

2017 President's Budget  
Natural Resources Conservation Service

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## NATURAL RESOURCES CONSERVATION SERVICE

### Purpose Statement

The mission of the Natural Resources Conservation Service is “Helping People Help the Land.” The agency accomplishes its 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 pursuant to Public Law 103-354, the Department of Agriculture Reorganization Act of 1994 (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, its primary focus is to ensure that private lands are conserved, restored, and made more resilient to environmental challenges, like climate change. NRCS is a primary contributor to achieving the USDA Strategic Goal that ensures our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing water resources. This is accomplished through a variety of programs aimed at preserving and restoring our private lands, mitigating the effects of climate change, and making the landscape more resilient. NRCS partners with private landowners to provide technical and financial assistance to help protect farm and ranch lands and private forestland.

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 environment. 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 to 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.”***

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**Conservation Operations.** 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, (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).

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 Wetland (Swampbuster) Conservation Compliance Provisions of the 1985 Food Security Act, as amended by subsequent Farm Bills;
- 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;

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- 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.

A major challenge is integrating soils data for 3,000 counties across the Nation into a single dataset that eliminates discrepancies in older Soil Surveys, which do not have the same level of detail as newer Soil Surveys and which often use outdated mapping and classification concepts. Until recently, Soil Survey information reflected the “average” condition of soil properties without providing information on differences induced by different management systems and land uses. Soil Surveys are now being updated to create a seamless soil survey across all counties and States and to provide information on soil properties that change depending on land use and management.

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 (SHMEN) is developing and implementing a statistically robust soil carbon monitoring network to provide nationwide soils data to support ongoing GHG monitoring. This network is a key component of USDA’s Climate Strategy as it 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 has initiated the effort in FY2016 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 managers and users with 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 2,022 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, 862 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. Climate change researchers have increasingly accessed the data for evaluating trends in the Western United States. 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.

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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).** The PMCs identify, test, evaluate, and demonstrate the performance of plants and plant technologies to solve natural resource problems and improve the utilization of natural resources. Thus, PMCs contribute to reducing soil erosion; increasing cropland soil health and productivity; restoring wetlands, improving water quality, and improving wildlife habitat (including pollinators); protecting streambank and riparian areas; stabilizing coastal dunes; producing biomass; improving air quality; and addressing other conservation treatment needs. PMCs have a long and successful history of selecting and testing plant materials for resource conservation which has, in large part, accomplished the purpose of increasing the availability of conservation plant material to the public.

PMCs are realigning their activities to better focus on: 1) the utilization of plants for specific objectives and purposes, such as soil health, soil stabilization, and pollinator/wildlife habitat; 2) the collection of data to improve conservation planning efforts; and 3) the validation of plant materials for use in NRCS vegetative conservation practices. The shift in focus aligns PMCs with current NRCS needs to ensure that conservation practices are scientifically-based, to improve the knowledge of NRCS field staff through PMC-led training sessions and demonstrations, and to develop recommendations to meet new and emerging natural resource issues. This new focus expands existing efforts to improve technology transfer. For example, 2,500 documents are now available online describing how to select and use plants for conserving or improving natural resources. 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 Program.** Through the programs, 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.

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**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. NRCS received Water Bank Program funding in 2012 and held a sign-up in Minnesota, North Dakota, and South Dakota, which have experienced significant flooding of agricultural land. 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 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.

In 2016, of the total EQIP funding, NRCS will again use at least \$4 million to support an initiative to increase the availability and access to nutritious forage for pollinators in a targeted multi-state area (North Dakota, South Dakota, Minnesota, Wisconsin, and Michigan) that is home to nearly 75 percent of the Nation's managed honeybee population during the prime summer forage months. This continues the pollinator efforts started in 2014 and continued in 2015.

In 2016, NRCS will take actions to ensure that riparian buffers receive priority for funding through Farm Bill conservation programs to the extent practicable and work with NOAA and EPA to jointly develop a science-based map that identifies the highest priority areas in the region for salmon habitat restoration, with the goal of using this map to target outreach efforts and federal funding.

**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.

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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.

**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.

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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.

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.

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**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 Initiatives.** To address critical, regionally important conservation needs, NRCS and its partners have established programmatic and landscape-scale initiatives to provide additional support to voluntary conservation on private lands. NRCS has targeted funding to support the initiatives 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 initiative 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 initiatives of national significance.

National Water Quality Initiative. 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 initiative. 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 Initiative. This initiative 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 Initiative 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 FY 2018 to maintain the momentum begun through this initiative.

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Longleaf Pine Initiative. 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 initiative is to protect and restore longleaf pine forest ecosystems in these States.

Bay-Delta Initiative. The Bay-Delta Initiative 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. In response to the Administration's Interim Federal Action Plan, NRCS has made the Bay-Delta a nationally recognized conservation initiative 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 Initiative. NRCS and its conservation partners developed this initiative 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 initiative, 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 Initiative. NRCS developed this initiative 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-listing 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 Initiative. The MRBI 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. Through 2012, NRCS had 123 partnership agreements in place to implement projects in 640 small watersheds under this initiative.

Great Lakes Restoration Initiative (GLRI). GLRI was authorized as an Environmental Protection Agency program in October 2009, and is implemented through a taskforce of 16 Federal departments and agencies who developed the Great Lakes Restoration Action Plan (2010 – 2014) to guide restoration efforts. GLRI aggressively addresses five priorities: 1) clean up the most polluted areas of the Great Lakes; 2) combat invasive species; 3) protect watersheds and shorelines from run-off; 4) restore wetlands; and 5) work with strategic partners on education, evaluation, and outreach. With GLRI funding, NRCS is able to accelerate assistance to farmers working to address phosphorous loading and other critical resource concerns in priority watersheds of the Great Lakes basin.

Ogallala Aquifer Initiative (OAI). The OAI 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 OAI. 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 OAI 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 Initiative. 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.

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**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 Agricultural Water Enhancement Program, Chesapeake Bay Watershed Program and Cooperative Conservation Partnership Initiative are now served by the RCPP. The purposes of 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 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.

**Workforce Status and Locations.** As of September 30, 2015, NRCS had 10,089 full time employees with permanent appointments. Of this total, 377 employees were located in the Washington, DC metropolitan area, and 9,712 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, Chief Human Resources Officer, 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 2015, NRCS had 2,605 offices located across the Nation. This represents the number of locations where NRCS operates, or conducts, mission-related activities (e.g. offices, warehouses, Plant Materials Centers, etc.) and reports at least one full time equivalent (FTE) at the location. In addition, this number includes locations used for conservation testing, research and storage.

**National Headquarters (NHQ).** 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, Deputy Chiefs, and the Chief Human Resources Officer 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.

Primarily located in the Washington, D.C. metropolitan area, NHQ is responsible for the framework for national development and delivery. Natural resource technology is developed and delivered through NHQ Management

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Offices including: Office of the Chief, Office of the Associate Chief for Conservation, Office of the Associate Chief for Operations, Office of the Deputy Chiefs, Chief Human Resources Officer, Office of the Regional Conservationists, as well as other key management or leadership components.

During 2015, the agency completed an Administrative Transformation effort for functional areas which include: Human Resources, Property and Procurement, as well as Budget and Financial Management. The intent of the reorganization effort is to nationalize the core administrative functions of NRCS and create effectiveness and efficiency in delivering services to clients. All employees performing an administrative function at NHQ and State Offices were realigned to report through a chain of command for either the Chief Human Resources Officer, Chief Property and Procurement Officer, or the Chief Financial Officer.

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 field 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, as well as 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 through a set of data collection tools, processes, and related software that provide information on a routine basis 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 improve accountability:

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### Compliance Activities.

- Conducted five 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.
- In 2014, Highly Erodible Land and Wetlands Conservation Compliance reviews was completed on 22,127 tracts of cropland.
- During 2015, 24 audits were closed 11 of the closed audits had no recommendations for NRCS follow-up. At the beginning of 2015 there were 51 open audit recommendations, five recommendations were added throughout the year, 35 were closed and 21 remain open.

### 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 – The reported performance measures are based on data reported through September 30, 2014. Numerous data quality mechanisms within 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 to review for completeness or rejected entries, including the Strategic Planning and Accountability Deputy Area staff. On an annual basis the State Conservationists certify that the data is complete.
- Reliability of Data – The data reported for performance measures was determined within 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 fund management. 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.**

#### **2015 Government Accountability Office (GAO) and Office of Inspector General (OIG) closed audits:**

- GAO 360644, Agricultural Conservation: USDA Should Improve Its Process for Allocating Funds to States for the Environmental Quality Incentives Program (GAO-06-969). Final report issued September, 2006. GAO closed both recommendations. One was closed as implemented, and one as not-implemented. Closed for NRCS effective December 11, 2014.
- GAO 361435, Missouri River Flood and Drought: Experts Agree the Corps Took Appropriate Action, Given the Circumstances, but Should Examine New Forecasting Techniques (GAO-14-741), (November, 2012). Final report issued September 12, 2014. Report recommendations are for the Corps of Engineers. Closed for NRCS effective October 23, 2014.
- GAO 361488, Review of Federal response to Ocean Acidification (August, 2013). Final report issued on September 12, 2014. Closed for NRCS effective December 2, 2014.

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- GAO 361531, Climate Change: USDA Needs to Better Track Progress and Develop More Relevant Information for Farmers (GAO-14-755), (September, 2013). Final report issued September 16, 2014. Closed for NRCS effective December 19, 2014.
- GAO 361551, Great Lakes Restoration Initiative, Improved Data Collection and Reporting Would Enhance Oversight (GAO-15-526), (February, 2014). Final report issued July 30, 2015. No NRCS recommendations. Review closed for NRCS effective July 30, 2015.
- GAO 361618, U.S. Army Corps of Engineers' Efforts to Assess the Impact of Extreme Weather Events (GAO-15-660), (January, 2015). Final report issued July 22, 2015. No NRCS recommendations. Audit closed for NRCS effective July 22, 2015.
- GAO 361619, Missouri River Basin: Agencies' Progress Improving Water Monitoring Is Limited (GAO-15-558R), (November, 2014). Final report issued June 9, 2015. Closed for NRCS effective June 29, 2015.
- OIG 10401-0002-FM, NRCS' Financial Statements for Fiscal Year 2008 (January, 2008). Final report issued November 13, 2008. Audit closed effective October 9, 2014.
- OIG 10401-0003-FM, Financial Statements for Fiscal Year 2009 (October, 2009). Final report issued November 10, 2009. Audit closed effective November 24, 2014.
- OIG 10401-4-FM, NRCS' Financial Statements for Fiscal Year 2010 (January, 2010). Final report issued November 18, 2010. Audit closed effective December 17, 2014.
- OIG 10401-0001-11, NRCS' Financial Statements for Fiscal Year 2011 (February, 2011). Final report issued November 8, 2011. Audit closed effective February 3, 2015.
- OIG 10401-0002-11, NRCS' Financial Statements for Audit Fiscal Year 2012 (March, 2012). Final report issued November 9, 2012. Audit closed effective January 9, 2015.
- OIG 10703-0001-KC, ARRA Emergency Watershed Protection Program, Floodplain Easements (Phase I) (April, 2009). Final report issued September 8, 2010. Audit closed effective June 3, 2015.
- OIG 10703-0003-KC, ARRA, Emergency Watershed Protection Program Floodplain Easements, Easement Applications on Non-Agricultural Land (January, 2010). Final report issued March 14, 2012. Audit closed effective July 15, 2015.
- OIG 10703-0005-KC, ARRA Emergency Watershed Protection Program, Floodplain Easements, Field Confirmations (July, 2010). Final report issued March 14, 2013. Audit closed effective April 1, 2015.
- OIG 10704-0001-32, Migratory Bird Habitat Initiative-Deepwater Horizon/BP Oil Spill (January, 2011). Final report issued August 9, 2012. Audit closed effective April 1, 2015.
- OIG 50024-0005-11, Improper Payments Elimination and Recovery Act Compliance Review for Fiscal Year 2013 (January, 2014). Final report issued April 15, 2014. Report recommendations are for OCFO. Closed for NRCS effective January 20, 2015.
- OIG 50024-0006-11, Executive Order 13520, Reducing Improper Payments, High-Dollar Overpayments Reports Review for Fiscal Year 2013 (January, 2014). Final report issued August 13, 2014. Recommendation 2 was the only one directed to NRCS. Audit closed for NRCS effective January 30, 2015.
- OIG 50024-0007-11, Executive Order 13520, Reducing Improper Payments, High-Dollar Overpayments Report Review for Fiscal Year 2014 (October, 2014). Final report issued August 25, 2015. No NRCS recommendations in final report. Audit closed for NRCS effective August 25, 2015.
- OIG 50024-0008-11, Improper Payments Elimination and Recovery Act Compliance Review for Fiscal Year 2014 (October, 2014). Final report issued May 15, 2015. No NRCS recommendations in the final report. Audit closed for NRCS effective May 15, 2015.
- OIG 50099-0001-23, USDA's Controls Over Economy Act Transfers and Green Book Program Charges (August, 2012). Final report issued September 18, 2014. NRCS satisfied recommendation 9 requirements. Audit closed for NRCS effective May 12, 2015.
- OIG 50501-0005-12, Cloud Computing Initiative – Status of Cloud-Computing Environments within the Federal Government (December, 2013). Final report issued September 26, 2014. Recommendation 6 was the only one directed to NRCS, which was closed effective May 4, 2015.
- OIG 50501-0006-12, Fiscal Year 2014 Federal Information Security Management Act (FISMA), (March, 2014). Final report issued November 7, 2014. Audit contained no NRCS recommendations. Closed for NRCS effective March 20, 2015.
- OIG 50601-0003-31, Beginning Farmers and Ranchers (January, 2014). Final report issued May 13, 2015. Audit contained no NRCS recommendations. Closed for NRCS effective June 29, 2015.

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**2015 Government Accountability Office (GAO) and Office of Inspector General (OIG) active audits:**

- GAO 100307, Environmental Quality Incentives Program (EQIP) (September, 2015). Review ongoing.
- GAO 100340, Federal Funding for Harmful Algal Blooms Research (September, 2015). Review ongoing.
- GAO 361251, Nonpoint Source Water Pollution: Greater oversight and additional data needed for key Environment Protection Agency Water Program (GAO-12-335) (November 2010). Final report issued July, 2012. NRCS report on 319 Watershed contract reviews to address the September 20, 2012 USDA Statement of Action was submitted to GAO for closure on September 10, 2015.
- 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. The NRCS entered into an Information Exchange Agreement with the Social Security Administration (SSA), Farm Service Agency and Risk Management Agency for the Death Master File (DMF) on April 21, 2014. NRCS has continued the monthly adjudication process for Do Not Pay.
- GAO 361647, Coordination of Efforts to Collect Information From Farmers by the USDA's Farm Service Agency, Risk Management Agency and NRCS (June, 2015). Review ongoing.
- GAO 441286, Federal Disaster Assistance Expenditures (May, 2015). Review ongoing.
- 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 10401-0003-11, NRCS Financial Statement Audit Fiscal Year 2013 (February, 2013). Final report issued December 9, 2013. Recommendations 1, 2 and 4 are closed. Recommendations 3 and 5 are open.
- OIG 10401-0004-11, NRCS Financial Statement Audit Fiscal Year 2014 (February, 2014). Final report issued November 13, 2013. Recommendations 1 through 5 are open.
- OIG 10601-0001-23, Controls over Land Valuations for Conservation Easements (September 2013). Final report issued September 28, 2015. NRCS reached management decision on 9 of the 10 recommendations. Management decision has not been reached for Recommendation 6.
- OIG 10601-0001-31, Environmental Quality Incentives Program (December 2012). Final report issued July 24, 2014. Recommendation 3 is open. Recommendations 1, 2 and 4 through 6 are closed.
- OIG 10601-0001-32, NRCS Conservation Stewardship Program (October 2013). Field work in progress.
- OIG 10601-0002-31, NRCS Conservation Easement Compliance (May 2013). Final report issued July 30, 2014. Recommendations 1 through 8 and 10 and 11 remain open. Recommendation 9 is closed.
- OIG 10601-0003-31, NRCS: Wetland Conservation Provisions in the Prairie Pothole Region (August 2014). Field work 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-10703-0001-AT, ARRA-Rehabilitation of Flood Control Dams (September 2010). Final report issued March 25, 2013. Recommendations 2 through 5 are closed. Recommendation 1 remains open.
- OIG 50501-0008-12, Fiscal Year 2015 Federal Information Security Management Act (FISMA) March, 2015). Audit in progress.
- OIG 50601-0003-22, Coordination of USDA Farm Program Compliance – Farm Service Agency, Risk Management Agency, and NRCS (October 2014). Field work in progress.
- OIG 50601-0005-31, USDA Monitoring of Highly Erodible Land and Wetland Conservation Violations (March, 2015). Field work in progress.

