different cover crop varieties and combinations of cover crop species across a variety of climates, soils, and crop producing regions. These centers seek to identify optimal combinations of cover crop mixes and management practices to increase soil carbon sequestration and drought resilience through enhanced soil health.

a. An increase of $105,000 for pay costs ($28,000 for annualization of the 2017 pay increase and $77,000 for the 2018 pay increase).

   The increase for pay will enable NRCS to maintain a staffing level critical to the agency's mission. The pay cost funds are needed to avoid any disruption or delays in the PMC activities and will be used to pay the increased salaries and benefits cost for 45 staff years.

b. A decrease of $123,000 and 32 staff years for program activities.

   The decrease in funding will be managed through cost savings and efficiencies in the administration of the program. The PMC program provides vegetative solutions to our Nation's natural resource challenges. PMCs will continue to provide field demonstrations and training sessions to field staff and landowners to disseminate new tools and techniques. PMCs will also continue their tradition of delivering high quality, timely, science-based products to the extent possible to support NRCS conservation activities, initiative and emphasis areas, and delivery of Farm Bill programs. For 2018, PMC will continue use of agreements with partners to provide support that will result in a reduction of 32 staff years. Staff years will be reduced through attrition in the year of execution.

PRIVATE LANDS CONSERVATION OPERATIONS

Geographic Breakdown of Obligations and Staff Years
(Dollars in thousands and Staff Years (SYs))

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama	$8,563	74	$9,098	77	$10,324	89	$7,497	81
Alaska	4,241	25	3,498	22	3,937	25	2,994	23
Arizona	6,772	65	6,729	51	7,701	60	5,652	55
Arkansas	10,080	73	8,079	58	9,218	68	6,712	62
California	17,307	126	15,779	112	18,018	131	13,086	119
Colorado	12,458	103	12,487	88	14,166	102	10,481	93
Connecticut	3,103	19	3,121	18	3,532	21	2,592	19
Delaware	1,761	13	2,176	15	2,461	17	1,814	15
Florida	8,026	80	7,584	67	8,682	78	6,338	72
Georgia	10,573	91	10,712	71	12,247	83	8,887	76
Hawaii	6,825	48	7,202	43	8,234	50	6,007	46
Idaho	8,840	85	9,093	74	10,426	86	7,756	79
Illinois	13,522	89	12,358	103	14,028	119	10,170	109
Indiana	10,199	80	9,860	71	11,189	83	8,120	76
Iowa	19,967	159	18,997	158	21,576	184	15,608	168
Kansas	17,237	176	15,415	151	17,578	176	12,742	160
Kentucky	10,247	88	10,266	86	11,653	100	8,449	92
Louisiana	10,210	101	10,124	89	11,616	103	8,479	94
Maine	3,927	36	4,237	38	4,804	45	3,500	41
Maryland	4,603	37	4,966	32	5,719	38	4,183	34
Massachusetts	2,720	26	3,028	24	3,426	28	2,518	26
Michigan	8,738	77	11,411	80	12,998	93	9,428	85
Minnesota	9,777	85	12,222	90	13,872	105	10,063	96
Mississippi	11,257	94	17,701	103	14,497	120	10,522	109
Missouri	25,250	161	24,371	153	21,382	179	15,468	163
Montana	13,744	133	11,053	89	12,574	103	9,339	94
Nebraska	14,118	122	12,662	94	14,371	109	10,430	99
Nevada	3,340	24	3,428	27	3,916	32	2,923	29
New Hampshire	2,829	25	2,470	22	2,795	26	2,053	23
New Jersey	4,086	32	4,282	30	4,958	35	3,641	32
New Mexico	7,212	46	6,554	36	7,500	42	5,495	38
New York	8,438	79	8,170	65	9,350	76	6,801	69
North Carolina	7,942	72	8,504	68	9,647	79	7,014	72
North Dakota	11,678	104	10,996	86	12,592	100	9,162	91
Ohio	10,164	86	11,630	85	13,200	99	9,576	91
Oklahoma	13,105	137	11,482	117	13,034	136	9,449	124
Oregon	8,845	53	9,488	48	10,757	56	8,082	51
Pennsylvania	8,420	75	8,691	78	9,863	91	7,160	83

PRIVATE LANDS CONSERVATION OPERATIONS

Geographic Breakdown of Obligations and Staff Years
(Dollars in thousands and Staff Years (SYs))

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Puerto Rico	2,986	28	3,673	28	4,170	33	3,034	30
Rhode Island	2,180	18	1,986	15	2,244	18	1,655	16
South Carolina	5,386	48	5,623	30	6,377	35	4,640	32
South Dakota	10,682	97	8,487	64	9,632	74	6,989	68
Tennessee	10,611	99	11,076	99	12,576	115	9,111	105
Texas	34,226	285	31,788	216	36,285	251	26,286	229
Utah	7,764	62	8,999	60	10,167	70	7,594	64
Vermont	3,293	31	3,321	28	3,763	32	2,749	30
Virginia	7,706	77	7,119	65	8,076	76	5,870	69
Washington	10,789	93	9,102	72	10,429	84	7,632	77
West Virginia	6,211	57	6,264	50	7,163	58	5,227	53
Wisconsin	10,733	89	10,715	85	12,165	99	8,812	90
Wyoming	6,225	57	5,848	44	6,625	52	4,858	47
National Hdqtr	282,189	1,210	327,280	1,205	372,220	1,402	342,872	1,279
National Centers	8,298	77	45,219	304	50,828	354	38,480	323
Undistributed FB TA *	-	-	-	-	-	-	985,050	4,848
Obligations	769,401	5,327	846,425	5,085	950,561	5,920	1,751,050	10,248
Lapsing Balances	39,855	-	20,767	-	-	-	-	-
Bal. Available, EOY	125,604	-	118,957	-	-	-	-	-
Total, Available	934,860	5,327	986,149	5,085	950,561	5,920	1,751,050	10,248

* Transfer in mandatory authority from the Farm Security and Rural Investment Programs account to consolidate technical assistance funding.

PRIVATE LANDS CONSERVATION OPERATIONS

Classification by Objects
(Dollars in thousands)

		2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Personnel Compensation:					
Washington D.C.		$92,684	$74,998	$86,107	$116,352
Field		245,908	258,265	288,272	606,705
11	Total personnel compensation	338,592	333,263	374,379	723,057
12	Personal benefits	121,852	123,640	138,768	272,627
13.0	Benefits for former personnel	185	131	147	184
	Total, personnel comp. and benefits	460,629	457,034	513,294	995,868
Other Objects:					
21.0	Travel and transportation of persons	30,159	22,444	25,051	36,641
22.0	Transportation of things	1,110	1,832	2,076	2,168
23.1	Rental payments to GSA	15,207	16,530	16,977	31,158
23.2	Rental payments to others	34,507	36,388	42,511	83,319
23.3	Communications, utilities, and miscellaneous charges	2,353	1,661	2,051	5,068
24.0	Printing and reproduction	832	1,111	1,238	1,865
25.2	Other services from non-Federal sources	58,177	176,411	195,206	319,788
25.3	Other goods and services from Federal sources	1,215	1,589	1,623	2,724
25.4	Operation and maintenance of facilities	128,859	98,915	113,230	205,748
25.7	Operation and maintenance of equipment	-	39	45	38
26.0	Supplies and materials	9,927	9,306	10,912	17,593
31.0	Equipment	25,455	22,376	25,341	48,234
32.0	Land and structures	586	400	521	437
41.0	Grants, subsides, and contributions	22	-12	-	-
42.0	Insurance claims and indemnities	352	369	450	362
43.0	Interests and dividends	11	31	35	39
	Total, other objects	308,772	389,391	437,267	755,182
99.9	Total, new obligations	769,401	846,425	950,561	1,751,050
DHS Building Security Payments (included in 25.3)		$1,215	$1,589	$1,623	$2,724
Position Data:					
Average Salary (dollars), ES Position		$170,364	$172,068	$174,821	$177,618
Average Salary (dollars), GS Position		$68,631	$69,317	$70,426	$71,553
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).

Private Lands Conservation Operations

Status of Programs

Background. 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).

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; and 4) Natural Resource Technology Transfer. The fifth business line, Financial Assistance, is funded primarily through other conservation programs.

Agency Strategic Plan. The Natural Resources Conservation Service (NRCS) revised Strategic Plan (2015-2018) sets the vision, direction and priorities for NRCS in helping people use science-based technology and tools to conserve, maintain, and improve the Nation's natural resources. This plan is used to develop tactics to deliver on this core mission. The plan is focused on one strategic goal and two management initiatives.

Strategic Goal:

Get more conservation on the ground – This is the agency's mission. NRCS is committed to developing, implementing, and evaluating strategic conservation solutions; delivering the highest quality technical expertise; and proactively addressing emerging natural resource issues.

Management Initiative:

1) Increase organizational effectiveness and efficiency – The agency will change as needed to ensure that the right people with the right skills are in the right places to get conservation on the ground and produce the results that our customers and stakeholders expect.

2) Promote Conservation Stewardship on Private Lands – The strong ethic of conservation stewardship held by America's private landowners and managers combined with voluntary, incentive-based conservation programs continues to generate positive environmental outcomes. Success requires the agency to nurture its strong partnerships and coalitions with State agencies and other organizations to promote an ethic of conservation stewardship among America's private landowners.

In addition, the plan incorporates the agency's strategic priorities:

1. Deliver excellent and innovative service.
2. Strengthen and modernize conservation delivery.
3. Enhance and expand scientific and technical capabilities.
4. Broaden our reach, customers, and partners.

In 2016, the agency further refined key outcome-based performance measures that were supported by available conservation science and agency business tools. The selected measures allow NRCS to quantify changes in the quality and quantity of natural resources as private landowners and managers apply conservation practices. These measures comply with the Government Performance and Results Modernization Act of 2010 and provide a transparent link between budgetary investment, outputs, and outcomes.

Conservation Technical Assistance

Current Activities.
NRCS is USDA's principal agency 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.

Program Objectives. 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 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.

Program Operations. 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, NRCS and others work together to use the information gleaned from the planning process to make decisions, implement plans, and put conservation practices in place.

Technical assistance does not stop with implementation, but 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 the 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 the local level, where public policy supports private action, those natural resource conservation issues that are of State and national concern. The NRCS Chief establishes CTA Program national priorities and program activities on a yearly or multi-year basis in order to focus agency resources on specific program objectives. States may establish additional priorities and activities for the CTA Program. The agency has a full array of processes to focus CTA Program resources on national and State priorities. These processes include, but are not limited to:

- Strategically positioning staff to address natural resource needs through conservation planning;
- Locating program funds to address natural resource needs;
- Establishing short-term and long-term performance measures and goals;
- Establishing and implementing agreements and contracts;
- 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 (TSPs); and
- Developing public information and outreach strategies.

2016 Activities.

In 2016, CTA continuing program 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 agency technical assistance combined 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 activity 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 activities such as Great Lakes restoration, sage grouse habitat, and the health of waterways in the Mississippi River Basin;
- Addressing growing demand for pre-program conservation planning support for Farm Bill programs such as the Environmental Quality Incentives Program, the Conservation Stewardship Program, and the Regional Conservation Partnership Program; and
- Designing natural resource conservation systems to reduce the risk of loss from climatic events such as drought, fire, and flood, and to mitigate their effects.

Additional CTA program activities in 2016 included:
- 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.

To meet the growing demand for technical assistance, 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; improve and streamline internal business processes in order to accelerate service delivery; expand the 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 our ability to develop innovative technology addressing new and emerging conservation challenges.

Get Conservation on the Ground.
Through the CTA Program, field staff provide technical assistance to customers in the planning and application of science-based conservation practices and systems on private lands. This technical assistance provides public and private benefits through soil and water quality improvements, water conservation, healthier grazing and forest land ecosystems, and wildlife habitat improvement. Examples of 2016 CTA activities and results are:

Maintain productive working farms and ranches. The agency helps maintain soil health, which is the foundation for productive working farms and ranches. Soil health leads to sustained production of a safe, healthy, and abundant food supply.

- In 2016, NRCS assisted in developing conservation plans on 27 million acres. In accordance with those plans, conservation practices and systems designed to improve soil quality were applied to 6 million acres of cropland, with CTA program support.
- With CTA program support the owners and managers of grazing and forest lands applied conservation to improve the resource base on over 11 million acres.

Eliminate and reduce impairments to water bodies. The agency collaborates with agricultural producers to help them conserve water and reduce the potential for pollutants to move off-site into water bodies, streams, and rivers. This reduces input costs to the producer and protects water quality.

- Over 16 million acres of agricultural land had conservation practices applied as designed by the agency to improve off-site water quality.
- Nearly 300,000 acres of conservation practices were applied to improve irrigation water use efficiency, which reduces costs to the producer and reduces groundwater withdrawals and surface runoff.

Decrease threats to "candidate" and threatened and endangered species. Nearly 70 percent of the fish and wildlife habitat in the United States is on privately-owned lands. The creation and restoration of wildlife habitat on private lands is vital to decreasing the threats to species already listed as threatened or endangered or have potential to be listed ("candidate" species). NRCS works with landowners and managers to assist them with wildlife habitat improvement and wetland restoration, providing increased recreational opportunities and vital ecosystem services.

- Over 6 million acres had conservation practices and systems applied to improve wildlife habitat.
- Creation, restoration, and enhancement of wetlands, which provide critical wildlife habitat, was accomplished on over 15,000 acres.

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 2016, 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 erosions 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 and the American Forage and Grassland Council 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 non-governmental 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 has spurred major increases in the knowledge and skills of conservationists with the planning and application of conservation of grazing land management, which facilitates adoption of grazing conservation practices. In 2016, over 20 million acres of grazing land had conservation practices applied. The agency also partners with the National Cattlemen's Foundation to recognize outstanding ranch and farm managers/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.

The agency employs the Grazing Lands NRI (National Resources Inventory) On-Site Data Study 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) has expanded grazing lands NRI onto non-forested BLM lands in order to provide a statistically-based sample design that is common to both agencies. Knowledge of rangeland conditions across large areas of the west (private and public lands), coupled with a conservation partnership whereby ranchers implemented over 2,500,000 acres of rangeland improvement, has been important in the U.S. Fish and Wildlife Service's determination that protection of the greater sage-grouse under the Endangered Species Act is not warranted.

NRCS's Ecological Site Information System continues to provide the capability to produce automated ecological site descriptions from the data stored in its database. Joint policy between Department of Interior Bureau of Land Management, NRCS and the Forest Service efficiently pools the agencies' technical resources behind the development and use of Ecological Site Descriptions (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. The agencies partner with the Society for Range Management to provide multi-agency training in ESD development. 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. During 2016, over six hundred million acres of provisional sites have been reported.

Clean Water Activities. The agency 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 farm and field scales. The agency also provides the leadership needed to enhance coordination with the Environmental Protection Agency (EPA), 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: nutrient management; pesticide drift under the Clean Water Act; Chesapeake Bay, Great Lakes, and Mississippi River Basin restoration efforts; Gulf of Mexico Initiative; National Ocean Policy; U.S. Coral Reef Task Force; and conservation assistance to reduce hypoxia and harmful algal blooms and improve water quality across the landscape.

NRCS has targeted efforts underway, including national and regional conservation activities that protect and conserve water quality and quantity. For example, under the National Water Quality Initiative, which began in 2012, each State identified one to three watersheds in which to concentrate efforts and coordinate with State water quality agencies. In 2016, the agency made available nearly $25 million in financial assistance to help farmers and ranchers implement conservation systems that reduce nitrogen, phosphorous, sediment, and pathogen contributions from agricultural land in 188 priority watersheds where water quality is a critical concern. The goal of this initiative is to improve water quality and eventually delist stream segments from the EPA's 303(d) list of impaired streams. The landowners and producers participating in the initiative receive conservation payments to work on the land in a sustainable way, which provides cleaner water while keeping the land productive into the future. Communities benefit by having clean waterways, safer drinking water, and healthy habitat for fish and wildlife.

During 2016, the agency continued to provide leadership through the development, advancement, and demonstration of new and innovative approaches to improving water quality. Below are some of the activities and advances:

- 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 standards for conservation practices. In 2016, Conservation Practice Standard (CPS) Code 604, Saturated Buffer, was developed with a purpose of reducing nitrate loading to surface water from subsurface drain outlets. In addition to this new CPS, several other practice standards that provide clean water benefits were revised and improved during 2016.
- Beginning in 2013, two new conservation activities for edge-of-field water quality monitoring were made available to producers. Edge-of-field monitoring provides defensible information on the impacts of conservation practices on runoff water quality. In 2016, the agency invested more than $1 million, and 57 instances of edge-of-field practices were planned.
- The release of nutrients from agricultural operations (e.g., over-fertilization, animal waste disposal, and dairy runoff) is a recognized source of contamination for the Nation's waterways. Voluntary Comprehensive Nutrient Management Plans (CNMPs) are an effective tool for addressing these water quality problems associated with agriculture. In October 2015, NRCS CNMP Policy and Procedures were revised to make the plan and its implementation more streamlined and useful to the agricultural operation. An average CNMP takes approximately 100 hours of staff time to develop. Since 2009, NRCS personnel, conservation partners,

and technical service providers have assisted with developing 17,582 new CNMPs for livestock and poultry producers, of which 1,953 new plans were written during 2016. These plans are voluntary in nature and may at times involve large financial investments on the part of the landowner or manager, this is viewed as a relatively high level of success.

- The agency also continued development and support of the Water Quality Index for agricultural runoff, (WQIag), a Web-based tool that can be used in before- and after-conservation practice installation scenarios, or on an annual basis to compare the indexes and evaluate runoff water quality trends, and the Nutrient Tracking Tool (NTT), a user-friendly Web-based application that evaluates changes in nitrogen, phosphorus, and sediment levels, as well as crop yield, under different crop management and conservation practices.
- Collaborations with agricultural groups, States, universities and other Federal agencies continued to gather agricultural data for use in meeting the EPA requirements for watershed implementation plans as a result of the Chesapeake Bay total maximum daily load. The agency continued participation in several working groups that gather "real world" numbers on nutrient production and utilization in the Delaware, Maryland, and Virginia area. These working groups provided data on nutrient balances that will assist Chesapeake Bay modelers in increasing the accuracy of their next model run.
- NRCS, through the watershed partnership program of the U.S. Coral Reef Task Force, worked with producers in watersheds to voluntarily implement conservation practices to avoid, control, and trap sediment and nutrient runoff and improve wildlife habitat while maintaining agricultural productivity. NRCS provides outreach and technical assistance to landowners enrolled in the Environmental Quality Incentives Program (EQIP) that propagate native trees to plant in critical areas and ensures wildlife conservation practices are properly implemented with certified conservation practices. The agency also works to engage local landowners in adopting conservation practices by offering cost-share incentives through several voluntary land conservation programs.

National Resources Inventory (NRI) Program and Conservation Effects Assessment Project (CEAP). NRCS gathers, 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. These data provide 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, sound agricultural policy, and 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 provide 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.

The NRI is a statistical survey that inventories scientifically selected sample sites in every county across the United States and locations in the Caribbean Area and Pacific Basin. 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 2016 NRI activities included:

- NRI Production Work. The Remote Sensing Laboratories (RSLs) staff completed data collection on the 2014 NRI from images of over 66,000 sample sites and approximately 200,000 points. The RSLs staff also processed 70 percent of the 72,529 images for the 2015 NRI. The contracts for acquiring aerial photography for over 72,000 segments for the 2016 NRI have been awarded.
- NRI Survey of Farming and Conservation Practices. The national refresh of the CEAP farmer survey completed data collection for 2015 in addition to starting the survey and preparation for 2016. This data collection will be used to update CEAP results since the first CEAP-Croplands national survey conducted in 2003-2006. Experience gained in 2015 was used to improve the 2016 sample. Training was conducted in July 2016 and farmer eligibility screening for data collection began in August 2016. This effort will provide the data for a second series of national reports, with data from the first national survey serving as the benchmark to measure changes in conservation practice adoption over time.
- On-site Data Collection on Non-Federal Grazing Lands. A new partnership with the National Employee Development Center (NEDC) of NRCS was established to more efficiently deliver NRI Grazing Land Train-the-Trainer courses. Four national trainings were held in 2016 in Tucson, AZ; Knoxville, TN; Guthrie, OK; and Bloomsburg, PA. During 2016, data collection was conducted on over 1,600 non-Federal range sites and over 400 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 2015. Similar tables were constructed from NRI pastureland on-site data for use in Forage Suitability Group development. Invasive plant species maps and descriptions were constructed from combined NRI rangeland and pastureland on-site data as part of the RCA report.
- On-site Data Collection on Bureau of Land Management (BLM) Lands. NRCS and BLM have renewed their interagency agreement to implement a national approach for monitoring rangeland resources by expanding NRI data collection on BLM lands and intensifying sampling in core sage-grouse habitat. The new 5-year agreement, begun 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 2016, NRCS collected data on over 2,200 sites on BLM lands. These data are being reviewed by an interagency team and will be used in reports for sage grouse and Great Basin activities and will contribute to BLM's ongoing monitoring program. 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.
- Implementation of Remote Sensing to Monitor Stewardship Lands (Easements). The Resource Inventory Division's Remote Sensing Laboratories and the Easement Programs Division continued collaboration on a program for utilizing remote sensing to monitor stewardship lands. This approach has proven to be more cost-effective than conducting site visits to easement properties and promotes efficiency and national standardization of easement monitoring. In 2016, the Remote Sensing Laboratories processed over 20,000 images from 2015 and over 10,000 images from 2016 to support this effort.

CEAP is a multi-agency effort designed to quantify the environmental effects of applying conservation practices on agricultural land, and to provide a scientific basis for managing the agricultural landscape for environmental quality. Findings from projects completed under CEAP are used to guide USDA conservation policy and program development and to help all stakeholders, including 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 additional scenarios and to assess the potential of USDA conservation programs to meet the Nation's environmental and conservation goals. Watershed assessment studies provide more detailed, in-depth assessments of smaller areas, which can inform local decision-making and improve modeling capacities.

The 2016 CEAP activities included:
Cropland Assessment. Updated training on the national assessment farmer survey (CEAP-2) was provided for approximately 2,500 National Agricultural Statistics Service enumerators. Enumerators will complete the face-to-

face surveys of over 30,000 producers during the fall/winter of 2016-2017. Processing of the surveys conducted in fall/winter 2015 is approximately 40 percent complete. CEAP-2 will produce a series of regional reports based on a second national survey of conservation practices adopted since the first CEAP national assessment 2003-2006, CEAP-1. Spatial and temporal trends since the first national assessment will be appraised in a series of reports.

The second in a series of "Special Studies" regional reports complementing CEAP-1 was released in March 2016. This report focused on field-level impacts of conservation practices in the Western Lake Erie Basin (WLEB). Based on the 2003-2006 farmer survey and a 2012 survey of farmers in the WLEB region, this report provides insights on ongoing trends in conservation and management in WLEB. The report was used by the tri-State committee of NRCS State offices to develop targets and goals for focused additional conservation spending. In the WLEB:

- About 99 percent of cropland acres are managed with at least one conservation practice;
- An estimated 35 percent of cropland acres have conservation practices in place that address all five resource concerns;
- Ninety-six percent of cropland acres have practices in place that reduce sediment losses to below 2 tons per acre per year, on average;
- Fifty-eight percent of cropland acres have phosphorus application rates at or below crop uptake rates;
- Nitrogen and phosphorus application methods improved, but application rates and application timing did not change between 2003-2006 and 2012; and
- The use of precision agriculture is gaining momentum in the region, with the use of global positioning systems in soil management decision-making more than quadrupling and the use of variable-rate technologies in fertilizer application management more than tripling.

Additional CEAP-Cropland Special Studies are being developed for the WLEB and three other basins across the Nation. A watershed-level report based on data collected in 2012 for WLEB will be released in November or December 2016 to complement the field-level report released in March 2016. Separate field-level and watershed-level reports are in development based on CEAP-1 data and other CEAP data collected in 2012 in the Des Moines River Basin, in 2013 for the Sacramento Bay Delta, and in 2014 for the Lower Mississippi-Saint Francis Basin. These areas of the country are of particular interest because of sensitivities related to agricultural effects on the environment. These reports will assess changes in agricultural conservation and management since CEAP-1 and will explore potential benefits of various conservation strategies in the respective regions, thus improving the agency's capacity to deliver program benefits where they matter most.

Analyses of the impacts of applying conservation practices on yield sustainability and other agroecological indicators, including soil and water quality, continue to provide the agency's leadership with vital information for decision-making in optimizing the use of available conservation resources while increasing ecosystem benefits and minimizing the risk of agricultural yield losses. 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, Grazing Land Conservation Initiative, Mississippi River Basin Healthy Watersheds Initiative, and the National Water Quality Initiative. CEAP-Cropland scientists collaborated with the Economic Research Service on a project titled, "Gulf of Mexico Hypoxia – Finding Cost-Efficient Solutions," and worked with USDA and other Federal partners to identify economical and effective applications of the British Petroleum Oil Spill Remediation Funding.

Assistance was provided for the Great Lakes restoration project in setting reasonable conservation practice adoption goals in the Western Lake Erie Basin. Members of the CEAP-Cropland team continue to serve on the Measures of Progress team to provide CEAP-based guidance. The CEAP-Cropland team also collaborated with the CEAP-Wildlife component leader to assist in a project, led by the Nature Conservancy, on the development of appropriate water quality goals and refinement of biological metrics as indicators of water quality in WLEB. The final reports for this collaboration were completed in 2016, and several peer-reviewed articles from this effort are in press.

Grazing Lands Assessment. As with other CEAP components, the Grazing Lands component relies on NRCS staff working with key partners to complete assessments. In 2016, these partners included the Agricultural Research Service (ARS), several universities, and specific Native American nations.

Primary CEAP-Grazing Lands component activities and accomplishments in 2016 include the following:

- Added seven conservation practices for use on private forest lands. CEAP-Grazing Lands entered into a Cooperative Ecosystems Studies Unit (CESU) agreement with Texas A&M University and Colorado State University to model the environmental effects of those conservation practices on forest and adjacent rangelands.
- Collaboration with the National Ecological Site Team, Ecological Site Specialists, and ARS in Las Cruces, New Mexico, produced generalized State-and-Transition Models for groups of ecological sites. Work was completed in Major Land Resource Areas (MLRA) 67B, 69 (Colorado), and 77E (Texas/Oklahoma/Kansas) in August 2016 and modeling of those groups will begin in January 2017. Ecological site grouping work in MLRA 54, 60, 63A, 65, 72, and 73 will begin in January 2017. This project aligns CEAP modeling needs on grazing lands with spatial resolution at the MLRA scale, which is necessary for analysis. It also provides products to teams developing Ecological Site Descriptions (ESD), particularly for Provisional ESDs.
- At the request of the San Carlos Apache Tribe (eastern Arizona), woodland ecological site descriptions (ESDs) were completed in 2016. These ESDs, which also fulfill CEAP-Grazing Lands modeling requirements, will be given to the National Ecological Site Team for approval and official agency use.
- The CEAP Modeling Team continues to collaborate with the Texas A&M University Blackland Research and Extension Center on improving grazing and plant growth algorithms in the Agricultural Policy/Environmental eXtender Model (APEX). All of the additions underwent rigorous validation exercises in 2016 for datasets in South Dakota, Kansas, Texas, and Arizona. Results are being conveyed via a three-part manuscript series, with the first submitted in September 2016 to the *International Journal on Ecological Modeling and Systems Ecology*.
- Collaboration with ARS-Tucson has produced a remote sensing woody plant map and canopy cover estimation technique using no-cost imagery. Beta-testing on the Rangeland Brush Estimation Tool (RABET) was performed in April 2016. Improvements will be ready for small-scale field office testing during 2017.
- Soil respiration, grazing management, conservation practice, and plant productivity data are being collected on rangeland studies in California, Arizona, and Utah, through collaboration with ranchers, universities, and private non-profit organizations. These data will contribute added value to existing CEAP-Grazing Lands datasets and improve the ability to model conditions on complex and highly variable rangelands.