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

Item	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<b>Discretionary Programs:</b>								
Private Lands Conservation Operations.....	\$812,939	5,916	\$846,428	5,327	\$850,856	5,920	\$860,374	5,920
Watershed & Flood Prevention Operation.....	-	67	78,581	31	157,000	36	-	-
Watershed Rehabilitation Program.....	12,000	29	12,000	1	12,000	1	-	-
Water Bank.....	4,000	1	4,000	-	4,000	1	-	-
<b>Mandatory Programs:</b>								
Small Watershed Rehabilitation Program.....	250,000	11	153,120	32	73,262	-	68,280	25
Farm Security & Rural Investment Program .....	3,426,612	4,269	3,518,706	4,627	3,587,787	5,813	3,871,120	5,532
Recission.....	-	-	-	-	-20,000	-	-54,000	-
Sequestration.....	-271,365	-	-278,096	-	-270,672	-	-	-
Transfers In.....	144	-	144	-	-	-	-	-
Adjusted Appropriation.....	4,234,330	10,293	4,334,883	10,018	4,394,233	11,771	4,745,774	11,477
Balance Available, SOY.....	436,198	-	1,396,935	-	1,756,498	-	724,187	-
Other Adjustments (Net).....	852,928	-	-94,317	-	-231,167	-	208,800	-
Total Available.....	5,523,456	10,293	5,637,501	10,018	5,919,564	11,771	5,678,761	11,477
Lapsing Balances.....	-32,785	-	-40,299	-	-	-	-	-
Balance Available, EOY.....	-1,396,935	-	-1,756,498	-	-724,187	-	-618,487	-
Obligations.....	4,093,736	10,293	3,840,704	10,018	5,195,377	11,771	5,060,274	11,477
<b>Reimbursements for technical services to Federal and Non-Federal:</b>								
Other Federal and Non-Federal Reimbursements.....	50,667	189	91,041	172	70,000	167	70,000	167
Total, NRCS.....	4,144,403	10,482	3,931,745	10,190	5,265,377	11,938	5,130,274	11,644

NATURAL RESOURCES CONSERVATION SERVICE

Permanent Positions by Grade and Staff Year Summary

Item	2014 Actual			2015 Actual			2016 Enacted			2017 Estimate		
	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total	D.C.	Field	Total
SES.....	22	4	26	23	4	27	23	4	27	23	4	27
GS-15.....	88	91	179	92	68	160	87	65	152	84	64	148
GS-14.....	132	250	382	210	189	399	202	182	384	197	178	375
GS-13.....	70	652	722	108	601	709	104	579	683	102	565	667
GS-12.....	33	3,005	3,038	64	3,045	3,109	62	2,935	2,997	60	2,862	2,922
GS-11.....	26	2,507	2,533	68	2,576	2,644	66	2,483	2,549	64	2,421	2,485
GS-10.....	-	36	36	1	32	33	1	31	32	1	30	31
GS-9.....	22	1,832	1,854	26	1,883	1,909	25	1,815	1,840	24	1,770	1,794
GS-8.....	18	872	890	18	477	495	17	460	477	17	448	465
GS-7.....	14	1,729	1,743	34	1,617	1,651	33	1,558	1,591	32	1,520	1,552
GS-6.....	1	420	421	3	432	435	3	416	419	3	406	409
GS-5.....	2	454	456	6	339	345	6	327	333	6	319	325
GS-4.....	2	222	224	20	278	298	19	268	287	19	261	280
GS-3.....	2	157	159	3	136	139	3	131	134	3	128	131
GS-2.....	1	40	41	5	24	29	5	23	28	5	23	28
GS-1.....	-	1	1	-	5	5	-	5	5	-	5	5
<hr/>												
Total Perm.												
Positions.....	433	12,272	12,705	681	11,706	12,387	656	11,282	11,938	640	11,004	11,644
Unfilled, EOY..	47	2,541	2,588	304	1,994	2,298	-	-	-	-	-	-
Total, Perm.												
Full-Time												
Employment,												
EOY.....	386	9,731	10,117	377	9,712	10,089	656	11,282	11,938	640	11,004	11,644
Staff Year Est..	1,080	9,402	10,482	1,309	8,881	10,190	656	11,282	11,938	640	11,004	11,644

## NATURAL RESOURCES CONSERVATION SERVICE

### 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 is moving toward a larger use of leased vehicles, increasing its' percentage of leased vehicles from approximately 3 percent to 11 percent. 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, environmental, and safety requirements.

Changes to the motor vehicle fleet. At the end of 2015, NRCS had a fleet of 8,775 vehicles, of which 8,509 were agency owned, and 266 were GSA leased vehicles. The agency fleet decreased by 16 vehicles from 2014 to 2015. In 2014, NRCS began using the Wright Express fleet card program which records and provides extensive data on fleet operation costs. In 2016, a greater emphasis is 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 is a time of transition as NRCS consolidates vehicle management through a new and robust headquarters staff rather than State based management. As 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 NRCS Vehicle Management Strategy. NRCS chartered a Vehicle Management Strategy Workgroup, which developed a three-year plan outlining a proactive approach to optimize the use of agency vehicles. Full implementation of this plan will further reduce costs, address vehicle replacements to aid in reducing greenhouse gas emissions, and ensure the NRCS vehicle allocation methodology meets Federal fleet guidelines and policies, while also meeting mission needs.

Managing the motor vehicle fleet to reduce greenhouse gas emissions. In order to meet Federally-mandated requirements to reduce greenhouse gas emissions, NRCS purchases alternative fuel vehicles where available, and hybrid vehicles where they are not. In remote rural areas there may be few or no alternative fuel options available. In the coming year, the agency will continue to focus on purchasing alternative fuel vehicles where there is adequate access to such fuels and hybrid vehicles in other locations in order to meet greenhouse gas emission targets.

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Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type <sup>1</sup>							Annual Operating Costs (\$ in 000)	
	Sedans and Station Wagons	Light Trucks, SUVs, and Vans		Medium Duty Vehicles	Ambulances	Buses	Heavy Duty Vehicles		Total Number of Vehicles
		4x2	4x4						
2014	776	2,785	4,833	372	-	1	24	8,791	17,299 <sup>2</sup>
Change	-40	-227	+153	+54	-	-1	+45	-16	-699
2015	736	2,558	4,986	426	-	-	69	8,775	16,600
Change	-	-	-	-	-	-	-	-	-
2016	736	2,558	4,986	426	-	-	69	8,775	16,600
Change	-	-	-	-	-	-	-	-	-
2017	736	2,558	4,986	426	-	-	69	8,775	16,600

<sup>1</sup> Vehicles reported are both agency-owned and GSA-leased.

<sup>2</sup> The FY 2014 annual operating cost was reported from the Wright Express (WEX) fleet card program.

Note: FAST vehicle projections for FY 2016 and FY 2017 will not be available until May 2016. Current projections are straight-lined from FY 2015.

## NATURAL RESOURCES CONSERVATION SERVICE

### 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

- 1 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~~]\$860,374,000, to remain available until September 30, [2017]2018: *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, \$1,033,983,000, 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 “2018” 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 27-31 for more details on the Private Lands Conservation Operations Appropriation Language Changes.

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

Lead-off Tabular Statement  
Current Law

Budget Estimate, 2017.....	\$860,374,000
2016 Enacted.....	850,856,000
Change in Appropriation.....	<u>+9,518,000</u>

Adjusted Appropriations

Budget Estimate, Current Law 2017.....	\$860,374,000
Change Due to Proposed Appropriations Language Changes.....	1,033,983,000
Net 2017 Request.....	<u>+1,894,357,000</u>

PRIVATE LANDS CONSERVATION OPERATIONS

Summary of Increases and Decreases  
(Dollars in thousands)

Program	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Conservation Technical Assistance.....	\$714,383	+\$27,889	-\$716	+\$19,155	\$760,711
Soil Survey.....	80,000	-	-	+802	80,802
Snow Survey.....	9,300	-	-	+80	9,380
Plant Materials.....	9,400	-	-	+81	9,481
Watershed Projects.....	-	+5,600	-	-5,600	-
Watershed Protection.....	-	-	+5,000	-5,000	-
Total.....	813,083	+33,489	+4,284	+9,518	860,374
Transfer from Mandatory Programs.....	-	-	-	+1,033,983	1,033,983
Total Private Lands Conservation Operations.....	813,083	+33,489	+4,284	+1,043,501	1,894,357

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

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

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate		
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	
Discretionary Appropriations:											
Conservation Technical Assistance.....	\$714,383	5,387	\$742,272	4,772	\$741,556	5,390	+\$19,155	(1)	-	\$760,711	5,390
Soil Survey.....	80,000	402	80,000	462	80,000	403	+802	(2)	-	80,802	403
Snow Survey.....	9,300	50	9,300	53	9,300	50	+80	(3)	-	9,380	50
Plant Materials.....	9,400	77	9,400	40	9,400	77	+81	(4)	-	9,481	77
Watershed Projects.....	-	-	5,600	-	5,600	-	-5,600	(5)	-	-	-
Watershed Protection.....	-	-	-	-	5,000	-	-5,000	(6)	-	-	-
Total Adjusted Approp.....	813,083	5,916	846,572	5,327	850,856	5,920	+9,518	-	-	860,374	5,920
Rescissions, Transfers, and Seq. (Net).....											
	-144	-	-144	-	-	-	-	-	-	-	-
Total Appropriation.....	812,939	5,916	846,428	5,327	850,856	5,920	+9,518	-	-	860,374	5,920
Transfers In:											
Congressional Relations.....	144	-	144	-	-	-	-	-	-	-	-
Total.....	144	-	144	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	44,330	-	61,416	-	125,604	-	-125,604	-	-	-	-
Other Adjustments (Net).....	15,668	-	26,872	-	-20,188	-	+20,188	-	-	-	-
Total Available.....	873,081	5,916	934,860	5,327	956,272	5,920	-95,898	-	-	860,374	5,920
Lapsing Balances.....	-11,497	-	-39,855	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	-61,416	-	-125,604	-	-	-	-	-	-	-	-
Total Obligations.....	800,168	5,916	769,401	5,327	956,272	5,920	-95,898	-	-	860,374	5,920
Total Appropriation.....	812,939	5,916	846,428	5,327	850,856	5,920	+9,518	-	-	860,374	5,920
Proposed Language Changes:											
Transfer from Farm Bill TA.....	-	-	-	-	-	-	+1,033,983	+5,532	1,033,983	5,532	
Adjusted Appropriation.....	812,939	5,916	846,428	5,327	850,856	5,920	+1,043,501	+5,532	1,894,357	11,452	

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

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

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Conservation Technical Assistance.....	\$700,069	5,387	\$667,547	4,772	\$838,961	5,390	-\$78,250	-	\$760,711	5,390
Soil Survey.....	81,777	402	80,003	462	84,264	403	-3,462	-	80,802	403
Snow Survey.....	9,599	50	8,636	53	10,707	50	-1,327	-	9,380	50
Plant Materials.....	8,723	77	7,622	40	11,733	77	-2,252	-	9,481	77
Watershed Projects.....	-	-	5,593	-	5,607	-	-5,607	-	-	-
Watershed Protection.....	-	-	-	-	5,000	-	-5,000	-	-	-
Total Obligations.....	800,168	5,916	769,401	5,327	956,272	5,920	-95,898	-	860,374	5,920
Lapsing Balances.....	11,497	-	39,855	-	-	-	-	-	-	-
Bal. Available, EOY.....	61,416	-	125,604	-	-	-	-	-	-	-
Total Available.....	873,081	5,916	934,860	5,327	956,272	5,920	-95,898	-	860,374	5,920
Transfer In.....	-144	-	-144	-	-	-	-	-	-	-
Bal. Available, SOY.....	-44,330	-	-61,416	-	-125,604	-	+125,604	-	-	-
Other Adjustments (Net).....	-15,668	-	-26,872	-	20,188	-	-20,188	-	-	-
Total Appropriation.....	812,939	5,916	846,428	5,327	850,856	5,920	+9,518	-	860,374	5,920
Proposed Language Changes:										
Transfer from Farm Bill TA.....	-	-	-	-	-	-	+1,033,983	+5,532	1,033,983	5,532
Adjusted Appropriation.....	812,939	5,916	846,428	5,327	850,856	5,920	+1,043,501	+5,532	1,894,357	11,452

## NATURAL RESOURCES CONSERVATION SERVICE

### PRIVATE LANDS CONSERVATION OPERATIONS

#### Justification of Increases and Decreases

In 2017, NRCS proposes to accelerate proven approaches to conservation that generate results at broader scales, leverage tools and resources to gain efficiencies in service delivery, and optimize use of existing authorities that will strengthen rural communities. NRCS proposes to: 1) accelerate conservation results at the landscape scale, building on partnerships and new science and policy tools to focus resources and create non-traditional incentives; 2) support farm- and ranch-specific conservation results producers rely on to achieve their economic objectives and regulatory requirements; 3) afford conservation access to more producers, including beginning farmers and ranchers and socially-disadvantaged producers, and leverage State and local government technical capacity; and 4) take a new look at existing authorities to amplify community action to build natural resource based economic opportunities and accelerate preparedness planning related to climate-driven natural resource effects. More specifically, NRCS proposes to:

- 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 CEAP 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 in conjunction with the National Agricultural Statistics Service (NASS) (or another entity with experience and expertise in designing behavior-based surveys) 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.
- Target technical and financial resources to achieve landscape-scale conservation objectives and address the most pressing issues affecting landscape resilience. NRCS will work to protect ecosystems, address water resource concerns, and restore habitat for at-risk species in large-scale ecosystems. NRCS will also bring to bear the best available science and work collaboratively with partners to strategically target conservation investments in priority landscapes to generate the most cost-effective return for producers and taxpayers. NRCS will accelerate the achievement of natural resource conservation outcomes by dedicating financial assistance to priority landscapes and systems of practices mitigating impacts of short- and long-term drought. NRCS will also coordinate investments on public and private land to accelerate implementation of soil health management systems to improve and sustain the soil's capacity for mitigating extreme drought and flooding events.
- Leverage partnerships to increase financial resources, expand technical capacity, and accelerate conservation implementation by partnering with State, federal, and other stakeholders to leverage federal funds for delivering and assessing conservation investments in healthy soils, and to accelerate efforts to adapt and mitigate the effects of a changing climate on functioning landscapes. NRCS will participate in and support Departmental efforts to address short-term and long-term impacts of the drought on agriculture. NRCS will also collaborate

## NATURAL RESOURCES CONSERVATION SERVICE

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. NRCS will support USDA's Regional Hubs for Risk Adaptation and Mitigation to Climate Change with natural resource, inventory, and forecasting data and information; provide input and guidance on applied research, information, and technology needs to help individuals and communities collaborate to restore, protect, and enhance landscape resilience in the face of climate change. Finally, NRCS will establish competitive grants that leverage non-federal partnerships to identify and implement community based approaches for mitigating and adapting to climate change, including risk reduction, green development, and community based resource planning.

- Support development of ecosystem markets, to improve natural resource conditions at a lower cost, to accelerate the adoption of voluntary conservation measures on private land, and to attract new funding sources to private lands conservation. This will integrate regulatory "certainty" for private landowners to work cooperatively with us to restore critical habitat and improve water quality - provide certainty through our federal and state partners to producers that they can continue making a living off of their farms and ranches no matter the decision in the future for a given species or watershed. NRCS will also evaluate programmatic flexibilities such as financial assistance for 'high tunnels' to encourage locally sourced food production to increase agricultural viability and community access to safe, sustainable food supplies. NRCS will develop and adapt conservation systems, including engineering standards and plant materials, to address increased climate variability, increase focus on air quality issues, including NRCS assistance with combustion system improvements, including engine replacements and other technologies, and develop and optimize conservation systems for carbon sequestration and greenhouse gas reductions.
- Inform conservation-based decision-making through prioritized investments in science-based tools and data, including advancing knowledge of dynamic soil properties (how soils change with land use) to improve and develop conservation practices and soil health management systems to help adapt to climate change, to minimize land degradation, and to improve the health of the soil, water, animal, plant, air, and energy ecosystems, such as the Soil Health Monitoring and Enhancement Network (SHMEN). NRCS will support applied research and modeling to identify cost effective strategies to maximize the benefits of conservation and improved soil health. Through the Conservation Effects Assessment Project (CEAP) initiatives, NRCS will establish a continuing, statistically-valid survey process to track progress in conservation adoption and conservation investment benefits to the nation's water quality, soil health, and agricultural productivity.

In 2017, NRCS will continue efforts to create a more resilient agency, which supports USDA Strategic Goal 5: Create a USDA for the 21<sup>st</sup> century That Is High Performing, Efficient, and Adaptable. NRCS proposes to continue to improve its administrative processes and to streamline conservation delivery.

NRCS proposes to continue the investment in the Conservation Delivery Streamlining Initiative (CDSI) at the previously-planned level for the fiscal year. 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;

## NATURAL RESOURCES CONSERVATION SERVICE

- Accelerating the time between applying a practice and receiving payment for that practice; and
- Offering clients 24/7/365 service for many tasks.

### 2017 CDSI Planned Accomplishments:

- Develop and deploy the first incremental release of the Conservation Desktop to support Financial Assistance Program Contracts.
- Develop and deploy the first incremental release of the Conservation Desktop to support technical assistance and conservation planning.
- Integrate the Conservation Desktop with the Conservation Client Gateway so they can share common workflows, tasking and electronic documents.

NRCS will continue to refine its administrative processes as contemplated in Administrative Transformation, which created the foundation for a better business and administrative structure for the future. NRCS standardized how we provide services by establishing a single, consistent set of standards to guide the work and a common set of tools to support the work. These changes will continue to improve the efficiency of our administrative business operations as we further refine them based on lessons learned under the new model. This will improve consistency in the quality of business and administrative services; lower the costs of delivering our business and administrative services; achieve effectiveness and efficiency in our operations; and introduce innovation to enhance performance.

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.

- (1) A net increase of \$19,155,000 in funding for Conservation Technical Assistance (\$741,556,000 and 5,390 staff years available in 2016).

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.

- a. An increase of \$7,055,000 for pay costs (\$1,530,000 for annualization of the 2016 pay increase and \$5,525,000 for the 2017 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 5,390 staff years.

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- b. An increase of \$10,600,000 in Conservation Technical Assistance in support of conservation plans written and delivery of conservation programs (\$675,123,000 available in 2016).