Wetlands Assessment. CEAP-Wetlands regional project reports and publications completed in 2016 include:

- Effects and Effectiveness of USDA Wetland Conservation Practices in the Mid-Atlantic Region: A Report on the Mid-Atlantic Regional Wetland Conservation Effects Assessment Project 2008-2015 – summarizes regional findings by ARS on ecosystem functions provided by wetlands restored through USDA conservation programs;
- CEAP Science Note – "Greenhouse Gas Fluxes and Carbon Storage Dynamics in Playa Wetlands: Restoration Potential to Mitigate Climate Change;"
- Assessing the Effects of USDA Conservation Programs on Ecosystem Services Provided by Wetlands;
- A Geographic Information System Tool to Project Managed and Wild Bees on any Landscape;
- Comparison of Infiltration Flux in Playa Lakes in Grassland and Cropland Basins, Southern High Plains of Texas;
- Occurrence of Current-use Fungicides and Bifenthrin in Rainwater Basin Wetlands;
- Land-use Effects on Pesticides in Sediments of Prairie Pothole Wetlands in North and South Dakota; and
- Factors Influencing Non-target Bird Occupancy of Restored Wetlands in California's Central Valley.

Other CEAP-Wetlands activities included:

- A Soil and Water Assessment Tool (SWAT) model study for Delmarva bays, which describes enhanced wetland soil processes and improved watershed model calibration.
- A study on the effectiveness of vegetation buffers surrounding playa wetlands in contaminant and sediment amelioration, which shows land use best explains pesticide concentrations in prairie potholes.
- Continued development of on-site and remotely sensed wetland data collection integrated with the NRI as well as additional studies to improve wetland processes in the CEAP-Croplands model.

Wildlife Assessment. CEAP-Wildlife regional projects and publications completed in 2016 include:

- Methods for Determining Biodiversity Metrics, Focal Species, and Conservation Practices for Multi-scale Analysis in Support of the Conservation Effects Assessment Project (CEAP);
- Habitat Monitoring and Evaluation of Working Lands for Wildlife: New England Cottontails;
- Sage Grouse Initiative Conservation Effects Assessment Project Inter-agency Agreement #67-3A75-12-69 Final Report;
- Quantifying the Potential Water Quality Benefits of Agricultural Conservation Practices for Stream Conservation in the Western Lake Erie Basin;
- Developing Guidelines for Promoting Pollinator Services and Shrubland Birds in the Northeast;
- CEAP Conservation Insight – Conservation Practices Benefit Golden-winged Warblers in Appalachia; and
- CEAP Conservation Insight – USDA Programs Help Meet Migrating Waterfowl and Shorebird Food Energy Needs on Rainwater Basin Wetlands in Nebraska.

Some assessments initiated in prior years were continued in 2016, including assessments of the effects of conservation practices associated with the Working Lands for Wildlife (WLFW) effort involving golden-winged warblers, New England cottontails, and southwestern willow flycatchers. Additionally, work continued on 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 the two remaining WLFW-featured species – gopher tortoise and bog turtle. The multi-partner effort to develop biological endpoints, and aquatic biota metrics, for CEAP water quality modeling efforts in the Western Lake Erie Basin was completed in 2016. Findings are being used to inform effective delivery of water quality conservation practices to maximize benefits to in-stream fish communities.

CEAP-Watershed Assessment Studies. Long-term watershed assessment projects, conducted in partnership with ARS, continue to be a significant element of CEAP as they document measureable outcomes of conservation on water quality in small watersheds. The scale and detail of these small watershed assessments (HUC 8-12) are directly applicable to conservation planning and watershed-based approach of targeted NRCS conservation activities and programs delivered on a watershed basis. 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 and program activities.

Significant CEAP-Watershed Assessment accomplishments and activities in 2016 include the following:

- Insights from CEAP-Watershed Assessments were featured at a national conference on Nutrient Management and Edge-of-Field Monitoring sponsored by the Soil and Water Conservation Society. Personnel from CEAP-Watershed projects shared their approaches and findings relative to water quality monitoring as well as ways to effectively link field and watershed scales, based on experience and lessons learned, to develop greater understanding of conservation benefits and processes in the landscape. Experience and insights were also synthesized to promote dialogue on how edge-of-field and watershed-scale, water quality monitoring data and assessment can be used to inform local conservation efforts, program design, and delivery.
- A new small watershed-scale conservation planning tool, the Agricultural Conservation Planning Framework, was released for use. This tool, developed by USDA ARS and others, is largely based on findings, insights, and assessment techniques developed as part of CEAP-Watersheds projects and data. More CEAP-Watersheds will assess this tool in relevant regions of the U.S. Additionally, CEAP-Watersheds lessons learned on more effective watershed conservation for improved water quality outcomes are being integrated into training materials and sessions to support the use of this tool to better target conservation. Currently, the tool is used by conservation partners in NRCS programs in several upper Midwestern States including Iowa, Minnesota, Indiana, Illinois, and Wisconsin.
- Data derived from CEAP-Watershed Assessments on phosphorous in dissolved form were used to validate and enhance modeling approaches to better assess losses and transport of this dissolved constituent. These findings, along with CEAP-Watersheds lessons learned are being utilized by State and regional staff as well as conservation partners in the Great Lakes region and upper Midwest to identify the source and hydrologic pathways of other constituents to more effectively treat them with appropriate suites of conservation practices. More effective conservation system options to address the issue are being evaluated and planned for this region

because of the work on these projects. For example, a recent conservation practice, the blind inlet, which is very effective and was developed in a CEAP-Watershed study in the Western Lake Erie Basin (WLEB), was implemented under the Great Lakes Restoration Initiative (GLRI) on the new Demonstration Farm in Ohio and is being featured as part of a conservation system for producers to see.

Getting Conservation on the Ground.
This year, lessons learned from CEAP-Watershed Assessments were used in the National Bulletin on NRCS conservation work for Nearshore Health in the GLRI. In addition, CEAP-Watersheds lessons learned were applied to on-going analysis of priority watersheds and practices and CEAP-Watersheds findings in the published scientific literature were used to evaluate approaches to estimate phosphorous reductions from conservation actions for reporting purposes for the GLRI. This is a direct implementation of CEAP findings to support the design and delivery of NRCS conservation programs and projects as well as the selection of applications. Additionally, this provides transparency on how conservation benefits are accounted for and reported under CEAP. Insights on targeting conservation to and within a watershed were utilized as well as lessons on assessing outcomes and progress in these projects.

Saturated riparian buffers which have been developed and tested at field and watershed scales in several CEAP-Watersheds were adopted in 2016 by the agency as a full conservation practice standard under EQIP. This practice has been an interim standard and is effective by supporting the transformation of nitrate nitrogen to reduce nitrogen loading in drainage water when strategically implemented. This practice standard is now used in watershed-based conservation projects in the Mississippi River Basin and other areas to address nitrogen water quality concerns.

CEAP continues to provide assessments of the conservation efforts in various watersheds including the Mississippi River Basin, the Chesapeake Bay, and the Great Lakes as well as for activities related to national water quality, sage-grouse, lesser-prairie chicken, migratory bird habitat, and the Working Lands for Wildlife. 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 measureable outcomes of on-the-ground conservation efforts. The GIS Laboratory of the Resource Assessment Division is also contributing critical information and analysis to this team effort in addition to the materials provided by these CEAP components.

Natural Resource Technology Transfer. NRCS ensures field staff has 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. In 2016, training was available as needed on- site, via webinars, video teleconferences, and individual computer-to-computer support.

Key activities in 2016 included:

- Technical Training. As part of NRCS's goal of making the latest technology available to our field offices, National Handbook of Conservation Practices Notice 165 updated fifteen national conservation practice standards. Training was provided to NRCS State technical staff to improve accuracy and consistency of wetland determinations. The National Technology Support Centers' staff delivered 45 live webinars, reaching over 12,000 state staff and students comprising a number of technical disciplines. The training included certification and continued education credits for attendees. The Central National Technology Support Center (CNTSC) developed Monarch Habitat Evaluation Guides to assist with science-based monarch habitat improvements on working lands. These guides are the foundation to an agreement with the U.S. Fish and Wildlife Service on a federal strategy to protect the monarch butterfly from being listed as an endangered species.

- Technical Assistance. Approximately 850 State and National requests for assistance were completed during 2016 by the CNTSC technical staff addressing subjects such as agronomy, engineering, fish & wildlife, manure management, plant materials, soils, water quality, wetlands, planning/Field Office Technical Guides, economics and social sciences, energy, and conservation practice standards.

- Dam Management and Safety. Dam safety efforts were enhanced by deploying geospatial tools to monitor activities for the agency-assisted dams. GeoObserver for Dams is a geospatial database used to track National Inventory of Dams (NID) data for over 29,000 NRCS-assisted dams. Using State-provided data in GeoObserver for Dams, the agency periodically delivers NID updates to the U.S. Army Corps of Engineers. DamWatch is a web-based application that provides real-time monitoring of hydrologic and seismic conditions associated with nearly 12,000 dams across the country. As of September 2016, DamWatch had over 700 users nationwide.

- Conservation Client Gateway (CCG). This is a secure agency public website that enables agricultural producers operating as individuals to request technical assistance for developing new conservation plans, review existing conservation plans, and report completed conservation practices. Clients can also use CCG to apply for Farm Bill financial assistance conservation programs, such as the Environmental Quality Incentives Program, electronically sign application and contract documents, and track conservation payments for completed and certified contract items without driving to an NRCS field office, thus saving time and money for both the Federal government and the client. The CCG is a recipient of a GovDelivery's 2016 Digital Strategy and Impact Award. NRCS was recognized in the Improved Citizen Involvement category for advancing a citizen-centric culture with two new innovative and efficient IT solutions: Conservation Client Gateway (CCG) and Application Access Assistant (AAA). AAA is a service developed to validate customer identity for secure client access into CCG. As of September 2016, approximately 2,400 clients nationwide were using CCG.

- Customer Service Toolkit (CST). CST is an agency mission-essential conservation planning application that is used nationally by over 8,000 agency field staff in nearly 2,800 USDA Service Centers, and by conservation districts. CST is used for conservation planning and implementation of approved conservation practices. In 2016, significant improvements to the usability and efficiency of the application were made, which allowed the agency's conservation planners to provide improved planning services to landowners. The improvements build on the successful release of the 2015 version of CST and include functionality for improved practice scheduling, easement reconciliation and an integrated erosion tool. To support the changes, a new CST user manual was developed and hands-on training was provided to every CST user.

- Resource Stewardship Evaluation (RSE). RSE is an NRCS service designed to communicate the stewardship benefits of conservation planning and science-based conservation program implementation. RSE recognizes the stewardship benefits achieved by farmers and ranchers. The Resource Stewardship key indicators embody the resource concerns utilized in participant plans and contracts during the conservation planning process the agency has used for decades to assess soil, water, air, plant, and animal resources. The stewardship indicators have been divided into five main objectives: soil management, water quality, water quantity, air quality, and habitat health.

  The Resource Stewardship Evaluation Tool (RSET) is utilized to evaluate these indicators in addition to land use-specific assessment methods. In 2015, this tool was piloted in 11 States on over 50 participants and 100 land units. The web-based version of the tool interacts with the Customer Service Toolkit which was released in March 2016. In 2016, the RSE was utilized on over 400 land units in 34 states. Nutrient loss reductions and soil carbon improvements of 40 to 70 percent were observed as part of the pilot. RSE will continue to develop additional land use evaluations (grazing and forestry) to evaluate the resource concerns and opportunities for enhancement of environmental performance on the entire farm or ranch and will look for partnerships to provide recognition of the stewardship achievements of farms and ranches.

  The agency continued to make great strides in increasing its capacity for leadership in soil health awareness, services, and implementation in 2016. In addition, the agency has an intensive long-term national effort to train personnel and partners on soil health concepts, management implementation, and continually integrate the latest science and technology into agency services. During 2016, the agency's national staff reached more than 35,000 people with over 740 activities across 48 states with soil health-focused presentations and workshop sessions, webinars, technical assistance to producers and service providers, committee activities, and other efforts. State level staff led additional activities across the country to increased implementation of soil health promoting practices such as cover cropping, improved rotations, and reduced tillage. The agency reached diverse audiences including traditionally underserved producers. NRCS is developing a new network focused on the science of soil health, including a soil health status inventory and evaluation of the effectiveness of management systems for building soil health, to continue to accelerate services provided for this critical national need.

Highly Erodible Land (HEL) and 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 are required to protect their HEL cropland from excessive soil erosion, and to comply with the HEL regulations at 7 CFR Part 12 and statutory provisions of 16 U.S.C. Sections 3801 and 3811 to 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, the agency conducts HEL determinations and identifies cropland fields that are highly erodible and subject to the provisions. In 2016, over 45,000 HEL determinations were conducted nationwide. The agency also provides conservation planning assistance on HEL; however, there is no mechanism to specifically track assistance which only applies to 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; processing and 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 agency's 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 2016, over 32,000 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 on-site determination when a violation of the HEL/WC provisions is suspected, and ensures that only qualified employees report violations. In addition, the agency reviews five percent of all farm loan recipients from the prior year, and reviews HEL or WC tracts of cropland owned or operated by any government employee who receives benefits at least once every three years.

Penalties for noncompliance with the WC provisions range from a Good Faith Exemption issued by the Farm Services Agency (FSA), which allows the producer one year to correct the violation, 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 2015 reviews, which are displayed in the table below, show that a high percentage of program participants are following approved conservation plans or systems and are in compliance with the HEL and WC requirements. The reason for the relatively lower number of reviews in 2015 was a data processing error that the USDA Office of Inspector General identified in the report "USDA Monitoring of Highly Erodible Land and Wetland Conservation Violations – Interim Report." NRCS has implemented all recommendations from this report starting with the 2016 review year.

In 2015, compliance reviews were conducted on 10,725 tracts, which included approximately 1.6 million acres of cropland. A total of 358 tracts, or 3.3 percent of the total reviewed, were found to not be in compliance: 241 tracts had HEL violations, and 122 tracts had potential WC violations. Of those, 5 tracts had both HEL and potential WC violations. Of the 10,367 tracts that were in compliance, approximately 487 tracts or 4.7 percent were deemed to be in compliance because they had been issued variances or exemptions as provided by statute. 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.

With the passage of the 2014 Farm Bill, NRCS received funding to develop and operate an agricultural wetland mitigation banking program. Wetland mitigation banking uses a market-based approach to restore, enhance or create wetlands to compensate for unavoidable impacts to existing wetlands. Banked wetland mitigation credits are made available after the restoration or enhancement of drained or otherwise degraded wetlands, or, in some cases, after the creation of new wetlands. These newly created or restored wetlands are protected by a conservation easement. In 2016, NRCS made an announcement of program funding to solicit proposals to promote the development of wetland mitigation banks and recently selected 10 proposals for funding of 7 million dollars of program financial assistance.

Summary of Tract Reviews and Tracts Out of Compliance 1/	2012	2013	2014	2015
Total Tracts Reviewed	24,309	23,627	22,127	10,725
Tracts Out of Compliance	744	680	606	358
Percent out of Compliance	3.1	2.9	2.7	3.3
Number of States Recording Noncompliance	30	34	38	29

1/ The compliance review year runs from January 1 to December 31.

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 Farm Bill programs.

Primary customers of the program are land owners and managers who make the day-to-day decisions about natural resources use and management on private lands. The agency provides conservation technical assistance to four main customer groups:

- Farmers and ranchers who own, operate, or live on farms and ranches;
- Other members of the private sector who support agriculture production and conservation;
- Governments, including tribes, with responsibility for natural resource use and management; and
- Non-profit organizations whose mission aligns with the agency's regarding natural resource management.

In 2016, over 560,000 customers received technical assistance, and 104,000 customers received comprehensive planning assistance. Results from this assistance are:

- 27.0 million acres covered under written conservation plans;
- 15.8 million acres treated with conservation practices to improve water quality;
- 11.0 million acres of grazing and forest lands conservation;
- 5.8 million acres of wildlife habitat improvement; and
- 6.0 million acres of conservation applied on the ground to improve soil quality.

CTA Program Leverages Technical Assistance. The agency's field staff work with State agencies and local partners to deliver conservation technical and financial assistance. Agency clients invest in conservation to achieve results for their business and for the land. During 2016, these non-Federal partners contributed an estimated $100 million of in-kind goods and services and over $213 million in financial assistance toward addressing local resource concerns that coincide with NRCS's Strategic Goal to "Get Conservation on the Ground." These voluntary arrangements allow NRCS and its partners to get far more conservation on the ground than either entity could accomplish separately.

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, 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 website that maintains certification criteria and hosts a publically accessible registry of certified TSPs. NRCS also has a TSP Website, *http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/tsp* that contains other information for TSPs and customers.

In 2016, agency staff worked with 11 professional recommending organizations that provide TSP certification. The agency signed agreements or contracts with individuals and other organizations resulting in over $50.7 million in obligations for service. Fifty percent of funds were distributed through EQIP. The remaining 50 percent of TSP obligations were distributed through other conservation programs such as the Agricultural Conservation Easement Program, Conservation Reserve Program and Watershed Programs. Currently, there are 1,300 individuals and 216 businesses serving as certified TSPs that are available to help program participants apply conservation.

TSPs continue to play a key role in the planning and implementation of CAPs in EQIP. The agency offered 14 approved CAPs in 2016. To adopt a CAP, a producer must work with a certified TSP. In 2016, a total of 4,202 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. The International Conservation Program provides short and long-term technical assistance for the development of natural resource conservation programs and projects abroad. The program ensures that employees continue to broaden their knowledge of relevant international conservation issues, and participate in the mutual exchange of conservation technology with countries that face soil and water conservation issues similar to those in the United States. This program furthers an enhanced understanding of various international resource conservation issues, improved international relations, and access to technology developed in 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 2016, four agency specialists supported the Foreign Agricultural Service's Watershed Rehabilitation and Irrigation Improvement in Pakistan. The specialists served as USDA's lead technical experts in meetings with Pakistan's Irrigation and Water Management Institute on the Water Dialogue Project, identified issues and developed consensus. In addition, the specialists provided USDA technical leadership in meetings at the U.S. Embassy with the U.S. Agency for International Development (USAID), U.S. Army Corps of Engineers, and other partners on how USDA expertise in watershed rehabilitation and irrigation can support USAID work to develop dams in Gomal Zam and Satpara. The specialists also provided technical leadership in discussion with partner institutions to finalize the agenda for the fifth year of the Pakistan Watershed and Irrigation Demonstration and Dissemination project, focusing on which technologies or practices will be incorporated by the partner institutions as part of the regular ongoing work beyond the life of the project. The work included preparation and delivery of instructional workshops in Solar Power Installations for High Efficiency Irrigation as well as the Planning, Design, and Construction of Community Ponds. One specialist lead a gender workshop that focused on better and more effective incorporation of women into activities that promote soil fertility and soil health. As the lead USDA participant, the specialist focused on cultural similarities including healthy food and healthy people from healthy soil. A soil health specialist conducted five workshops in South Africa on topics such as minimizing soil disturbance, the advantages of plant diversity and integration of livestock.

A major focus of the International Programs Division is to coordinating meetings with foreign visitors. During 2016, the division arranged for 23 staff members to meet with 168 foreign visitors from 23 countries. The division also provided assistance to 18 agency employees on international travel for foreign meetings. Four employees represented the agency on trans-border problems that are common to Canada and/or Mexico, while two senior-level employees attended a conference on Monarch butterfly habitat, and four employees provided training.

Scholarship Programs. In 2016, the agency 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 2016, the agency obligated approximately $555,000 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 GPA of 3.0 and are required to work during the summers as conservation interns. Currently there are 43 Scholars in the agency, ten were selected in 2016.

NRCS also participates in the USDA 1994 Tribal Scholars Program which is designed to strengthen the long-term partnership between USDA and the 1994 Land-Grant Institutions; to increase the number of students studying and graduating in food, agriculture, natural resources, and other related fields of study; and to develop the pool of scientists and professionals to fill jobs in the food, agricultural, and natural resources system. In 2016, no new Tribal Scholars were selected by the agency.

Outreach Partnerships. In 2016, NRCS invested approximately $7 million into agreements with 20 different entities to assist the agency 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, the agency is successfully demonstrating how its 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:

- Demonstrating the connection between food, agriculture, community, and a sustainable environment;
- Expanding access to affordable fresh and local foods; and
- 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 2016, NRCS programs, including the Environmental Quality Incentives Program, the Conservation Stewardship Program, the 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 and veteran farmers and ranchers.

The following are contracts and financial assistance provided to these customers:

- $134.8 million in financial assistance obligations on 4,763 contracts with socially disadvantaged farmers and ranchers to treat about 3.5 million acres;
- $289.7 million in financial assistance obligations on 11,826 contracts with beginning farmers and ranchers to treat about 2.4 million acres;
- $22.8 million in financial assistance obligations on 1,208 contracts with limited resource farmers and ranchers to treat slightly more than 308,000 acres; and
- $36.0 million in financial assistance obligations on 2,116 contracts with veteran farmers and ranchers to treat slightly more than 411,000 acres.

Assistance to American Indians and Alaskan Natives. In 2016, the agency continued to increase tribal participation in financial assistance programs among 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 Federally-recognized tribes.

Through the many technical and financial assistance programs, NRCS strives to meet tribal demands for improved agriculture and environmental quality, such as conservation of cropland, pastureland, and rangelands; improved wildlife habitat; restoration of wetlands; improved water and air quality; and food, fiber and timber production.

In 2016, NRCS partnered with five tribal entities to provide assistance in reaching out to all the tribes during the comment periods of the interim rules 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.

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 Tribal Community Colleges and Universities (TCUs) on their opportunities to participate in the 2014 Farm Bill conservation programs through education and community outreach. 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.

Program Activities/Participation. In 2016, American Indian and Alaska Natives were awarded the following:

- 767 EQIP contracts totaling $36.3 million;
- 18 Regional Conservation Partnership Program-EQIP proposals totaling $1.9 million;
- 341 Conservation Stewardship Program contracts totaling $6.1 million; and
- 4 Agriculture Management Assistance Program contracts totaling $37,621.

Regional Tribal Conservation Advisory Councils. To strengthen working relationships with tribes, three advisory councils were established in 2012. The Agency works 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 2016, all three councils held at least one meeting. In 2015, the Chief and Regional Conservationists published an announcement throughout Indian Country soliciting new council members as the first term of council membership came to an end. The new members have been selected and are now active members of the Councils.

Tribal Conservation Districts (TCD). There are 55 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 and Management Improvements. Maximizing agency success requires adaptive management, assessing deliverables, evaluating processes and making needed improvements. Adaptive management requires continuous monitoring and improvements using the following:

- A variety of performance measures that align with the purpose and success factors of the program;
- Evidence of efficient program design and results (outputs and outcomes);
- Internal controls for program compliance; and
- Continuous process improvement methods to ensure data-driven and targeted improvements.

The agency has continued to work on transparency and accountability by taking the following steps in 2016:

- The Associate Chief of Operations and the Chief Compliance Officer led the Compliance Oversight Board to ensure that compliance activities are effective throughout the agency;
- Conducted ten Quality Assurance Compliance reviews, four state operational assessments, eleven national easements audit remediation reviews, one easements program delivery review, and one state functional financial assistance program delivery review. In addition, the agency also conducted two state wetland conservation compliance reviews, one national EQIP state allocation review and ten civil rights reviews to ensure compliance is monitored throughout the agency on a consistent basis;
- Completed review year 2015 Highly Erodible Land and Wetlands Conservation Compliance reviews on 10,725 tracts of cropland;
- Closed 7 of the 26 active Office of Inspector General (OIG) and Government Accountability Office (GAO) audits in 2016. Four of the seven OIG audits closed were considered Departmental High-Priority for Agency action. Successfully addressed one of the three outstanding closed GAO reviews that had a NRCS non-point pollution related recommendation. At the beginning of 2016, there were 35 recommendations, 22 were added during the course of the year. Twenty three OIG and GAO audit recommendations were closed during the year; and
- Continued implementation of a comprehensive Compliance Strategic Plan 2014 - 2017 that presents an integrated framework to manage compliance and control activities. The Plan serves as a blueprint to guide the achievement of the agency's mission critical goals and objectives to meet the agency's mission.

Soil Survey

Current Activities.

Program Objectives. Understanding and managing soil as a strategic natural resource helps sustain the health and economy of the Nation. Soil survey is an essential tool for regional and local conservation planning that allows people to manage natural resources. Scientists and policy makers use soil survey information in studying and evaluating the sustainability and environmental impacts 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. Soil surveys are used by planners, engineers, farmers, ranchers, developers, and home owners 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. The first generation of smartphone applications were native applications limited to the iPhone and Android-based smartphones. A revised version of SoilWeb was developed to work across all types of devices (desktops, smartphones, and tablets), making it accessible to users anywhere an internet connection is available.

Program Operations. 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.

Key program elements include:

- Mapping. Mapping procedures are managed based on physiographic rather than administrative boundaries. Soil surveys based on natural landscape boundaries rather than political 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 United States Military, Fish and Wildlife Service, Bureau of Land Management (BLM), and the National Park Service. Public lands are important to include with private lands when planning land use and conservation for watersheds, landscapes, or ecological sites. The agency is working cooperatively within the NCSS to accomplish these goals. In 2012, the Soil Science Division began the Soil Data Join Recorrelation (SDJR) initiative designed to review the soil survey data to develop a current and common standard. The five-year initiative focused on selecting a soil series and harmonizing the county based map units with the same map unit concept into a single Major Land Resource Area (MLRA) map unit concept. As of 2016, 598 million acres of the 700 million acre goal have been accomplished.
- Ecological Inventory. Ecological sites are interpretive groups of soil survey map units. These descriptions 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. The Ecological Site Database is linked to the National Cooperative Soil Survey 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 U. S. Forest Service (USFS) efficiently pools the agencies' technical resources for the development and use of ecological sites to describe site characteristics, plant communities, and use interpretations for grazing land and forestland. Ecological Site Descriptions (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 accomplishment reporting. In 2015, a Provisional Ecological Site (PES) initiative was established to organize by 2020 all of the existing soil survey information across the U.S. into provisional ecological sites suitable to guide conservation planning decisions. The PES initiative is led by the Soil Science Division National Leader for Ecological Site Inventory. Regional and field office soil and resource staff, working with traditional soil survey partners, organize existing information and ensure consistency in both descriptions and interpretations, and link to conservation planning software and training. In 2016, 45 million acres were updated with ecological site information.
- Kellogg Soil Survey Laboratory (KSSL). In 2016, more than 23,000 soil samples representing more than 9,500 horizons were logged into the KSSL Laboratory Information Management System. The samples came from NRCS Soil Survey Field Offices, Plant Materials Centers, NRI Soil Monitoring Network, the Environmental Protection Agency, the National Ecological Observatory Network, international outreach activities, and other sources. Also in 2016, the KSSL completed more than 164,000 individual analyses on chemical, physical, mineralogical, and other soil properties, furnishing quantitative data of superior quality for the National Cooperative Soil Survey. National programs and research projects depend on KSSL data to drive soil classifications, interpretations, soil quality and other assessments on our least understood natural resource – the

soil. More than 25,000 of the 2016 analyses pertained to the nationwide Rapid Carbon Assessment that is used to estimate carbon stocks and evaluate the influence of management practices on carbon sequestration.