Conservation planning is a continuous, iterative process whereby resource assessment and evaluation of alternatives are funded through the CTA account while final plan implementation and evaluation are provided with mandatory Farm Bill funding. This funding will enable the agency to increase the number of plans written and the assistance provided to producers. It is estimated that an additional 8,300 conservation plans could be planned or applied, covering approximately 2.9 million acres.

Farmers, ranchers, and forest landowners are seeing increasing vulnerability to their operations from variations in temperature and precipitation and from climate-related events such as fires, invasive pests, droughts, and floods. Increased atmospheric greenhouse gas concentrations are linked to increases in global temperature and are responsible for amplified climatic variations across regions (e.g., more frequent severe weather events, longer periods of drought, greater periods of heat stress, changes in snowpack). NRCS's conservation programs and incentives help private land owners and producers building greater resiliency in soils, cropping systems, and wooded landscapes via conservation activities that help them adapt to climate change and mitigate or reduce greenhouse gas emissions on a variety of scales.

NRCS is continuing to develop and refine appropriate models to quantify changes in greenhouse gases and management impacts on soil organic carbon storage related to natural resource conservation practices. New modules to expand capacity of C-FARM are expected to continue in 2016 and beyond. NRCS is continuing enhancement to soil moisture monitoring and water supply forecasting technologies. In addition to these research initiatives, NRCS is also a key contributor in USDA Regional Hubs to for delivery of information and technical assistance related to climate change vulnerabilities, adaptation, and mitigation. NRCS is implementing actions that will enhance efforts to reduce GHG emissions, increase carbon sequestration, and mitigate drought on working agricultural lands of the U.S. Development of training curricula in climate change and energy are continuing to advance.

Conservation Practice Standards, along with the Conservation Planning Process, are the foundation of NRCS's technical assistance program. NRCS's Conservation Practice Standards are used by local, state, and Federal government agencies as well as by non-governmental organizations engaged in working lands conservation. NRCS conservation practices are being examined for 1) inherent climatic assumptions or data in relevant practice standards, and 2) modifications that might be needed in light of possible climate changes.

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. This request will help enhance NRCS's efforts in reaching out to these farmers and ranchers.

In 2014, NRCS programs, including the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP), and Agricultural Management Assistance Program provided assistance to Historically Underserved customers, which include beginning, limited resource, and/or socially-disadvantaged producers. Following are contracts and financial assistance provided to those customers:

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- \$99 million in financial assistance on 3,764 contracts with socially disadvantaged farmers and ranchers to treat about 2.3 million acres.
  - \$204 million in financial assistance on 8,860 contracts with beginning farmers and ranchers to treat about 1.9 million acres.
  - \$20 million in financial assistance on 1,046 contracts with limited resource farmers and ranchers to treat about 281,740 acres.
- c. An increase of \$1,500,000 and 0 staff years to enhance program effectiveness and coordination through place-based activities (\$0 and 0 staff years available in 2016).

Currently, 85 percent of our country's persistent poverty counties are in rural America. These counties are defined as places where over 20 percent of the population has been living at or below the poverty line for 30 years or more. The fact that a person's zip code is such a strong determinant of their life opportunities, can only be understood by considering place in a broader framework in which race, class, education, and other forces are important factors. For instance, recent data shows that more than one third of rural Americans and one in four rural American children live in poverty. Those children that grow up in families earning twice the poverty threshold or below are nearly three times as likely as other children to have poor health, are more likely to finish two fewer years of school, and are more likely to earn half as much money in their adult life. In order to break this cycle, it is necessary to combat the issues underlying these high rates of poverty in rural America. Recognizing this, the Department shifted its focus to place-based program delivery in the communities that are most affected by persistent poverty. Since 2010, USDA has delivered this strategy through the StrikeForce initiative that now operates in 970 counties, in 25 States and in Puerto Rico. The addition of resources dedicated exclusively to the coordination of USDA investments in these communities is essential to achieve further advancement of StrikeForce and other place-based initiatives.

The USDA's StrikeForce initiative utilizes a dual strategy for place-based work; undertaking micro-scale, place-based initiatives that tackle problems at the local level; while working to simultaneously address macro-scale issues through high-level systems change. This collaborative approach to addressing "spatially-concentrated poverty" combines supporting initiatives and civic infrastructure capacity building, with community based learning centers, community colleges, and cooperative extension resources to create a "campus of learners" where residents can live in an educational setting designed, not as a long-term subsidized destination, but as a place to prepare for an independent future. When this approach is focused by area, it allows for the concentration of resources in close proximity, developing synergies and investment vehicles that would otherwise be impractical on a larger scale. The resulting development of neighborhood topology is crucial because the proximity of different income groups creates natural ladders for household advancement. Low-income families are more likely to hear about promising employment opportunities if they are living near and socializing with people who have solid jobs with career ladders. Low-income parents are more likely to get engaged in educational oversight and governance when they regularly witness the engagement of middle class parents in the process. Start-up entrepreneurs are more likely to succeed if they have access to more established business owners and customers.

USDA's StrikeForce initiative has demonstrated the overwhelming success of this comprehensive approach to Federal engagement in rural America each year by partnering with more than 1,500 community organizations, businesses, foundations, universities, and other groups to support almost 188,000 projects, investing close to \$23.8 billion in high poverty areas. In 2015 alone, StrikeForce created or saved more than 11,595 jobs and made over 133,000 investments in housing members of those communities. Despite these results, the long-term success of this strategy is dependent on consistent and strategic investments with an ever expanding scope of impact.

Taking the view that communities are not monolithic entities but they are complex, ever-changing collections of diverse populations, interest groups, factions, stakeholders, and organizations which require analysis based on their civic capacity for collaborative problem solving, creating a shared community narrative, and attracting residents who are new economic participants, mandates an in-depth understanding

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of local community factors and personal relationships with community leaders. This has increasingly become a challenge as the growth of StrikeForce and other important place based initiatives has overtaken field staff capacity for implementation. Due to its inarguable success, StrikeForce has grown exponentially, more than doubling its geographic footprint each year, rapidly exceeding the capability of State and local staff that often accomplish place-based activities as a collateral duty, detrimentally affecting the group's ability to engage communities where they are and meet their needs.

Further, public policies provide an overall environment for directing resources to areas of concentrated poverty, and local initiatives ensure that specific neighborhoods can absorb those resources. Conversely, neighborhood initiatives provide prototype solutions and proof points that inform and build the case for public policies. This combination of policy and problem solving, with demonstrable results, would be accomplished through the continuity of a strategic place-based focus complemented by a dedicated and permanent staffing structure to ensure the long-term and continued success of this policy priority. Provision of the requested funding to each of the three USDA Service Center Agencies (SCAs), RD, FSA, and NRCS would support five additional field staff per SCA, whose primary focus will be to ensure that USDA resources are coordinated to address rural poverty challenges through place-based strategies. In particular, there will be an emphasis on focusing resources in support of Alaskan Native communities. It is expected that at least two staff from each SCA would focus on supporting these communities. In addition, each of the place-based staff will focus on improved coordination of USDA activities in support of economic recovery activities stemming from natural disasters and other emergency events.

These critical employees would enhance the collaborative results of USDA programs in the field by providing a center-point relational understanding of all programs available to a community while empowering community leaders as they see how their neighborhood initiatives are integrated with policy, help create an impetus where independent neighborhood initiatives learn from one another based on self-defined needs, and foster replication of best practices in a free form, decentralized manner. The ability of these staff to facilitate the communication and coordination among SCAs that is necessary to effectively leverage USDA resources across the country for a common purpose, will also enhance the capability of Departmental resources to improve economic recovery efforts by taking advantage of expanded cost saving measures accomplished through newly realized strategic sourcing opportunities, yielding efficiencies in activities such as outreach and strategic planning of community investments.

- (2) A net increase of \$802,000 in funding for the Soil Survey Program (\$80,000,000 and 403 staff years available in 2016).

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 2017, 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.

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- a. An increase of \$802,000 for pay costs (\$165,000 for annualization of the 2016 pay increase and \$637,000 for the 2017 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 Science and Resource Assessment program activities and will be used to pay the increased salaries and benefits cost for 403 staff years.

- (3) A net increase of \$80,000 for the Snow Survey and Water Supply Forecasting Program (\$9,300,000 and 50 staff years available in 2016).

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 streamflows in western States and Alaska.

As one of the largest benefactors of the Nation's surface and ground water supply, agricultural practices (especially irrigated agriculture) rely extensively on the information gathered exclusively from SNOTEL sites. In 2000, almost 34 percent of the water withdrawn from surface water and groundwater was used in irrigated agriculture. Competition for water in these areas is increasing as needs compete with an increasing human population.

The SSWSF Program operates, maintains, and controls the only operational, quality-controlled, high elevation climate network in the world. The Snow Telemetry (SNOTEL) network is designed to collect snowpack and related climatic and soils data at 880 (currently) remote sites in the western continental U.S. and Alaska. This network, which has been operating continuously since 1978, uses meteor-burst communications technology to collect data in near real-time at two receiving master stations. The major function of the SNOTEL network is to provide data that are used to provide water supply forecasts at over 700 locations in the West in support of irrigated agriculture. Many of these locations are major reservoirs that are managed for multiple uses. Besides river and reservoir management, the network also provides data for emergency decisions for floods and droughts, administration of recreational resources, power generation, climate variability studies, air and water quality investigations, climate change, and endangered species habitat. It is used to make adjustments for satellite modeling of spatial snow cover extent, water content, snow depth, and soil moisture worldwide. SNOTEL data will become increasingly more valuable to estimate water availability in the West as the demand increases.

In 2017, 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, municipalities and private individuals who access the National Water and Climate Center annually. 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.

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- a. An increase of \$80,000 for pay costs (\$18,000 for annualization of the 2016 pay increase and \$62,000 for the 2017 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 50 staff years.

- (4) A net increase of \$81,000 in funding for the Plant Materials Centers (\$9,400,000 and 77 staff years available in 2016).

Our Nation is facing an increasing array of harmful environmental stresses. The historic Sierra-Cascade Drought in California and the disruptive Great Lakes Algae Blooms are two of many stressors affecting not just Farmers and Ranchers but the public in the form of increasing food costs and decreasing supply of domestic produce to consumers. The essential plant information developed and offered by NRCS's twenty-five Plant Materials Centers (PMCs) have proven to reduce harmful natural and manmade stressors. The PMC funding provides essential frontline tools, technical publications, and information designed to mitigate stresses and build resilient landscapes that can react to future stressors.

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 regional climate change strategies.

The work of PMCs increases the resiliency of our agricultural ecosystems and aquifers 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 \$81,000 for pay costs (\$20,000 for annualization of the 2016 pay increase and \$61,000 for the 2017 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 77 staff years.

- (5) A net decrease of \$5,600,000 in funding for Watershed Projects (\$5,600,000 available in 2016)  
NRCS will continue to provide assistance to sponsoring local organizations to prepare and implement watershed project plans for authorized ongoing watershed projects with a primary purpose of providing water to rural communities.
- (6) A net decrease of \$5,000,000 in funding for Watershed Protection (\$5,000,000 in available 2016)  
NRCS will continue to provide assistance to sponsoring local organizations to prepare and implement watershed project plans for the purposes of flood prevention, watershed protection, public recreation, public fish and wildlife, agricultural water management, municipal and industrial water supply, water quality management, and watershed structure rehabilitation. These plans will focus on authorized ongoing projects with a primary purpose of watershed protection by stabilizing stream channels, tributaries, and banks to reduce erosion and sediment transport for authorities under section 13 of the Flood Control Act of December 22, 1944 (P.L. 78-534).

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### Private Lands Conservation Operations – Appropriations Language Changes

#### Explanation of Changes:

The 2017 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, \$1.034 billion of technical assistance funding would transfer to PLCO, with allowance for additional transfers, if needed.

This proposed change consolidates all technical assistance funding into a single account for 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.

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands and Staff Years (SYs))

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama.....	\$9,643	82	\$8,563	74	\$10,637	82	\$9,570	82
Alaska.....	3,807	29	4,241	25	5,268	28	4,739	28
Arizona.....	6,135	62	6,772	65	8,413	73	7,569	73
Arkansas.....	10,025	94	10,080	73	12,521	81	11,266	81
California.....	17,529	149	17,307	126	21,500	140	19,344	140
Colorado.....	12,522	106	12,458	103	15,477	114	13,925	114
Connecticut.....	3,031	21	3,103	19	3,855	21	3,469	21
Delaware.....	1,894	14	1,761	13	2,188	15	1,969	15
Florida.....	8,458	82	8,026	80	9,971	89	8,971	89
Georgia.....	10,759	97	10,573	91	13,134	101	11,817	101
Hawaii.....	6,952	60	6,825	48	8,478	53	7,628	53
Idaho.....	8,923	86	8,840	85	10,980	95	9,879	95
Illinois.....	14,905	138	13,522	89	16,798	99	15,113	99
Indiana.....	12,041	103	10,199	80	12,670	88	11,400	88
Iowa.....	20,514	181	19,967	159	24,805	177	22,317	177
Kansas.....	17,359	193	17,237	176	21,412	195	19,265	195
Kentucky.....	10,862	100	10,247	88	12,729	98	11,453	98
Louisiana.....	10,359	105	10,210	101	12,683	112	11,412	112
Maine.....	4,241	38	3,927	36	4,879	40	4,389	40
Maryland.....	4,869	37	4,603	37	5,718	42	5,145	42
Massachusetts.....	3,469	26	2,720	26	3,379	29	3,040	29
Michigan.....	9,835	90	8,738	77	10,855	86	9,766	86
Minnesota.....	12,757	108	9,777	85	12,146	94	10,928	94
Mississippi.....	12,961	115	11,257	94	13,984	104	12,582	104
Missouri.....	25,243	217	25,250	161	31,377	178	28,230	178
Montana.....	13,479	134	13,744	133	17,073	147	15,360	147
Nebraska.....	14,608	136	14,118	122	17,538	136	15,779	136
Nevada.....	3,487	27	3,340	24	4,149	26	3,733	26
New Hampshire.....	2,934	27	2,829	25	3,514	28	3,162	28
New Jersey.....	4,085	35	4,086	32	5,076	36	4,567	36
New Mexico.....	7,425	55	7,212	46	8,960	51	8,061	51
New York.....	8,542	74	8,438	79	10,483	88	9,431	88
North Carolina.....	8,175	76	7,942	72	9,866	80	8,877	80
North Dakota.....	12,505	124	11,678	104	14,507	115	13,052	115
Ohio.....	10,104	89	10,164	86	12,626	95	11,360	95
Oklahoma.....	13,355	150	13,105	137	16,279	152	14,647	152
Oregon.....	10,030	74	8,845	53	10,987	59	9,885	59
Pennsylvania.....	9,292	80	8,420	75	10,460	83	9,411	83
Puerto Rico.....	3,070	30	2,986	28	3,709	31	3,337	31
Rhode Island.....	2,330	20	2,180	18	2,708	19	2,436	19
South Carolina.....	6,612	57	5,386	48	6,691	54	6,020	54
South Dakota.....	10,684	105	10,682	97	13,269	108	11,939	108
Tennessee.....	10,954	106	10,611	99	13,181	110	11,859	110
Texas.....	33,726	304	34,226	285	42,518	317	38,254	317
Utah.....	6,658	55	7,764	62	9,646	69	8,679	69

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

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

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Vermont.....	3,533	31	3,293	31	4,091	35	3,681	35
Virginia.....	8,077	82	7,706	77	9,573	85	8,613	85
Washington.....	10,446	97	10,789	93	13,403	103	12,059	103
West Virginia.....	6,675	67	6,211	57	7,715	63	6,942	63
Wisconsin.....	11,513	113	10,733	89	13,333	99	11,996	99
Wyoming.....	6,372	58	6,225	57	7,734	63	6,958	63
National Hdqtr.....	290,568	1,377	282,189	1,210	351,018	1,345	315,817	1,345
National Centers.....	11,835	-	8,298	77	10,308	86	9,275	86
Undistributed FB TA*.....	-	-	-	-	-	-	1,033,983	5,532
Obligations.....	800,168	5,916	769,401	5,327	956,272	5,920	1,894,357	11,452
Lapsing Balances.....	11,497	-	39,855	-	-	-	-	-
Bal. Available, EOY.....	61,416	-	125,604	-	-	-	-	-
Total, Available.....	873,081	5,916	934,860	5,327	956,272	5,920	1,894,357	11,452

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

NATURAL RESOURCES CONSERVATION SERVICE

PRIVATE LANDS CONSERVATION OPERATIONS

Classification by Objects

(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>	<u>Estimate</u>
<b>Personnel Compensation:</b>				
Washington D.C.....	\$23,724	\$92,684	\$114,299	\$117,747
Field.....	348,838	245,908	303,309	750,613
11 Total personnel compensation.....	372,562	338,592	417,608	868,360
12 Personal benefits.....	129,500	121,852	150,348	299,141
13.0 Benefits for former personnel.....	288	185	231	315
Total, personnel comp. and benefits.....	502,350	460,629	568,187	1,167,816
<b>Other Objects:</b>				
21.0 Travel and transportation of persons.....	27,809	30,159	30,676	42,501
22.0 Transportation of things.....	1,045	1,110	1,390	1,745
23.1 Rental payments to GSA.....	-	15,207	30,160	30,462
23.2 Rental payments to others.....	38,645	34,506	59,825	113,890
23.3 Communications, utilities, and miscellaneous charges.....	2,902	2,353	3,019	5,661
24.0 Printing and reproduction.....	471	832	1,034	1,624
25.1 Advisory and assistance services.....	-	-	-	-
25.2 Other services from non-Federal sources.....	78,007	58,177	76,109	198,344
25.3 Other goods and services from Federal sources.....	-	1,215	2,338	2,361
25.4 Operation and maintenance of facilities.....	115,627	128,859	138,057	253,084
25.5 Research and development contracts.....	-	-	-	-
26.2 Supplies and materials.....	10,752	9,927	12,373	19,060
31.0 Equipment.....	22,611	25,455	31,896	56,785
32.0 Land and structures.....	6	516	772	626
32.1 Easements.....	-145	71	-	-
41.0 Grants, subsidies, and contributions.....	-36	22	-	-
42.0 Insurance claims and indemnities.....	96	352	437	393
43.0 Interest and dividends.....	28	11	-	4
99.5 Adjustment for rounding.....	-	-	-1	1
Total, other objects.....	297,818	308,772	388,085	726,541
99.9 Total, new obligations.....	800,168	769,401	956,272	1,894,357
DHS Building Security Payments (included in 25.3).....	-	\$1,215	\$2,338	\$2,361
<b>Position Data:</b>				
Average Salary (dollars), ES Position.....	\$169,597	\$170,364	\$172,068	\$174,305
Average Salary (dollars), GS Position.....	\$69,075	\$68,631	\$69,317	\$70,218
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).