KSSL provides analytical support, which includes research and methods development and testing, and sample analyses, for on-going soil survey activities around the Nation. KSSL refined mid-infrared (MIR) spectroscopy methods and recruited Earth Team Volunteers from academia to assist with efforts. The MIR program offers the potential to make rapid predictions of selected soil properties such as organic carbon. The KSSL data provides baseline data to assess Soil Health and measured input values to determine effectiveness of conservation practices and programs.

- National Soil Survey Center. The National Soil Survey Information System, a part of the National Cooperative Soil Survey information system, is where soil scientists develop, manage, and deliver soil information for the public. Digital soil surveys enable customers to use electronic soil data in geographic information systems for generating maps tailored to their needs and performing complex resource analyses. The Soil Science Division established an annual refresh date for the official soil survey database. The entire official soil survey database is refreshed on September 30 each year to ensure that updated official data is available on October 1, via the Internet.
- Technical Soil Services (TSS). 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 like the Conservation Delivery Streamlining Initiative (CDSI).
- Web Soil Survey. The Web Soil Survey website, *http://websoilsurvey.nrcs.usda.gov/app/*, provides soil data and information produced by 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 95.4 percent of the continental U.S. The site is updated and maintained as the single authoritative source of soil survey information. The Web Soil Survey will be used directly for conservation planning under the CDSI protocols.
- 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; and
  - United States General Soil Map is used primarily for multi-county, State, river basin planning and resource management and monitoring.

2016 Activities.

- Acres Mapped. During 2016, soil scientists mapped or updated 42.4 million acres, and another 0.7 million 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 2.14 billion. 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. ESDs were developed and linked to 45.4 million acres of soil survey information, including legends for Major Land Resource Area (MLRA) 32, the Northern Intermountain Desert Basins and MLRA 120, the Kentucky and Indiana Sandstone and Shale Hills and Valleys. The development of ecological sites are a major accomplishment in the collaboration of the Soil Science and Resource Assessment and the Science and Technology Deputy areas. This collaboration has provided a new tool for conservation planners to understand how conservation practices can impact ecological sites and the necessary inputs to move ecological sites from one state to another.
- Soil Surveys used interactively online. In 2016, the Web Soil Survey website logged over 2.8 million user visits, averaging 233,000 visits per month. Over 536,000 customized soil reports for individual portions of the country were developed through Web Soil Survey in 2016 (a 2.4 percent increase over 2015). There were over 1.5 million soil ratings, and 386,000 soil reports generated. Customers downloaded SSURGO data for over 270,000 soil survey areas. At the end of 2016, the total number of visits to the website since its initial release in 2005 topped 20 million. Working in conjunction with Microsoft Bing Maps, the revised application now displays soil map unit delineations overlain on Bing's imagery. Users can view summaries of soil types for any geographic location where NRCS soil data exists. Detailed information on the named soils is now seamlessly

linked and formatted within the application. 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 Smartphone application is currently averaging between 800 to 1,200 visits per day, or 18,000 to 25,000 unique visits per month by people searching for soils information using smartphones GPS coordinates throughout the country. The SoilWeb and SoilWeb Earth applications had about 169,400 visits in 2016; 44 percent of these visits were from new users.

- Research in Soil Geography. The Soil Science Division (SSD) and the National Geospatial Research Unit have collaborated since 2005 to support research and development of the science of hydropedology and digital soil mapping as defined by the International Union of Soil Science. This research is generally conducted by working together with SSD, university partners, and related institutions.
- Soil Health. National Soil Survey Center staff is playing an important role in the creation and roll out of the Soil Health Management System effort by providing scientific underpinnings for conservation practices recommended, collection of dynamic soil property data and lab analyses for demonstration projects.

Get Conservation on the Ground.

Barnegat Bay Subaqueous Soil Survey. The Subaqueous Soil Survey for Barnegat Bay is a unique soil survey product and is the largest contiguous submerged soils inventory published to date through the SSD. Barnegat Bay is approximately 42 miles long and approximately 70,427 acres. The estuary has seen substantial decline which can likely be attributed to non-point source pollution as a result of considerable suburban development on the bay and its sub-watershed areas. The subaqueous soil survey for the bay is now a baseline inventory of the permanently submerged soil resources that was previously unavailable.

Ecological Site Information for Conservation Planning. Integrating Provisional Ecological Site (PES) principles and spatial analysis with West Virginia's Focused Conservation Approach (FCA) afforded the NRCS West Virginia staff an opportunity to actively engage the Tygart Valley Conservation District in habitat restoration efforts, while providing assistance to landowners. This interdisciplinary approach allowed conservationists to simultaneously improve on-farm management systems, plant health, pollinator habitat, and water quality. These improvements will be implemented using conservation practices and resource management activities—potential Resource Management Systems. Ecological Site Descriptions help spatially identify restoration opportunities within conservation management units or individual conservation plans, while PES targets the same area for area-wide conservation plans or FCA. This knowledge can assist individual landowners in attaining, and surpassing their goals, while conserving natural resources by integrating conservation planning with the inherent capabilities of the land.

Soil Sustainability of Forest Biomass Harvesting. NRCS and the Connecticut Department of Energy and Environmental Protection collaborated to develop a soil sustainability of forest biomass harvesting interpretation. The new soil interpretation for forest biomass harvesting is a guideline to encourage the protection of soils when biomass is harvested in Connecticut. Enthusiasm for the use of forest biomass as an energy resource is growing as a result of rising fossil fuel costs, concerns about carbon emissions from fossil fuels, and the risk of catastrophic wildfires. Biomass removal and utilization have the potential to provide a renewable energy source, promote the growth of higher-value trees and forest products, reduce the risk of forest fire, support the removal of invasive species, and help to meet the economic development goals of rural communities. As Federal, State and regional programs encourage the utilization of forest biomass, there are concerns about the potential adverse effects on biodiversity, soil productivity, wildlife habitat, water quality, and carbon storage. The interpretation will be useful for foresters, loggers, policymakers, biomass facilities wishing to assure sustainability, third-party certifiers, and members of the public interested in sustainable forest management.

Pakistan Watershed and Irrigation Improvement. In 2011, a 4 year project was initiated targeting strengthening the capacity of Pakistani agricultural institutions to demonstrate and train farmers to better capture and store water, reduce the loss of water or soil, and produce more efficient water crops. The project addressed conservation practice measures for topics such as: solar-powered pumping systems, high efficiency sprinkler and drip irrigation systems, high tunnels for specialty crop production, rain water harvesting and pond development. Other topics discussed were green manure crops, low-cost farm water control structures, gypsum application, zero till technology, bed-planting of wheat, and a wide array of other practical measures to conserve soil and water. By the end of the project in October 2015, more than 14,000 farmers, 3,000 agricultural experts, and 300 service providers

were trained. The training was a collaborative effort between USDA and the International Center for Agricultural Research in the Dry Areas and 11 Pakistani institutions.

Snow Survey and Water Supply Forecasting

Current Activities.

Program Objectives. The Snow Survey and Water Supply Forecasting (SSWSF) Program collects high elevation snow data in the Western United States and provides managers and users with snowpack information, other climatic data, and water supply forecasts. NRCS field staff and cooperators collect and analyze data on snow depth, snow water equivalent, and other climate parameters at over 2,000 remote, high elevation data collection sites. These data are used to provide estimates of annual water availability, spring snowmelt runoff, and summer stream flows. The water supply forecasts are used by individual farmers and ranchers; water resource managers; Federal, State, and local government agencies; municipal and industrial water providers; hydroelectric power generation utilities; irrigation districts; fish and wildlife management agencies; reservoir project managers; recreationists; Tribal Nations; and the countries of Canada and Mexico.

Program Operations**.** The SSWSF Program provides water and climate information, and technology support 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 support to the States, and directly provides water supply forecasts.

Snowmelt provides a majority of the water supply in the West so the information provided by the SSWSF Program is critical for water managers. 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 customers, and in-stream uses, such as river-based recreation, esthetic enjoyment, fish and wildlife habitat, and hydroelectric power generation. Increasing water demands will require more precise management of this valuable resource.

Climate variability increases the uncertainty of the yearly water supply. A study by the Rocky Mountain Climate Change Organization finds that “no other effect of climate disruption is as significant as how it affects snowpack and water supply.” [1] As exhibited by the extremes of temperature and precipitation over the last few years in the West, the potential effects of climate variability can be significant. Extremes in the snowpack could result in less reservoir storage in warm, dry years (as in 2012), complicate reservoir regulation in cold, wet years (as in 2011), and cause extensive local and regional flooding (as in 2011 and 2013). Earlier snowmelt increases the length of time between peak flows and summer water user needs, while a delayed snowmelt shortens the melting season and produces potentially disastrous flooding. In 2015 and 2016, much of the Pacific Coast States experienced warm conditions, with California and Nevada undergoing very hot and dry weather patterns that resulted in increased fire activity in the summer and the Pacific Northwest undergoing what was referred to in 2015 as a “snow drought”, where precipitation levels were near normal, but snowpack was at record lows for many sites. In 2016, the area had a late season surge in snow that boosted the overall snowpack to near normal conditions for the year.

The SSWSF Program has been operated by the agency continuously since 1935. 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. During the 2016 water year (October 1, 2015 to September 30, 2016), partners and cooperators contributed a significant amount of funding and in-kind services towards the collection of snow and related climate data. The SSWSF Program consists of a network of 1,179 manually measured snow courses and aerial markers in the U.S., 864 automated Snow Telemetry SNOTEL sites, 24 automated SnoLite sites, 10 hydromet stations, and 22 manually measured (non-telemetry) data collection stations. In addition, the NWCC operates 219 Soil Climate Analysis Network (SCAN) stations across the United States. The economic and societal value of the program is provided in the agency released report “A Measure of

[1] Saunders, Stephen, and Maxwell, Maureen, 2005, Less Snow, Less Water. Climate Disruption in the West, The Rocky Mountain Climate Organization, September 2005, p. 30.

Snow," which is available on the NWCC webpage at:
http://www.wcc.nrcs.usda.gov/ftpref/downloads/factpub/MeasureofSnowFullReport.pdf for the full report, or
http://www.wcc.nrcs.usda.gov/ftpref/downloads/factpub/MeasureofSnowSummary.pdf for the summary report.
The report provides numerous examples of the applications and economic benefits of the SSWSF Program to users throughout the Western United States.

2016 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 2016 season, forecasts were delivered for 610 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 11,177 water supply forecasts in 2016. In addition, automated models that ingest current SNOTEL climate data, tracked daily forecast trends for 326 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, four new SNOTEL sites and one "SnoLite" site were installed. An additional SNOTEL site was re-installed in Nevada after an avalanche destroyed the Hole-in-the-Mountain Peak site in December. SNOTELs are automated sites that collect a suite of hydro meteorological data at high-elevation settings, and report these data hourly, in real-time, using a telemetry communication process. Measurements typically include snow water equivalent, snow depth, precipitation, and air temperature. In recent years, soil moisture sensors have being added at many SNOTEL sites. All of these valuable data play a key role in flood forecasting, water supply determination, and climate change evaluation. SnoLite sites are similar to SNOTEL sites but with fewer sensors. Snow courses are locations where the snow is manually measured. 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. The Montana Data Collection Office (DCO) is working on a proposal to automate 89 snow courses.

All SNOTEL sites require summer maintenance to check sensor calibrations, re-set the precipitation can, and perform general site upkeep. This past year, selected sites also received bear-proofing, rodent-proof shelters, the addition of soil moisture and wind sensors, re-plumbing of precipitation gauges and snow pillows with more durable materials, as well as radio upgrades and transducer replacements. Most of the DCOs installed several fluidless snow scales for research, comparing them to the existing snow pillows, these snow scales could provide a reduced maintenance alternative. In addition, conversion from meteor burst to cellular telemetry has begun at SNOTEL sites, and there are plans to convert more sites next year.

SCAN stations, part of the Soil Climate Analysis Network, focus on gathering soil information and are crossing over into the SNOTEL network at some locations, with the addition of automated snow pillows. A new SCAN site was established in Utah, and 85 SCAN sites were updated and maintained.

Investigative Research at Sites. Various snow pillow combinations were installed at three sites, testing tan versus black pillows and chain link versus no chain link coverage to understand how these differences may affect snow accumulation and ablation. New thermistors were installed at various sites for testing.

SNOTEL Sites Affected by Disasters, Vandalism, Land ownership. The only total destruction of a site this year came from the Nevada avalanche. Fires came close to but did not burn up any SNOTEL sites. A snow pillow at an Arizona site was cracked by an ember. Another site in Colorado was exposed to a clear-cut within yards of the site. Even though no sites were destroyed, the nearby fire and clear-cut alter the landscape, affecting snow accumulation, melt 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. Vandalism and animal damage to snow pillows continues to be a challenge, and most of these damages typically result in pillow replacement. The Rhoads Creek SNOTEL site in Alaska was decommissioned due to high rent and a site in the Colorado Red Mountain Pass is at risk of being relocated due to property concerns.

Partnering. All offices within the SSWSF program work with various local and regional partners. The Utah Data Collection Office (DCO) participated in producing a video about the use of SNOTEL data for hydrologic forecasting for the Bureau of Reclamation's Glen Canyon Dam Visitor Center. In Idaho, the DCO partnered with the Agricultural Research Service (ARS) and the Bureau of Reclamation to provide technical assistance on sensor replacement. The Oregon DCO collaborated with the NWS, other NRCS offices, and local agencies to assist communities impacted by wildfire to assess the potential for debris slides and flooding.

Snowpack and Drought Report. The CONUS Snowpack and Drought Update Report, produced weekly by the NWCC, continues to enjoy significant readership. The report monitors climate and drought conditions throughout the contiguous U.S. Narratives are available at *http://www.wcc.nrcs.usda.gov/cgibin/water/drought/wdr.pl*.

Science and Technology Development. The NWCC has three contracts that provide valuable assistance to the SSWSF program with regards to hydrologic forecasting. Through a CESU agreement with Colorado State University, the NWCC is advancing the infrastructure to support simulation modeling using the Precipitation Runoff Modeling System (PRMS). This contract is expanding development of operational hydrologic, Ensemble Streamflow Prediction, also known as 'ESP' based, forecasting. Another CESU agreement with Portland State University is focused on supporting the parameter input to PRMS. The NWCC has a cooperative agreement with the ARS in Boise, Idaho, supporting development of a physically-based distributed snowmelt model. Future work will focus on integrating the ARS snow model into PRMS. These contracts afford the NWCC the ability to improve water supply forecast methodology.

Information Systems. The database and forecast system maintained by the NWCC, Water and Climate Information System, supports a wide variety of software used for water supply forecasting, water and climate data analyses, and other products used in water resource management and related natural resource conservation activities at NRCS. NWCC websites containing snow survey data, water supply forecasts, soil moisture data, and other products, received over two million visits in 2016, representing over 700,000 unique customers. NRCS State offices and other agency websites, such as the National Weather Service, also display SSWSF data. One of the most significant milestones this year was the implementation of new software for processing and storing in-coming, near real time data from automated SNOTEL and SCAN stations. This software has been in the planning stages for several years and was deployed in late September, 2016. NWCC continues to work with OCIO on Data Center consolidation efforts by migrating software to USDA's National Information Technology Center. Significant progress has been made toward this goal and these efforts will continue in the coming year. NWCC also continues to forge stronger, more integrated solutions for IT infrastructure through the Agency's Enterprise Content Management system (ECM). Streamlined data access and product reporting will be available through ECM to the general public and Service Centers, as well as the Field Office Technical Guide, and Conservation Delivery Streamlining Initiative interfaces.

Plant Materials Centers

Current Activities.

Program Objectives. NRCS's Plant Materials Centers (PMC) develop vegetative solutions to "core" natural resource concerns such as soil stabilization, soil health and productivity, and water quality. PMCs also focus on emerging national priorities such as enhancement of pollinator habitat to support agricultural production, habitat for at-risk species such as sage grouse, and development of information and alternate procedures to assist organic producers. PMCs directly support the agency mission by providing scientifically-sound plant information and tools used by conservation planners and partners.

PMCs develop technology and information for the effective use, establishment, and maintenance of plants for a wide variety of natural resource conservation uses; provide appropriate training and education to staff, partners, and the public; study 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, test, select, and release seed and plants to provide for the commercial production of plant materials that protect and conserve our natural resources.

Program Operations. Field Office Technical Guides (FOTGs) deliver Plant Materials Program information directly to field staff and partners in conservation planning efforts. PMC staff tailor vegetative information in the FOTGs to the unique conditions found in their service areas, and provide extensive training to field staff and partners on the

selection and establishment of vegetation to address specific resource concerns. Program information is available to the public through the Internet 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 Environmental Quality Incentives Program and the Conservation Stewardship Program administered by the agency, and the Conservation Reserve Program administered by the Farm Service Agency.

The Plant Materials Program uses a multi-disciplinary approach to solving natural resource problems, drawing on staff expertise in agronomy, biology, soils, forestry, and horticulture. Plant Materials Program activities are coordinated with technical specialists, other governmental agencies, nongovernment organizations, and the private sector. The program often cooperates with the Agricultural Research Service, the Forest Service, the Department of Interior Bureau of Land Management, in addition to State and local departments of transportation, wildlife and conservation 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.

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 have the ability to coordinate among locations to evaluate vegetative technology and solutions that influence large regions of the United States.

2016 Activities.
In 2016, NRCS continued its efforts to improve the operations and missions of PMCs. The following are highlights of PMC activities.

Technology Development and Transfer. PMCs ensure that the agency staff, conservation partners, and the public have information available to successfully get natural resource conservation on the ground. Plant Materials studies resulted in the addition of over 130 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 activities. In 2016, the program launched an effort 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 West NTSC issued the first two regional technical notes titled "What to do with Irrigation Pivot Corners" and "Pacific Northwest Cover Crop Selection Tool".

At the end of 2016, there were approximately 2,900 documents available on the website. The website was enhanced with improved linkages to technical topics, national and regional program documents, and other NRCS websites. The agency received an increased number of "Ask the Expert" inquiries, online feedback form and emails with plant-related questions, which were answered by program staff. These actions are improving the accessibility and usefulness of the Plant Materials website for all users.

Plant Materials staff conducted 72 technical training sessions for over 1,500 field staff and conservation partners. Training topics included using cover crops and improving soil health; selection and establishment of conservation plants; seed and plant identification; planning a conservation planting; enhancing pollinator habitat; improving the productivity of range and pasture land; developing habitat for sage grouse; windbreak establishment including agricultural odor mitigation; and restoring riparian areas. To help improve the technical knowledge of the NRCS field staff, many of the above trainings were held in conjunction with the Conservation Planner Certifications training session.

New Conservation Plants. In 2016, PMCs released four new conservation plants to the public and commercial growers. All the new plants support NRCS conservation activities on private lands as well as the National Seed Strategy.

- 'Sholty' yellow alfalfa was released by the Bismarck, North Dakota and East Lansing, Michigan PMCs in cooperation with South Dakota State University. 'Sholty' is a perennial legume used for livestock forage and wildlife habitat in the Northern Great Plains and Upper Midwest, it maintains acceptable forage quality when cut after flowering to provide benefits for pollinators and other wildlife.
- Coastal Plains Germplasm little bluestem was released by the Nacogdoches, Texas and Galliano, Louisiana PMCs. Coastal Plains Germplasm is a native bunchgrass used for conservation cover, field borders, wildlife habitat, long leaf pine understory restoration, and critical area plantings in the Western Coastal Plains.
- Duval Germplasm red lovegrass was released by the Kingsville, Texas PMC in cooperation with the South Texas Natives program. Duval Germplasm is a short-stature native grass used for upland wildlife plantings, critical site revegetation, roadside plantings, and as a component in range seeding mixes in southern Texas.
- Nueces Germplasm sand dropseed was released by the Kingsville, Texas PMC in cooperation with the South Texas Natives program. Nueces Germplasm is a native grass used for upland wildlife plantings, critical site revegetation, right-of-way plantings, and as a component in range seeding mixes in southern Texas.

Cover Crops to Improve Soil Health and Cropland Resiliency. Cover crops provide ecological services such as improving soil health, reducing soil erosion, retaining nutrients on-site, and suppressing weeds. They are an important part of the agency Soil Health Campaign. PMCs have actively worked with cover crops for several decades, and that work continued to increase in 2016. Significant activities and accomplishments include:

- A seven-PMC study on the effects of different cover crop mixes on dynamic soil properties. Data collection is complete and analysis of the results will begin this winter. This analysis will be done together with the USDA Agricultural Research Service. The results of this study supports future NRCS recommendations on cover crop mixes and may help producers save money by reducing cover crop seeding rates while realizing the benefits of improved soil health.
- A three-year evaluation of 50+ varieties of commercially available cover crop species across 25 PMC locations is now in the second year of the study. The evaluation focuses on determining adaptation ranges and performance of each variety. Information will help landowners determine the most appropriate cover crops for their area, and increase the success of soil health efforts.
- PMCs in Americus, Georgia and Coffeeville, Mississippi are conducting a long-term study on the effects of tillage practices and cover crops on soil health.
- PMCs in the Northwest released a new cover crop selection tool to assist field staff and farmers in Oregon, Washington, and Idaho select cover crop species adapted to their climate, soils, and intended cover crop purpose.
- A Lockeford, California PMC study found several drought tolerant cover crops for California's Central Valley which performed well in non-irrigated situations. These results have implications for the use of cover crops to maintain soil health during drought events.

Plant Materials for Agricultural Resiliency. Improving the proper use of vegetation will help maintain the productivity and resiliency of agricultural and natural landscapes. Our current evaluation of commercially available cover crops to improve soil health, using consistent varieties and evaluation methods across the country, will inform the use of cover crops in different areas and environments. Additionally, several PMCs are actively working on assessing adaptation of conservation plants to address agricultural resiliency:

- The Booneville, Arkansas PMC is assessing the adaptation of a new indiangrass selection. PMCs across the southeast and south central U.S. are evaluating regional adaptation of this material for future use in NRCS conservation programs.
- The Fallon, Nevada PMC is evaluating the NRCS released conservation plant materials from other areas to assess adaptability in the Great Basin. This is the first step needed to identify Great Basin-adapted germplasm and future plant development needs to ensure the right plants are available for future revegetation efforts.

Getting Conservation on the Ground.
Transferring the results of PMC activities, other Federal agencies, and universities to field offices and conservation planning staff is critical to gain acceptance in conservation delivery. PMCs nationwide are installing demonstration plantings both on and off the center, conducting technical training sessions for field staff, and preparing new technical materials to show effective methods to implement conservation practices and integrate new plant materials information into the conservation planning process. Notable examples of this work around the country include:

- PMCs in New York, Georgia, and Missouri have demonstrated the effects of seeding date, seeding rate, and termination methods on the success of integrating cover crops into agricultural systems to NRCS field staff, partners and farmers.
- The Nacogdoches, Texas PMC has plantings to show how to convert introduced sod to native grasses to increase the ecological benefits of pasture and conservation plantings.
- PMCs in Montana and Idaho provided demonstrations and technical information to show landowners and land managers how to improve the diversity of plant materials on rangeland sites.
- The Lockeford, California PMC has several long-term “pollinator hedgerows” plantings on the center which are used during tours and training sessions to promote native plant hedgerows on the edges of agriculture field to increase biodiversity for wildlife.
- The Pullman, Washington PMC completed reports on no-till establishment of wildflowers for pollinator habitat. Guidance included wildflower species which established well using no-till methods, differences in success with various grass covers, and some of the challenges with no-till for planting. The increased use of no-till establishment methods helps to conserve soil carbon and reduce soil erosion.

WATERSHED AND FLOOD PREVENTION OPERATIONS

Lead-off Tabular Statement

Budget Estimate, 2018	-
2017 Annualized Continuing Resolution	$102,140,000
Change in Appropriation	-102,140,000

WATERSHED AND FLOOD PREVENTION OPERATIONS

Summary of Increases and Decreases
(Dollars in thousands)

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
Discretionary Appropriations:					
Watershed Operations P.L. 78-534	-	-	-$186	+$186	-
Small Watersheds P.L. 83-566	-	-	-814	+814	-
Emergency Watershed Protection Program	$78,581	+$58,419	-33,860	-103,140	-
Total	78,581	+58,419	-34,860	-102,140	-

Note: In the Further Continuing and Security Assistance Appropriations Act, 2017 (P.L.114-254), General Provision Sec. 185, the Emergency Watershed Protection Program was funded at $103.14 million, designated as an emergency requirement pursuant to section 251(b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985. In addition, OMB Bulletin 16-01 Attachment B, rescinded $1 million of unobligated balances.

WATERSHED AND FLOOD PREVENTION OPERATIONS

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Watershed Operations P.L. 78-534:										
Technical Assistance	-	-	-	-	-$18	-	+$18	-	-	-
Financial Assistance	-	-	-	-	-168	-	+168	-	-	-
Small Watersheds P.L. 83-566:										
Technical Assistance	-	-	-	-	-296	-	+296	-	-	-
Financial Assistance	-	-	-	-	-518	-	+518	-	-	-
Emergency Watershed Protection Program:										
Technical Assistance	$13,573	31	$27,400	51	20,628	51	-20,628	-51	-	-
Financial Assistance	65,008	-	109,600	-	82,512	-	-82,512	-	-	-
Total Adjusted Approp	78,581	31	137,000	51	102,140	51	-102,140 (1)	-51	-	-
Rescissions, Transfers, and Seq. (Net)	-	-	20,000	-	1,000	-	-1,000	-	-	-
Total Appropriation	78,581	31	157,000	51	103,140	51	-103,140	-51	-	-
Rescission	-	-	-20,000	-	-1,000	-	+1,000	-	-	-
Bal. Available, SOY	311,836	-	330,003	-	348,956	-	-334,956	-	$14,000	-
Other Adjustments (Net)	-7,536	-	1,307	-	-47,228	-	+47,228	-	-	-
Total Available	382,881	31	468,310	51	403,868	51	-389,868	-51	14,000	-
Bal. Available, EOY	-330,003	-	-348,956	-	-14,000	-	+14,000	-	-	-
Total Obligations	52,878	31	119,354	51	389,868	51	-375,868	-51	14,000	-

Note: In the Further Continuing and Security Assistance Appropriations Act, 2017 (P.L.114-254), General Provision Sec. 185, the Emergency Watershed Protection Program was funded at $103.14 million, designated as an emergency requirement pursuant to section 251(b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985. In addition, OMB Bulletin 16-01 Attachment B, rescinded $1 million of unobligated balances.

WATERSHED AND FLOOD PREVENTION OPERATIONS

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Watershed Operations P.L. 78-534:										
Technical Assistance	$15	-	-	-	-	-	-	-	-	-
Financial Assistance	-	-	-	-	$221	-	-$221	-	-	-
Small Watersheds P.L. 83-566:										
Technical Assistance	310	-	-	-	-	-	-	-	-	-
Financial Assistance	14	-	$24	-	969	-	-969	-	-	-
Emergency Watershed Protection Program:										
Technical Assistance	15,826	31	17,124	51	64,634	51	-50,634	-51	$14,000	-
Financial Assistance	36,712	-	102,206	-	324,044	-	-324,044	-	-	-
Total Obligations	52,878	31	119,354	51	389,868	51	-375,868	-51	14,000	-
Bal. Available, EOY	330,003	-	348,956	-	14,000	-	-14,000	-	-	-
Total Available	382,881	31	468,310	51	403,868	51	-389,868	-51	14,000	-
Rescission	-	-	20,000	-	1,000	-	-1,000	-	-	-
Bal. Available, SOY	-311,836	-	-330,003	-	-348,956	-	+334,956	-	-14,000	-
Other Adjustments (Net)	7,536	-	-1,307	-	47,228	-	-47,228	-	-	-
Total Appropriation	78,581	31	157,000	51	103,140	51	-103,140	-51	-	-

WATERSHED AND FLOOD PREVENTION OPERATIONS

Justification of Increases and Decreases

(1) A decrease of $102,140,000 and 51 staff years for Emergency Watershed Protection Program ($102,140,000 and 51 staff years available in 2017):

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. Emergency operations provide assistance to reduce hazards to life and property in watersheds damaged by severe natural events. Emergency Watershed Protection applies to small scale localized disasters, as well as disasters of national magnitude. NRCS provides technical and financial assistance for floodplain easements, disaster cleanup and recovery activities.

In the Further Continuing and Security Assistance Appropriations Act, 2017 (P.L.114-254), General Provision Sec. 185, the Emergency Watershed Protection Program was funded at $103.14 million, designated as an emergency requirement pursuant to section 251(b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985. In addition, OMB Bulletin 16-01 Attachment B, rescinded $1 million of unobligated balances.

No funding is requested in the 2018 Budget.

WATERSHED AND FLOOD PREVENTION OPERATIONS

Geographic Breakdown of Obligations and Staff Years
(Dollars in thousands and Staff Years (SYs))

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama	$2,026	-	$3,425	2	$785	1	-	-
Alaska	6,342	1	2,732	4	6,327	4	-	-
Arizona	3,078	-	6	-	114	-	-	-
Arkansas	14	-	400	-	1,117	-	-	-
California	1,633	-	475	-	3,806	-	-	-
Colorado	7,447	3	16,610	4	47,107	4	-	-
Connecticut	3,816	1	2,478	1	9,938	1	-	-
Delaware	1	-	1	-	-	-	-	-
Florida	5,747	1	3,187	1	3,031	1	-	-
Georgia	4	-	5	-	140	-	-	-
Hawaii	5	-	5	-	116	-	-	-
Idaho	3	-	5	-	66	-	-	-
Illinois	5	-	147	-	157	-	-	-
Indiana	337	-	600	-	380	-	-	-
Iowa	526	-	15	-	499	-	-	-
Kansas	6	-	79	-	1,006	-	-	-
Kentucky	5,897	8	3,403	5	1,795	2	-	-
Louisiana	498	-	-11	-	74,694	5	-	-
Maine	2	-	3	-	100	-	-	-
Maryland	2	-	3	-	1,601	-	-	-
Massachusetts	2	-	3	-	-	-	-	-
Michigan	3	-	6	-	5	-	-	-
Minnesota	5	-	197	-	692	-	-	-
Mississippi	1,558	-	12,859	2	9,581	2	-	-
Missouri	1,438	1	9,284	3	1,821	1	-	-
Montana	4	-	7	-	127	-	-	-
Nebraska	6	-	10	-	-	-	-	-
Nevada	2	-	3	-	87	-	-	-
New Hampshire	-25	-	2	-	31	-	-	-
New Jersey	634	1	407	-	5,679	1	-	-
New Mexico	61	-	372	-	135	-	-	-
New York	3,534	5	2,930	5	108,531	5	-	-
North Carolina	4	-	7	-	536	-	-	-
North Dakota	127	-	8	-	17	-	-	-
Ohio	4	-	846	-	673	-	-	-
Oklahoma	627	-	3,184	4	3,638	4	-	-

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Oregon	4	-	1,733	1	76	1	-	-
Pennsylvania	3	-	6	-	438	-	-	-
Puerto Rico	1	-	2	-	204	-	-	-
Rhode Island	965	-	28	-	1,149	-	-	-
South Carolina	2	-	2,419	4	9,106	4	-	-
South Dakota	7	-	287	-	155	-	-	-
Tennessee	1,208	2	1,525	1	1,285	1	-	-
Texas	-542	-	13,352	3	26,006	3	-	-
Utah	2,814	6	31,764	5	8,402	5	-	-
Vermont	528	-	4	-	32	-	-	-
Virginia	4	-	5	-	-	-	-	-
Washington	472	-	238	-	1,143	-	-	-
West Virginia	227	-	727	2	2,671	2	-	-
Wisconsin	289	-	83	-	11	-	-	-
Wyoming	284	-	1,773	1	2,386	1	-	-
National Hdqtr	1,239	2	1,713	3	460	3	-	-
Undistributed	-	-	-	-	52,012	-	$14,000	-
Obligations	52,878	31	119,354	51	389,868	51	14,000	-
Bal. Available, EOY	330,003	-	348,956	-	14,000	-	-	-
Total, Available	382,881	31	468,310	51	403,868	51	14,000	-

WATERSHED AND FLOOD PREVENTION OPERATIONS

Classification by Objects
(Dollars in thousands)

	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Personnel Compensation:				
Washington D.C.	$293	$444	$485	-
Field	2,996	4,332	4,391	-
11 Total personnel compensation	3,289	4,776	4,876	-
12 Personal benefits	1,082	1,632	1,666	-
Total, personnel comp. and benefits	4,371	6,408	6,542	-
Other Objects:				
21.0 Travel and transportation of persons	159	397	397	-
22.0 Transportation of things	1	5	18	-
23.1 Rental payments to GSA	22	45	46	-
23.2 Rental payments to others	59	121	122	-
23.3 Communications, utilities, and miscellaneous charges	20	24	82	-
24.0 Printing and reproduction	2	2	8	-
25.1 Advisory and assistance services	22,873	11,319	41,196	-
25.2 Other services from non-Federal sources	11,958	7,774	36,595	-
25.3 Other goods and services from Federal sources	2	4	4	-
25.4 Operation and maintenance of facilities	-14,226	1,440	4,860	-
25.5 Research and develoment contracts	304	34	116	-
26.0 Supplies and materials	46	90	303	-
31.0 Equipment	422	1,029	3,500	-
32.0 Land and structures	4,659	3,602	12,127	$14,000
41.0 Grants, subsides, and contributions	22,206	87,030	283,922	-
42.0 Insurance claims and indemnities	-	29	30	-
99.5 Adjustment for rounding	-	1	-	-
Total, other objects	48,507	112,946	383,326	14,000
99.9 Total, new obligations	52,878	119,354	389,868	14,000
DHS Building Security Payments (included in 25.3)	$2	$4	$4	-
Position Data:				
Average Salary (dollars), ES Position	$170,364	$172,068	$174,821	-
Average Salary (dollars), GS Position	$68,631	$69,317	$70,426	-
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).

Watershed and Flood Prevention Operations

Status of Programs

Current Activities.
Background. 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 Agriculture is authorized to provide technical and financial assistance to entities of State and local governments and tribes (project sponsors) for planning and installing watershed projects.

Program Objectives**.** The Flood Control Act authorizes the Secretary of Agriculture to install watershed improvement measures in eleven 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.

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.

2016 Activities**.**
No new funding has been provided for this program since 2010, and section 742 of the Consolidated Appropriations Act, 2016 rescinded $20 million in unobligated balances from the program. Project sponsors continue work on projects using previously obligated Federal funds and their cost-share match.

The estimated Federal cost for each watershed and total Federal obligations through 2016 are listed in the table below:

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
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	251,468,563
Total	1,355,922,974	1,165,975,203

[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 Watershed is 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 involving an estimated Federal contribution in excess of $5 million for construction, or construction of any single structure having a capacity in excess of 2,500 acre-feet of water storage, require authorization by Congressional committee. The Chief of the agency authorizes the use of Watershed Operations funds for all other projects. 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.

Watershed Projects Authorized for Funding. No new projects were authorized for funding under the Watershed Protection and Flood Prevention Act within available funds, as no funds were appropriated for this program.

Unfunded Authorized Projects. Several projects are authorized but unfunded; $921 million is needed to install the remaining measures in the 302 active watershed projects. When installed, these floodwater dams, reservoirs, and other conservation practices will reduce potential flood damages in 300 communities, provide agricultural water supply in 78 communities, improve water quality in 148 stream segments, install water conservation measures in 22 projects, and enhance, restore or create wildlife habitat in 65 projects.

Unfunded Authorized Watershed Projects as of September 30, 2016

State	P.L. 83-566 Watershed Protection And Flood Prevention Act	P.L. 78-534 Flood Control Act	Total
Alabama	$3,620,000	-	$3,620,000
Alaska	15,000,000	-	15,000,000
Arkansas	49,356,129	-	49,356,129
California	21,373,000	-	21,373,000
Colorado	6,170,000	-	6,170,000
Hawaii	33,325,000	-	33,325,000
Indiana	4,500,000	-	4,500,000
Iowa	36,515,000	$7,300,000	43,815,000
Kansas	36,732,700	-	36,732,700
Louisiana	3,750,000	-	3,750,000
Massachusetts	23,960,000	-	23,960,000
Minnesota	1,327,400	-	1,327,400
Mississippi	7,000,000	38,094,100	45,094,100
Missouri	111,230,000	-	111,230,000
Montana	3,664,500	-	3,664,500
Nebraska	2,000,000	-	2,000,000
New Mexico	7,189,500	-	7,189,500
New York	10,537,557	-	10,537,557
North Carolina	22,303,280	-	22,303,280
North Dakota	7,870,000	-	7,870,000
Ohio	13,555,000	-	13,555,000
Oklahoma	122,910,000	3,357,100	126,267,100
Oregon	430,000	-	430,000
Pennsylvania	8,135,000	-	8,135,000
Tennessee	19,152,326	-	19,152,326
Texas	105,854,000	139,200,000	245,054,000
Virginia	9,552,146	-	9,552,146
West Virginia	17,025,000	26,089,541	43,114,541
Wyoming	850,800	-	850,800
Pacific Basin	2,150,000	-	2,150,000
Total	707,038,338	214,040,741	921,079,079

Loan Programs under the Flood Control Act and the Watershed Protection and Flood Prevention Act. Both programs provide for loans and loan services to finance the local share of the costs of installing, repairing, or enhancing works of improvement and water storage facilities; purchasing sites or rights-of-way; and other costs in approved watershed and flood prevention projects. Over the life of the program, 495 loans have been made at a value of almost $176 million.

Emergency Watershed Protection Program

Current Activities.

Background. The Emergency Watershed Protection Program (EWPP) is authorized by Section 216 of the Flood EWPP 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.

Program Objectives. EWPP was established to respond to emergencies created by natural disasters, including floods, fires, 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.

Program Operations. 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 a Native American 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, the 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 particular set of prescribed measures, but 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.

EWPP Floodplain Easements. The agency may purchase EWPP Floodplain Easements (EWPP-FPE) on any floodplain lands that have been impaired and/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 full authority to restore and enhance the floodplain's natural functions and values. Since the program's inception in 1996, a majority of easements purchased involved undeveloped agricultural lands, but a small portion of easements purchased involved rural land with residences or other structures present. However, recently, 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 agency's response to Hurricane Sandy and other recent natural disasters. Because of Hurricane Sandy's impact to densely-populated areas of Connecticut, New Jersey, and New York, easement transactions involving properties in residential areas with homes present greatly increased. In such areas, floodplain easements are only available as part of a larger strategy intended to minimize future flood damage by removing infrastructure from flood prone areas while prohibiting their future development. This type of easement purchase requires a local sponsor that will acquire the underlying land, in fee title, after the easement with NRCS closes.

The agency may pay up to 100 percent of the costs associated with the restoration of EWPP-FPE easements. The goal of EWPP-FPE easements are to restore and return the floodplain to its natural condition. Restoration measures used to reach 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. The easement owners have the opportunity to assist with implementation of the easement restoration.

Landowners retain several rights to the property on land enrolled in the NRCS easement, including quiet enjoyment, the right to control public access, and the right to 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.

During 2016, EWPP-FPE continued its progress in enrolling and closing the properties tentatively selected for funding in 2013 and 2014. These easements represent a total investment up to $99 million on more than 600 acres of vulnerable floodplain lands.

Cumulative Program Activity (Through End of 2016)	
Enrolled Easements (Permanent)	Cumulative
Number of Easements	1,586
Number of Acres	184,911
Closed Easements (Permanent)	Cumulative
Number of Easements	1,573
Number of Acres	184,423

2016 Activities.

The EWPP received $157 million for recovery efforts. Funds from existing account balances were used for response to natural disasters and 255 projects were funded. The table below reports the number of projects funded, unfunded and completed. The economic benefit (National Emergency Watershed Protection Program Manual, Section 513.1 Final Report, Part A) identify completed projects at $226 million providing a benefit to cost ratio of 1.4/1.0.

EWPP Costs and Benefits (Through September 30, 2016)	
General	
No. of disaster projects funded	255
No. of disaster projects unfunded	24
No. of projects completed	202
Costs	
Technical assistance	$20,032,423
Financial assistance	108,196,770
Local contribution	32,022,948
Total costs	160,252,141
Benefits	
Public buildings protected (no.)	46
Private buildings protected (no.)	1,819
Roads protected (miles)	80
Utilities protected (no.)	209
Value of property protected	$687,878,984
Debris removed (feet)	146,676
Streambank stabilized (feet)	47,071
Land protected (acres)	6336
No. of 8(a) contracts	-
Value of 8(a) contracts	-
Total economic benefit	226,000,994
Benefit / Costs Ratio	1.4/1.0

EWPP Costs and Benefits (Through September 30, 2016)	
No. of Persons Benefited	
Minority	81,365
Other	313,639
Total	395,004

Get Conservation on the Ground.
Mississippi. In April 2014, severe storms and tornadoes caused streambank erosion at several sites within the city limits of Waynesboro threatening city roads, culverts, utilities and residential and commercial properties. In addition, flooding occurred due to debris accumulation reducing capacity of streams. EWPP financial assistance was provided to the city to stabilize streambanks and remove watercourse debris. The work consisted of stabilizing 535 linear feet of streambanks and removing 800 linear feet of debris. The total cost for the project was $222,000 with the EWPP providing a 75 percent cost-share amount of $166,500. The economic benefit to the community was estimated at $772,500. The project was completed in December 2015.

Texas. In May 2015, severe storms, tornadoes, winds, and flooding impacted Cooke, Gaines, Grimes, Harris, Hays, Navarro, and Van Zandt counties in Texas. Significant damage occurred to roads, bridges, streambanks, and flood control structures, putting lives and property in danger. EWPP financial and technical assistance funding was obligated to assistance in repairing gullies, streambanks, dams, roadside erosion, and to remove debris from streams. The total cost of the projects was $11.8 million with the EWPP providing a 75 percent cost-share amount of $8.8 million. The economic benefit to the community will be $46 million.

South Carolina. In October 2015, an extreme rainfall event covered much of the State. Rainfall amounts ranged from 6 to 27 inches. The town of Lexington received over 12 inches of rainfall resulting in two dams breaching that were critical to the town's infrastructure. The stream reach downstream of these structures was littered with debris and filled with sediment which threatened bridges on main roads through the town. NRCS partnered with the town to remove debris downstream of these dams, restore stream capacity, and stabilize the streambanks. The total project cost was $851,000 with EWPP providing a 75 percent cost-share amount of $638,250. The economic benefit to the community is estimated at $1.4 million.

WATERSHED REHABILITATION PROGRAM

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Watershed Rehabilitation Program

[Under the authorities of section 14 of the Watershed Protection and Flood Prevention Act, $12,000,000 is provided.]

The change in the 2018 Budget includes no funding for this program.

WATERSHED REHABILITATION

Lead-off Tabular Statement

Budget Estimate, 2018	-
2017 Annualized Continuing Resolution	$11,977,000
Change in Appropriation	-11,977,000

WATERSHED REHABILITATION

Summary of Increases and Decreases
(Dollars in thousands)

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
Discretionary Appropriations:					
Watershed Rehabilitation	$12,000	-	-$23	-$11,977	-
Subtotal	12,000	-	-23	-11,977	-
Mandatory Appropriations:					
Small Watershed Rehabilitation Program	141,942	-$73,662	-72,991	-60,645	-$65,356
Subtotal	141,942	-73,662	-72,991	-60,645	-65,356
Total	153,942	-73,662	-73,014	-72,622	-65,356

Note: As specified in Sec. 711 of the USDA General Provisions, of the funds available under sections 14(h)(1)(A) through 14(h)(1)(G) for 2018, $61,000,000 are hereby permanently cancelled.

WATERSHED REHABILITATION

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Watershed Rehabilitation:										
Technical Assistance	$4,800	1	$4,800	7	$4,791	1	-$4,791	-1	-	-
Financial Assistance	7,200	-	7,200	-	7,186	-	-7,186	-	-	-
Subtotal	12,000	1	12,000	7	11,977	1	-11,977 (1)	-1	-	-
Mandatory Appropriations:										
Small Watershed Rehabilitation Program:										
Technical Assistance	13,059	32	6,146	1	-	-	-	+2	-	2
Financial Assistance	128,883	-	62,134	-	-4,711	-	-60,645	-	-$65,356	-
Subtotal	141,942	32	68,280	1	-4,711	-	-60,645	+2	-65,356	2
Total Adjusted Approp	153,942	33	80,280	8	7,266	1	-72,622	+1	-65,356	2
Rescissions, Transfers, and Seq. (Net)	11,178	-	4,982	-	4,711	-	60,645	-	65,356	-
Total Appropriation	165,120	33	85,262	8	11,977	1	-11,977	+1	-	2
Rescission	-	-	-	-	-	-	-61,000	-	-61,000	-
Sequestration	-11,178	-	-4,982	-	-4,711	-	+355	-	-4,356	-
Bal. Available, SOY	12,022	-	21,628	-	22,103	-	-13,639	-	8,464	-
Other Adjustments (Net)	-35,778	-	-62,474	-	-6,150	-	+72,150	-	66,000	-
Total Available	130,186	33	39,434	8	23,219	1	-14,111	+1	9,108	2
Lapsing Balances	-211	-	-84	-	-	-	-	-	-	-
Bal. Available, EOY	-21,628	-	-22,103	-	-8,464	-	+7,820	-	-644	-
Total Obligations	108,347	33	17,247	8	14,755	1	-6,291	+1	8,464	2

Note: As specified in Sec. 711 of the USDA General Provisions, of the funds available under sections 14(h)(1)(A) through 14(h)(1)(G) for 2018, $61,000,000 are hereby permanently cancelled.

WATERSHED REHABILITATION

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Watershed Rehabilitation:										
Technical Assistance	$323	1	$1,996	7	$152	1	-$152	-1	-	-
Financial Assistance	26,399	-	14,909	-	14,603	-	-14,603	-	-	-
Subtotal	26,723	1	16,905	7	14,755	1	-14,755	-1	-	-
Mandatory Obligations:										
Small Watershed Rehabilitation Program:										
Technical Assistance	7,485	32	-125	1	-	-	+263	+2	$263	2
Financial Assistance	74,140	-	467	-	-	-	+8,201	-	8,201	-
Subtotal	81,624	32	342	1	-	-	+8,464	+2	8,464	2
Total Obligations	108,347	33	17,247	8	14,755	1	-6,291	+1	8,464	2
Lapsing Balances	211	-	84	-	-	-	-	-	-	-
Bal. Available, EOY	21,628	-	22,103	-	8,464	-	-7,820	-	644	-
Total Available	130,186	33	39,434	8	23,219	1	-14,111	+1	9,108	2
Rescission	-	-	-	-	-	-	+61,000	-	61,000	-
Sequestration	11,178	-	4,982	-	4,711	-	-355	-	4,356	-
Bal. Available, SOY	-12,022	-	-21,628	-	-22,103	-	+13,639	-	-8,464	-
Other Adjustments (Net)	35,778	-	62,474	-	6,150	-	-72,150	-	-66,000	-
Total Appropriation	165,120	33	85,262	8	11,977	1	-11,977	+1	-	2

WATERSHED REHABILITATION

Justification of Increases and Decreases

(1) A decrease of $11,977,000 and 1 staff year for Watershed Rehabilitation ($11,977,000 and 1 staff year available in 2017):

Since 1948, local communities have constructed more than 11,000 watershed dams with assistance from NRCS. These dams provide flood control protection for America's communities and natural resources, but many also serve as primary sources of drinking water, recreation areas, and wildlife habitat. These projects have become an integral part of the communities they were designed to protect. Like highways, utilities, and other public infrastructure, these dams need to be maintained to protect public health and safety and to meet challenging resource needs. No funding is requested in the 2018 Budget. Maintenance, repair, and operation of these dams will be the responsibility of local project sponsors.

WATERSHED REHABILITATION

Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands and Staff Years (SYs))

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama	$242	-	-$4	-	-	-	-	-
Alaska	2	-	-	-	-	-	-	-
Arizona	16,305	-	1,858	-	$1,569	-	-	-
Arkansas	5	-	-1	-	-	-	-	-
California	338	21	-	-	-	-	-	-
Colorado	1,674	-	-1	-		-	-	-
Connecticut	2	-	-	-	-	-	-	-
Delaware	1	-	-	-	-	-	-	-
Florida	6	-	-	-	-	-	-	-
Georgia	1,866	-	56	2	47	-	-	-
Hawaii	4	-	-	-	-	-	-	-
Idaho	3	-	-	-	-	-	-	-
Illinois	6	-	40	-	34	-	-	-
Indiana	204	-	-	-	-	-	-	-
Iowa	24	-	2	-	2	-	-	-
Kansas	78	1	160	-	135	-	-	-
Kentucky	108	-	59	-	50	-	-	-
Louisiana	29	-	-2	-	-	-	-	-
Maine	2	-	-	-	-	-	-	-
Maryland	2	-	-	-	-	-	-	-
Massachusetts	2,882	-	58	1	49	-	-	-
Michigan	4	-	-	-	-	-	-	-
Minnesota	147	-	-	-	-	-	-	-
Mississippi	5,216	1	3	-	3	-	-	-
Missouri	6	-	0	-	-	-	-	-
Montana	5	-	-	-	-	-	-	-
Nebraska	1,662	2	74	-	62	-	-	-
Nevada	1,222	-	-2	-	-	-	-	-
New Hampshire	13	-	27	-	23	-	-	-
New Jersey	2	-	20	-	17	-	-	-
New Mexico	4	-	-	-	-	-	-	-
New York	-1	-	-	-	-	-	-	-
North Carolina	165	-	-	-	-	-	-	-
North Dakota	272	1	-198	-	-	-	-	-
Ohio	75	1	-14	-	-	-	-	-
Oklahoma	4,228	1	2,086	-	1,761	-	-	-
Oregon	4,138	-	9	-	8	-	-	-

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Pennsylvania.....	555	-	174	1	147	-	-	-
Puerto Rico.....	2	-	-	-	-	-	-	-
Rhode Island.....	1	-	-	-	-	-	-	-
South Carolina.....	82	-	-	-	-	-	-	-
South Dakota.....	5	-	-	-	-	-	-	-
Tennessee.....	19	-	-5	-	-	-	-	-
Texas.....	11,046	2	5,259	-	4,441	-	-	-
Utah.....	29,967	1	6,814	-	5,754	-	-	-
Vermont.....	2	-	-	-	-	-	-	-
Virginia.....	19,325	-	16	-	13	-	-	-
Washington.....	5	-	20	-	17	-	-	-
West Virginia.....	457	-	229	2	193	-	-	-
Wisconsin.....	4	-	-	-	-	-	-	-
Wyoming.....	4,002	-	-	-	-	-	-	-
National Hdqtr.....	1,450	1	480	2	405	1	-	-
Undistributed.....	488	1	30	-	25	-	$8,464	2
Obligations.....	108,347	33	17,247	8	14,755	1	8,464	2
Bal. Available, EOY.....	21,628	-	22,103	-	8,464	-	644	-
Lapsing Balance.....	211	-	84	-	-	-	-	-
Total, Available.....	130,186	33	39,434	8	23,219	1	9,108	2

WATERSHED REHABILITATION

Classification by Objects
(Dollars in thousands)

	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Personnel Compensation:				
Washington D.C.	$419	$135	$22	$26
Field	1,079	512	85	97
11 Total personnel compensation	1,498	647	107	123
12 Personal benefits	538	222	34	90
13.0 Benefits for former personnel	1	-	-	-
Total, personnel comp. and benefits	2,037	869	141	213
Other Objects:				
21.0 Travel and transportation of persons	372	10	11	-
22.0 Transportation of things	1	-	-	-
23.1 Rental payments to GSA	32	2	-	-
23.2 Rental payments to others	80	-2	-	-
23.3 Communications, utilities, and miscellaneous charges	-8	-4	-	-
24.0 Printing and reproduction	5	-	-	-
25.1 Advisory and assistance services	40,341	23,583	8,573	2,201
25.2 Other services from non-Federal sources	4,493	839	-	50
25.3 Other goods and services from Federal sources	8	-	-	-
25.4 Operation and maintenance of facilities	-40,399	-20,736	-	-
25.5 Research and develoment contracts	-	960	-	-
26.0 Supplies and materials	19	1	-	-
31.0 Equipment	135	2	-	-
32.0 Land and structures	2	-	-	-
41.0 Grants, subsides, and contributions	101,231	11,722	6,030	6,000
99.5 Adjustment for rounding	-2	1	-	-
Total, other objects	106,310	16,378	14,614	8,251
99.9 Total, new obligations	108,347	17,247	14,755	8,464
DHS Building Security Payments (included in 25.3)	$8	-	-	-
Position Data:				
Average Salary (dollars), ES Position	$179,364	$172,068	$174,821	$177,618
Average Salary (dollars), GS Position	$68,631	$69,317	$70,426	$71,553
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).

Watershed Rehabilitation Program

Status of Programs

Background. 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.

Program Objectives. 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 more than 11,900 watershed dams with assistance from NRCS. Local sponsors provided leadership in the program and secured 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 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 devastation caused by flooding as many dams have reached, or will soon reach, the end of their design life. By December 2016, approximately 4,950 watershed dams will have reached the end of their originally designed life-span. That total will increase to approximately 5,450 by December 2017, and by the end of 2018, more than half of the 11,900 watershed dams in the nation will be beyond their design life. Time has taken its toll on many dams as spillway pipes have deteriorated and reservoirs have filled with sediment. More significantly, the area around many dams has changed over time 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. A dam failure could also cause serious adverse environmental effects.

Program Operations. 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 in the national dam safety classification system. Dams classified in the three-tier system as low or significant hazard to public safety will not be planned for rehabilitation until all high-hazard dam project requests from public sponsors have been rehabilitated.

Dams installed through the following programs are eligible for rehabilitation assistance: 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.

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.

Technical Capacity. The agency does not have technical staff capacity to respond to all requests for watershed rehabilitation assistance from project sponsors. In 2015, the agency renewed the national contract with Architectural and Engineering Service consulting companies to perform dam assessments, rehabilitation planning, engineering designs, and construction inspection services under the agency's guidance. In 2017, the agency will solicit and award additional regional contracts with Architectural and Engineering Service consulting companies to supplement the current list of firms. Also, some sponsors have used their own professional staff or acquired technical services as part of their "in-kind" contribution to meet their 35 percent cost-share requirement.

Financial Assistance. 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.