# NATURAL RESOURCES CONSERVATION SERVICE

## Private Lands Conservation Operations

### Status of Programs

#### Current Activities.

**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 – Voluntary, incentive-based conservation is the best way to achieve positive environmental results, and that requires strong partnerships and coalitions to promote an ethic of conservation stewardship among America's private landowners.

In addition, the plan incorporated the agencies 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 2015, the agency further refined key outcome-based performance measures that were supported by available conservation science and agency business tools. The selected measures reflect the outcome efforts while working with private landowners and managers. These measures are also compliant 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

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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 and NRCS 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 concerns. The NRCS Chief establishes CTA Program national priorities and initiatives on a yearly or multi-year basis in order to focus agency resources on specific program objectives. States may establish additional priorities and initiatives for the CTA Program. The agency has a full array of processes to focus CTA Program resources on national and State priorities and initiatives. These processes include, but are not limited to:

- Strategically positioning staff to address natural resource needs;
- 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;
- Expanding technical capacity, including the use of Technical Service Providers (TSPs); and
- Developing public information and outreach strategies.

### 2015 Activities.

In 2015, CTA 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;

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- Protecting wildlife through the Working Lands for Wildlife (WLFW), a new 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 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 had higher demands for technical assistance or had not previously participated in NRCS programs but who are critical in solving the identified resource concerns in special initiative areas;
- Entering into agreements with conservation partnerships in order to leverage local funds and provide additional technical assistance;
- Accelerating focused technical assistance through landscape conservation initiatives such as the Great Lakes Restoration Initiative, Sage Grouse Initiative, Gulf of Mexico Initiative, and the Mississippi River Basin Healthy Watersheds Initiative;
- Addressing growing demand for pre-program conservation planning support for Farm Bill programs such as the Environmental Quality Incentives Program, 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.

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. The 2015 examples of CTA Program 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 2015, NRCS assisted in developing conservation plans on 26 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 land apply conservation to improve the resource base on over 13 million acres.

Eliminate and reduce impairments to water bodies. 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 18 million acres of agricultural land had conservation practices applied as designed by the agency to improve off-site water quality.
- Nearly half a million 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.

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- 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 21,000 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, wildlife habitat, and beautiful open space. In 2015, 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.

The agency partners with the Grazing Lands Conservation 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 2015, over 24 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 the future generations.

The additional focus on grazing lands conservation conveyed by the Coalition also had additional benefits. For example, grazing lands conservation partners get the agency's help to expand the NRI of non-forested Bureau of Land Management (BLM) lands in order to provide a statistically-based sample design that is common to both agency. This new partnership is expanding both agencies' understanding of the ecology of the "greater landscape" encompassing the intertwined public and privately managed lands. Understanding of management needs for the Sage Grouse now aids the efforts of private ranchers, agencies, and non-government organizations that dedicate their time and knowledge to habitat restoration for this species. BLM is providing NRCS \$12.5 million over five years for the service, data collection will continue through 2016. This inventory is critical for both agencies since these Federal lands are intertwined with non-Federal rangelands where land management units typically span both ownership types.

NRCS's Ecological Site Information System (ESIS) 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 agency's partners with the Society for Range Management (SRM) 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.

Clean Water Activities. 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. Works with the agricultural community and implements 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: Concentrated Animal Feeding Operation (CAFO) Rule implementation; nutrient management; pesticide drift under

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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 harmful algal blooms and improve water quality across the landscape.

NRCS embarked upon a series of national and regional conservation initiatives 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 2015, the agency provided 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 183 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 2015, the agency continued to provide water quality leadership through the development, advancement, and demonstration of new and innovative approaches to improving water quality. Below are some of the activities and advances:

- Served 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 2015, two new conservation practices were developed to improve the quality of runoff water from working agricultural lands. Conservation Practice Standard (CPS) Code 333, Amending Soil Properties with Gypsum Products, was developed with a purpose of improving surface water quality by reducing dissolved phosphorus concentrations in surface runoff and subsurface drainage. CPS Code 605, Denitrifying Bioreactor, is a structure that uses a carbon source, such as wood chips, to reduce the concentration of nitrate nitrogen in subsurface agricultural drainage water. In addition to these two new CPSs, several other practice standards that provide clean water benefits were revised and improved during 2015.
- 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 efficacy of conservation practices, helping farmers improve and verify the effectiveness of agricultural conservation practices and systems on their farm and fields. During 2015, the agency provided funding of over \$6 million for 39 monitoring projects in eight States. Edge-of-field monitoring results are not reported due to confidentiality requirements specified in Section 1619 of the Farm Bill, but participating farmers are reporting positive results.
- 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. An average CNMP takes approximately 100 hours of staff time to develop. Since 2009, NRCS personnel, conservation partners, and technical service providers have assisted 15,629 livestock and poultry producers in developing new CNMPs. Because 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.
- Developed tools to help producers evaluate the benefits of installed conservation practices for water quality improvement. The Water Quality Index for agricultural runoff, (WQIag), is a Web-based tool that allows a producer to input variables for a field, such as slope, soil characteristics, nutrient and pest management, tillage, and conservation practices. The WQIag takes the complex scientific information of the variables and synthesizes them into a single number—an index. The tool 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. The agency scientists chose a solution inspired by the Dow Jones Industrial Average and worked to develop a tool that clearly communicates to farmers and ranchers with a single, easy-to-understand number.
- The agency is also developing 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. In a single run, NTT simulates two different scenarios—baseline and alternative—to estimate and compare the impact of alternative management on nutrient and sediment loading and crop yield. These results can be used by field staff to aid in conservation benefit analysis and resource

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planning. These values may also be used as the science-based calculations in water quality markets to estimate nutrient loads.

- Completed two regional reports from the Conservation Effects Assessment Project (CEAP) and released CEAP cropland reports on the effects of conservation practices on cropland in the Texas Gulf Basin and Delaware River Basin. The reports are the latest in a series of regional reports that continue the tradition within USDA of assessing the status, condition, and trends of natural resources to determine how to improve conservation programs to meet the Nation's needs. In addition, the reports use a sampling and modeling approach to quantify the environmental benefits that farmers and conservation programs are currently providing to society, and explore prospects for attaining additional benefits with further conservation treatment.
- Collaborate with agricultural groups, States, universities and other Federal agencies 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 participates in several working groups that gathered "real world" numbers on nutrient production and utilization in the Delaware, Maryland, and Virginia area. These working groups provide 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, is working 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 that propagate native trees to plant in critical areas and help ensure wildlife conservation practices are properly implemented with certified conservation practices. The agency is also working 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 acquires, 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 is recognized as the statute that specifically articulates the NRI program. CEAP was authorized under the Farm Security and Rural Investment Act of 2002 Conference Report to Accompany H.R. 2646 (4a, b) and the Soil and Water Resources Conservation Act of 1977 (RCA), as amended (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, realistic strategic and performance plans, 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 2015 NRI activities included:

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- NRI Production Work. During 2015, staff at the Remote Sensing Laboratories performed image registration and location certification for imagery acquired for the 2014 NRI. The staff also collected 2014 NRI data from images of over 66,000 sample sites and approximately 200,000 points. The contracts for acquiring aerial photography for over 71,000 segments for the 2015 NRI have been awarded.
- 2012 NRI Release. The 2010 “mid-cycle” release of NRI data was updated with 2012 data in the 2012 NRI Summary Report that was posted to the NRI website in August 2015. The report contains an extensive set of tables of estimates; additional tables were provided to each State office, and numerous requests for custom tables and datasets were filled.
- NRI Survey of Farming and Conservation Practices. The partnership between NRCS and the National Agricultural Statistics Service (NASS) was renewed in order to obtain updated NRI CEAP survey data and revise the assessments of the environmental effects of conservation programs and practices implemented in several crucial watersheds throughout the country. This work updates CEAP results based on data collected in the first CEAP survey from 2003 to 2006. Data collection activities supporting the Lower Mississippi-St. Francis Watershed occurred in late 2014 and early 2015. Planning for the refresh of the CEAP National farmer survey started in late 2014 and continued into 2015. Data collection for the 2015 portion of the refresh began in late 2015. This effort will provide the data for a second series of national reports, with the 2003-2006 data serving as the benchmark to measure changes in conservation practice adoption over time.
- On-site Data Collection on Bureau of Land Management (BLM) Lands. NRCS and BLM have agreed to continue 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 agreement, begun in 2011, is being extended to near the end of FY 2016. 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 2015, NRCS collected data on over 1,300 sites on BLM lands. These data are being reviewed by an interagency team and will be used in reports for the Sage-Grouse and Great Basin initiatives 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 western grazing lands.
- 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 2015, the Remote Sensing Laboratories processed over 20,000 images to support this effort.

CEAP is a multi-agency effort designed to quantify the environmental benefits 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 conservationists, farmers, and ranchers make more informed conservation decisions.

Under the CEAP program, assessments of the benefits of conservation practices 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.

The 2015 CEAP activities included:

Cropland Assessment. Reports on the Delaware River Basin and the Texas Gulf Region are the final two reports in the twelve-report nationwide series of CEAP-Cropland assessments. Based on the benchmark 2003-2006, national cropland survey were released to the public in November 2014 and July 2015. Findings for the twelve basin assessments showed that, on average, the use of conservation practices on U.S. cropland have:

- Reduced edge-of-field sediment losses by 50.7 percent, with reduction magnitudes ranging from 27 percent in the Lower Mississippi Basin to 73 percent in the Missouri Basin;

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- Reduced nitrogen losses with surface runoff by 43.3 percent, with reduction magnitudes ranging from 26 percent in the Lower Mississippi Basin to 67 percent in the Souris-Red-Rainy drainage;
- Reduced nitrogen losses through subsurface pathways by 32.0 percent, with reduction magnitudes ranging from 5 percent in the Lower Mississippi Basin to 71 percent in the Souris-Red-Rainy; and
- Reduced total phosphorus losses by 42.5 percent, with reduction magnitudes ranging from 33 percent in the Ohio-Tennessee Basin to 59 percent in the Missouri Basin.

Four CEAP-Cropland Special Studies are being developed, including reports based on data collected in 2012 for the Western Lake Erie Basin (WLEB) and 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 management since the 2003-2006 national survey 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 environmental effects of applying conservation practices 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 Initiative (GLRI) II in setting reasonable conservation practice adoption goals in the Western Lake Erie Basin. CEAP-Cropland team continue to provide guidance as members of the GLRI Measures of Progress team. 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 in the Great Lakes region. The final reports should be completed in 2016.

Texas and Vermont versions of the Systematic Tool for Analyzing Resources (STAR) were completed in November 2014 and September 2015. The STAR tool is a web-based interface that enables the user to couple NRCS Toolkit conservation plans to the Agricultural Policy/Environmental eXtender Model (APEX), a whole farm/small watershed management model. The model has the capability to evaluate various land management strategies and takes into consideration sustainability, erosion (wind, sheet, and channel), economics, water supply and quality, soil quality, plant competition, and weather. APEX can be used to evaluate practices such as grassed filter strips, riparian buffers, and grassed waterways for efficacy at capturing sediment and nutrients from runoff on a field-by-field basis. STAR enables the user to compare current conditions/conservation practices with potential alternative scenarios to allow for the selection of the conservation practice(s) that will address the resource concern(s) and provide the greatest benefits/savings. The agency offices in Connecticut, Rhode Island, and Massachusetts have plans to develop versions of the STAR tool for each of their States in the near future.

Wetlands Assessment. Regional project reports and publications completed in 2015 are:

- The Integrated Landscape Monitoring Partnership: Current Status and Future Direction – summarizes findings by the U.S. Geological Survey that identify, evaluate, and develop the Integrated Landscape Model to quantify conservation implementation effects relative to wetland ecosystem services;
- Effects and Effectiveness of USDA Wetland Conservation Practices in the Mid-Atlantic Region: A Draft Report on the First Phase of the Mid-Atlantic Regional Wetland Conservation Effects Assessment Project – summarizes findings by ARS on ecosystem functions provided by wetlands restored through USDA conservation programs;
- Modeling the effects of conservation grassland losses on amphibians;
- Placing prairie pothole wetlands along spatial and temporal continua to improve integration of wetland function in ecological investigations;

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- Mapping large-area landscape suitability for honey bees to assess the influence of land-use change on sustainability of national pollination services;
- Amphibian community responses to Playa restoration in the Rainwater Basin - Nebraska
- Soil organic carbon in Playas and adjacent prairies, cropland, and Conservation Reserve Program land of the High Plains, USA;
- Plant Biomass and Nutrients (C, N, and P) in Natural, Restored, and Prior Converted Depressional Wetlands in the Mid-Atlantic Coastal Plain, U.S.;
- Integrated Landscape Model algorithm reports – Potential models for predicting wetland contaminants and avian habitat biodiversity in Great Plains wetlands;
- CEAP Science Note – Assessing the Effects of Wetland Practices in Agricultural Landscapes: A Conceptual Model for Wetland Plant Diversity;
- CEAP Science Note – Assessing Wetland Morphometries and Ecosystem Functions in Agricultural Landscapes of the Atlantic Coastal Plain Using Fine-Scale Topographic Information.

Other Wetlands activities included:

- A county-level analysis, “CRP Effects on the Ogallala Aquifer,” assessed the effect of playa wetlands conservation from the Conservation Reserve Program on the Ogallala (High Plains) Aquifer.
- A study on land-use effects on sedimentation and water storage volume in playas of the Rainwater Basin (RWB) of Nebraska compared water storage volume and sediment loads in RWB playas to surrounding cropland, reference condition, and restored Wetlands Reserve Program land uses to improve wetland ecosystem services.

Wildlife Assessment. CEAP-Wildlife regional assessments completed in 2015 include:

- Monitoring and Evaluating Golden-Winged Warbler Use of Breeding Habitat Created by the Natural Resources Conservation Service Practices;
- An Assessment of Landscape Carrying Capacity for Waterfowl and Shorebirds in Nebraska’s RWB;
- CEAP Conservation Insight – Wetlands Provide Vital Sage-Grouse Summer Habitats on Private Lands;
- CEAP Conservation Insight – Weather Surveillance Radar Reveals Bird Response to the Migratory Bird Habitat Initiative; and
- CEAP Conservation Insight – USDA Programs Contribute to Waterfowl and Shorebird Carrying Capacity on RWB Wetlands in Nebraska.

Some assessments initiated in prior years were continued in 2015, including assessments of the effects of conservation practices associated with the Working Lands for Wildlife 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). The multi-partner effort to develop biological endpoints, and aquatic biota metrics, for CEAP water quality modeling efforts in the Western Lake Erie Basin continued in 2015. This major effort to link CEAP-Wildlife and Cropland components is expected to be completed in early 2016. The CEAP-Wildlife component also continued efforts to integrate biodiversity metrics with CEAP grazing lands modeling in the desert Southwest. Efforts to integrate findings from SGI and LPCI were undertaken as well.

Grazing Lands Assessment. As with other CEAP components, the Grazing Lands component relies on key partners in completing assessments. In 2015, these partners included the Agricultural Research Service (ARS), several universities, and specific Native American nations. Additionally, various State Offices are providing needed technical input.

Primary CEAP Grazing Lands component activities and accomplishments in 2015 include the following:

- Incorporation of the erosion component of the Rangeland Hydrology and Erosion Model (RHEM) into the Agricultural Policy/Environmental eXtender Model is complete. APEX is the over-arching model that will be used by the CEAP Modeling Team to run conservation scenario simulations on the Nation’s grazing lands. APEX-REM is fully operational but is undergoing calibration and validation on selected datasets in preparation for release. The release date is planned to coincide with the release of the improved grazing and plant growth algorithms in the new APEX Grazing Module.