2016 Activities.
In 2016, the Watershed Rehabilitation Program received $12 million in discretionary 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.

In 2015, project sponsors from 27 States submitted funding requests for 393 dams totaling more than $502 million. This level of funding request demonstrates the need for dam rehabilitation assistance throughout the country. The funding requests far exceeded available funding and projects ready for construction received priority for funding. In 2016, funding was provided for 14 dams in three States.

The agency continued to provide funding and promoted assessments of high-hazard dams, monitored costs, and examined the rehabilitation program to ensure equitable delivery in economically-disadvantaged areas. The agency utilized $750,000 to complete assessments of 36 dams. In addition, the agency renewed the Memorandum of Understanding with the Association of State Dam Safety Officials to help State and National agencies ensure uniformity of standards for high-hazard dams.

Summary of Watershed Rehabilitation Projects and Allocations as of September 30, 2016

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2016	Number of Dams Rehabilitated	2016 Federal Allocations of Mandatory Funds a/	2016 Federal Allocations of Discretionary Funds b/
Alabama	1	1	-	-
Arizona	9	1	-	$7,000
Arkansas	7	1	-	-
Colorado	4	-	-	-
Connecticut	1	-	-	-
Georgia	13	7	-	192,720
Illinois	-	-	-	40,000
Indiana	1	1	-	-
Iowa	4	4	-	-
Kansas	8	3	-	160,867

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2016	Number of Dams Rehabilitated	2016 Federal Allocations of Mandatory Funds a/	2016 Federal Allocations of Discretionary Funds b/
Kentucky	4	1	-	48,000
Massachusetts	6	1	-	60,000
Mississippi	22	18	-	-
Missouri	2	2	-	-
Montana	2	-	-	-
Nebraska	14	9	-	-
Nevada	1	-	-	-
New Hampshire	1	-	-	33,000
New Jersey	-	-	-	53,000
New Mexico	7	3	-	-
New York	7	-	-	-
North Dakota	1	-	-	-
Ohio	9	8	-	-
Oklahoma	53	35	-	1,900,000
Oregon	2	-	-	8,000
Pennsylvania	9	1	-	173,000
Tennessee	4	2	-	40,040
Texas	34	15	-	4,889,600
Utah	22	-	-	6,995,500
Virginia	16	10	-	18,426
Washington	-	-	-	20,000
West Virginia	8	1	-	233,625
Wisconsin	11	11	-	-
Wyoming	1	-	-	-
Total	284	135	0	14,872,778

Note: Only projects funded for Planning, Design, and Construction are included in the chart. Dam assessments are not included.

a/ No mandatory funding was received for watershed rehabilitation projects in 2016.

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

In 2016, 36 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 2016, rehabilitation of 269 dams in 31 States was authorized, and rehabilitation of 135 dams was completed. The remaining 134 rehabilitation projects are being implemented, subject to funding priorities. The following table summarizes the benefits for both agricultural and non-agricultural lands provided by the completed projects:

Average annual floodwater damage reduction benefits	8,477,381
Average annual non-floodwater damage reduction benefits	7,262,262
Number of people with reduced risk downstream from the dams	16,379
Number of people who benefit from project action	304,753
Number of homes and businesses benefiting from project action	10,333
Number of farms and ranches benefiting from project action	908
Number of bridges benefiting from project action	356

Getting Conservation on the Ground.
Virginia: Potomac – Upper North River Dam No. 10 (Todd Lake). The rehabilitation of Upper North River Watershed Dam No. 10, Todd Lake, in Augusta County, Virginia, was completed in April 2016. The original dam was constructed in 1963 on U.S. Forest Service (USFS) property. The project sponsors are the Headwaters Soil and Water Conservation District and the Augusta County Board of Supervisors.

The rehabilitation was completed to bring the dam into compliance with current NRCS and State Dam Safety criteria. The rehabilitation consisted of raising the top of dam by 2.7 feet with earthfill; widening the auxiliary spillway (ASW) from 200' to 300'; armoring the ASW with articulated concrete blocks and installing a concrete cutoff wall that was 331' long, 11.2' high and 1.5' thick across the ASW; constructing a training dike on the dam side of the ASW; extending the existing reinforced concrete pipe for the principal spillway by 18' into the flood pool and replacing the riser; replacing the existing rock toe drain with a new rock toe drain; increasing the riprap protection of the plunge pool banks and relocating a USFS campground access road. The construction cost was $3.1 million and the total project cost was $3.2 million. NRCS paid $2.1 million (65 percent) and the local sponsors paid $1.1 million (35 percent) of the total project costs.

Project benefits include: Reducing the potential for loss of life and property downstream for approximately 440 residents in 80 homes and 1,000 people in vehicles daily; providing on-site recreation benefits to 4,400 people annually; and extending the service life of the dam another 50 years.

Mississippi: Chiwapa Creek Watershed Floodwater Retarding Structure No. 65. Floodwater Retarding Structure (FWRS) 65 is one of 10 Public Law 83-566 (P.L. 83-566) FWRSs constructed in the Chiwapa Creek Watershed. The original watershed work plan became effective on December 31, 1959, and construction on FWRS 65 was completed in 1963. The dam is located in Pontotoc County, 8 miles West of Tupelo, Mississippi.

A dam assessment was completed in September 2005 that recommended a change in the hazard class for this site from Low to High based on the potential flooding of three downstream homes and overtopping of a paved county road. The watershed district requested rehabilitation assistance in 2005; rehabilitation planning was completed in September 2005; Final Design was completed in August 2015; and rehabilitation construction was completed in October 2016. The original objective of FWRS 65 was to reduce flood damages along the main stem and tributaries of Chiwapa Creek. The structure was rehabilitated to maintain this objective and upgraded to meet current hydrologic criteria. The existing riser was replaced with a new riser, and new 30-inch principal spillway pipe was added on to existing 30-inch principal spillway. The top of dam was raised approximately 6.8 feet, and auxiliary spillway widened by approximately 82 feet. In addition, a chimney drain was added. The completed rehabilitation construction project yielded a compacted earth fill dam that is 31.8 feet in height with crest length of 813 feet and protects a watershed that covers 1.21 square miles. Service life of the dam has been extended 100 years. Other benefits being maintained include sediment reduction, groundwater recharge, wildlife habitat enhancement, recreation, and water supply. This site provides $29,100 in average annual benefits.

Arizona: Magma. Rehabilitation of the Magma Flood Retarding Structure (FRS) in Arizona is complete with the exception of submittal of final project As-builts and supporting documentation. Rehabilitation included upgrading the dam to meet current agency and State safety criteria and performance standards for a high hazard dam, extending the service life of the dam to 100 years, and maintaining flood protection. The FRS was constructed by the Soil Conservation Service in 1964 under the authority of the Watershed Protection and Flood Prevention Act (P. L. 83-566). The 5.3 mile long, 26 foot high earthen FRS provides flood protection to portions of the town of Fredonia, several housing developments and surrounding agricultural lands. It was originally classified as a low hazard class (a) dam, a hazard classification given to dams that do not pose a threat to loss of life, but could cause damage to agricultural lands, fences, livestock, farm equipment, and county roads and bridges. As a result of

changes in dam safety criteria, mitigation of known safety deficiencies and significant downstream development, the FRS was rehabilitated to high hazard standards, a hazard classification given to dams that do pose a threat to loss of life. The breach inundation area of the FRS includes several county and town roads, populated portions of the town of Florence and unincorporated areas of Pinal County (approximately 11,000 residents), local schools, public and private infrastructure, utilities, healthcare facilities, agricultural lands, and the Central Arizona Project canal. This site provides $1.3 million in average annual benefits (based on 2009 dollars).

WATER BANK PROGRAM

Lead-off Tabular Statement

Budget Estimate, 2018	-
2017 Annualized Continuing Resolution	$3,992,000
Change in Appropriation	-3,992,000

WATER BANK PROGRAM

Summary of Increases and Decreases

(Dollars in thousands)

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
Discretionary Appropriations:					
Water Bank Program	$4,000	-	-$8	-$3,992	-
Total	4,000	-	-8	-3,992	-

WATER BANK PROGRAM

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Water Bank Program:										
Technical Assistance.....	$400	-	$400	1	$400	1	-$400	-1	-	-
Financial Assistance.....	3,600	-	3,600	-	3,592	-	-3,592	-	-	-
Total Adjusted Approp.....	4,000	-	4,000	1	3,992	1	-3,992 (1)	-1	-	-
Total Appropriation.....	4,000	-	4,000	1	3,992	1	-3,992	-1	-	-
Bal. Available, SOY.....	545	-	974	-	980	-	-980	-	-	-
Other Adjustments (Net).....	205	-	134	-	-	-	-	-	-	-
Total Available.....	4,750	-	5,108	1	4,972	1	-4,972	-1	-	-
Bal. Available, EOY.....	-974	-	-980	-	-	-	-	-	-	-
Total Obligations.....	3,776	-	4,128	1	4,972	1	-4,972	-1	-	-

WATER BANK PROGRAM

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Water Bank Program:										
Technical Assistance.....	$64	-	$206	1	$189	1	-$189	-1	-	-
Financial Assistance.....	3,711	-	3,923	-	4,783	-	-4,783	-	-	-
Total Obligations.....	3,776	-	4,128	1	4,972	1	-4,972	-1	-	-
Bal. Available, EOY.....	974	-	980	-	-	-	-	-	-	-
Total Available.....	4,750	-	5,108	1	4,972	1	-4,972	-1	-	-
Bal. Available, SOY.....	-545	-	-974	-	-980	-	+980	-	-	-
Other Adjustments (Net).....	-205	-	-134	-	-	-	-	-	-	-
Total Appropriation.....	4,000	-	4,000	1	3,992	1	-3,992	-1	-	-

WATER BANK PROGRAM

Justification of Increases and Decreases

(1) A decrease of $3,992,000 and 1 staff year for the Water Bank Program ($3,992,000 and 1 staff year available in 2017):

Due to budget priorities, the 2018 Budget proposes to terminate funding for this program.

WATER BANK PROGRAM

Geographic Breakdown of Obligations and Staff Years
(Dollars in thousands and Staff Years (SYs))

State/Territory	2015 Actual		2016 Actual		2017 Estimate		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Minnesota	-	-	$104	-	$125	-	-	-
North Dakota	$3,056	-	3,200	1	3,844	1	-	-
South Dakota	720	-	835	-	1,003	-	-	-
National Hdqtr	-	-	-10	-	-	-	-	-
Obligations	3,776	-	4,128	1	4,972	1	-	-
Lapsing Balances	-	-	-	-	-	-	-	-
Bal. Available, EOY	974	-	980	-	-	-	-	-
Total, Available	4,750	-	5,108	1	4,972	1	-	-

WATER BANK PROGRAM

Classification by Objects
(Dollars in thousands)

		2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Personnel Compensation:					
Washington D.C.		-	-	-	-
Field		$30	$65	$66	-
11	Total personnel compensation	30	65	66	-
12	Personal benefits	11	23	23	-
	Total, personnel comp. and benefits	41	88	89	-
Other Objects:					
25.2	Other services from non-Federal sources	-	50	50	-
25.4	Operation and maintenance of facilities	-469	-114	-	-
31.0	Equipment	24	48	49	-
41.0	Grants, subsides, and contributions	4,180	4,056	4,783	-
99.5	Adjustment for rounding	-	-	1	-
	Total, other objects	3,735	4,040	4,883	-
99.9	Total, new obligations	3,776	4,128	4,972	-
Position Data:					
Average Salary (dollars), ES Position		$170,364	$172,521	$176,144	-
Average Salary (dollars), GS Position		$68,631	$69,792	$71,258	-
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).

Water Bank Program

Status of Programs

Background. Section 748 of the Water Bank Act (16 U.S.C. 1301-1311) authorized the Water Bank Program (WBP). In 2016, NRCS was appropriated $4.0 million to fund WBP. Enrollment into the program was available in Minnesota, North Dakota and South Dakota.

Program Objectives. 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.

Program Operations. 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, where available. Assistance will be provided to participants for developing a Conservation Plan of Operations (CPO) for the enrolled land and associated adjacent land when applicable. 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 2016 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.

Eligibility. The agency determines whether land is eligible for enrollment and whether, once found eligible, the 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 and protection costs. Land placed under an agreement shall be specifically identified and designated for the period of the agreement. A person must:

- Be the landowner 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 as a result 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 as a result of death of the previous owner and will have possession over all the designated acreage for the agreement period.

Program Participation Requirements. 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 except if 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.

2016 Activities.
In 2016, $4 million in financial and technical assistance was allocated for approval of new WBP ten-year rental agreements. Approximately $3.5 million was obligated to 73 agreements covering 9,365 acres. The first year rental agreement payments were issued in August 2016.

The WBP has a backlog of 433 applications with an estimated value of $16.8 million covering 42,476 acres in Minnesota, North Dakota and South Dakota.

Getting Conservation on the Ground.
North Dakota: Upon learning of the WBP, landowner Kathy Ashe and her son, William Olson, looked into the possibility of enrolling into the program. "I had figured that my land was simply going to remain flooded and that was it," stated Mrs. Ashe. "Then NRCS came out with the Water Bank Program and my renter suggested I look into it. I liked what I saw and decided to apply for the program."

For years severe flooding of agricultural land has been a problem in the Prairie Pothole Region and Devils Lake Basin. Mrs. Ashe's land, which is located near one of the many small lakes around Devils Lake, North Dakota, has been in the family for over 100 years. Up until six years ago, before flooding, the land was very productive cropland—growing wheat, corn, and soybeans. The WBP is a good fit for Mrs. Ashe as it provides her with an opportunity to receive an income on flooded land that is no longer in production.

"I am very satisfied with the WBP program," stated Mrs. Ashe. "Under this agreement with NRCS, I am receiving income that otherwise would not have been available. I'm not eligible for CRP, so this program offers a way for me to receive conservation assistance."

HEALTHY FORESTS RESERVE PROGRAM

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		President's	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Healthy Forests Reserve Program [D]:										
Technical Assistance	-	-	-$5	-	-	-	-	-	-	-
Financial Assistance	-	-	-49	-	-	-	-	-	-	-
Total Adjusted Approp	-	-	-54	-	-	-	-	-	-	-
Rescissions, Transfers, and Seq. (Net)	-	-	54	-	-	-	-	-	-	-
Total Appropriation	-	-	-	-	-	-	-	-	-	-
Rescission	-	-	-54	-	-	-	-	-	-	-
Bal. Available, SOY	$53	-	54	-	-	-	-	-	-	-
Other Adjustments (Net)	1	-	-	-	-	-	-	-	-	-
Total Available	54	-	-	-	-	-	-	-	-	-
Bal. Available, EOY	-54	-	-	-	-	-	-	-	-	-
Total Obligations	-	-	-	-	-	-	-	-	-	-

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Project Statement
Adjusted Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Appropriations:										
Agricultural Conservation Easement Program	$393,975	368	$419,400	398	$465,500	398	-$232,000	-	$233,500	398
Agricultural Management Assistance	4,635	6	4,660	8	4,655	6	-4,655	-6	-	-
Agricultural Water Enhancement Program	-	54	-	31	-	-	-	-	-	-
Chesapeake Bay Watershed Program	-	26	-	8	-	-	-	-	-	-
Conservation Reserve Program	85,040	656	46,600	581	116,661	666	-69,961	-	46,700	666
Conservation Security Program	28,087	47	4,660	6	4,655	6	-4,655	-6	-	-
Conservation Stewardship Program	1,164,151	1,048	1,225,038	1,328	1,287,612	977	+113,507	-	1,401,119	977
Environmental Quality Incentives Program	1,483,200	2,217	1,528,539	2,257	1,521,743	2,657	-109,905	+96	1,411,838	2,753
Farm and Ranch Lands Protection Program	-	14	-	16	-	-	-	-	-	-
Grassland Reserve Program	-	4	-	5	-	-	-	-	-	-
Healthly Forests Reserve Program	-	1	-	-	-	-	-	-	-	-
Regional Conservation Partnership Program	92,700	5	93,200	28	93,100	54	+300	-	93,400	54
Wetlands Mitigation Banking Program	-	-	-	2	-	-	-	-	-	-
Wetlands Reserve Program	-	99	-	94	-	-	-	-	-	-
Wildlife Habitat Incentives Program	-	82	-	70	-	-	-	-	-	-
Total Adjusted Approp	3,251,788	4,627	3,322,097	4,832	3,493,926	4,764	-307,369	+84	3,186,557	4,848
Rescissions, Transfers, and Seq. (Net)	266,918	-	265,690	-	281,514	-	187,056	-	468,570	-
Total Appropriation	3,518,706	4,627	3,587,787	4,832	3,775,440	4,764	-120,313	+84	3,655,127	4,848
Rescission	-	-	-	-	-	-	-213,670	-	-213,670	-
Sequestration	-266,918	-	-265,690	-	-281,514	-	+26,614	-	-254,900	-
Bal. Available, SOY	1,011,116	-	1,278,230	-	1,567,343	-	-1,313,343	-	254,000	-
Other Adjustments (Net)	-78,080	-	123,110	-	-13,304	-	+220,304	-	207,000	-
Total Available	4,184,824	4,627	4,723,437	4,832	5,047,965	4,764	-1,400,408	+84	3,647,557	4,848
Lapsing Balances	-233	-	-156	-	-	-	-	-	-	-
Bal. Available, EOY	-1,278,289	-	-1,567,343	-	-254,000	-	+242,428	-	-11,572	-
Total Obligations	2,906,302	4,627	3,155,938	4,832	4,793,965	4,764	-1,157,980	+84	3,635,985	4,848
Technical Assistance Transfer to PLCO Account	-	-	-	-	-	-	-	-	-985,050	-4,848
Total, Farm Security and Rural Investment Programs	2,906,302	4,627	3,155,938	4,832	4,793,965	4,764	-1,157,980	+84	2,650,935	-

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Obligations:										
Agricultural Conservation Easement Program	$297,303	368	$345,677	398	$717,609	398	-$484,859	-	$232,750	398
Agricultural Management Assistance	4,402	6	4,504	8	4,655	6	-4,655	-6	-	-
Agricultural Water Enhancement Program	9,626	54	3,882	31	13,710	-	-13,710	-	-	-
Chesapeake Bay Watershed Program	3,948	26	1,617	8	14,696	-	-14,696	-	-	-
Conservation Reserve Program	72,808	656	79,951	581	125,257	666	-78,707	-	46,550	666
Conservation Security Program	30,917	47	2,025	6	8,763	6	-8,763	-6	-	-
Conservation Stewardship Program	1,095,879	1,048	1,129,295	1,328	1,521,381	977	-124,763	-	1,396,618	977
Environmental Quality Incentives Program	1,235,780	2,217	1,441,436	2,257	1,837,667	2,657	-224,700	+96	1,612,967	2,753
Farm and Ranch Lands Protection Program	4,828	14	2,827	16	59,222	-	+36,778	-	96,000	-
Grassland Reserve Program	6,951	4	1,759	5	24,384	-	-10,384	-	14,000	-
Healthly Forests Reserve Program	1,284	1	704	-	7,485	-	-7,485	-	-	-
Regional Conservation Partnership Program	43,944	5	59,153	28	270,326	54	-177,226	-	93,100	54
Voluntary Public Access and Habitat Incentive Program	2,242	-	19,680	-	21	-	-21	-	-	-
Wetlands Mitigation Banking Program	75	-	158	2	9,767	-	-9,767	-	-	-
Wetlands Reserve Program	81,922	99	54,326	94	166,171	-	-30,171	-	136,000	-
Wildlife Habitat Incentives Program	14,393	82	8,944	70	12,850	-	-4,850	-	8,000	-
Total Obligations	2,906,302	4,627	3,155,938	4,832	4,793,965	4,764	-1,157,980	+84	3,635,985	4,848
Lapsing Balances	233	-	156	-	-	-	-	-	-	-
Bal. Available, EOY	1,278,289	-	1,567,343	-	254,000	-	-242,428	-	11,572	-
Total Available	4,184,824	4,627	4,723,437	4,832	5,047,965	4,764	-1,400,408	+84	3,647,557	4,848
Rescission	-	-	-	-	-	-	+213,670	-	213,670	-
Sequestration	266,918	-	265,690	-	281,514	-	-26,614	-	254,900	-
Bal. Available, SOY	-1,011,116	-	-1,278,230	-	-1,567,343	-	+1,313,343	-	-254,000	-
Other Adjustments (Net)	78,080	-	-123,110	-	13,304	-	-220,304	-	-207,000	-
Total Appropriation	3,518,706	4,627	3,587,787	4,832	3,775,440	4,764	-120,313	+84	3,655,127	4,848
Technical Assistance Transfer to PLCO Account	-	-	-	-	-	-	-	-	-985,050	-4,848
Total, Farm Security and Rural Investment Programs	3,518,706	4,627	3,587,787	4,832	3,775,440	4,764	-120,313	+84	2,670,077	-

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Notes:

1. 2018 amounts shown as authorized in the 2014 Farm Bill
2. 2016 sequestration applied at 6.8% and 2017 sequestration applied at 6.9%
3. Environmental Quality Incentives Program (EQIP)
    a. The Consolidated and Further Continuing Appropriation Act, 2015 (P.L. 113-235), General Provisions Sec 716 limits 2015 obligations to $1.347 billion
    b. The Consolidated Appropriations Act, 2016 (P.L. 114-113), General Provisions Sec 714 limits 2016 obligations of new authority to $1.329 billion
    c. For 2017, the annualized Continuing Resolution reduces EQIP by $207.0M.
    d. As specified in Sec. 711 of the USDA General Provisions, of the funds authorized by sections 1240-1240H of the Food Security Act of 1985 (16 U.S.C. 3839aa-3839aa-8), for 2018, $209,000,000 are hereby permanently cancelled.
    e. For 2015, 2016 and 2017, the amounts precluded from obligation are made available in the following year (other adjustments)
        i. 2016: $208.8 million precluded from obligation; $136.2 million previously unavailable for obligation; $4.9 million of expiring reimbursable authority
        ii. 2017: $207.0 million precluded from obligation; $208.8 million previously unavailable for obligation; $15.2 million of expiring reimbursable authority
        iii. 2018: $207.0 million previously unavailable for obligation
4. Conservation Stewardship Program (CSTP)
    a. The Consolidated and Further Continuing Appropriation Act, 2015 (P.L. 113-235), General Provisions Sec 716 limits 2015 acres to 7.741 million
    b. Funding for acres not made available to the program is not requested
5. Agricultural Management Assistance Program (AMAP)
    a. As specific in Sec. 711 of the USDA General Provisions, of the funds available under section 524(b) of the Federal Crop Insurance Act, as amended (7 U.S.C. 1524(b)), for 2018, $10,000,000 are hereby permanently cancelled.
6. The 2017 balances EOY amount available for repealed Farm Bill programs

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Geographic Breakdown of Obligations
2016 Actual
(Dollars in thousands)

State/Territory	ACEP	AMAP	AWEP	CBWP	CRPG	CSPG	CSTP	EQIP	FRPP	GRPG	HFRP	RCPP	VPAP	WMBP	WRPG	WHIP
Alabama	$1,365	-	$50	-	$853	$4	$7,393	$23,186	$7	$24	-	$26	-	-	$575	$543
Alaska	1,041	-	-	-	15	-	1,609	8,406	2	2	-	54	-	-	11	165
Arizona	2,289	-	1	-	31	1	5,688	14,899	127	28	-	1,010	-	-	23	76
Arkansas	19,120	-	81	-	1,114	9	81,211	56,009	-	3	-	4,474	-	-	711	164
California	23,078	-	1,730	-	165	84	6,356	109,010	30	7	-	546	-	-	4,222	621
Colorado	14,305	-	14	-	1,330	-6	26,703	41,155	53	46	-	863	-	-	126	72
Connecticut	5,447	$170	-	-	13	-	414	6,099	380	6	-	3,968	-	-	21	458
Delaware	619	16	-	$11	43	-	1,769	9,862	121	-	-	619	-	-	22	18
Florida	13,077	-	1	-	118	1	3,696	19,714	13	3	-	544	-	-	7,115	431
Georgia	4,983	-	102	-	2,056	25	43,986	33,170	13	-	$437	142	-	-	1,174	1,111
Hawaii	257	211	1	-	112	-2	567	10,843	-	-	-	8	-	-	6	33
Idaho	1,581	-	279	-	573	18	7,197	28,168	-	59	-	97	-	-	283	29
Illinois	4,061	-	1	-	9,558	17	39,542	17,552	1	-1	-	70	-	-	1,076	-37
Indiana	8,333	-	41	-	7,433	8	12,940	30,560	-	2	-	155	-	-	462	36
Iowa	15,248	-	12	-	12,848	45	37,051	24,944	1	146	-	2,314	-	-	3,724	37
Kansas	2,568	-	78	-	1,589	5	47,715	30,836	300	21	-	495	-	-	634	76
Kentucky	14,569	-	1	-	1,803	14	4,971	20,473	61	38	33	223	-	-	727	120
Louisiana	17,125	-	1	-	196	21	35,713	28,566	1	2	-	1,085	-	-	711	17
Maine	475	1,228	-	-	54	-2	750	15,054	60	-	-	771	-	-	2	409
Maryland	3,204	244	-	182	1,401	46	1,004	15,101	5	-	-	2,683	-	-	762	85
Massachusetts	4,897	164	-	-	19	4	302	5,619	147	-1	-	289	-	-	668	150
Michigan	4,049	-	243	-	758	38	7,029	21,183	39	-	-	1,929	-	-	683	56
Minnesota	3,421	-	579	-	6,617	6	84,083	29,284	63	3	-	7,127	-	-	4,188	164
Mississippi	6,650	-	-13	-	629	1	36,605	49,580	1	16	-2	566	-	-	1,511	112
Missouri	11,210	-	1	-	2,391	58	28,473	37,925	4	10	-	907	-	-	2,013	57
Montana	17,722	-	82	-	401	145	46,460	25,689	37	73	-	230	-	-	2,040	100
Nebraska	2,218	-	117	-	3,036	777	63,937	30,783	17	-	-	174	-	-	1,107	1
Nevada	994	204	-	-	15	-	1,271	9,573	1	5	-	107	-	-	142	210
New Hampshire	8,865	27	-	-	9	-	496	6,703	-56	-5	-	593	-	-	12	-2
New Jersey	5,524	324	60	-	69	-	485	7,272	110	1	-	1,944	-	-	218	217
New Mexico	968	-	4	-	187	1	27,954	33,500	-	-	-	1,773	-	-	3	-13
New York	4,128	400	16	215	895	1	6,189	18,336	96	5	-	2,728	-	-	969	34
North Carolina	5,628	-	1	-	442	5	3,259	26,200	169	-	-	111	-	-	327	183
North Dakota	5,898	-	2	-	2,910	219	77,089	24,535	1	-	-	1,084	-	-	403	5
Ohio	10,130	-	1	-	4,823	94	6,576	30,823	27	-	-	1,123	-	-	1,445	1
Oklahoma	2,646	-	25	-	190	18	61,187	29,083	24	14	22	53	-	-	2,858	197
Oregon	1,439	-	212	-	222	2	26,272	26,819	12	-	38	3,709	-	-	1,631	21
Pennsylvania	3,457	408	1	662	1,446	3	7,522	31,065	12	1	163	5,610	-	-	618	47
Puerto Rico	126	-	-	-	11	-	175	7,629	-	-	-	18	-	-	15	16
Rhode Island	1,548	164	-	-	9	49	235	3,972	13	1	-	402	-	-	2	138
South Carolina	3,117	-	-	-	446	3	7,397	24,537	-2	1	-	342	-	-	667	8
South Dakota	11,156	-	23	-	3,551	86	93,175	20,966	-	44	-	428	-	-	869	244
Tennessee	5,846	-	1	-	611	1	7,171	35,532	2	1	-	97	-	-	1,193	74
Texas	10,056	-	56	-	1,193	3	40,605	108,653	6	34	-	673	-	-	954	1,129
Utah	1,700	248	1	-	219	34	7,678	25,491	17	15	-	19	-	-	88	42
Vermont	7,998	150	-	-	102	12	289	15,252	14	3	-	583	-	-	2	350
Virginia	2,779	-	1	274	1,185	-	6,878	29,033	6	7	-	1,565	-	-	41	140
Washington	1,601	-	-	-	1,014	88	23,259	23,614	20	12	-	1,428	-	-	1,247	100
West Virginia	3,639	409	1	272	89	5	2,277	15,455	62	7	-	1,265	-	-	2	574
Wisconsin	4,615	-	1	-	1,622	-2	21,155	26,481	44	-	-	521	-	-	782	1
Wyoming	3,385	136	3	-	285	1	9,840	13,895	12	-11	-	159	-	-	69	46

State/Territory	ACEP	AMAP	AWEP	CBWP	CRPG	CSPG	CSTP	EQIP	FRPP	GRPG	HFRP	RCPP	VPAP	WMBP	WRPG	WHIP
National Hdqtr.....	35,501	-	70	1	3,242	84	57,654	101,781	755	1,135	12	1,451	$19,680	$158	5,172	79
National Centers.....	24	-	-	-	3	-	46	1,567	-	-	-	-	-	-	-	-
2016 Total Obligations.....	345,677	4,504	3,882	1,617	79,951	2,025	1,129,295	1,441,436	2,827	1,759	704	59,153	19,680	158	54,326	8,944

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Status of Programs

Agricultural Conservation Easement Program

Current Activities.
Background. 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). ACEP consolidates the purposes and functions of three former easement programs: the 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 considered enrolled in ACEP. ACEP is funded by the Commodity Credit Corporation (CCC) and administered by NRCS. ACEP 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.

Program Objectives. The ACEP-Agricultural Land Easements (ALE) help 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. ALE Easements require partnership with cooperating entities which include Indian Tribes, State government, local government, or nongovernmental organizations that are committed to long-term conservation of agricultural lands.

ACEP-ALE protects the Nation's most valuable lands for the production of food, feed, and fiber by providing matching funds to keep productive farm and ranch lands in agricultural use. By enrolling in ACEP-ALE, farm and ranch lands threatened by development pressures can remain productive and sustainable. Keeping land in agricultural use 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-Wetland Reserve Easements (WRE), wetland easements provide technical and financial assistance directly to private landowners and Indian Tribes to restore, protect, and enhance wetlands through the purchase of a permanent wetland 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. ACEP-WRE's goal is to achieve the greatest wetlands functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This is accomplished by restoring former wetland and associated habitats on lands 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.

Program Operations. ACEP is a voluntary program, consisting of two components: 1) an ALE component which 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 WRE component which provides financial and technical assistance directly to landowners to restore, protect and enhance wetlands through the purchase of permanent and 30-year wetlands reserve easements.

To enroll land through agricultural land easements, NRCS enters into cooperative agreements with cooperating entities. NRCS requires certain terms and conditions under which the partner is permitted to access NRCS ACEP cost-share assistance. Each agricultural land easement must be managed according to an agricultural land easement plan that promotes the long-term viability of the land.

To enroll land through wetland reserve easements, NRCS enters into purchase agreements with eligible private landowners or Indian Tribes that include the right for NRCS to develop and implement a wetland reserve easement restoration 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 acquired. .

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

- Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland and nonindustrial private forest land. NRCS will prioritize 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;
- Land eligible for wetland reserve easements includes farmed or converted wetland that can be successfully and cost-effectively restored. NRCS will prioritize applications based the easement's potential for protecting and enhancing habitat for migratory birds and other wildlife.

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

WRE: To enroll land through wetland reserve easements, landowners may apply at any time at local USDA Service Centers. NRCS determines landowner and land eligibility, ranks each application based upon ranking criteria developed with input from the State Technical Committee, and makes tentative funding selections. NRCS priorities include the extent to ACEP-WRE purposes would be achieved on the land, 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 each easement, and whether Federal funds are being leveraged.

Financial Assistance.
ALE: NRCS and eligible entities sign a cooperative or grant agreement to obligate ACEP funds. The cooperating 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 fair 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 fair 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 ensure the long-term viability of the land, the landowner must implement an agricultural land easement plan on each parcel acquired in part with Federal funds.

WRE: NRCS and an eligible landowner sign an Agreement to Purchase a Conservation Easement to enroll land and obligate ACEP funds. Through the wetland reserve enrollment options, NRCS may enroll eligible land through:

- *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 30-year 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 wetland reserve easements, all costs associated with recording the easement are paid in the local land records office, including recording fees, charges for abstracts, survey and appraisal fees, and title insurance.

Technical Assistance.
ALE: In addition to helping landowners and 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.

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

NRCS continues to provide assistance to the landowner throughout the life of the project, 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.

2016 Activities.
For 2016, $188 million in ACEP financial assistance funding was used to enroll an estimated 170,785 acres of farmland, grasslands, and wetlands through 373 new ACEP easements. This agreement leverages Federal funds with the partners providing an equal contribution in non-Federal funds.

ACEP-ALE Enrollment.
NRCS received 648 high priority ACEP-ALE applications on over 251,000 acres, including 72 applications for ACEP-ALE on 89,262 acres of Grasslands of Special Environmental Significance. Available funding allowed for the enrollment of 14 percent of high priority 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 2016, NRCS enrolled a total of 131,181 acres in 94 new ACEP-ALE enrollments (table below). This includes both general agricultural land easements and agricultural land easements on Grasslands of Special Environmental Significance. The average project size was 905 acres in general ALE and 4,741 acres in ALE on Grasslands of Special Environmental Significance.

Agreement Type	2016 Agreements	2016 Acres Enrolled
ALE	82	74,284
ALE-Grasslands of Special Environmental Significance	12	56,897
Total	94	131,181

ACEP-WRE Enrollment.
In 2016, NRCS received 1,701 ACEP-WRE applications on over 228,000 acres. Available funding allowed for the enrollment of 16 percent of applications for ACEP-WRE. 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. 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) and the geographic rate cap for the location of the acres to be enrolled.

In 2016, NRCS enrolled a total of 39,604 acres in 279 new ACEP-WRE enrollments (table below). The average project size was 141 acres.

Agreement Type	2016 Agreements	2016 Acres Enrolled
30-year contracts with Tribes	-	-
30-year easement	29	4,598
Permanent easement	250	35,006
Total	279	39,604

Get Conservation on the Ground.
Montana. In 2016, a family and the Bitter Root Land Trust, working together with NRCS, have ensured the longevity of approximately 209 acres of high quality agricultural ground. This historic piece of Montana preserved the opportunity for continued agricultural use of the farm while permanently protecting it from development through an Agricultural Land Easement as part of the Agricultural Conservation Easement Program.

The family's ancestors moved to the Bitterroot in 1914 and bought the farm. Today, it is clear to all who pass by that the family has maintained a century long commitment to their land. Located in the area between Corvallis and Stevensville, the farm possesses an abundance of the best agricultural soils in the valley, including 185 acres of soils of agricultural importance as identified by NRCS. These soils have supported a broad range of agricultural production during the family's century of ownership, including sugar beets, potatoes, alfalfa, small grains, sweet corn and squash. Livestock raised on the property has included beef cattle, hogs, sheep, and chickens.

Montana. In 2016, a family in northwestern Montana closed a Wetlands Reserve Easement (WRE) on their property located in a unique floodplain ecosystem in the Lower Flathead River, a National Wild and Scenic River, near the National Bison Range. The enrolled property includes more than a mile of riverfront on the Flathead River, making it a prime location for recreational activity. Unfortunately, the prime recreational value of this property translates into extremely high developmental potential as well. With the thought of protecting this unique land in perpetuity, the owners decided to place a permanent WRE easement on the property.

The spring-fed wetland habitat on the property connects the Flathead River to nearby agricultural fields, creating habitats that play a significant role in the life cycle of not only resident waterfowl populations that reside in the Mission Valley, but also to thousands of migratory waterfowl that utilize the property as a staging area during their annual migrations.

The wetland habitat on the property is also home to several federally listed species including grizzly bear, Canada lynx, and wolverine while the Flathead River is home to the federally listed bull trout. Restoration of the wetland habitats on this site will develop and permanently protect habitat for migratory wildlife and the federally listed wildlife species native to the area.

Agricultural Management Assistance Program

Current Activities.
Background. Section 524(b) of the Federal Crop Insurance Act (7 U.S.C. 1524(b)), Agricultural Management Assistance (AMA), authorizes the Secretary of Agriculture to use $10 million of 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 by NRCS, the Risk Management Agency (RMA), and the Agricultural Marketing Service (AMS). The 2014 Farm Bill did not make any amendments to the AMA program.

Program Objectives. The agency 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 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.

Program Operations. The AMA program addresses the following national priorities:

- Reducing non-point source pollution, such as nutrients, sediment, pesticides, or excess salinity in impaired watersheds consistent with Total Daily Maximum 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 soil erosion and sedimentation from unacceptably high levels on agricultural land; and
- Promoting at-risk species habitat conservation.

Like other financial assistance programs, AMA implementation is based on a conservation plan, from which a contract is developed containing highly effective conservation practices that help mitigate the negative effects of resource concerns on the landscape and to the environment. The practices most frequently included in conservation plans and contracts include:

- Seasonal high tunnels which control the growing environment and improve plant health;
- Irrigation pipelines used to convey irrigation water in an efficient and effective manner;
- Irrigation water management which assists clients in more effective and efficient management of water;
- Micro irrigation systems used to deliver water more consistently;
- Cover crops which help improve soil health as well as reduce erosion and improve air quality;
- Fencing installed to assist in the management of livestock grazing, which is a vital component of any grazing management system; and
- Brush management used 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, the ranking process, and cutoff dates for ranking applications. States are responsible for fund allocations within the State, payment methods, and public outreach and information activities. Participants may use AMA in conjunction with other USDA conservation programs.

Eligibility. Applicants must own or control the land, which must be within one of the States 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 which produces crops or livestock where risk may be mitigated through operation diversification or change in resource conservation practices.

Financial Assistance. AMA provides financial assistance to eligible participants. Participation is voluntary, but the agency works with the applicant to develop the required conservation plan. A contract may be for a period of not more than ten years. Participants must agree to maintain cost-shared practices for the life of the practice. 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.

2016 Activities.
In 2016, over $3.6 million of CCC funds for financial assistance was obligated for 286 AMA contracts covering 2,740 acres. Cumulatively, AMA has 549 contracts in implementation. A continuing backlog of applications indicates strong interest among producers in the program. At the end of 2016, AMA had a backlog of 448 applications, with an estimated contract value of $3.9 million on 3,659 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) because they do not meet 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 general public. By helping to mitigate the risks associated with these kinds of agricultural enterprises, AMA helps agriculture remain a valuable segment of local economies.

Get Conservation on the Ground.
Nevada. A farmer in Douglas County is really pleased with the results from the high tunnel he installed, thanks to financial assistance under the AMA program. He installed the high tunnel to ward off the first frost the area typically receives in mid-September. The high tunnel was very effective and extended the growing season to mid-November, enabling the farmer to feed his family fresh vegetables for about six weeks longer than usual. In addition, the farmer improved the soil with compost and did not use any commercial fertilizers or pesticides. The landowner gave the extra produce to his employees and to a local food bank, further benefiting the community in the Carson Valley.

Agricultural Water Enhancement Program

Current Activities.
Background. 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 purposes into the Regional Conservation Partnership Program (RCPP), which was authorized by Section 2401 of the 2014 Farm Bill.

Program Objectives. 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 and local conservation districts whose conservation goals complement and were compatible with 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 followed the established national priorities for EQIP.

Program Operations. 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;
- Were able to achieve 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.

As part of EQIP, 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 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.

2016 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 2016, the assistance provided to the producers helped to implement more than 1,025 practices for $10.3 million in payments for the completed practices. Currently, 418 AWEP contracts on 70,991 acres remain active.

Chesapeake Bay Watershed Program

Current Activities.
Background. 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). However, 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).

Program Objectives. 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.

The CBWP helped agricultural producers to 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, and West Virginia, and the District of Columbia.

Program Operations. CBWP funding supported the Chesapeake Bay Restoration 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.

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

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

2016 Activities.
In 2016, all activities focused on implementing existing contracts. The assistance provided to producers helped to implement more than 1,900 practices for $7.8 million in payments for the completed practices. Currently, 376 CBWP contracts on 49,778 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 Security Program

Current Activities.
Background. The Conservation Security Program is not currently authorized for new enrollments. The program was originally authorized by Section 2001 of the Farm Security and Rural Investment Act of 2002 by amending Title XII, Subtitle D, of the Food Security Act of 1985. While Section 1202(a) of the Deficit Reduction Act of 2005 extended the program into 2011, the Food, Conservation, and Energy Act of 2008 (the 2008 Act) (P.L. 110-246), prohibited any Conservation Security Program contracts to be entered into or renewed after September 30, 2008. However, under Section 2301 of the 2008 Act, the Secretary must make payments on contracts entered into before September 30, 2008, using such sums as are necessary. The Agricultural Act of 2014 did not make any further changes to the Conservation Security Program.

Program Objectives. The Conservation Security Program was a voluntary program that provided financial and technical assistance for the conservation, protection and improvement of natural resources on tribal and private working lands. It provided payments for producers who practice good stewardship on their agricultural lands and provided incentives for those who wanted to do more. The program purpose was to:

- Identify and reward those farmers and ranchers meeting the very highest standards of conservation and environmental management on their operations;
- Create powerful incentives for other producers to meet the same standards of conservation performance on their operations; and
- Provide public benefits for generations to come.

NRCS is not authorized to enter into new Conservation Security Program contracts, but continues to make payments to producers with five- to ten-year contracts from prior years.

2016 Activities.
At the end of 2016, 110 contracts were active, representing 119,392 acres, and more than $13 million in payments. Among the many benefits of this program, the Conservation Security Program has been a significant contributor in the emerging areas of carbon and energy management. Payments were provided for enhancement activities to promote carbon sequestration, energy conservation and the production and use of renewable fuels and electricity.

Conservation Stewardship Program

Current Activities.
Background. Section 2301 of the Food, Conservation, and Energy Act of 2008 (2008 Act) amended the Food Security Act of 1985 to establish the Conservation Stewardship Program (CSP). The 2012 Agricultural Appropriations Act extended CSP enrollment authority through 2014. Section 2101 of the Agricultural Act of 2014 (the 2014 Farm Bill) re-authorized the CSP through 2018 and made minor adjustments to its administration.

Program Objectives. CSP encourages agricultural and forestry producers to maintain existing conservation activities and to adopt additional ones on their operations. CSP provides opportunities to 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 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.

Program Operations. 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 through a competitive ranking process among applications that face similar resource challenges. The 2014 Farm Bill prescribed the following factors for evaluating and ranking applications:

- Level of conservation treatment on all applicable priority resource concerns at the time of application;
- Degree to which the proposed conservation activities 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;
- Extent to which the actual and anticipated conservation benefits from the contract are provided at the least cost relative to other similarly beneficial contracts offers; and
- Extent to which priority resource concerns will be addressed when transitioning from the conservation reserve program to agricultural production.

Congress authorized the enrollment of an additional 10,000,000 acres each year 2014 through 2018 beginning October 1, 2013.

The program is national in scope, but the agency did not establish national targeted resource concerns. Instead, States determine five targeted priority resource concerns that are of specific concern for their State or for geographic areas within the State.

Eligibility. Eligibility to participate in CSP has three components - applicant, land, and stewardship threshold eligibility. 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. 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 with the Farm Service Agency records system. Eligible lands include cropland, pastureland, rangeland, non-industrial private forestland, agricultural land under the jurisdiction of an Indian Tribe, and other private agricultural land (including cropped woodland, marshes, and agricultural land used for the production of livestock) 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 identified priority resource concern to assess an applicant's conservation activities. These activities must meet or exceed the stewardship threshold for at least two priority resource concerns at the time of the application, and one additional priority resource concern by the end of the CSP contract.

Financial Assistance. CSP provides participants with two possible types of payments. An annual payment is available for installing new conservation activities and maintaining existing activities. A supplemental payment may be earned by participants receiving an annual payment who also adopt a resource-conserving crop rotation. CSP contracts are for a five-year period, and payments are made as soon as practicable after October 1 of each year for contract activities installed and maintained in the previous year. For all contracts, CSP 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.

Technical Assistance and Partnership. 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 in order to deliver a program beneficial to program 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.

2016 Activities.
In 2016, CSP provided more than $113 million in financial assistance funding for new enrollments, as shown in the State distribution table below. These funds will be used to treat over 8.1 million acres.

2016 Enrollment[1]

State	Acres Treated	Financial Assistance ($ Obligated)
Alabama	46,139	$646,393
Alaska	30,521	66,870
Arizona	517	12,060
Arkansas	440,072	12,873,822
California	55,163	247,371
Colorado	264,890	1,753,221
Connecticut	672	6,678
Delaware	11,017	250,681
Florida	38,835	337,405

State	Acres Treated	Financial Assistance ($ Obligated)
Georgia	154,950	6,221,492
Hawaii	116	3,000
Idaho	139,401	1,172,479
Illinois	260,172	5,118,194
Indiana	58,959	1,090,983
Iowa	202,217	3,813,931
Kansas	478,165	5,194,824
Kentucky	45,954	959,671
Louisiana	176,612	3,957,994
Maine	755	6,104
Maryland	3,905	72,934
Massachusetts	22	1,500
Michigan	41,376	783,426
Minnesota	437,756	11,566,604
Mississippi	234,187	5,370,559
Missouri	204,508	2,834,835
Montana	553,950	3,937,362
Nebraska	549,761	5,093,583
Nevada	1,978	39,680
New Hampshire	2,519	11,905
New Jersey	510	9,273
New Mexico	566,974	2,122,335
New York	33,696	486,601
North Carolina	19,881	428,935
North Dakota	257,432	5,554,840
Ohio	49,614	974,103
Oklahoma	355,867	4,621,027
Oregon	350,010	2,473,949
Pennsylvania	34,235	722,629
Rhode Island	4,294	53,847
South Carolina	78,151	928,184
South Dakota	881,140	11,472,022
Tennessee	44,207	799,437
Texas	501,948	2,654,764
Utah	206,710	1,172,901
Vermont	3,349	18,846
Virginia	14,132	279,453
Washington	154,685	1,960,548
West Virginia	15,289	206,362
Wisconsin	149,776	2,465,452

State	Acres Treated	Financial Assistance ($ Obligated)
Wyoming	36,860	190,626
Grand Total	8,193,849	113,041,695

[1] Source: NRCS Protracts October 2016, official end-of-year dataset.

Since the program started in 2009, more than 80.9 million acres of agricultural land have been enrolled into the program. CSP helps farmers and ranchers who are already taking action to conserve natural resources do even more to benefit the soil, water, air and other resources on their operations. CSP has grown into a major force for conservation, and it continues to strongly inspire others with the desire to go the extra mile to conserve and protect America's natural resources. With the 2016 sign up enrollment of about 8 million acres, the total acreage of lands now enrolled in CSP exceeds 126,000 square miles, an area larger than Iowa and Illinois, combined.

2016 Renewals.
The CSP contracts run for five years and include the potential for a one-time renewal. The CSP contract renewal requirements – producer agrees to meet the stewardship thresholds for at least two additional targeted resource concerns by the end of the renewed contract period or to exceed the stewardship thresholds of at least two existing targeted resource concerns met in the original contract – require a higher level of conservation above and beyond what was implemented in the initial contract.

The participant must adopt and continue to integrate conservation activities across the entire agricultural operation by adopting additional conservation activities. This requirement means the participant will apply progressive implementation of conservation activities to the agricultural operation. A new application is evaluated for the renewal contract, however there is no break in conservation activities between the initial and renewed contract. The conservation activities from the initial contract become the existing system management system on the renewal contract. The same or equivalent conservation activities and planned system must continue to be demonstrated as documented during the renewal contract term.

The program's second renewal offers from 2011 contracts were obligated in 2016, 47 percent of the initial contracts were renewed for another five year term extending and exceeding the conservation benefits gained from the initial contracts.

2016-1-Renewal, from initial 2011 Contracts

State	Acres Treated	Financial Assistance ($ Obligated)
Alabama	91,930	$803,452
Alaska	3,248	40,000
Arizona	195,227	544,974
Arkansas	239,818	4,205,781
California	38,572	242,632
Colorado	660,903	4,290,595
Connecticut	791	12,441
Delaware	9,620	141,225
Florida	28,389	333,354
Georgia	210,429	5,282,505
Idaho	35,108	301,708
Illinois	150,917	2,315,068
Indiana	27,934	440,145
Iowa	170,265	2,454,094

State	Acres Treated	Financial Assistance ($ Obligated)
Kansas	565,039	5,856,110
Kentucky	22,434	334,173
Louisiana	267,091	4,535,284
Maine	4,449	40,974
Maryland	3,626	89,933
Massachusetts	886	7,150
Michigan	35,052	492,604
Minnesota	378,208	5,804,248
Mississippi	200,447	4,183,223
Missouri	196,827	2,153,081
Montana	729,078	5,016,614
Nebraska	931,278	5,977,781
Nevada	377	7,490
New Jersey	1,362	27,873
New Mexico	578,119	1,795,624
New York	25,906	321,671
North Carolina	11,073	198,303
North Dakota	476,046	6,996,059
Ohio	14,771	212,449
Oklahoma	650,711	5,436,434
Oregon	270,653	2,453,638
Pennsylvania	22,486	386,647
South Carolina	60,012	533,976
South Dakota	766,296	7,108,120
Tennessee	14,325	297,270
Texas	312,324	1,973,673
Utah	51,905	107,169
Vermont	238	490
Virginia	40,584	696,354
Washington	283,317	3,316,357
West Virginia	18,052	139,149
Wisconsin	175,687	2,047,653
Wyoming	245,130	693,465
Grand Total	9,216,940	90,649,013

[1] Source: NRCS Protracts October 2016, official end-of-year dataset.

Development of CSP Reinvention. The Conservation Stewardship Program has emerged as an important program to encourage sound conservation stewardship activities throughout the Nation. However, feedback was received over the years from internal and external customers that the delivery mechanism was complicated and not transparent. The feedback was primarily related to application evaluations, ranking, and payments as all three were combined in the Conservation Measurement Tool (CMT) making it difficult to understand the results. NRCS saw opportunities to strengthen the program and to reinvent CSP delivery. This process began in 2015 with assistance from a multidisciplinary team of employees from across the country and continued throughout 2016.

In 2017, NRCS began using new tools to evaluate applications, including a newly developed Conservation Activity Evaluation Tool (CAET). The CAET assists customers and planners with the evaluation of the land use management systems that are part of the agricultural operation to determine eligibility for the program and to document customer decisions to adopt conservation activities. Eligible applications are now ranked using an Application Evaluation and Ranking Tool (AERT) that is used in other programs and payments are generated utilizing a payment schedule during the contract development stage.

The new CSP process will improve the delivery of the program in many ways, including:

- Increased transparency throughout all steps of the program.
- Alignment of CSP planning and contracting process with those used for other Financial Assistance (FA) programs.
- Facilitating greater producer awareness of the impacts of current and future activities on natural resources.
- Providing lasting conservation benefits by identifying applications which will provide the greatest conservation benefits.
- Facilitating benefit and performance tracking.

Get Conservation on the Ground.

South Dakota. In western South Dakota, a family has been ranching cattle for 19 years and recently discovered there's a better way to operate. They read about the CSP in the newspaper and worked with their local conservation district office in Ziebach County. "They're the ones who filled us in and kept us informed," the rancher said.

They admit that farming and ranching isn't for everyone, emphasizing it's a tough business to be in at times, especially financially. CSP has provided the family with a little more financial freedom. Since they don't have a lot of cropland, they enrolled in enhancements geared mainly toward their cattle herd and according to them, it's paying off. "We pay a little bit more attention to how we feed our cattle, one of the programs analyzes how your cattle use the feed they are on and protein in the feed," the rancher said. "Now we know how to rotate them in different pastures that helps us utilize our natural forage here, it's all been beneficial, I can't say anything has been bad, I just can't."

They say the CSP program has not only been a financially good decision, but it's also made them better cattle producers. In their words, "It benefits your whole operation, your land, your species of animals on your land, your cattle and if you're into farming your crops, it's all designed to benefit you as a producer, I would recommend it to anybody. It's a win, win, right across the board, you have to do other practices that take time, but for the benefits you get back, it's well worth it."

Iowa. With help from USDA's Natural Resource Conservation Service, an Iraq War veteran improved technology and other efficiencies in his new farming operation, allowing him to prepare for long-term success.

Upon his return to the United States, the veteran, who was deployed to Iraq where he served in Operation Iraqi Freedom, continued his education and also began taking "hired hand" positions on farms. "That's when I started to think more seriously about developing a business plan to someday take over a farm," he said. "Unless you're born into it, though, it is really difficult to capture farming ground." He learned that his neighbor could soon be retiring from farming. They formed an agreement to crop share for three to five years, eventually handing over all day-to-day farming activities to the veteran. However, that timeframe was quickly moved up. The initial plan was to take over a couple hundred acres, but he quickly took over as the primary operator and was eligible to apply for local, State and Federal conservation programs.

When beginning veteran farmers apply and receive eligibility for CSP, they are given priority status to receive funding. Based on the conservation practices implemented on the land throughout the years, the veteran became CSP eligible on all acres in the operation. He is implementing an enhancement bundle he chose through CSP, which includes widening stream buffers, and improving nutrient and pesticide application techniques. "A lot of it is updating the technology and making the operation more efficient," he said. "Updated GPS will ensure I don't over-apply nutrients and pesticides. CSP is allowing me to take the operation to another level." He says he's appreciative of USDA support for veterans trying to get a start in agriculture.

Environmental Quality Incentives Program

Current Activities.
Background. Section 2201 of the 2014 Farm Bill (P.L. 113–79) re-authorized and revised the Environmental Quality Incentives Program (EQIP) (16 U.S.C. 3839aa). EQIP was first authorized by the Food Security Act of 1985, as amended by the Federal Agriculture Improvement and Reform Act of 1996 (P. L. 104-127), the Farm Security and Rural Investment Act of 2002 (P.L. 107-171) and the Food, Conservation, and Energy Act of 2008 (the 2008 Act, P.L. 110-246). The Commodity Credit Corporation (CCC) funds EQIP.

Program Objectives. America faces serious environmental challenges that financial and technical assistance delivered through EQIP can help address. 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 growing 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 farmers and ranchers that face the most serious threats to soil, water, plants, and air, to help them 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 60 percent of the financial assistance funds for EQIP be targeted to livestock-related operations, including both confined livestock operations and grazed lands. The 2014 Farm Bill added developing and improving wildlife habitat as a national priority, requiring at least five percent of the financial assistance funds be targeted to wildlife practices. 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.

Eligibility. 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.

Applicants 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 ranking cut-off dates that vary by State are established to allow ranking and approval.

Technical Assistance. 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.

Financial Assistance. 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 2014 through 2018, 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.