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- Collaboration with the National Ecological Site Team, Ecological Site Specialists, and ARS in Las Cruces, New Mexico, is producing generalized State-and-Transition Models for groups of ecological sites. Work was completed in Major Land Resource Areas (MLRA) 74 (Kansas) and 77C (Texas/New Mexico) in August 2015; modeling of those groups began in December 2015. Ecological site grouping work in MLRA 67B and 69 (Colorado), and 77E (Texas) will begin in January 2016. 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.
- Projects on plant growth data and rangeland monitoring are ongoing with partners in Arizona (private ranchers and San Carlos Apache Tribe) and Montana (NRCS and ARS at Fort Keogh). One of the Arizona projects tracks production and leaf area of woody plants using techniques not previously attempted. A new ARS/NRCS joint publication on the topic is planned for 2016. The data obtained in this project are used to assign parameters to plants in APEX modeling conservation effects on plant production.
- The CEAP Modeling Team continues to collaborate with the Texas A&M Black land Research and Extension Center on improving grazing and plant growth algorithms in APEX. The team has made some changes and identified additional routines required to simulate grazing and plant growth/response in a more realistic manner. Some of the new additions to APEX grazing lands modeling routines include variable forage intake rate based on forage quality factors, forage preference, variable manure output, and evaluation of animal performance. All of the additions underwent rigorous validation exercises in 2015 for datasets in South Dakota, Kansas, Texas, and Arizona. Results will be conveyed via a three-part series that will be submitted to selected journals in 2016.
- Collaboration with ARS-Tucson has produced a remote sensing woody plant map and canopy cover estimation technique using no-cost imagery. Validation of the resulting algorithm was performed using very high resolution (0.3 m) National Resources Inventory imagery. The newly developed spatial maps of woody cover can be used to assess the effectiveness and duration of brush removal treatments. Investigations were completed in MLRA 41 (Arizona), and 81C and 83A (Texas) in 2015; additional MLRAs will be completed in 2016 and beyond. This work provides land managers with an operational means of determining where to allocate resources to implement brush management, as well as a cost-effective method of monitoring the effects of their efforts. The study on techniques used in MLRA 41 was published in the Journal of Applied Remote Sensing in spring 2015.
- The development and use of a nationwide Grazing Land evaluation tool for the Resource Stewardship Initiative has been a focal activity for CEAP-Grazing Lands in 2015. Release of the grazing land tool, in a secure web-based application is planned for December 2015.
- 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 Land datasets and improve the ability to model conditions on complex and highly variable rangelands.

CEAP Watershed Assessment Studies. Long-term watershed assessment projects, conducted in partnership with ARS, were a significant element of CEAP. Projects continue to 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 the watershed-based approach of targeted NRCS Conservation Initiatives. A major effort continues to be summarizing and extending lessons learned synthesized across the projects, adding value to the individual watershed case studies, and applying insights directly to NRCS core business elements. Emphasis continues to be on working collaboratively within NRCS on water quality Conservation Initiatives and the Regional Conservation Partnership Program (RCPP) to provide support and translate key findings into program guidance and design.

Significant CEAP Watershed Assessment accomplishments and activities in 2015 include the following:

- A public webcast, presented as part of the Watershed Academy training series, highlighted key findings of the CEAP Watershed Studies. The latest science and conservation insights relevant to nitrogen management, phosphorus control, and targeting within watersheds were synthesized and presented. The webcast on CEAP Watersheds Lessons Learned, a 1.5-hour session, drew over 750 participants – a record-setting attendance for this training series that indicated substantial interest and attention to the valuable findings from this work. The webcast was developed to communicate conservation insights to a practitioner-based audience of conservationists and watershed managers, including many NRCS employees and partners. A recording of the webcast is available on the CEAP website.

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- A non-technical review paper, “What is causing the Harmful Algal Blooms in Lake Erie?” was developed with an emphasis on new science derived from three Western Lake Erie Basin CEAP Watershed Assessments. This short, three-page paper was published in the March/April 2015 issue of the Journal of Soil and Water Conservation, a publication read by many NRCS field and State staff and other conservation professionals. <http://www.jswnonline.org/content/70/2/27A.full.pdf+html>
- Denitrifying bioreactor conservation practice standards have been developed and tested in Iowa CEAP Watersheds. This past year, a modeling study of the Upper Midwest using data from three CEAP Watersheds analyzed potential nitrate nitrogen reductions in drainage water by strategically implementing bioreactors in the Upper Mississippi River Basin. Large-scale, significant reductions (up to percent) are estimated to be possible within watersheds based on this analysis. These findings are being used in watershed-based conservation projects in RCPP and the Mississippi River Basin Initiative (MRBI) to prioritize implementation of denitrifying bioreactors to address nitrogen concerns.
- In 2015, a special section in the Journal of American Water Resources Association that summarizes additional insights from CEAP Watershed Assessments was also published. A key paper in this section describes a review of conservation practice effects for sets of soil and hydrology conditions (land types) and provides a framework to support more effective selection of practices in the conservation planning process. A new process-based tool is presented to characterize hydrology and soils to enable better identification of critical areas within watersheds using available data.

### Getting Conservation on the Ground.

Efforts in 2015 focused on development of the Resource Stewardship Tool for Environmental Performance (STEP). This tool is used in evaluating how agricultural management, including conservation practices, affects water quality resource concerns. STEP records the benchmark condition of the land, incorporates farmer-reported agronomic management at the site and the ongoing conservation practices, and identifies opportunities for improvement. The evaluations and thresholds are land-use specific.

This year, lessons learned from CEAP Watershed Assessments were used to inform the guidance, design, and review criteria for small watershed conservation projects under the MRBI. This is a direct application of CEAP findings to support the design of NRCS conservation programs and projects as well as the selection of projects. Many insights on targeting conservation within a watershed were utilized as well as lessons on assessing outcomes and progress in these projects. For example, a new watershed conservation planning tool based on CEAP-Watershed science and insights will be utilized by partners in three new MRBI projects. Additionally, lessons learned were also used to support program guidelines and review criteria for the new Regional Conservation Partnership Program, particularly for water quality projects.

New data derived from CEAP Watershed Assessments document that small amounts of phosphorous in dissolved form can be lost through leaching into tile drains. Although the amounts are small, the data show that more is lost than previously known, and it can contribute to water quality concerns because of its reactive form. The information is being utilized by State and regional staff as well as conservation partners in the Great Lakes and Upper Midwest. A briefing was done for the Agricultural Water Management Team on these new findings and more effective conservation system options to address the issue were discussed for this region, including a new conservation practice, the blind inlet, which is very effective and was also developed in a CEAP Watershed study in the Western Lake Erie Basin (WLEB). Data was also used to update modeling algorithms for CEAP Cropland Modeling WLEB Study to more accurately simulate phosphorous losses and transport.

CEAP continues to provide assessments of the conservation efforts in various NRCS Initiative areas: the Mississippi River Basin Healthy Initiative, the Chesapeake Bay Watershed Initiative and related Executive Order, the Great Lakes Restoration Initiative, the National Water Quality Initiative, the Sage-Grouse Initiative, the Lesser-Prairie Chicken Initiative, the Migratory Bird Habitat Initiative, and Working Lands for Wildlife. Assessments conducted by all components of CEAP at regional and watershed scales inform the prioritization of conservation needs enabling NRCS to focus resources in more effective ways for the American public. Specifically, CEAP Watersheds and 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.

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Natural Resource Technology Transfer. NRCS ensures that field staff have the appropriate resources and necessary training to utilize the latest scientific research and technology for natural resource assessment, conservation planning, conservation system implementation, and delivery of program financial assistance. In 2015, technical training was provided and software applications developed and deployed that support conservation planning staff and clients.

Key activities in 2015 included:

- Technical Training. In support of the agency's goal of making the latest technology available to our field offices, 27 national conservation practice standards were released in November 2014 and 20 national conservation practice standards were created, revised or updated in 2015. Delivered 60 conservation webinars in 2015, and made an additional 226 on-demand webinars available in the Science and Technology Training Library. Topics ranged from soil health, cover crops, organic agriculture, and environmental compliance, to Highly Erodible Land/Wetland compliance, precision agriculture, and advances in water conservation through irrigation technologies. The webinars were viewed by over 30,600 participants, 20,000 of which were State, area and field office employees and nearly 13,500 were partners and public participants.
- Technical Assistance. The agency serviced more than 600 direct technical assistance requests from States and NHQ in 2015. The requests were for a variety of soil, water, air plants, animals, humans, and energy (SWAPA+H+E) topics, including soil health, air quality, climate change, fish and wildlife, grazing lands planning, water quality, plant materials, forestry and agroforestry.
- Dam Management and Safety. Enhanced its dam safety efforts 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 (USACE). DamWatch is a web-based application that provides real-time monitoring of hydrologic and seismic conditions associated with approximately 11,900 agency-assisted dams constructed through its watershed programs. The application stores files, drawings, emergency action plans, inspection reports, photographs, and other essential documents associated with the dams. Provided 12 training sessions for approximately 800 employees and watershed sponsors. As of September 2015, DamWatch had over 700 users nationwide.
- Conservation Client Gateway (CCG). This is a new 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 use CCG to apply for Farm Bill financial assistance in conservation programs such as the Environmental Quality Incentives Program. Clients can also electronically sign application and contract documents, track conservation payments for completed and certified contract items without driving to an office thus saving time and money. The CCG is a recipient of a USDA 2015 Abraham Lincoln Honor Award.
- Customer Service Toolkit (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 2015, significant improvements to the usability of the application were made, which allowed the agency's conservation planners to provide improved planning services to landowners. The improvements include a new planning data model that allows the planner to do land-centric planning. This change allows greater flexibility in managing planning data and improving data accuracy and planning efficiency. In addition, functionality was added to allow CST users to transfer planning land units when ownership or operators change. 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) is a new NRCS service that better communicates 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

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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 which interacts with the Customer Service Toolkit is set for rollout in February 2016. In 2016, as part of the National Water Quality Initiative (NWQI) the RSE will be utilized in over 80 watersheds in all 50 States to evaluate the effectiveness of the NWQI and recognize the stewardship benefits farms and ranches have achieved. About one-third of NWQI contracts will be evaluated in 2016.

RSE will continue to develop alternative systems to address the resource concerns and opportunities for enhancement of environmental performance.

- **LiDAR and IFSAR.** Facilitated the planning and investment of \$3 million for Light Detection and Ranging Optical remote sensing technology that yields a high-resolution digital elevation model (LiDAR) and \$450,000 for Interferometric Synthetic Aperture Radar (IFSAR) data for the 2014 and 2015. The National Geospatial Center of Excellence (NGCE) partnership with U.S. Geological Survey surpassed a 2:1 return on investment (ROI) for the acquisition of LiDAR and IFSAR. The agency is currently serving high-resolution elevation data from LiDAR covering approximately 591,568 Square miles of the United States via Esri ArcGIS Server REST services on the USDA network. The agency is also serving LiDAR and IFSAR data on the Geospatial Data Gateway as quad tiles for agency and public customers to provision the data to their own GIS systems to facilitate with conservation planning and design activities plus in applications like the Engineering Field Tools (EFT). Currently, the Geospatial Data Gateway has geospatial data at 1-, 2-, and 3-meter resolution geospatial data for over 30 percent of the U.S. and its territories. The agency's high-resolution elevation data mart has been implemented to support all customers and partners performing environmental analysis using geospatial science. The goal is to have nationwide elevation available for the contiguous 48 States at 1-meter resolution, with vertical accuracy of plus or minus 10 centimeters on non-vegetated areas.
- Hydrologists and engineers provide assistance to downstream communities preparing for post-wildfire effects by quickly analyzing landscape factors that affect runoff and erosion. The agency developed a technical note, "Hydrologic Analyses of Post-Wildfire Conditions" to assist with these analyses. This technical note discusses the specific impacts of wildfire on the runoff process and gives detailed information on several alternative ways to account for wildfire effects in hydrologic computer models.
- NRCS increased its ability to support soil health efforts in 2015 by hiring 15 staff members in preparation for a more intensive long-term national effort to train personnel and partners on soil health concepts and management implementation. In 2015 the agency reached more than 2,500 people with over 30 presentations and workshop sessions including soil health-focused webinars. The agency reached diverse audiences, from producers representing many production systems to other government staff, industry, consultants, extension staff, and researchers.

**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 and provisions of 16 U.S.C. §§ 3801; 3811-3814. USDA program participants must implement a conservation system on HEL cropped land that provides for a substantial reduction in soil erosion. In addition, when breaking out native vegetation, a program participant must implement a 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.

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As part of the technical responsibilities of implementing the HEL provisions, the agency conducts HEL determinations, which identify cropland fields that are highly erodible and subject to the provisions. In 2015, over 40,000 HEL determinations were conducted nationwide.

Wetlands Conservation (WC) Compliance. NRCS' responsibilities for wetlands conservation compliance are detailed in Title XII of the Food Security Act of 1985 (16 U.S.C. §§ 3801; 3821-3824). 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.

With the passage of the 2014 Farm Bill, NRCS received funding to develop and operate an agricultural wetland mitigation banking program. In 2015, NRCS has developed program guidelines and an announcement of program funding is scheduled for release in early 2016 which will solicit proposals to promote the development of wetland mitigation banks which will assist agricultural producers with meeting wetland compliance mitigation requirements.

One of the agency's significant responsibilities for WC involves conducting wetland determinations, which identify wetlands that are subject to the provisions, in violation of the provisions, or that are eligible for a specific exemption to the provisions. In 2015, over 29,000 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/WC provisions of the Food Security Act of 1985. Compliance status reviews are conducted annually in every State. Compliance status reviews are conducted on farm and ranch lands that have received USDA benefits, 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. Policy also requires the agency to conduct reviews of approximately one percent of HEL and/or WC cropland on farms that have received some government payment in the prior year. In addition, the agency must review five percent of all farm loan recipients from the prior year, and review HEL or WC tracts of cropland owned by any government employee every three years.

Penalties for non-compliance with the WC provisions range from a Good Faith Exemption issued by the Farm Service 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. Therefore, 2015 final review data will be available in February 2016. The results of 2014 reviews, which are displayed in the table below, show that a high percentage of program participants are following approved conservation plans and are in compliance with the HEL and WC requirements. In 2014, compliance reviews were conducted on 22,127 tracts, which include approximately 3.2 million acres of cropland. A total of 606 tracts, or 2.7 percent of the total reviewed, were found to not be in compliance: 388 tracts had HEL violations, and 240 tracts had WC violations. Of those, 22 tracts had both HEL and WC violations. Of the 21,521 tracts that were in compliance, approximately 5.2 percent (1,121 tracts) were deemed to be in compliance because they had been issued variances or exemptions as provided by statute. This indicates a relatively low rate of non-compliance, 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.

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Summary of Tract Reviews and Tracts Out of Compliance	2011	2012	2013	2014
Total Tracts Reviewed	22,210	24,309	23,627	22,127
Tracts Out of Compliance	530	744	680	606
Percent out of Compliance	2.4	3.1	2.9	2.7
Number of States Recording Non-Compliance	32	30	34	38

CTA Program Funds Customer Assistance. In 2015, over 600,000 customers were provided technical assistance and 95,000 customers received comprehensive planning assistance. Primary customers 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.

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.

In 2015, the CTA program resulted in:

- 26.0 million acres of conservation plans written;
- 18.0 million acres of conservation applied to improve water quality;
- 13.1 million acres of grazing and forest land conservation;
- 6.3 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 thousands of State agencies and local partners to deliver conservation technical and financial assistance. During 2015, these non-Federal partners contributed an estimated \$94 million of in-kind goods and services and over \$116 million in financial assistance toward addressing local resource concerns that coincide with the NRCS Strategic Goal to “Get Conservation on the Ground.” These leverage agreements allow the agency to enhance available funding by finding other partners, on a project-specific basis, in order to accomplish a task that could not be accomplished by NRCS alone.

Agency clients invest in conservation to achieve results for their business and for the land. Leveraging funds from a variety of sources to apply conservation is in the best interest of the clients, partners, and the agency to accelerate natural resource solutions. The agency continues to support innovation and non-traditional approaches to forge sustainable partnerships between private landowners, corporations, foundations, local natural resource agencies, and conservation organizations. With collaborative conservation, the agency helps conservation partners identify and implement solutions through partnership agreements that deliver mutual benefit.

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.

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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. This ensures that technical assistance is provided in accordance with the agency's statement of work associated with each conservation practice. All conservation practices and criteria are reviewed and updated annually. A specially designed website maintains certification criteria and a registry of TSPs. NRCS 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 2015, 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 nearly \$61.6 million in obligations for service. Forty-one percent of funds were distributed through the Environmental Quality Incentives Program (EQIP). The remaining 59 percent of TSP obligations were distributed through other conservation programs such as the Agricultural Conservation Easement Program, Conservation Reserve Program and Watershed Programs. Nearly 2,100 certified TSPs are available to help program participants apply conservation.

In 2015, TSPs played a key role in the implementation of Conservation Activity Plans (CAPs) in EQIP. The agency offered 14 approved CAPs in 2015. To adopt a CAP, a producer must work with a certified TSP. For EQIP, a total of 3,491 CAPs were obligated in 2015, covering 13 resource areas: 1) nutrient management; 2) forest management; 3) grazing management; 4) comprehensive nutrient management plan; 5) agricultural energy management plan; 6) integrated pest management; 7) irrigation water management; 8) transition to organic; 9) fish and wildlife habitat; 10) pollinator habitat enhancement; 11) integrated pest management; 12) herbicide resistance weed conservation plan; and 13) drainage water management.

International Assistance. The International Assistance 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 2015, four agency specialists supported the Foreign Agricultural Service's (FAS) 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 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 fourth 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.

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An NRCS civil engineer was part of a U.S. Forest Service team that traveled to the Philippines in support of a USAID-funded project. This effort works to build capacity to manage forest areas at the national and sub-national levels and plans to contribute to disaster risk reduction programs. The project goals were to conserve biodiversity in forest areas and reduce forest degradation in priority watersheds. There are many features and projects that are included in this project. One of the projects was stabilization and restoration of stream and river banks. The project included hands-on training with a focus on technology transfer of stream bank restoration techniques through directed implementation. Classroom and field exercises were utilized in this training effort. The training helps strengthen local Government Units and provides them with an opportunity to offer community level natural resource protection. A field guide based on the agency's national engineering handbook was developed for use during the workshop and in follow on efforts. Water quality assessments and testing was also included as a secondary training effort.