Partnerships. 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 efforts 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, such as EQIP.

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. To support 39 Joint Chiefs' LRP priority projects, more than 25 States are involved. The priority projects chosen had existing local partnerships and works in progress. New enrollment in 2016 realized more than $18.7 million in financial assistance; representing nearly 78,000 acres, in 871 contracts.

2016 Activities.
In 2016, EQIP financial assistance obligations were over $1 billion in 36,395 active or completed contracts covering an estimated 10.6 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 the Mississippi River Basin, organic production, and high tunnel systems.

Air Quality – In 2016, approximately $24.4 million in financial assistance was obligated to nine 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 2016, 685 contracts were in the active or completed contract status, representing more than 79,600 acres. During 2016, $5.3 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 2016, $5.4 million was obligated in EQIP funds to 375 active and completed contracts, treating approximately 26,700 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.

Drought Assistance – In 2016, over $18 million was obligated in 392 EQIP active and completed contracts with producers in five States that were severely affected by drought. These producers were able to use EQIP financial assistance for practices on their farm or ranch operation such as watering facilities, prescribed grazing, pasture and hayland planting, and cover crops. NRCS is developing strategies to assist producers to reduce the potential effects of future droughts by implementing conservation practices that will maintain and improve soil health.

EQIP is highly popular among producers, and demand for the program is high across the country. Nationally, slightly over 26 percent of qualifying projects (valid applications) were funded in 2016, as the table below shows.

2016 Total EQIP Program Demands[1]

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	4,693	1,375	1,969	29.3	$12,515	$24,642,426
Alaska	492	160	231	32.5	40,990	9,468,612
Arizona	357	141	145	39.5	80,216	11,631,334
Arkansas	8,141	1,487	4,713	18.3	28,922	136,309,990
California	3,779	1,913	1,067	50.6	46,171	49,263,936
Caribbean Region	835	289	480	34.6	18,065	8,671,073
Colorado	2,114	789	540	37.3	41,680	22,507,301
Connecticut	366	146	72	39.9	31,164	2,243,781
Delaware	536	189	271	35.3	44,960	12,184,241
Florida	2,240	531	660	23.7	27,882	18,402,031
Georgia	6,969	1,403	3,073	20.1	18,658	57,336,577
Hawaii	267	114	82	42.7	62,669	5,138,874
Idaho	1,126	455	285	40.4	48,149	13,722,606
Illinois	2,881	332	2,296	11.5	38,631	88,695,811

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)
Indiana	2,060	864	882	41.9	27,557	24,305,634
Iowa	3,317	759	1,520	22.9	23,280	35,384,930
Kansas	2,430	897	744	36.9	26,013	19,353,321
Kentucky	3,371	703	1,788	20.9	22,343	39,948,952
Louisiana	3,233	747	1,996	23.1	28,224	56,335,557
Maine	1,436	406	781	28.3	27,540	21,508,461
Maryland	871	298	337	34.2	38,959	13,129,146
Massachusetts	357	204	117	57.1	21,952	2,568,411
Michigan	1,814	832	762	45.9	21,580	16,443,775
Minnesota	2,242	1,250	415	55.8	16,976	7,045,168
Mississippi	13,535	2,712	5,841	20.0	14,684	85,770,103
Missouri	4,436	1,114	1,406	25.1	23,914	33,622,761
Montana	1,662	306	876	18.4	66,665	58,398,534
Nebraska	4,982	862	2,802	17.3	26,286	73,652,914
Nevada	258	108	60	41.9	74,024	4,441,419
New Hampshire	484	197	246	40.7	22,013	5,415,149
New Jersey	550	237	126	43.1	22,171	2,793,592
New Mexico	1,436	433	613	30.2	64,862	39,760,474
New York	1,357	366	569	27.0	38,133	21,697,436
North Carolina	2,810	719	1,272	25.6	27,843	35,416,372
North Dakota	2,350	598	989	25.4	29,736	29,409,185
Ohio	4,015	922	1,562	23.0	27,319	42,672,209
Oklahoma	7,873	975	3,732	12.4	22,442	83,752,505
Oregon	1,251	644	405	51.5	31,752	12,859,452
Pacific Island Area	75	15	45	20.0	43,189	1,943,514
Pennsylvania	3,830	485	2,574	12.7	45,951	118,277,937
Rhode Island	300	144	47	48.0	20,395	958,542
South Carolina	2,915	787	1,484	27.0	24,375	36,172,851
South Dakota	1,265	390	567	30.8	37,890	21,483,526
Tennessee	3,090	1,152	1,143	37.3	23,758	27,154,826
Texas	8,046	3,224	3,734	40.1	25,976	96,992,535
Utah	1,376	476	561	34.6	43,861	24,605,894
Vermont	1,120	399	450	35.6	25,989	11,695,095
Virginia	2,151	499	956	23.2	43,444	41,532,817
Washington	1,836	452	709	24.6	39,973	28,341,072
West Virginia	2,628	454	1,695	17.3	21,030	35,646,677

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)
Wisconsin	4,332	1,268	1,688	29.3	18,233	30,777,284
Wyoming	736	173	431	23.5	62,041	26,739,479
Grand Total	136,626	36,395	61,809	26.6	28,253	1,728,226,102

[1]Source: Protracts as of October 10, 2016.
Unfunded applications include pre-approved, deferred, eligible, and pending. Estimated Value of Unfunded Applications ($) determined from number of unfunded valid applications multiplied by average contract amount.

Significant EQIP Accomplishments.
Conservation Innovation Grants (CIG). In 2016, NRCS offered a funding opportunity through CIG to support the demonstration of projects addressing natural resources concerns. The Secretary of Agriculture awarded $26.6 million in CIG to 45 organizations that will help develop and demonstrate cutting-edge ideas to accelerate innovation in private lands conservation. Examples of funded projects include:

- Alliance for the Chesapeake Bay, Inc. received $462,794 to establish several conservation investment mechanisms to help overcome barriers associated with participating in three existing mitigation banking programs in Maryland and Virginia.
- National Corn Growers Association received $1 million to develop a greenhouse gas insetting framework that can serve as a model for corporations and other entities to encourage conservation adoption and achieve greenhouse gas reductions and water quality benefits.
- Tennessee State University received $792,504. This 1890 Historically Black Land-Grant university will enhance the current Southern Nursery Industry "Guide for Best Management Practices," while recommending modifications to the USDA NRCS Conservation Practice Standards that specifically address natural resource and water-quality concerns relating to the nursery industry in Tennessee, Kentucky, North Carolina, South Carolina, Virginia and Georgia.
- Resource Conservation District of Monterey County received $1.3 million to establish a cooperative model for pooling resources to comply with water quality regulations, making conservation practices more widely applicable in high-value, irrigated agricultural lands, leading to a streamlined approach to compliance with water quality regulation in California and the development of a decision support tool to aid new cooperatives in identifying and implementing coordinated water quality improvement strategies.
- The City of Chicago received $1 million to create an urban farming system or cohort-based model to assist farmers with a high potential to succeed in establishing businesses and prepare and place more land into land trusts or cooperative tenure arrangements. The project will expand upon and begin to measure impacts of farm site developments that balance environmental remediation, stormwater management and water conservation.
- The University of Hawaii received $979,927 to develop an approach to optimize irrigation scheduling in intensive vegetable production systems across diverse climatic zones in the Pacific Islands (Hawaii, Guam and American Samoa).

Get Conservation on the Ground.
Minnesota: When these producers bought a farm 15 years ago in Rice County, Minnesota, it didn't take them very long to figure out that it's difficult to grow vegetables on heavy clay soil. After some discussions with faculty at the University of Minnesota, Technical College in Rochester, Minnesota, they decided it was time to pursue other options for their farm. After getting assistance from the college in Rochester, they became familiar with topics such as small agricultural operations and dairy profitability.

This led to the development of a business plan for their farming operation and changing the farming focus from vegetables to raising goats for milk and meat. Through the planning process, they became aware of the NRCS and converted 15 acres of former corn and soybean ground to pasture use. An NRCS soil conservation technician was helpful in getting the water pipeline planned and installed on their farm acreage and they also learned a great deal about the seeding and management of pastures through their NRCS State Grazing Specialist. According to the producers, "He really cared about working with us to meet our resource conservation needs and concerns."

Ohio: The Wild's 60-acre demonstration project, created through a Conservation Innovation Grant from USDA's Natural Resources Conservation Service, shows how a combination of warm-and cool-season grasses can be successfully incorporated into a productive, sustainable rotational grazing system.
NRCS awards these competitive grants for projects that develop and demonstrate innovative technologies and approaches to natural resources issues. The Wilds received funding from NRCS in 2011 to show how an innovative combination of grasses can provide drought tolerant forage for livestock and habitat for wildlife including grassland birds, pollinators and small mammals, and improve soil and produce biomass for hay or biofuels. Covering 14 square miles, The Wilds is one of the world's largest wildlife conservation centers and is a popular tourist attraction and education center in southeastern Ohio, with more than 100,000 visitors last year.
Now in its third year, the CIG project is showing great progress. All 19 species of grasses are thriving, including big blue stem grass, Indian grass, switchgrass and eastern gamma grass. These grasses were selected for their adaptability to marginal soils, their suitability for livestock grazing, and their ability to rebuild soils through extensive root systems. Because of the CIG grant, the land is continually improving and provides a model for how the special selection of plants can help prairie ecosystems thrive.

Farm and Ranch Lands Protection Program

Current Activities.
Background. 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 2301 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 continues to provide prior enrollees technical and financial assistance. The purposes and functions of FRPP were consolidated into the Agricultural Land Easements component of the Agricultural Conservation Easement Program (ACEP). Lands enrolled under FRPP are considered enrolled in ACEP and will continue to receive financial and technical assistance.

Program Objectives. FRPP protected the Nation's most valuable lands for the production of food, feed and fiber by providing matching funds to keep productive farm and ranch lands in agricultural use. According to National Resources Inventory (NRI) data, over 7.5 million acres of farmland, an area equivalent to the States of Maryland and Delaware, were converted and lost to non-agricultural uses between 2007 and 2012. The same study indicates that more than one-third of all land that has ever been developed in the lower 48 States during our Nation's history was developed in the last quarter century. Such conversion of key agricultural lands decreases the availability of local food markets and increases the travel distance and cost of delivery of food to consumer markets. Having enrolled in FRPP, farm and ranch land threatened by development pressures remain productive and sustainable.

Program Operations. The agency worked with State and local governments, soil and water conservation districts, Indian Tribes, and eligible non-governmental organizations to assist with the purchase of conservation easements to protect the agricultural uses of eligible land. Potential partners provided:

- Commitment to long-term conservation of agricultural lands;
- Staff dedicated to monitoring and easement stewardship;
- Capability to acquire, manage, and enforce easement rights or other interests in land; and
- Capability to provide, in cash, a minimum of 25 percent of the purchase price (appraised fair market value minus the landowner donation) for the conservation easement.

Eligibility. Individual landowners applied to, and were accepted, by an eligible State, Indian Tribe, or local governments or non-governmental programs to participate in FRPP. As a Title XII program, these individual landowners were required to meet payment eligibility requirements for adjusted gross income, wetland conservation compliance, and highly erodible land conservation compliance. The land enrolled in FRPP met one of three criteria to qualify for consideration: 1) had at least 50 percent prime, unique, or important farmland soils; 2) had historic or archeological resources; or 3) furthered a State or local government policy that was consistent with the purposes of the FRPP.

Application and Selection Process. The agency used a continuous enrollment process under which cooperating entities proposed and submitted parcels for funding. Upon receipt of the applications for parcels from an eligible cooperating entity, each State office evaluated the entities, land, and landowners for eligibility, and ranked and prioritized parcels based on established criteria. The agency awarded funds to the eligible cooperating entities that submitted the highest ranked parcels for which the State office had FRPP funding. The agency priorities included farms that faced the greatest pressure to convert to non-agricultural uses, were accessible to appropriate markets, contained prime soils or other farmland of significance, had adequate infrastructure and agricultural support services, and had surrounding parcels of land that could support long-term agricultural production.

The agency and the cooperating entities entered into a cooperative agreement to obligate FRPP funds. The cooperating entities acquired the conservation easements, and then held, monitored, managed, and enforced the acquired easements. The Federal share for any easement acquisition could not exceed 50 percent of the appraised fair market value of the conservation easement. Each conservation easement deed included a provision granting the United States the right of enforcement to protect the Federal investment. To ensure responsible land stewardship, the landowner is required to implement a conservation plan protecting highly erodible land on each parcel acquired in part with Federal funds. NRCS provided technical assistance to develop conservation easements deeds with enforceable provisions and conservation plans for the highly erodible cropland accepted into FRPP.

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. As identified above, lands enrolled through FRPP are considered enrolled in ACEP.

Technical Assistance. In addition to helping landowners and entities develop conservation easement deeds and conservation plans, the agency may use FRPP prior year funds to provide 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 on lands enrolled into FRPP prior to February 7, 2014.

2016 Activities.
No new enrollments of FRPP occurred in 2016.

Cumulative Program Activity Through 2016	
Closed Easements (Permanent)	Cumulative
Number of Easements	4,231
Number of Acres	1,064,151
Enrolled Easements (Permanent)	Cumulative
Number of Easements	4,329
Number of Acres	1,089,291

2009 to 2014 FRPP Enrollment Summary	
	Easements
No. of Agreements	426
No. of Parcels	1,641
No. of Acres Enrolled	548,839
Financial Assistance Funding	$666,019,600

Get Conservation on the Ground.
Connecticut. Through the financial assistance provided by FRPP, the Connecticut Department of Agriculture and NRCS worked together to protect one of the Town of Cromwell's last working farms. It is there that the owners produce and sell 80 varieties of certified organic fruits and vegetables. They also sell their own blue ribbon pickles, eggs, and raw honey from their seven bee hives. The farm is located on 47 acres; 77 percent of the land is prime, important, or locally important farmland soils. The property contains almost 23 acres of forestland. The farm has been in the family since 1957 when the current owner's parents ran it as a dairy. It has since been turned

into a successful certified organic farm, selling products directly on the farm, at farmer's markets, to local restaurants and a large supermarket. Funds from the purchase of development rights have been earmarked for construction of a permanent farm stand.

Grassland Reserve Program

Current Activities.
Background. 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 Conservation Easement Program (ACEP) Agricultural Land Easement Component. Lands previously enrolled in GRP are now considered enrolled in ACEP and the repeal of GRP does not affect the validity or terms of any contract, agreement, or easement entered into prior to the enactment of the 2014 Farm Bill.

Program Objectives. GRP helped landowners and operators restore and protect rangeland, pastureland, and other grassland while maintaining the land's suitability for grazing. Participants voluntarily limited future development and cropping uses of the land while retaining the right to conduct common grazing practices and operations related to the production of forage and seeding. GRP, by limiting development and providing habitat needed by threatened and endangered species, preserved agricultural heritage and green space, provided for recreational activities, and ensured the Nation's ability to produce its own food.

Program Operations. NRCS and the FSA jointly administered GRP. NRCS had lead responsibility for conservation planning, technical assistance to owners and operators, and easement administration. FSA had lead responsibility for rental contract administration and financial activities. National ranking criteria guided the development of State ranking criteria to ensure GRP funds were focused on projects that supported grazing operations, protected grassland from conversion to other uses, enhanced plant and animal biodiversity, leveraged non-Federal funds, and addressed that State's program priorities. Priority was given to expiring CRP grasslands. Applications, ranking criteria, and program forms were publicly available through agency Web sites.

GRP participants are required to follow a grazing management plan developed with the agency to ensure that the grassland is sustained and that livestock grazing on the enrolled land are healthy and well-managed. All enrollment options permit grazing on the land in a manner that maintains the viability of natural grasses, shrubs, and forbs. Haying, mowing, or harvesting seed is permitted, except during the nesting seasons for local bird species that are in significant decline or are protected under Federal or State law.

Eligibility. Eligible land was limited to private or tribal land that is: 1) grassland that contained forbs or shrubs (including rangeland and pastureland) for which grazing was the predominant use; or 2) located in an area that had been historically dominated by grassland, forbs, or shrubs. The land also had to have potential to provide habitat for animal or plant populations of significant ecological value if it was either retained in its current use or restored to a natural condition.

Financial Assistance. The program operated under a continuous signup process with the following enrollment options:

- Rental contract. Participants chose a 10-year, 15-year, or 20-year rental contract, during which USDA provides annual payments in an amount not more than 75 percent of the grazing value established by FSA;
- Permanent easement. Easement duration is in perpetuity or to the maximum extent allowed by State law. Participants received an easement payment at the time of easement purchase. Easement payment amounts could not exceed the current market value of the land less the grazing value of the land encumbered by the easement;
- Restoration agreement. If NRCS and the landowner determined that restoration was necessary to return the vegetation to a desired condition, cost-share assistance was available through a restoration agreement that paid up to 50 percent of the restoration cost, up to $50,000 per person or legal entity per year. Participants could pay part of their share through in-kind contributions. If funds were limited, USDA gave higher priority to applications with high-quality grassland that did not need restoration; or

- Cooperative agreement. The Food, Conservation, and Energy Act of 2008 amended GRP to authorize USDA to enter into cooperative agreements with a unit of State or local government, Indian Tribe, or non-governmental organization that demonstrated it had the relevant mission, experience, and resources to administer a GRP easement. Under a cooperative agreement, USDA could pay up to 50 percent of the purchase price of the easement. The cooperating entity had the responsibility to enforce the easement, but the United States maintained a contingent right of enforcement.

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 date of enactment of the 2014 Farm Bill. The 2014 Farm Bill also authorized the use of ACEP funds to carry out these GRP activities.

Technical Assistance. GRP technical assistance includes 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 technical assistance to the prior GRP enrollment.

2016 Activities.
The 2014 Farm Bill repealed the GRP program 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. Enrollments include current active and completed agreements, enrollments do not include cancelled or expired agreements.

2009 to 2013 GRP Enrollment Summary	
	Active Easements
No. of Agreements	398
No. of Acres Enrolled	267,209
Financial Assistance Funding	$320,641,800

GRP Cumulative Program Activity						
GRP Accomplishments	2003 to 2008	2009	2010	2011	2012	2013
Number of Enrolled Easements	251	52	132	113	62	39
Enrolled Easement Acres	117,339	27,744	69,559	77,864	39,808	52,234

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

Get Conservation on the Ground.
Idaho: Two GRP easements in the Rock Creek watershed in Idaho provide protection for approximately 10,000 acres of Sage Grouse habitat. The GRP easements have allowed for the complete protection of Rock Creek Ranch which included important Sage Grouse leks as part of the Sage Grouse Initiative funding provided in GRP. The protected ranch is currently owned and operated by a land trust, a non-profit, and a university as a collaborative model area for sage grouse, wildlife, and range health. The GRP easement not only provided permanent protection but allowed the original landowners the capital to sell the land to the collaborative group who are providing a much needed working ranch education and research area. The ranch will provide research on grazing and management, not only for working ranching operations but also provide examples of how suitable wildlife habitat can be integrated into ranching. The benefits of the collaboration and knowledge learned on the GRP easement will provide information and effects beyond the easement area.

Healthy Forests Reserve Program

Current Activities.
Background. 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 (CCC). 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 authorized to accomplish the purposes of the RCPP, replacing mandatory funding with authorization of appropriations, and authorizing the use of conservation operations funds for HFRP stewardship responsibilities.

Program Objectives. 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.

Program Operations. 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; or
- 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.

Eligibility and Restoration Plans. Only privately held land, including acreage owned by Indian Tribes, is eligible for enrollment in HFRP. 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 land owners develop and comply with the terms of their HFRP restoration plans.

Landowners may receive "safe harbor" assurances 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.

Financial Assistance. The agency provides payments consistent with the enrollment option in either a single payment or in no more than ten 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.

Technical Assistance. 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 works with landowners to develop 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. 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.

2016 Activities.
Cumulatively, 93 agreements have been enrolled, encompassing approximately 673,592 acres, as the table below shows.

Cumulative Program Activity (Through 2016)	
Closed Easements (Permanent and 30-Year)	Cumulative
Number of Easements	77
Number of Acres	19,083
Active Restoration Cost-Share Agreements	Cumulative
Number of Agreements	16
Number of Acres	654,509
Summary	Cumulative Summary
Total Agreements Enrolled	93
Total Acres	673,592

Get Conservation on the Ground.
Oregon. In Oregon, the HFRP focuses on the recovery of the threatened northern spotted owl. According to one ranch owner who participates in the HFRP, "There are some specific guidelines to help establish spotted owl habitat, but we can still make a living off the land, which is important. We can't afford not to, but we are able to with this program."

"We realize we are simply stewards of the land. It is ours for this period of time; we want to take as good of care of it as we can to pass it on in better condition than when we found it. I think the HFRP program is a good way for us to do that," said the ranch owner who has approximately 83 acres of forest land enrolled in the program as a permanent easement with the NRCS.

Every property is different and management practices vary depending on a number of factors to include the type of plant species, age of forest, geographic location, slope and soil type. The plan for the property per the County District Conservationist, is to cut down some smaller trees to give more room for the bigger ones to thrive and to produce snags and downed wood by topping select trees and girdling some others at the base. This will provide good roosting and nesting habitat for the owls.

Regional Conservation Partnership Program

Current Activities.
Background. The Regional Conservation Partnership Program (RCPP) is authorized by Subtitle I of Title XII of the Food Security Act of 1985, as amended by Section 2401 of the 2014 Farm Bill (P.L. 113-79). The Secretary of Agriculture has delegated the authority to administer RCPP to the Chief of NRCS, who is Vice President of the Commodity Credit Corporation (CCC). RCPP is delivered through the authorities and rules of four programs, collectively known as the covered programs, and certain authorities under the Watershed Protection and Flood Prevention Act (P.L. 83-566). The covered programs for RCPP are the EQIP, CSP, HFRP, and ACEP.

Program Objectives. The purpose of RCPP is to further the conservation, restoration, and sustainable use of soil, water, wildlife and related natural resources on eligible land on a regional or watershed scale. 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.

Program Operations. RCPP provides funding in the form of financial assistance and technical assistance to participating partners, landowners, and producers. RCPP funding is allocated across three competitive funding pools. The funding pools split the total available RCPP funds as required by statute: 40 percent are allocated to the National pool; 35 percent are allocated to the Critical Conservation Area (CCA) pool; and 25 percent are allocated to the State pool. The CCAs are determined by the Secretary of Agriculture.

NRCS funds approved partner proposals by entering into partnership agreements with an eligible partner to implement a project that will assist producers with installing and maintaining eligible activities on eligible land. The partners contribute toward a significant portion of meeting the overall costs of the scope of the project. The partner contributions are used to leverage the benefits to the natural resources being protected and increase the protections provided by RCPP funds. The partnership agreement details the arrangement between the agency and the partner including the programs being offered and any alternative funding arrangements.

Eligible Partners. 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 nongovernmental organizations; and institutions of higher education.

Eligible Participants. Under RCPP, eligible producers and landowners of agricultural land and non-industrial private forestland may enter into conservation program contracts or easement agreements under the framework of a partner cooperative agreement, or independently of a partner in a selected project area.

Project Selection. The RCPP project selection process is outlined through announcements for program funding posted on grants.gov and the agency's website. Selection for RCPP proposals occurs in a two-phase application process. The first phase consists of submission of a pre-proposal identifying and defining the activities, programs, funding pool, contributing funds, resource concerns, project area, and the entities providing funds and support for the project. Pre-proposals are evaluated based on criteria detailed in the announcement for program funding. Selected pre-proposals are invited to submit a full proposal containing a detailed account of the resource concerns, program funding needed, project goals, project partners, partner contributions, and any terms necessary to implement the project. Upon selection of funded full proposal projects, the partner and the agency enter into partnership agreements that outline the timeline, scope and deliverables necessary for successful completion of the project.

Financial Assistance. Funded projects are provided financial assistance based on the terms agreed upon between the agency and the participating partners. In particular, RCPP operates by providing direct funds to landowners and producers under the covered program authorities. The delivery of RCPP financial assistance is individually tailored to each project 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. RCPP authorizes up to 20 alternative funding arrangements with multi-state water agencies or authorities.

Technical Assistance. Technical assistance is either provided directly to producers and landowners or through the partners for the implementation of practices and activities under the covered programs.

2016 Activities.
NRCS began the 2016 enrollment activities in May 2015 by issuing the 2016 RCPP Announcement for Program Funding (APF) for $235 million, which increased the number of training/outreach efforts to the public and partners about RCPP and improved program processes. In the 2016 APF, the maximum funding request amount was reduced from $20 million to $10 million to facilitate participation by a greater number of partners. RCPP APF established a deadline of July 8, 2015, for submittal of pre-proposals for State, CCA, and National funding pools. The agency received 265 pre-proposals that requested a total of $857 million program funds and provided a partner contribution of $1 billion in support of those funds; thus, the pre-proposals requested funding were four times greater than the amount available. Pre-proposals were received from all 50 States through the three funding pools. A total of 165 applicants were invited to submit a full proposal due on November 10, 2015. In the pre-proposal stage, the agency received 91 CCA pre-proposals with the Prairie Grasslands Region receiving the most pre-

proposals at 20, followed by the Mississippi River Basin receiving 17 pre-proposals. NRCS funded 84 full proposals which were distributed by funding pool as follows: 18 National, 16 CCAs and 50 State.

Additionally, in March 2016, the 2017 RCPP Announcement for Program Funding was issued for $263 million and continued to improve program processes. RCPP APF established a deadline of May 10, 2016 for pre-proposal submittals for State, National and Critical Conservation Area (CCA) funding pools. The agency received 147 pre-proposals that requested $400 million program funds and provided a partner match of $800 million. A total of 127 applicants were invited to submit full proposals by the September 19, 2016 deadline. NRCS received 111 full proposals. At the present time, the 2017 full proposals are going through an agency technical and leadership review. NRCS announcement for selection of 2017 RCPP full proposals for funding began in December 2016.

Get Conservation on the Ground.
Alabama and Florida. While it does take time, seeing thriving forests of longleaf pine trees return to Alabama's Gulf Coast is well-worth the wait. The Natural Resources Conservation Service in Alabama is working with groups to revive this strong and resilient wood, while also providing environmental benefits for the Gulf Coastal Plain's wildlife and water. Through the RCPP, NRCS is collaborating with The Conservation Fund, Resource Management Service, and many others on the Coastal Headwaters Forest, on a working forest project in Alabama and Florida.

Ohio, Indiana, and Michigan: The Tri-State Western Lake Erie Basin Phosphorous Reduction Initiative is a multi-state project that brings together more than 40 partnering organizations from Michigan, Ohio and Indiana to reduce the runoff of phosphorous into waterways in the western basin of Lake Erie. A diverse team of partners will use a targeted approach to identify high-priority sub-watersheds for phosphorus reduction and increase farmer access to public and private technical assistance - including innovative demonstrations of practices that NRCS does not yet cover in these states. Identified actions are coordinated with the Ohio Lake Erie Phosphorus Task Force Report and will move Lake Erie toward goals developed in the Great Lakes Water Quality Agreement Annex 4 Nutrient Strategies. The partners will gage success and monitor results using project-wide water quality monitoring and watershed modeling conducted by national experts from multiple scientific entities and institutions.

Voluntary Public Access and Habitat Incentive Program

Current Activities.
Background. 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 Agricultural Act of 2014 (P.L. 113-79) with an authorized funding level of $40 million for the period covering 2014 through 2018. The Commodity Credit Corporation (CCC) funds VPA-HIP.