An agricultural engineer, working through FAS, served as the senior engineering advisor to the USAID-Kenya Mission in support of the Agriculture Value Chain Enterprises infrastructure activity. This is a \$16 million project as a part of USAID's Agriculture and Food Security Program. The activity focused on resources inventory and site assessments for the constructions of storage facilities to improve dairy, grain, and horticulture value chains. Meetings were conducted with cooperative board members along with local Non-Government Organizations and county agricultural officials. Task orders are being issued by the USAID-Kenya for construction of five facilities. The agriculture engineer will continue ongoing technical support and advisory to the group. The five facilities will promote and enhance the positions of smallholder farmers along the agricultural value chain, and will greatly increase access to food and a better standard of living. The assistance was recognized by USAID-Kenya as invaluable in the implementation and success of the Agriculture and Food Security Program.

Scholarship Programs. In 2015, the agency participated in the USDA/1890 National Scholars Program, a partnership between USDA and 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 (HBCUs). In 2015, the agency obligated approximately \$475,000 for scholarships and career training for students enrolled in this program, referred to as "Scholars". Applicants include inbound freshmen and college students entering their sophomore and junior years. Students must maintain a minimum GPA of 3.0 and are required to work during the summers as conservation interns. Once a Scholar graduates, they are hired noncompetitively as provided by their scholarship agreement, and they are required to work one year for each year that their scholarship was funded. This commitment from the Scholars, along with increasing the diversity of NRCS, is the agency's return on the investment. Currently there are 33 Scholars in the agency, eight were selected in 2015. In May 2015, two Scholars graduated and have been converted to full-time positions.

The USDA/1994 Tribal Scholars Program is a partnership between USDA and 1994 Land-Grant Colleges and Universities. The program awards scholarships to students who are attending one of the 1994 Land-Grant Institutions and who have declared a major in a field for which an Agency is recruiting. The Scholarship will enable a student to transfer from a two-year program to any Land Grant College or University in order to complete their education. The program is intended to strengthen the partnership of the USDA with 1994 Tribal Colleges. In 2015, there were no recruitment for new Tribal Scholars

Outreach Partnerships. The agency is partnering with 13 community-based organizations through cooperative partnership agreements to assist new immigrant farmers, specialty crop farmers, and limited resource and socially-disadvantaged farmers and ranchers with technical assistance, on-site demonstrations, program awareness, inner-city urban agriculture, land loss prevention, and training opportunities. These efforts will increase the adoption of natural resource management on their operations, and assist and inform underserved farmers and landowners on how to access the agency's conservation assistance. In 2015, \$2.5 million was invested to support outreach efforts on the ground by working with these community-based organizations to set up workshops designed to increase participation in all of the conservation programs.

Urban outreach efforts were expanded to the City of Chicago through a \$200,000 partnership agreement with the Urban Transformation Network. The goals of this partnership are to:

- Improve participation in USDA programs by local churches, residents and minority community

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- leaders in the county focus area;
- Develop collaborative relationships between local churches, residents, minority community leaders and USDA agency personnel;
- Develop a communication network between local churches, residents and minority community leaders and USDA agencies; and
- Develop the interest of urban youth to understand the principles of good conservation techniques that will enhance the environment in which they live.

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.

StrikeForce Initiative. The USDA's StrikeForce for Rural Growth and Opportunity Initiative works to address the unique set of challenges faced by many of America's rural communities. Through StrikeForce, USDA is leveraging resources and collaborating with partners and stakeholders to improve economic opportunity and quality of life in the rural communities. StrikeForce now operates in over 800 rural counties, parishes, boroughs, tribal reservations, and Colonials in 20 states, including Alabama, Alaska, Arkansas, Arizona, Colorado, Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia and the U.S. territory of Puerto Rico. In 2016, StrikeForce plans to expand its effort by adding additional states that meet the persistent-poverty criteria.

In 2015, NRCS programs, including the Environmental Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), and the Agricultural Management Assistance Program, provided assistance to Historically Underserved customers, which include beginning, limited resource, and/or socially-disadvantaged producers.

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

- \$103.8 million in financial assistance on 4,162 contracts with socially disadvantaged farmers and ranchers to treat about 3.1 million acres.
- \$219.7 million in financial assistance on 9,462 contracts with beginning farmers and ranchers to treat about 1.9 million acres.
- \$19.4 million in financial assistance on 1,074 contracts with limited resource farmers and ranchers to treat about 350,000 acres.

Assistance to American Indians and Alaskan Natives. In 2015, the agency continued to increase tribal participation in financial assistance programs among the 567 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 567 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.

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In 2015, NRCS partnered with four 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 37 Tribal Community Colleges and Universities (TCUs) on their opportunities to participate in the 2014 Farm Bill conservation programs through education and community outreach. A major component of this agreement is collaboration on climate change in Indian Country. Participating TCUs help to promote sustainable agricultural and natural resource management systems, thereby helping protect culturally and economically important Tribal lands and water resources.

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

Program Activities/Participation. In 2015, American Indian and Alaska Natives were awarded the following:

- 632 Environmental Quality Incentives Program contracts totaling \$25.2 million;
- 5 Regional Conservation Partnership Program proposals totaling \$0.3 million;
- 399 Conservation Stewardship Program contracts totaling \$8.6 million; and
- 2 Agriculture Management Assistance Program contracts totaling \$11,090.

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 2015, all three councils held at least one meeting. In 2015, the Chief and Regional Conservationist published an announcement throughout Indian Country soliciting new council members as the first term of council membership came to an end. The new members will start serving on the council in 2016.

Tribal Conservation Districts (TCD). There are 45 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 strategies – systematically and accurately assessing work and processes and making improvements. Adaptive management requires a feedback system to improve conservation solutions and monitor success in order to achieve efficient investments in conservation. The feedback system includes performance measures and program evaluation methods and connecting scientific evidence to conservation outcomes such as the CEAP efforts. Program evaluations help the agency learn about the successes, share information with key audiences, and make rapid adjustments to improve services under changing conditions. The key components of the adaptive management strategy for measuring and evaluating programs include:

- Developing a variety of performance measures and performance metrics that align with the purpose and success factors of the program;
- Monitoring evidence of efficient program design and results (outputs and outcomes) on a regular basis;
- Developing, maintaining, and auditing internal controls for program compliance; and
- Making evidence-based and targeted program improvements on an on-going basis.

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The agency has continued to work on transparency and accountability by taking the following steps in 2015:

- Further developed a comprehensive agency data system that will connect a variety of data sources for program measurement and analysis. The system will improve access for internal and external customers to retrieve agency official data on programs, planning, and application of conservation and field activities at any spatial scale;
- The Associate Chief of Operations, the agency's Chief Compliance Officer, led the Compliance Oversight Board to ensure that compliance activities are effective throughout the agency;
- Conducted five Quality Assurance Compliance reviews, two state 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;
- Completed review year 2014 Highly Erodible Land and Wetlands Conservation Compliance reviews on 22,127 tracts of cropland;
- Closed 24 of the 41 open audits from the active audit list in 2015. Of the audits closed, eight had no recommendations for agency follow-up. At the beginning of 2015, there were 51 recommendations, an additional five were added during the course of the year (giving a total of 56 open recommendations); 35 were closed during the year, leaving a total of 21 remaining open; 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 climate change 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

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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, 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 FY 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 MLRA map unit concept. As of 2015, 470 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 and Ecological Site Information System (ESIS) which is linked with the National Cooperative Soil Survey data to provide the capability to produce automated ecological site descriptions from the data stored in the ESIS database. Joint policy, in the form of Memorandum of Understanding and common Handbook guidance, among the Bureau of Land Management (BLM), NRCS, and the U. S. Forest Service (USFS) efficiently pools the agencies' technical resources for the development and use of ESDs to describe site characteristics, plant communities, and use interpretations for grazing land and forestland. ESD development training is ongoing and all three agencies provide staff support and participation. This technology improves land management planning capabilities for agencies and the public by providing consistency among the agencies' classification, technology development, planning and 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.
- **Kellogg Soil Survey Laboratory (KSSL).** The KSSL completed 208,000 analyses on chemical, physical, mineralogical, and biological soil properties for more than 4,200 samples in 2015. The samples were submitted by NRCS Plant Materials Centers Soil Quality Study; NRCS National Resources Inventory Soil Monitoring Network; other Federal agencies, and scientific organizations, including the Environmental Protection Agency National Wetland Condition Assessment; and the National Science Foundation National Ecological Observatory Network. In addition to characterization samples analyzed to yield quantitative data for the National Cooperative Soil Survey, the KSSL made quantitative carbon measures on 11,000 Rapid Carbon Assessment samples.
- 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 three 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 quantitative input for Climate Change Models, baseline data to assess Soil Health, and measured input

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values to determine effectiveness of conservation practices and programs (e.g., CEAP, Environmental Policy Integrated Climate model, Revised Universal Soil Loss Equation 2, etc.).

- The National Soil Survey Center (NSSC). The NSSC awarded five competitive research grants to National Cooperative Soil Survey partners to investigate problems pertinent to soil survey update and enhancement. Information Management. 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 Conservation 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 Nation's counties. 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.

### 2015 Activities

- Acres Mapped. During 2015, soil scientists mapped or updated 47.8 million acres, and another 1 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 2.1 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. Ecological Site Descriptions (ESDs) were developed and linked to 38.6 million acres of soil survey information, including legends for Major Land Resource Area (MLRA) 137, the Carolina and Georgia Sand Hills and for MLRA 97, the Sandy Lake Plain in the upper Great Lakes area. These are the first provisional ecological sites developed east of the Mississippi. The development of ecological sites for MLRAs 97 and 137 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 2015, the Web Soil Survey website logged over 2.9 million user visits (a seven percent increase over 2014), slightly over 242,000 visits per month. Over 524,000 customized soil reports for individual small portions of the country were developed through Web Soil Survey in 2015 (a one percent increase over 2014). At the end of 2015, the total number of visits to the website since its initial release in 2005 topped 18 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 500 and 1,000 visits per day by people searching for soils information using smartphones GPS

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coordinates throughout the country. The new SoilWeb Google Earth application is currently averaging about 60,000 viewers per day.

- Research in Soil Geography. The National Soil Survey Center and the National Geospatial Research Unit have collaborated since 2005 to support research and development into the science of hydrogeology and digital soil mapping as defined by the International Union of Soil Science. This research is generally conducted collaboratively with NSSC, 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.

Soil and Ecological Site Partnership. The NRCS, USFS, and the University of New Hampshire (UNH) collaborated to meet critical soil and ecological site inventory goals to increase the understanding of important forest ecosystems and improve forest management on federal and private lands. This partnership of soil scientists was recognized with the “Two Chiefs Award” for their coordinated approach to identifying and recording natural resources and soil types in the White Mountain National Forest by developing a way to better read the landscape using new technology to improve data collection efficiency and accuracy. The NRCS, USFS, and UNH established this partnership to increase the understanding of soil-site-vegetation relations in the White Mountains with a collective goal of producing Terrestrial Ecological Units (TEUs) and Ecological Site Descriptions (ESDs). These products provide important land capability information for developing and executing land management plans and component projects. This partnership promoted the use and validation of cutting-edge technologies for mapping TEUs/ESDs with new tools consisting of acquiring high-resolution Light Detection and Ranging (LiDAR) images and the application of the agency’s Soil Inference Engine for mapping.

Soil Suitability for Shellfish Production. The NRCS, the University of Rhode Island, Eastern Connecticut State University, and the Connecticut State Department of Agriculture collaborated to complete detailed bathymetric map, side-scan sonar data, benthic geologic habitat map, subaqueous soil mapping, soil vibracores, and laboratory analysis of historic oyster beds along the coastal areas of Connecticut and Rhode Island. This coastal zone soil survey project will provide spatial and tabular data necessary to produce interpretations widely recognized as critical for mitigating hazards, creating resource inventories, guiding restoration efforts, and tracking environmental changes. The work will be published to the Web Soil Survey and provide the critical information needed to make important decisions on how best to manage these historic productive oyster beds. Interpretations to be developed include mooring site selections, benthic habitat restoration, and identification of sulfidic materials. This project is advancing the science of subaqueous soils and subaqueous soil survey characterized by high population densities and associated high property values, the coastal areas are in need of reliable soil survey data which will benefit a significant number of non-traditional agency customers.

Detroit Urban Soil Survey. The field work for the Soil Survey for the Detroit Metropolitan Area was completed in 2015. The survey area included 23 metropolitan cities and encompassed over 178,000 acres in Wayne County, Michigan. The completion of the Metro-Detroit Soil Survey concludes the initial soil survey work for the entire State of Michigan and complies with a White House request, signed by the President, to assist the City of Detroit, where possible, to help with the city’s revitalization efforts. The funding availability for city infrastructure currently is shrinking, both at the State and Federal level. The major problems in Southeast Michigan is aging infrastructure such as roads, bridges, and utility lines. The soil survey can go a long way in pinpointing soil map units in the city that are susceptible to damage created by sinkholes. Replacing old sections of water lines that pass through soils susceptible to sinkholes can save city budgets in repairs, business disruptions, and possible liability cases. The soil is expected to be published to Web Soil Survey in 2017.

National Cooperative Soil Survey Characterization Database. Specialists in the Soil Science Division developed a version of the National Cooperative Soil Survey Characterization Database in a Geodatabase format. The development of this complex relational database has been automated to allow periodic updates to the database as more data becomes available from laboratory analysis. Having the characterization database with interactive spatial context allows hundreds of thousands of geospatial professionals an appropriate format to leverage the characterization database in a powerful manner. This also affords field soil scientists new and creative means of

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summarizing data in developing and maintaining the Soil Survey Geographic Database utilizing the laboratory results from over 50,000 georeferenced soil descriptions from KSSL and cooperating laboratories. This geodatabase is now published on the NCSS Soil Characterization Mart alongside the access version of the database.

### 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. Climate change researchers are increasingly accessing the data to evaluate trends in the Western U.S. climate. 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, provide leadership and technology support to the States, and directly provide 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 change projections and climate variability increase the uncertainty of the yearly water supply. A study by the Rocky Mountain Climate Change Organization<sup>1</sup> finds that “no other effect of climate disruption is as significant as how it affects snowpack and water supply.” 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, caused by warming conditions, increases the length of time between peak flows and summer water user needs, while a delayed snowmelt, caused by cool weather, shortens the melting season and produces potentially disastrous flooding. In 2015, 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 as a “snow drought”, where precipitation levels were near normal, but snowpack was at record lows for many sites.

The SSWSF Program has been operated by the agency continuously since 1935. The program is designated as a cooperative effort because it operates with the 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 2015 water year (October 1, 2014 to September 30, 2015), partners and cooperators contributed a significant amount of money and in-kind services towards the collection of snow and related climate data. The SSWSF Program consists of a network of 1,112 manually measured snow courses and aerial markers, 859 automated Snow Telemetry SNOTEL sites, 24 automated SnoLite sites, 10

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<sup>1</sup> Saunders, Stephen, and Maxwell, Maureen, 2005, Less Snow, Less Water: Climate Disruption in the West: The Rocky Mountain Climate Organization, September 2005, 30 p.

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hydromet station, and 26 manually measured (non-telemetry) data collection stations. In addition, the NWCC operates 220 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 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.

### 2015 Activities.

**Water Supply Forecasts.** Water supply forecasts, which predict the volume of snowmelt runoff available for the spring and summer, are issued from mid-December through June, in collaboration with the National Weather Service and other Federal and State agencies. During the 2015 season, forecasts were delivered for 641 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 11,631 water supply forecasts in 2015. In addition, automated models that ingest current SNOTEL climate data, track daily forecast trends for 331 points, providing up-to-date guidance to water resource managers and augmenting the official volume forecasts.

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.

**Site Upgrades and Installations in Snow Survey.** During the past year, seven new SNOTEL sites were installed. An additional SNOTEL site was re-installed in a Wilderness area in Wyoming after it was destroyed by a fire in 2012. 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 been added at many sites. All of these valuable data play a key role in flood forecasting, water supply determination, and, more topically, in climate change evaluation. 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.

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, re-siding or replacement of electronics shelters, the addition of soil moisture and wind sensors, and re-plumbing of precipitation gages and snow pillows with more durable materials. Eight precipitation gages were moved off their concrete bases to an easier-to-maintain railroad tie footings base. Several sites also received equipment to investigate a fluidless system, testing to eliminate bounce in the data.

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. Two new SCAN sites were established in Alaska and Missouri.

**SNOTEL Sites Affected by Disasters, Vandalism, Land ownership.** One SNOTEL site in Washington State was destroyed by fire this year. Fire alters 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. Regrettably, the equilibrium, as the vegetation takes hold and grows, can take years to be re-established. A number of other sites were heavily vandalized by humans, often stealing equipment, or were wrecked by wildlife, mostly by bear.

**Interactive Map.** In 2014, the National Water and Climate Center (NWCC or ‘the Center’) developed an interactive mapping tool which presented the locations of SNOTEL, SCAN, and other hydro meteorological stations and provided connections to tabular data reports. In 2015, the Center significantly enhanced the map with the ability to visually display snow, precipitation, streamflow and reservoir storage conditions for current or in the past. Among

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the many choices, the user can see a site value, the percent of average, or the rank compared to other years. Another feature of the map can show “Records”, an option in high demand this year, because it highlighted the extreme low snow in the Pacific Northwest. The map is easily accessible from the NWCC homepage:

<http://www.wcc.nrcs.usda.gov/>.

Snowpack and Drought Report. The CONUS Snowpack and Drought Update Report, produced weekly by the NWCC, had a significant increase in readership again this past year. The report monitors climate and drought conditions throughout the contiguous U.S. Subscribership has jumped from 3,250 two years ago, to 12,500 last year, and to over 19,000 people now receiving the report as of the end of September 2015. The narratives are available at: <http://www.wcc.nrcs.usda.gov/cgi-bin/water/drought/wdr.pl>.

Science and Technology Development. The NWCC has three contracts that are offering exciting opportunities for the Snow Survey program. Through a CESU agreement with Colorado State University, the Center 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 based forecasting. Another CESU agreement, with Portland State University, is focused on supporting the parameter input to PRMS. Additional work will produce an internet-accessible centralized GIS system and repository for the PRISM climate dataset. The outcome will allow users to examine climate information by coalescing gridded data to assess conditions for selected time periods, historical years, and regions of the country. Finally, the NWCC has a cooperative agreement with the Agricultural Research Service in Boise, Idaho supporting development of a physically-based distributed snowmelt and streamflow simulation model, leading the way for future water supply forecasting technology at the Center.

Information Systems. The database and forecast system maintained by the NWCC, Water and Climate Information System (WCIS), 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 recorded over two million visits per month to its web site. The views and downloads of the information from State offices websites are similar to the information from other sites, such as the National Weather Service website, that use SSWSF data. The NWCC is implementing a failover plan, which includes migration to USDA hosting, for all data collection and product production activities. In 2015, WCIS applications continued to work towards being deployed in USDA hosting in 2016. NWCC is currently developing the Product Data Portal, which will provide Climate, Water Supply and Data interpretations information through data retrieval and data interpretations. Delivery will be to the general public and Service Centers through the respective web pages, Field Office Technical Guide (FOTG), and CDSI 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: 1) develop technology and information for the effective use, establishment, and maintenance of plants for a wide variety of natural resource conservation uses; 2) provide appropriate training and education to staff, partners, and the public; 3) 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 4) 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 the field staff and partners in conservation planning efforts. PMC staff tailor vegetative information in the

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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 biology, agronomy, forestry, soils, 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 USDA Agricultural Research Service, USFS, the U.S. Department of the Interior's Bureau of Land Management, and State and local agencies, such as departments of transportation, wildlife, and conservation. 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.

### 2015 Activities.

In 2015, NRCS continued its efforts to improve the operations and missions of PMCs. The following are highlights of PMC activities.

PMC 360: Improving Program Efficiency and Effectiveness. In March 2014, the agency initiated a multi-faceted improvement effort termed "PMC 360". Activity on the PMC 360 effort remained high throughout 2015, reinforcing the foundation laid in 2014 for the continued success of PMCs. Accomplishments included holding Regional Plant Materials Advisory Board meetings to increase communication between PMCs and NRCS stakeholders; improving the linkages between PMC business plans, State plant materials needs, and available resources; establishing consistent staffing plans; streamlining the process to fill critical PMC staff vacancies; increasing cooperation among the centers; and starting the development of a new strategic plan for PMCs. The PMC 360 effort will wrap up by mid-2016 with some final activities to streamline workload and increase the efficiency.

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 190 new technical documents to the Plant Materials website. PMCs continue to increase efforts to tailor plant materials information for specific conservation purposes and to support the agency initiatives, such as a new guide for Southwestern Willow Flycatcher habitat prepared by the PMCs in the southwest U.S.

At the end of 2015, there were approximately 2,780 documents available on the website. The website was enhanced with the addition of pages to link documents to technical topics such as cover crops, coastal stabilization, and pollinators. A feedback survey was added specifically for the Plant Materials website, and email notifications on new content were sent through GovDelivery to over 60,000 subscribers. These actions are improving the accessibility and usefulness of the Plant Materials website for all users.

Plant Materials staff conducted 94 technical training sessions for over 1,850 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

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productivity of range and pasture land; developing habitat for sage grouse; windbreak establishment including agricultural odor mitigation; and restoring riparian areas.

New Conservation Plants. PMCs released three new native conservation plant to the public and commercial growers. Ramadero Germplasm spike dropseed was released by Kingsville, Texas PMC in cooperation with the South Texas Natives (STN) program. Ramadero Germplasm is recommended for rangeland restoration and critical site revegetation, and produces good cover and copious amounts of seed for wildlife. STN-176 Germplasm and STN-461 Germplasm little bluestems were released by the Kingsville, Texas PMC in cooperation with the South Texas Natives program. Both of these native grasses are well-adapted to the unique environment of southern Texas for use in rangeland restoration, wildlife plantings, use along roadsides, and for other conservation plantings on sandy soils.

Pollinators. Biodiversity (having a wide range of species in an area) is an important indicator of ecosystem health. The agency conservation activities promote plant species that improve biodiversity and support a range of pollinators, including managed honey bees, native bees, and other pollinators. Improved habitat for pollinators affects cultivated crops and support larger wildlife. In 2015, PMCs continued current activities or initiated new efforts to play an important role supporting conservation delivery for pollinators.

- PMCs in Los Lunas, New Mexico; Brooksville, Florida; and Fallon, Nevada concluded work with The Xerces Society on a milkweed seed increase project, and have been working with commercial growers to get new ecotypes of milkweed into larger-scale production so they are available for monarch habitat projects. The Plant Materials Program, again working with The Xerces Society, created recommended plant lists for monarch habitat along the primary migration route for the monarch butterfly. The new plant materials and plant lists will support future NRCS and other Federal efforts to create monarch habitat.
- PMCs in Bridger, Montana; Corvallis, Oregon; Nacogdoches, Texas; and Pullman, Washington continued evaluation of the agency-recommended and commercially-available wildflower mixes to look at persistence over time and visitation by pollinators.
- The Michigan PMC, in consultation with Michigan State University, prepared a final study report on the tolerance of selected wildflower species to post-emergence herbicides. This information aids in the management of pollinator plantings.
- The Lockeford, California; Big Flats, New York; Corvallis, Oregon; and Kingsville, Texas PMCs provided training sessions to over 200 participants on establishment techniques for pollinator plants; creating pollinator and bee habitat, and managing conservation plantings for pollinators.
- PMCs in Nacogdoches, Texas; Coffeeville, Mississippi; and Los Lunas, New Mexico prepared five new technical reports on useful pollinator plants and seeding methods.

Revegetation of Challenging Sites. Saline sites, coastlines, and arid rangelands are areas with unique revegetation challenges where PMCs can assist. In 2015, the Bridger, Montana PMC conducted training for field staff on replanting salt-affecting sites to stabilize the soil and return them to a more productive condition. The Bismarck, North Dakota PMC finished a five year study to determine the salinity tolerance of cool-season grasses for replanting efforts. The Cape May, New Jersey PMC continues to be a leader in Mid-Atlantic coastal restoration, and conducted several training sessions on coastal restoration plants and techniques for conservation partners. Western PMCs continue to evaluate plants and planting methods for rangeland restoration, and in particular to support fire suppression or restoration efforts, and critical habitat for sage grouse.

National Seed Strategy. In August 2015, the Bureau of Land Management (BLM), in cooperation with other Federal agencies including NRCS, released the report “National Seed Strategy for Rehabilitation and Restoration 2015-2020”. This strategy calls for a coordinated effort to ensure the availability of genetically appropriate seed to restore viable and productive plant communities and sustainable ecosystems. PMCs have conducted work for the past 75 years consistent with the national seed strategy, and will play an active role in future coordinated Federal efforts. PMCs provide appropriate plants and planting recommendations for unique geographic locations and environmental conditions to mitigate stresses and build resilient landscapes that can react to future stressors. Some notable PMC accomplishments in 2015 towards the national seed strategy include:

- PMCs are currently investing about \$1 million in efforts for private land restoration related to the National Seed Strategy. This includes native plant development, studies of seed propagation, production, and storage,

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evaluation of plants for pollinator habitat, establishment of plants on natural areas and rangelands, management of conservation plantings, and training and outreach to NRCS staff and partners.

- Release of three native grasses by the PMC in Kingsville, Texas with the South Texas Natives program. These new plants are added to dozens of others already released to commercial growers. The southern Texas region has a unique environment where conservation plants released by adjacent PMCs do not work well. This effort is critically important to provide adapted plant materials needed for rangeland restoration and wildlife habitat by Federal and State agencies and private landowners.
- The Los Lunas, New Mexico and Tucson, Arizona PMCs have completed a five year project with the Bureau of Land Management to evaluate plant collections made by the Seeds of Success program. The PMCs studied germination and seed production techniques to determine if these “new” plants would be viable for commercial production. The result is that new selections of native grasses and wildflowers will be available for future restoration efforts in the Colorado Plateau and Mojave Desert.
- The Cape May, New Jersey PMC is involved in a new project with partners to harvest native collections of dune grasses along the mid-Atlantic coastline to increase appropriate grasses for dune and coastal restoration projects in the wake of Hurricane Sandy and to protect the coastline from future storm events.

Getting Conservation on the Ground.

Improving Cropland Soil Health, Resiliency, and Productivity. 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 continues to increase in 2015.

- PMCs across the country initiated a two year evaluation of 54 varieties of commercially available cover crop species. The evaluation focuses on determining the 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 located in California, Florida, Maryland, Missouri, North Dakota, Oregon, and Washington continued a multi-year national effort to study the effects of different cover crop mixes on dynamic soil properties. This effort is coordinated with agronomists and soils staff along with the USDA Agricultural Research Service. The results of this study supports future NRCS recommendations on cover crop mixes and may help the producers save money by reducing cover crop seeding rates while realizing the benefits of improved soil health.
- All PMCs are continuing with cover crop work to support the soil health effort. Studies in cover crop species and variety adaptation, timing of seeding and termination, integrating into cropping systems, usefulness for pollinator habitat, and effects on soil quality all support conservation delivery efforts and adoption of cover crops by producers.
- PMCs provided 19 training sessions for 665 participants to discuss cover crop selection, establishment, and management, and to highlight the results of PMC studies on cover crops.
- Many PMCs are continuing to establish cover crop demonstration plantings both at the center and on the producer’s land. NRCS staff uses these plantings for training sessions, workshops, and field days, and for spreading information about the usefulness of cover crops.

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WATERSHED AND FLOOD PREVENTION OPERATIONS

Lead-off Tabular Statement

Budget Estimate, 2017.....	-
2016 Enacted.....	\$137,000,000
Change in Appropriation.....	<u><u>-137,000,000</u></u>

WATERSHED AND FLOOD PREVENTION OPERATIONS

Summary of Increases and Decreases

(Dollars in thousands)

Program	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Emergency Watershed Protection Program.....	-	+\$78,581	+\$58,419	-\$137,000	-
Total.....	<u>-</u>	<u>+78,581</u>	<u>+58,419</u>	<u>-137,000</u>	<u>-</u>

Note: General Provision 728 of the Consolidated Appropriations Act, 2016, provided \$157 million for EWP, of which \$37 million was designated emergency. In addition, Section 742 rescinded \$20 million of unobligated balances.

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WATERSHED AND FLOOD PREVENTION OPERATIONS

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

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Small Watersheds P.L. 83-566:										
Technical Assistance.....	-	4	-	-	-	5	-	-5	-	-
Financial Assistance.....	-	-	-	-	-	-	-	-	-	-
Emergency Watershed Protection Program:										
Technical Assistance.....	-	63	\$13,573	31	\$27,400	31	-\$27,400	-31	-	-
Financial Assistance.....	-	-	65,008	-	109,600	-	-109,600	-	-	-
Total Adjusted Approp.....	-	67	78,581	31	137,000	36	-137,000	-36	-	-
Rescissions, Transfers, and Seq. (Net).....										
	-	-	-	-	20,000	-	-20,000	-	-	-
Total Appropriation.....	-	67	78,581	31	157,000	36	-157,000	-36	-	-
Rescission.....	-	-	-	-	-20,000	-	+20,000	-	-	-
Bal. Available, SOY.....	\$366,462	-	311,836	-	330,003	-	-315,003	-	\$15,000	-
Other Adjustments (Net).....	28,793	-	-7,536	-	-53,334	-	+53,334	-	-	-
Total Available.....	395,255	67	382,881	31	413,669	36	-398,669	-36	15,000	-
Bal. Available, EOY.....	-311,836	-	-330,003	-	-15,000	-	+15,000	-	-	-
Total Obligations.....	83,419	67	52,878	31	398,669	36	-383,669	-36	15,000	-

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED AND FLOOD PREVENTION OPERATIONS

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

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate		
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	
Discretionary Obligations:											
Watershed Operations P.L. 78-534:											
Technical Assistance.....	\$318	-	\$15	-	-	-	-	-	-	-	-
Financial Assistance.....	-	-	-	-	-	-	-	-	-	-	-
Small Watersheds P.L. 83-566:											
Technical Assistance.....	-807	4	-2,875	-	\$669	5	-\$669	-5	-	-	-
Financial Assistance.....	5,440	-	3,199	-	-	-	-	-	-	-	-
Emergency Watershed Protection Program:											
Technical Assistance.....	11,973	63	5,695	31	79,216	31	-79,216	-31	-	-	-
Financial Assistance.....	66,495	-	46,844	-	318,784	-	-303,784	-	\$15,000	-	-
Total Obligations.....	83,419	67	52,878	31	398,669	36	-383,669	-36	15,000	-	-
Bal. Available, EOY.....	311,836	-	330,003	-	15,000	-	-15,000	-	-	-	-
Total Available.....	395,255	67	382,881	31	413,669	36	-398,669	-36	15,000	-	-
Rescission.....	-	-	-	-	20,000	-	-20,000	-	-	-	-
Bal. Available, SOY.....	-366,462	-	-311,836	-	-330,003	-	+315,003	-	-15,000	-	-
Other Adjustments (Net).....	-28,793	-	7,536	-	53,334	-	-53,334	-	-	-	-
Total Appropriation.....	-	67	78,581	31	157,000	36	-157,000	-36	-	-	-

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED AND FLOOD PREVENTION OPERATIONS

Justification of Increases and Decreases

- (1) A decrease of \$157,000,000 and 31 staff years for Emergency Watershed Protection Program (\$157,000,000 and 31 staff years available in 2016):

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 natural magnitude. NRCS provides technical and financial assistance for floodplain easements, disaster cleanup and recovery activities.

In the Consolidated Appropriations Act, 2016 (P.L. 114-113), General Provision Sec. 728, the Emergency Watershed Protection Program was funded at \$157 million, of which \$37 million for major disasters under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, designated for disaster relief under section 251(b)(2)(D) of the Balanced Budget and Emergency Deficit Control Act of 1985.

No funding is requested in the 2017 Budget.

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED AND FLOOD PREVENTION OPERATIONS

Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands and Staff Years (SYs))

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama.....	\$647	1	\$2,026	-	-	-	-	-
Alaska.....	401	2	6,342	1	\$906	1	-	-
Arizona.....	3,067	1	3,078	-	-	-	-	-
Arkansas.....	593	1	14	-	480	1	-	-
California.....	2,496	-	1,633	-	-	-	-	-
Colorado.....	16,509	13	7,447	3	10,241	3	-	-
Connecticut.....	677	1	3,816	1	-	-	-	-
Delaware.....	-	-	1	-	-	-	-	-
Florida.....	1,500	1	5,747	1	3,065	2	-	-
Georgia.....	59	-	4	-	-	-	-	-
Hawaii.....	3,501	-	5	-	-	-	-	-
Idaho.....	-	-	3	-	-	-	-	-
Illinois.....	-	-	5	-	-	-	-	-
Indiana.....	229	-	337	-	1,200	1	-	-
Iowa.....	-3	-	526	-	-	-	-	-
Kansas.....	-	-	6	-	36	1	-	-
Kentucky.....	1,907	3	5,897	8	3,121	2	-	-
Louisiana.....	7,901	-	498	-	-	-	-	-
Maine.....	-2	-	2	-	-	-	-	-
Maryland.....	-	-	2	-	-	-	-	-
Massachusetts.....	-	-	2	-	-	-	-	-
Michigan.....	-9	-	3	-	96	1	-	-
Minnesota.....	556	-	5	-	528	1	-	-
Mississippi.....	3,149	6	1,558	-	8,218	2	-	-
Missouri.....	616	6	1,438	1	1,200	1	-	-
Montana.....	-	-	4	-	-	-	-	-
Nebraska.....	22	-	6	-	-	-	-	-
Nevada.....	3	-	2	-	-	-	-	-
New Hampshire.....	744	1	-25	-	-	-	-	-
New Jersey.....	3,021	2	634	1	-	-	-	-
New Mexico.....	7	-	61	-	-	-	-	-
New York.....	26,285	9	3,534	5	329	1	-	-
North Carolina.....	-	-	4	-	-	-	-	-
North Dakota.....	574	1	127	-	-	-	-	-
Ohio.....	316	-	4	-	81	1	-	-
Oklahoma.....	418	-	627	-	-	-	-	-
Oregon.....	2	-	4	-	-	-	-	-