Program Objectives. VPA-HIP is a competitive grants program that provides opportunities to States and Indian tribes 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 is now being administered by NRCS.

Program Operations. In 2014 and 2015, NRCS published announcements for program funds (APFs) making about $20 million available under each APF. In 2014, 28 State wildlife agencies and 2 Tribal governments submitted proposals and funding requests totaling $62 million. In 2015, the agency received proposals from 25 State wildlife agencies totaling $33 million. NRCS established interagency proposal review teams that evaluated the proposals based upon the criteria that were published online at www.grants.gov and in the APFs, and recommended proposals for funding.

2014 Selected Proposals and Overall Funding Sources

State/ Tribe location	State agency/Tribal government	VPA-HIP funding	Other funds			Total funds for project
			State/Tribe funds	Partner funds	Total other funds	
AZ	AZ Game and Fish Department	$2,194,400	-	-	-	$2,194,400
GA	GA Dept. of Natural Resources	993,664	-	-	-	993,664
IA	IA Dept. of Natural Resources	3,000,000	-	-	-	3,000,000
IL	IL Dept. of Natural Resources	1,744,000	$1,150,000	$250,000	$1,400,000	3,144,000
MI	MI Dept. of Natural Resources	1,229,250	420,000	-	420,000	1,649,250
MT	MT Fish, Wildlife, and Parks	491,206	450,000	-	450,000	941,206
PA	PA Game Commission	6,000,000	-	-	-	6,000,000
SD	SD Dept. of Game, Fish, and Parks	1,505,500	-	-	-	1,505,500
TX	TX Parks and Wildlife	2,245,200	1,237,032	61,227	1,298,259	3,543,459
WA	Confederated Tribes and Bands of the Yakama Nation	374,584	35,711	-	35,711	410,295
	Overall totals ($)	19,777,804	3,292,743	311,227	3,603,970	23,381,774

2015 Selected Proposals and Overall Funding Sources

State	State agency	VPA-HIP funding	Other funds			Total funds for project
			State funds	Partner funds	Total other funds	
CO	CO Dept. of Natural Resources	$1,519,110	$1,602,500	$200,000	$1,802,500	$3,321,610
CT	CT Dept. of Energy and the Environment	612,512	356,533	-	356,533	969,045
IL	IL Dept. of Natural Resources	540,000	115,000	-	115,000	655,000
KS	KS Dept. of Wildlife, Parks and Tourism	2,700,000	-	-	-	2,700,000
MA	MA Dept. of Conservation and Recreation	836,496	45,000	-	45,000	881,496
MI	MI Dept. of Natural Resources	951,390	-	-	-	951,390
MN	MN Dept. of Natural Resources	1,669,424	886,250	-	886,250	2,555,674
MO	MO Dept. of Conservation	1,098,054	1,076,588	21,466	1,098,054	2,196,108
MT	MT Fish, Wildlife and Parks	706,787	-	-	-	706,787
NE	NE Game and Parks Commission	1,330,971	1,052,529	112,500	1,165,029	2,496,000
OK	OK Dept. of Wildlife Conservation	2,264,770	-	-	-	2,264,770
OR	OR Dept. of Fish and Wildlife	1,560,122	-	-	-	1,560,122

State	State agency	VPA-HIP funding	Other funds			Total funds for project
			State funds	Partner funds	Total other funds	
WA	WA Dept. of Fish and Wildlife	1,393,459	1,582,952	-	1,582,952	2,976,411
WI	WI Dept. of Natural Resources	1,301,893	-	-	-	1,301,893
WY	WY Game and Fish Commission	1,198,122	-	-	-	1,198,122
	Overall totals ($)	19,683,110	6,717,352	333,966	7,051,318	26,734,428

Eligibility. Only State wildlife agencies 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 wildlife agency 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.

Financial Assistance. The VPA-HIP proposal criteria did not require a financial or in-kind match for Federal funding from the awardees; however, applicants that identified strong financial and in-kind support from the State wildlife agency or Tribal government and their partners were generally scored higher by the proposal review teams. The VPA-HIP awardees use the Federal funds and funds from their partners to lease land from participating landowners for public use and to enhance wildlife habitat.

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

2016 Activities.
In 2016, NRCS completed all formal grant agreements with all of the VPA-HIP awardees. The awardees worked with many partners in accomplishing the deliverables identified in their grant agreements including the following: NRCS, USDA Farm Service Agency, U.S. Fish and Wildlife Service, Association of Fish and Wildlife Agencies, Ducks Unlimited, Quail Forever, Pheasants Forever, National Wild Turkey Federation, American Bird Conservancy, International Federation of Fly-Fishers, and State Departments of Agriculture.

Accomplishments under the VPA-HIP are generally not immediate due to the time involved in identifying private lands and landowners with quality wildlife habitat, working with the private landowners to establish specific agreements, implementing conservation practices to improve wildlife habitat, and monitoring the successes of making more private lands available to the public. The total private land acreage that the 2014 VPA-HIP awardees proposed to make available for public access recreational activities by the end of their 3-year programs is 2.5 million acres. At the end of the first year, the approximate number of acres that had been made available was 975,000 acres.

Get Conservation on the Ground.
Arizona. The Arizona Game and Fish Department is leveraging an additional $4 million in funding in addition to 2014 VPA-HIP funds and is projected to provide access to 2 million acres of land for hunting, fishing, trapping, wildlife watching, rock climbing, and other non-consumptive recreational uses by the end of the grant agreement. Habitat enhancement activities include:

- Improved habitat on over 300,000 acres using water development, grassland restoration, and other practices.
- AZ Landowner Relations Program expended $2.2 million to benefit access and habitat.
- Provided technical assistance to 99 landowners.

Montana. Montana Fish, Wildlife, and Parks (MFWP) is utilizing 2015 VPA-HIP funds to expand the Open Fields Program to provide additional hunter access to high-quality game bird habitat and has conserved 19 miles of stream access.

Wetlands Reserve Program

Current Activities.
Background. 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. The WRP program purposes have been rolled into the Wetland Reserve Easements (WRE) component of the ACEP. Lands previously enrolled in WRP are now considered enrolled in ACEP and 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.

Program Objectives. WRP was a voluntary program that provided technical and financial assistance to enable eligible landowners to protect and restore valuable wetland ecosystems, including associated habitats such as uplands, riparian areas, and forest lands. WRP addressed wetland, wildlife habitat, soil, water and related natural resource concerns on private lands and acreage owned by Indian Tribes in an environmentally beneficial and cost-effective manner. The program achieved solutions to local community issues related to farms, ranches, rural lands, and other areas by establishing easements and long-term agreements on eligible farmlands and by establishing 30-year contracts on acreage owned by Indian Tribes. This unique program offered landowners an opportunity to establish, at minimal cost, long-term conservation and wildlife habitat enhancement practices and protection.

The goal of WRP was to achieve the greatest wetlands functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This was accomplished by restoring former wetland and associated habitats on lands that were converted for agricultural use and had a high likelihood of successful restoration. Wetlands provide a variety of important environmental services that are increasingly valued by society. These include filtering nutrients, trapping sediments and associated pollutants, improving water quality, providing fish and wildlife habitat, dampening floodwater runoff peaks, recharging aquifers, buffering shorelines from storm impacts, and myriad other benefits.

To achieve successful restoration that maximized benefits to both the landowners and the public, WRP focused on: 1) enrolling marginal lands that had 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 of WRP enrollments.

Program Operations. Under WRP, at least 70 percent of the wetlands and associated habitats were restored to their original condition to the extent practicable; the remaining 30 percent of the project area could be restored or enhanced to alternative habitat conditions. For example, instead of restoring a bottomland hardwood site to all trees, a portion of the site could be restored to an emergent marsh condition if the landowner or the agency wanted to create habitat for targeted wildlife species. This flexibility allowed projects to be implemented that met landowner objectives, addressed specific species or habitat needs, and maximized wildlife and environmental benefits.

Eligibility. Prior to its repeal, WRP was available in all 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Island, and the Trust Territories of the Pacific Islands on all lands meeting any of the following eligibility criteria:

- Altered, cropped, and grazed wetlands along with upland buffer areas;
- Rangeland and wooded areas where hydrology is significantly degraded but substantially restorable;
- Croplands or grasslands subject to flooding from overflow of a closed basin, lake, or pothole;
- Riparian areas linking protected wetlands;

- Natural wetlands that contribute to the value of other eligible land;
- Eligible priority wetland acres already enrolled in the Conservation Reserve Program; and
- Wetlands restored under a Federal or State cost-share program with an easement or deed restriction with a duration of less than 30 years.

Financial Assistance. Prior to its repeal, WRP provided landowners four options to enroll acreage through 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 authorized the agency to use prior year unobligated WRP balances from 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.

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

WRP Partnership Activities. NRCS continues to emphasize partnerships with conservation organizations and agencies as a mechanism to leverage WRP funds and maximize conservation benefits. Cooperative and interagency agreements have been maintained with a focus on completing the acquisition, restoration, and monitoring of existing WRP easements. Through these agreements, Federal funds were leveraged with conservation partners to provide an average of over 25 percent matching funds. The partners included an array of conservation organizations including non-governmental organizations such as Ducks Unlimited, Trout Unlimited, California Waterfowl Association, The Nature Conservancy, Mississippi Fish and Wildlife Foundation, Mississippi River Trust, and the Audubon Society; along with numerous resource conservation and development councils, local and State wildlife agencies, the Department of the Interior's Fish and Wildlife Service, and other conservation partners. These agreements supplemented the agency's capacity to expedite easement acquisition and restoration implementation, and to ensure annual easement monitoring was conducted. These activities help guarantee the public and natural resource benefits of WRP are fully realized and maintained.

2016 Activities.
On-going technical and financial assistance is provided on WRP acreage enrolled prior to repeal of the program by the 2014 Farm Bill. At the time of enrollment, funds were obligated for the acquisition of the easement or contract. Lands enrolled through WRP are considered enrolled in ACEP.

Once enrollment has occurred, the agency precedes with acquisition activities such as obtaining title review and boundary surveys, culminating in the executing and recording of the easement, identified as easement closing. Following the easement closing, NRCS completes restoration on the easement. Enrollment through easement closing to completed restoration takes three to five years, after which annual monitoring takes place for the life of the easement. Funding needs for the activities that occur in years after the projects' original enrollment are based on the number of acres in each phase of the process in a given year and the costs related to those various activities.

The table below shows the total cumulative acres and number of enrollments in WRP and the cumulative acres and number of easements closed, which is a subset of the total acres enrolled. The cumulative number of acres enrolled in WRP throughout the life of the program is 2,635,307 acres; this total excludes cancelled, terminated or expired enrollment transactions. In 2016, NRCS closed easements on 13,710 acres on 113 easement transactions, including 51 30-year easements on 5,782 acres and 62 permanent easements on 7,927 acres. This data is part of the cumulative totals below.

WRP Cumulative Enrolled Easements, Restoration Cost-Share Agreements and Contracts with Tribes and Closed Easements		
Agreement Type	Cumulative Agreements	Cumulative Acres
Enrolled Permanent Easements	10,851	2,097,448
Enrolled 30-year Easements	2,748	432,299
Restoration Cost-Share Agreement	734	102,639
30-Year Contract with Tribes	15	2,920
Total	14,348	2,635,307
Agreement Type	Cumulative Easements	Cumulative Acres
Closed Permanent Easements	10,776	2,087,439
Closed 30-Year Easements	2,727	428,621
Total	13,503	2,516,060

Emergency Wetlands Reserve Program (EWRP) Cumulative Closed Permanent Easements		
Agreement Type	Cumulative Agreements	Cumulative Acres
Closed Easements	731	84,014

The type of wetlands restored through WRP varies from vernal pools in the west and northeast to bottomland hardwood forests in the southeast, to prairie potholes in the upper Midwest, to coastal marshes, to mountain meadows, but consists primarily of floodplain forests and emergent marsh wetlands. Restoration and protection of these varied and valuable wetland type accounts 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.

Get Conservation on the Ground.
Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Ohio, Oklahoma, Texas, and Wisconsin. The Monarch Butterfly Habitat Development Project began with a partnership between NRCS and the Xerces Society. Through this partnership, ten States in the central United States were identified as the most important to Monarch butterflies during their migration cycle. These States were divided into two sub-regions (Midwest and Southern Great Plains) partially based on land use differences and the different species of milkweed found in each sub-region.

Once identified, these States were charged with identifying conservation practices and developing plant seed mixes that would be most beneficial to Monarch butterflies. The primary purpose of these practices is to establish or enhance Monarch butterfly habitat on existing WRP easements. NRCS National Headquarters made WRP funds available for implementation of these Monarch butterfly-friendly practices on existing WRP easements beginning in 2015. To date, NRCS has invested more than $1.8 million towards the development of habitats beneficial to Monarch butterflies on approximately 7,982 acres in seven States. WRP funds will remain available to these ten States for Monarch butterfly habitat development until 2018 or until they are fully expended.

Wildlife Habitat Incentive Program

Current Activities.
Background. 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. The 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. The purposes of WHIP were consolidated into the EQIP by the 2014 Farm Bill.

Program Objectives. 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 habitat for fish and wildlife also contributed to more sustainable use of

resources and reduced greenhouse gas emissions. WHIP was implemented in the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands. By prioritizing specific geographic areas, WHIP was able to target financial and technical assistance funds to improve habitats needed for specific declining fish and wildlife species.

WHIP practices were often compatible with, and beneficial to, farming and ranching enterprises. Some practices enhanced farm profitability by improving grazing conditions, reducing management expenses, and producing non-crop income from the lease of rights to harvest and observe wild game and fish. WHIP had been used to control invasive plant species; re-establish native vegetation; manage non-industrial private forestland; stabilize stream banks; protect, restore, develop or enhance unique habitats; and remove barriers that impeded migration of certain wildlife species.

Program Operations. The national priorities in implementing WHIP were to:

- Promote the restoration of declining or important native fish and wildlife habitats;
- Protect, restore, develop or enhance fish and wildlife habitat to benefit at-risk species;
- Reduce the effects of invasive species on fish and wildlife habitats;
- Protect, restore, develop, or enhance declining or important aquatic wildlife species' habitats; and
- Protect, restore, develop, or enhance important migration and other movement corridors for wildlife.

The State Conservationist, with recommendations from the State Technical Committee and other partners, identified priorities for enrollment in WHIP that complemented the goals and objectives of relevant fish and wildlife conservation initiatives at the national, regional, and State level. The priorities served as a guide for the development of WHIP ranking criteria in each State.

Eligibility. To be eligible for WHIP, the land had to be private agricultural land, nonindustrial private forest land, or tribal land. Applicants had to own or control the land for the duration of the WHIP contract.

Financial Assistance. WHIP provided up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat through contracts that last from one to ten years. Higher payments were available to eligible socially disadvantaged farmers or ranchers, to beginning and limited resource farmers or ranchers, and Indian Tribes. WHIP provided additional financial assistance to landowners who entered into 15-year or longer contracts to protect and restore high value, essential plant and animal habitat. 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.

2016 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. The agency worked with producers to implement 2,618 practices and made nearly $8.9 million in payments for the completed practices. Currently, 1,165 WHIP contracts on 587,568 acres remain active.

Shared Funding Projects
(Dollars in thousands)

	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Working Capital Fund:				
Administration:				
HR Enterprise System Management	-	$83	$83	$98
Integrated Procurement Systems	$1,843	1,555	1,557	1,432
Mail and Reproduction Services	968	1,015	810	756
Material Management Service Center	113	155	168	156
Procurement Operations Division	549	802	561	706
Subtotal	3,473	3,610	3,179	3,147
Communications:				
Creative Media and Broadcast Center	419	190	128	377
Correspondence Management:				
Correspondence Management	128	135	138	124
Finance and Management:				
Financial Management Services	11,151	9,178	10,833	10,049
Internal Control Support Services	185	215	227	203
National Finance Center	2,792	2,428	2,599	2,371
Subtotal	14,128	11,821	13,659	12,622
Information Technology:				
Client Technology Service	116,505	102,084	106,981	96,811
National Information Technology Center	12,104	13,504	10,159	12,159
Subtotal	128,609	115,588	117,140	108,970
Total, Working Capital Fund	146,757	131,345	134,244	125,240
Department-Wide Reimbursable Programs:				
1890 USDA Initiatives	288	342	425	382
Advisory Committee Liaison Services	2	2	2	2
Classified National Security Information	104	55	61	55
Continuity of Operations Planning	219	216	239	215
Emergency Operations Center	234	253	265	238
Facility and Infrastructure Review and Assessment	47	47	51	46
Faith-Based Initiatives and Neighborhood Partnerships	40	41	45	41
Hispanic-Serving Institutions National Program	188	190	224	202
Honor Awards	8	8	9	8
Human Resources Transformation	178	166	199	179
Identity and Access Management (HSPD-12)	699	731	762	686
Intertribal Technical Assistance Network	320	332	346	311
Medical Services	51	29	59	53
People's Garden	75	70	74	67
Personnel Security Branch	77	74	81	73
Preauthorized Funding	392	402	419	377
Retirement Processor Web Application	62	63	68	61
TARGET Center	145	156	164	147
USDA 1994 Program	74	74	88	79
Virtual University	205	214	225	202
Total, Department-Wide Reimbursable Programs	3,405	3,466	3,806	3,426
E-Gov:				
Budget Formulation and Execution Line of Business	10	8	8	8
Disaster Assistance Improvement Plan	39	19	-	-
Enterprise Human Resources Integration	218	212	221	221
E-Rulemaking	82	36	11	14
E-Training	287	337	-	-
Financial Management Line of Business	17	17	14	14
Geospatial Line of Business	-	21	13	13
GovBenefits.gov	133	111	85	88
Grants.gov	56	46	11	10
Human Resources Line of Business	28	30	30	32
Integrated Acquisition Environment - Loans and Grants	196	-	-	-
Integrated Acquisition Environment	69	183	134	137
Total, E-Gov	1,136	1,021	527	537
Agency Total	151,298	135,832	138,577	129,203

Summary of Budget and Performance

On April 27, 1935, Congress passed the Soil Conservation and Domestic Allotment Act of 1935 (P.L. 74-46; 16 U.S.C. 590a-590f), in which it recognized after the Dust Bowl that "the wastage of soil and moisture resources on farm, grazing, and forest lands is a menace to the national welfare" and established the Soil Conservation Service (SCS) as a permanent agency in the USDA. In 1994, SCS's name was changed to the Natural Resources Conservation Service (NRCS) pursuant to the Department of Agriculture Reorganization Act of 1994, (P.L. 103-354, 7 U.S.C. 6962). More than 80 years later, the mission of the agency remains very similar: "Helping people help the land." NRCS improves the health of our Nation's natural resources while sustaining and enhancing the productivity of American agriculture. The agency achieves this mission by providing voluntary assistance through strong partnerships with private landowners, managers, and communities to conserve, protect, restore, and enhance the lands and waters upon which people and the environment depend. The Department will be revising the USDA Strategic Plan later in the spring of 2017 and expects to release it with the 2019 President's Budget.

NRCS administers the following discretionary programs: Conservation Technical Assistance (CTA), Soil Survey (SOIL), Snow Survey and Water Supply Forecasting (SNOW), Plant Materials Centers (PMCs), Watershed Rehabilitation Program (REHAB), Emergency Watershed Protection Program (EWP), Watershed and Flood Prevention Operations (WFPO, P.L. 78-534), Small Watersheds (P.L. 83-566), Healthy Forests Reserve Program (HFRP), and Water Bank. NRCS also administers the following mandatory programs, authorized through the 2014 Farm Bill: Agricultural Conservation Easement Program (ACEP), Agricultural Management Assistance Program (AMA), Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CStP), and the Regional Conservation Partnership Program (RCPP). Finally, the agency provides technical assistance to the Conservation Reserve Program (CRP) administered by the Farm Service Agency.

NRCS addresses the major natural resource concerns facing American agriculture. The investments USDA makes in rural America, through NRCS programs provide not only direct economic benefits to agricultural producers and rural communities, but also indirect benefits to the public through clean air, clean water and recreational opportunities such as fishing and hunting. The major resource areas are:

- Maintaining soil health on cropland;
- Grazing and forestland productivity;
- Clean water in landscapes across the Nation; and
- Wildlife habitat improvement on private lands

The key performance measures were selected to represent major natural resources issues on agricultural land in the Nation, the largest programs, and the conservation activities on those land types.

Key Performance Measures:

Cropland with conservation applied to improve soil quality, million acres [1/]							
	2012 Actual [2/]	2013 Actual [2/]	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
CTA	NA	NA	6.2	6.0	6.0	5.9	5.5
EQIP [3/]	NA	NA	3.1	3.0	2.7	3.0	3.0

[1/] All practices reported under this measure must comply with NRCS General Manual (GM) _180_409 and NRCS GM_450_407, which require agency staff with appropriate technical approval authority certify that each practice meets minimum technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied.
[2/] Past year actuals for 2012 and 2013 were assigned "N/A" in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.
[3/] EQIP performance numbers include the Regional Conservation Partnership Program (RCPP)-EQIP beginning in 2016.

Selected Past Accomplishments Toward the Achievement of the Key Outcomes 2016:

- Soil quality improvements typically improve crop yields and/or reduces agricultural input costs, as well as increase the resilience of crops to extreme weather. Approximately 4.2 million acres of conservation crop rotation were applied and 1.4 million acres of cover crops were planted. These practices pull carbon dioxide out of the atmosphere and deposit it into the soil as organic matter, which reduces erosion, increases water-holding capacity, and improves water infiltration;
- Across all programs, over 9 million acres of cropland had conservation applied to improve soil quality; and

- The footprint of soil health management systems (SHMS), the most cutting-edge combination of conservation practices for soil health improvement is growing. SHMSs were applied on 540,000 acres in 2016, this is an increase of 8 percent over 2015, and 15 percent over 2014.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

- NRCS will continue to work in partnership with producers to improve the quality and resilience of their soils for the benefit of their agricultural operation and land stewardship. Soil health will be improved on over 8.5 million acres of cropland, by preventing soil erosion and organic matter loss.

Grazing and forest land with conservation applied to protect and improve the resource base, million acres [1/]							
	2012 Actual [2/]	2013 Actual [2/]	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
CTA	NA	NA	13.1	13.1	11.1	13.0	12.0
EQIP [3/]	NA	NA	14.8	13.9	12.5	13.5	13.5

[1/] All practices reported under this measure must comply with NRCS General Manual (GM) _180_409 and NRCS GM_450_407, which require agency staff with appropriate technical approval authority certify that each practice meets minimum technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied.
[2/] Past year actuals for 2012 and 2013 were assigned N/A in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.
[3/] EQIP performance numbers include the Regional Conservation Partnership Program (RCPP)-EQIP beginning in 2016.

Selected Past Accomplishments toward the Achievement of the Key Outcomes 2016:

- All programs contributed to the application of almost 24 million acres of conservation systems to improve grazing and forest land health which directly impacts the profit margins of land-based businesses;
- The highest cost in a livestock operation is feeding animals during times when the pasture, or forage, is inadequate. NRCS works with producers to develop and implement “prescribed grazing” systems that improve the quality and availability of forages, which reduces costs to the producers and improves health of the herd; and
- Grazing management also enhances the long-term productivity of the land and operation by preventing erosion, increasing infiltration, and building strong-rooted grasses in rotational grazing. There were 12 million acres of sustainable grazing management implemented with USDA and partner assistance.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

- According to the National Resources Inventory, 20 percent of rangeland needs treatment for soil stability, hydrologic function, and/or biotic integrity. The agency will continue assisting landowners and managers in installing prescribed grazing and forestry systems that improve both economic returns for the producer as well as improved downstream water quality. In 2018, an estimated 25.5 million acres will be treated.

Non-Federal land with conservation applied to improve fish and wildlife habitat quality, million acres [1/]							
	2012 Actual [2/]	2013 Actual [2/]	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
EQIP [3/]	NA	NA	1.4	1.4	1.0	0.9	0.9

[1/] All practices reported under this measure must comply with NRCS General Manual (GM) _180_409 and NRCS GM_450_407, which require agency staff with appropriate technical approval authority certify that each practice meets minimum technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied.
[2/] Past year actuals for 2012 and 2013 were assigned N/A in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.
[3/] EQIP performance numbers include remaining performance being reported under the Wildlife Habitat Incentives Program (WHIP) and Regional Conservation Partnership Program (RCPP)-EQIP beginning in 2016. RCPP-EQIP is included in targets as well.

Selected Past Accomplishments Toward the Achievement of the Key Outcomes 2016:

- Almost 8 million acres of habitat were improved for wildlife over all programs. These acres included habitat for wildlife species on Federal and State Threatened and Endangered Species Lists and other species through focused initiatives including: Sage Grouse, Migratory Birds, Longleaf Pine, and the Lesser Prairie-Chicken; and

- Through Working Lands for Wildlife since 2010, a partnership between NRCS and the U.S. Fish and Wildlife Service, 4,400 landowners in 36 States enrolled approximately 7.4 million acres in conservation practices to improve habitat for an identified national priority species. More than 5.6 million acres were enrolled in the Sage Grouse Initiative.

Selected Accomplishments Expected at the FY 2018 Proposed Resource Level:

- Working Lands for Wildlife will continue focusing on landowner predictability for management on habitat for species of concern. Over 1 million acres of conservation will be applied.

Land with conservation applied to improve water quality, million acres [1/]							
	2012 Actual [2/]	2013 Actual [2/]	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
CTA	NA	NA	18.2	18.1	15.8	15.8	14.9
EQIP [3/]	NA	NA	12.3	12.7	10.5	13.5	13.5

[1/]All practices reported under this measure must comply with NRCS General Manual (GM) _180_409 and NRCS GM_450_407, which require agency staff with appropriate technical approval authority certify that each practice meets minimum technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied.
[2/] Past year actuals for 2012 and 2013 were assigned N/A in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.
[3/] EQIP performance numbers include the Regional Conservation Partnership Program (RCPP)-EQIP beginning in 2016.

Selected Past Accomplishments Toward the Achievement of the Key Outcomes 2016:

- NRCS works with producers in a voluntary (non-regulatory) way to reduce agricultural runoff which can impact water quality, carrying potential pollutants into the Nation's streams, lakes, ground water supplies, and estuaries. Poor water quality can have negative effects on local economies such as reduced home values, tourism, fisheries, and increased costs of treatment. In 2016, over 26 million acres of conservation practices designed to improve water quality were applied across all NRCS programs;
- According to the Conservation Effects Assessment Project (CEAP) conservation practices applied improve water quality over time in the following ways (Chesapeake Bay example): reduced soil erosion by 55 percent, reduced nitrogen surface runoff by 42 percent, reduce nitrogen in subsurface flows by 31 percent, and reduced phosphorus by 41 percent;
- In the lower Mississippi River basin, conservation practice implementation focused on controlling erosion and managing nutrients, have reduced the edge-of-field losses of sediment by 35 percent, nitrogen by 21 percent and phosphorous by 52 percent; and
- Cover crops have a significant impact on reducing edge-of-field losses of sediment and nutrients and improve water quality. In 2016, NRCS assisted with the application of 1.4 million acres of cover crop nationwide.

Selected Accomplishments Expected at the 2018 Proposed Resource Level:

- NRCS will continue to focus conservation investments in water quality and quantity; and
- In 2018, over 28 million acres of conservation will be applied using science-based conservation practices, such as vegetation planted on slopes to reduce soil erosion, drainage water management, conservation buffers, water conservation, and nutrient management.