NATURAL RESOURCES CONSERVATION SERVICE

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Pennsylvania.....	34	-	3	-	-	-	-	-
Puerto Rico.....	1	-	1	-	-	-	-	-
Rhode Island.....	471	-	965	-	-	-	-	-
South Carolina.....	35	-	2	-	2,400	1	-	-
South Dakota.....	-	-	7	-	360	1	-	-
Tennessee.....	1,541	2	1,208	2	1,694	1	-	-
Texas.....	-35	-	-542	-	22,547	3	-	-
Utah.....	5,083	10	2,814	6	58,104	3	-	-
Vermont.....	116	-	528	-	11	1	-	-
Virginia.....	-	-	4	-	-	-	-	-
Washington.....	6	1	472	-	4,800	2	-	-
West Virginia.....	586	2	227	-	-	-	-	-
Wisconsin.....	63	-	289	-	-	-	-	-
Wyoming.....	24	-	284	-	3,749	1	-	-
National Hdqtr.....	308	4	601	2	669	-	-	-
Undistributed.....	-	-	638	-	274,834	5	\$15,000	-
Obligations.....	83,419	67	52,878	31	398,669	36	15,000	-
Bal. Available, EOY.....	311,836	-	330,003	-	15,000	-	-	-
Total, Available.....	395,255	67	382,881	31	413,669	36	15,000	-

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED AND FLOOD PREVENTION OPERATIONS

Classification by Objects

(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>	<u>Estimate</u>
<b>Personnel Compensation:</b>				
Washington D.C.....	\$508	\$293	\$334	-
Field.....	5,509	2,996	3,412	-
11 Total personnel compensation.....	6,017	3,289	3,746	-
12 Personal benefits.....	1,709	1,082	1,216	-
Total, personnel comp. and benefits.....	7,726	4,371	4,962	-
<b>Other Objects:</b>				
21.0 Travel and transportation of persons.....	718	159	718	-
22.0 Transportation of things.....	3	1	11	-
23.1 Rental payments to GSA.....	-	22	-	-
23.2 Rental payments to others.....	1	59	81	-
23.3 Communications, utilities, and miscellaneous charges.....	13	20	20	-
24.0 Printing and reproduction.....	-	2	13	-
25.1 Advisory and assistance services.....	34,742	22,873	116,547	-
25.2 Other services from non-Federal sources.....	5,988	11,958	73,296	-
25.3 Other goods and services from Federal sources.....	-	2	-	-
25.4 Operation and maintenance of facilities.....	-3,213	-14,226	-	-
25.5 Research and development contracts.....	1,063	304	2,630	-
26.2 Supplies and materials.....	92	46	360	-
31.0 Equipment.....	156	422	423	-
32.1 Easements.....	1,542	4,659	94,976	-
41.0 Grants, subsidies, and contributions.....	34,588	22,206	104,631	\$15,000
99.5 Adjustment for rounding.....	-	-	1	-
Total, other objects.....	75,693	48,507	393,707	15,000
99.9 Total, new obligations.....	83,419	52,878	398,669	15,000
DHS Building Security Payments (included in 25.3).....	-	\$2	-	-
<b>Position Data:</b>				
Average Salary (dollars), ES Position.....	\$169,597	\$170,364	\$172,068	\$174,305
Average Salary (dollars), GS Position.....	\$69,075	\$68,631	\$69,317	\$70,218
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).

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## NATURAL RESOURCES CONSERVATION SERVICE

### Watershed and Flood Prevention Operations

#### Status of Programs

##### Current Activities.

**Background.** Watershed and Flood Prevention Operations (Watershed Operations) 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.

##### 2015 Activities.

In 2015, new funding was not appropriated for Watershed Protection (P.L. 83-566) or Flood Prevention (P.L. 78-534) programs, but unobligated funding from prior years was available to support program operations. Carryover funding was used to complete construction on existing projects and to continue planning and design work. Congressionally-designated project funding accounts for a significant portion of this continuing work.

Flood prevention and other activities of the Flood Control Act and the Watershed Protection and Flood Prevention Act provided the following estimated cumulative benefits in 2015. Benefits reported below are from projects currently entered into the Programs Operations Information Tracking System.

##### Monetary Benefits (Over \$2 billion in average annual benefits).

- Agricultural flood prevention benefits: \$352 million. This value includes all crop and pasture damage reduction benefits as well as all other agricultural damage reduction benefits;
- Non-agricultural flood prevention benefits: \$462 million. Non-agricultural flood damage prevention measures protected roads, bridges, homes, and other structures that exist in the floodplain;
- Agricultural benefits not related to flood prevention: \$441 million. Benefits are associated with erosion control, animal waste management, water conservation, water quality improvement, irrigation efficiency, and changes in land use; and
- Non-agricultural benefits not related to flood prevention: \$957 million. Benefits are associated with recreation, fish and wildlife, rural water supply, water quality, municipal and industrial water supply, and incidental recreation uses.

##### Environmental Benefits.

- Acres with nutrient management applied: 674,283
- Tons of animal waste properly disposed: 4,801,640
- Tons of soil saved from erosion: 90,198,341
- Miles of streams and corridors enhanced or protected: 47,513
- Acres of lakes and reservoirs enhanced or protected: 2,518,613
- Acre-feet of water conserved: 1,846,147
- Acres of wetlands created, enhanced, or restored: 279,375

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- Acres of upland wildlife habitat created, enhanced, or restored: 9,150,271

Social and Community Benefits.

- Number of people affected: 48,319,180
- Number of farms and ranches: 181,551
- Number of bridges: 61,702
- Number of public facilities: 3,663
- Number of businesses: 46,586
- Number of homes: 611,093
- Number of domestic water supplies: 27,874

Status of Flood Prevention Projects Authorized by the Flood Control Act. The eleven authorized flood prevention projects include relatively large areas, so work plans were developed on a sub-watershed basis as shown below. As of September 30, 2015, the total planning is about 94 percent completed, with work in 414 plans covering approximately 30 million acres. The following table summarizes the status of sub-watershed planning by authorized project:

Flood Prevention Project	Total Authorized Area	Potential Sub-watersheds		Project Plans Completed through September 30, 2015	
	Acres	No. of Plans	Acres	No. of Plans	Acres
Buffalo Creek, NY <sup>a/</sup>	279,680	3	279,680	3	279,680
Middle Colorado, TX	4,613,120	17	3,703,520	17	3,703,520
Coosa, GA, TN <sup>a/</sup>	1,339,400	16	1,174,650	16	1,174,650
Little Sioux, IA <sup>e/</sup>	1,740,800	121	1,036,492	97	452,606
Little Tallahatchie, MS	963,977	18	625,274 <sup>b/</sup>	18	625,274
Los Angeles, CA <sup>a/</sup>	536,960	10	127,627 <sup>c/</sup>	10	127,627
Potomac, MD, PA, VA, WV	4,205,400	31	4,205,400	30	3,094,543
Santa Ynez, CA	576,000	5	50,743 <sup>d/</sup>	5	50,743
Trinity, TX	10,769,266	36	10,769,266	36	10,769,266
Washita, OK, TX	5,184,362	57	5,184,362	57	5,184,362
Yazoo, MS	7,661,278	125	3,955,124	125	4,061,424
Total	37,870,243	439	31,112,138	414	29,523,695

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

<sup>b/</sup> Does not include 96,501 acres of Sardis Reservoir area or 304,000 acres in minor watersheds needing only land treatment measures.

<sup>c/</sup> Includes National forest and other lands for which the Forest Service has been assigned program responsibility.

<sup>d/</sup> Does not include 195,818 acres of reservoir area.

<sup>e/</sup> Little Sioux, IA project had a decrease in the number of watershed plans and acreages due to economic justifiability.

The estimated Federal cost for each watershed and total Federal obligations through 2015 are listed in the table below:

Flood Prevention Project	Estimated Total Federal Cost	Obligations (cumulative \$)
Buffalo Creek Watershed, NY (Complete) <sup>a/</sup>	\$7,827,746	\$6,287,347
Middle Colorado River Watershed, TX	71,111,062	63,062,722
Coosa River Watershed, GA and TN (Complete) <sup>a/</sup>	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) <sup>a/</sup>	60,597,017	60,297,017
Potomac River Watershed, MD, PA, VA, and WV	201,227,958	149,525,524

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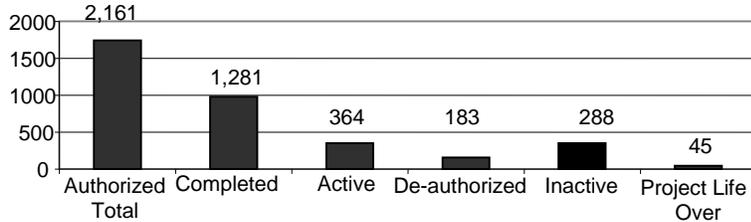
Flood Prevention Project	Estimated Total Federal Cost	Obligations (cumulative \$)
Santa Ynez River Watershed, CA	41,386,536	40,786,536
Trinity River Watershed, TX	331,241,632	211,172,331
Washita River Watershed, OK and TX	202,491,055	194,288,752
Yazoo River Watershed, MS	252,957,352	251,468,563
Total	1,355,922,974	1,165,975,203

<sup>a/</sup> The Buffalo Creek Watershed was completed and closed in 1964 and reopened in 1992 for repairs. The Coosa 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.

After authorization, technical and financial assistance may be provided to local sponsoring organizations for installation of work specified in the plans. At the end of 2015, of the 2,161 projects authorized by the Watershed Protection and Flood Prevention Act, 1,281 have been completed, 364 remain active, with the others de-authorized or inactive, as shown in the table below. The agency has updated its project tracking database and the amounts have slightly changed from previous years.

2015 P.L. 83-566 Watersheds Project Status



Watershed Projects Authorized for Funding. No new projects were authorized in 2015 for funding under the Watershed Protection and Flood Prevention Act within available funds, as no funds were appropriated for this program.

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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, 2015

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.

As of the end of 2015, 28 borrowers held loans with an unpaid principal amount of \$5.3 million. Over the life of the program, 495 loans have been made at a value of almost \$176 million.

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Get Conservation on the Ground.

West Virginia: Dunloup Creek Watershed. As of November 2015, the Dunloup Creek project is nearing completion, 185 applications for the buyout were received in the Round 1 signup. Applications were ranked and prioritized, with first priority going to homes with the most severe flooding. The agency and Local Sponsors held nearly 170 closings to purchase properties and secure floodplain easements. Funds leftover from Round 1 were made available for Round 2, resulting in an additional 48 sign ups. Available funds will not be sufficient to reach all of Round 2 however, the agency continues to work with local leaders regarding management and use of the easement areas.

Missouri: Little Otter Creek Watershed. The Little Otter Creek Watershed Plan – Environmental Impact Statement was completed in 2003. The preferred alternative is a 362-acre reservoir that will supply Caldwell County's projected demand for the next 50 years, provide recreational opportunities, and reduce annual flood damages downstream. The reservoir is designed to supply over 1 million gallons per day of raw water to the 9,424 citizens of Caldwell County. Subsurface investigation and final design plans and specifications for the dam have been completed. Caldwell County voters approved a 0.5 percent sales tax in August 2002 to help fund their share of project installation costs. This sales tax raises approximately \$200,000 per year. In 2007, Caldwell County passed a \$3 million bond issue for the project. The Caldwell County Commission has completed the land acquisition of 929 acres at a cost of \$2 million, and the agency funded 11 percent of the land acquisition. The Caldwell County Commission applied for and was awarded funding under the Regional Conservation Partnership Program, RCPP. The Commission received an award of over \$1 million. Funding in the amount of \$170,000 will be used to award EQIP contracts to improve the land treatment above the reservoir and \$1 million will be used to cost share on required mitigation activities. The Commission has a consultant that is preparing a Supplemental Environmental Impact Statement and a mitigation plan, scheduled to be completed in 2016. In order to fund the 58 percent of the estimated \$12 million construction cost, the agency's Chief provided over \$3 million in funding available during 2015. NRCS has provided all Federal funding estimates required for cost share on the construction of the project which is presently slated for 2016. Total agency funding to date is approximately \$10 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 within the last 12 months, have a history of repeated flooding (i.e., flooded

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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, 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. Because this storm’s damage mostly affected 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 land, in fee title, after the easement 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 easement restoration is to 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, 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 2015, 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 of over \$120 million on more than 1,000 acres of vulnerable floodplain lands.

Cumulative Program Activity (Through End of 2015)	
Enrolled Easements (Permanent)	Cumulative
Number of Easements	1,573
Number of Acres	184,512
Closed Easements (Permanent)	Cumulative
Number of Easements	1,553
Number of Acres	184,280

2015 Activities.

The EWPP received \$79 million for recovery efforts, also unobligated balances were available from prior years. Funds from existing account balances were used for response to natural disasters and 46 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 \$68 million providing a benefit to cost ratio of 1.2/1.0.

NATURAL RESOURCES CONSERVATION SERVICE

EWPP Costs and Benefits (Through September 30, 2015)	
General	
No. of disaster projects funded	46
No. of disaster projects unfunded	146
No. of projects completed	55
Costs	
Technical assistance	\$4,130,906
Financial assistance	37,609,128
Local contribution	14,587,633
Total costs	56,327,667
Benefits	
Public buildings protected (no.)	42
Private buildings protected (no.)	2,380
Roads protected (miles)	70.20
Utilities protected (no.)	124
Value of property protected	\$446,439,519
Debris removed (feet)	738,699
Streambank stabilized (feet)	123,637
Land protected (acres)	8,088
No. of 8(a) contracts	26
Value of 8(a) contracts	\$8,475,916
Total economic benefit	68,443,971
Benefit / Costs Ratio	1.2/1.0
No. of Persons Benefited	
Minority	700,202
Other	1,103,591
Total	1,803,793

Get Conservation on the Ground.

Tennessee. Localized rain storms occurred in Hickman and Perry Counties in Tennessee, causing major flooding and erosion damage to roadsides and streambanks. Sedimentation and debris accumulation reduced channel capacity of streams leading to flooding conditions and put lives and property in imminent danger. EWPP financial assistance was provided to the counties to stabilize streambanks and remove debris from the watercourses throughout the counties to help alleviate the threat of more flooding and protect life and property. The work consisted of stabilizing 1,256 linear feet of streambanks and removing 1,300 linear feet of debris. Total cost for the project was \$233,546, of which the EWPP cost-shared at 75 percent, and the economic benefit to the community was estimated at \$3 million. The project was completed in May 2015.

Utah. Severe streambank erosion threatened the City of Levan main spring, which supplies both culinary water and provides water to fire hydrants in the city. Severe streambank erosion and down cutting of the stream threaten the culinary spring and damaged two other springs in Water Hollow and Spring Hollow. Grade control structures and streambank protection were installed to protect these springs from further damage. The springs supply water to homes that are a great distance from the main city water system. The water is critical for cooking and fire suppression. Debris flows out of Water and Spring Hollows as well as several unnamed smaller drainages, also damaged a campground, agricultural fields and deposited 2-3 feet of sediment onto a main transportation artery in the State. Using EWPP assistance, water spreading berms were built to slow and catch debris before it got to the highway. The burned areas were seeded to provide watershed cover and wildlife habitat in the future. Total cost for the project was \$493,265, with the EWPP paying 75 percent of that cost. The economic benefit to the community was \$684,750. The project was completed in May 2015.

## NATURAL RESOURCES CONSERVATION SERVICE

Wyoming. Wildfires left hillsides denude of vegetation and followed by rain caused high mud flows in several areas of the State which led to erosion of streambanks and threatening infrastructure, such as bridges, utilities and public buildings. Erosion control structures, such as riprap, streambank stabilization, and berms were used to protect 45 private buildings, 4 miles of highway, 15 utilities, and 9 irrigation diversions. The protective measures were installed at a total cost of \$639,037, with the EWPP providing \$479,278 of that cost. The economic benefit to the community was \$5 million. The project was completed in June 2015.

NATURAL RESOURCES CONSERVATION SERVICE

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 2017 Budget includes no funding for this program.

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Lead-off Tabular Statement

Budget Estimate, 2017.....	-
2016 Enacted.....	\$12,000,000
Change in Appropriation.....	<u>-12,000,000</u>

WATERSHED REHABILITATION

Summary of Increases and Decreases

(Dollars in thousands)

Program	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Watershed Rehabilitation.....	\$12,000	-	-	-\$12,000	-
Subtotal.....	12,000	-	-	-12,000	-
Mandatory Appropriations:					
Small Watershed Rehabilitation Program.....	238,120	-\$96,178	-\$73,662	-54,000	\$14,280
Subtotal.....	238,120	-96,178	-73,662	-54,000	14,280
Total.....	<u>250,120</u>	<u>-96,178</u>	<u>-73,662</u>	<u>-66,000</u>	<u>14,280</u>

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Project Statement

Adjusted Appropriations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	<u>2014 Actual</u>		<u>2015 Actual</u>		<u>2016 Enacted</u>		<u>Inc. or Dec.</u>		<u>2017 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Watershed Rehabilitation:										
Technical Assistance.....	\$4,797	29	\$4,800	1	\$4,800	1	-\$4,800	-1	-	-
Financial Assistance.....	7,203	-	7,200	-	7,200	-	-7,200	-	-	-
Subtotal.....	12,000	29	12,000	1	12,000	1	-12,000 (1)	-1	-	-
Mandatory Appropriations:										
Small Watershed Rehabilitation Program:										
Technical Assistance.....	21,931	11	13,059	32	6,146	-	-5,657	+25	\$489	25
Financial Assistance.....	216,189	-	128,883	-	62,134	-	-48,343	-	13,791	-
Subtotal.....	238,120	11	141,942	32	68,280	-	-54,000	+25	14,280	25
Total Adjusted Approp.....	250,120	40	153,942	33	80,280	1	-66,000	+24	14,280	25
Rescissions, Transfers, and Seq. (Net).....	11,880	-	11,178	-	4,982	-	49,018	-	54,000	-
Total Appropriation.....	262,000	40	165,120	33	85,262	1	-16,982	+24	68,280	25
Rescission.....	-	-	-	-	-	-	-54,000	-	-54,000	-
Sequestration.....	-11,880	-	-11,178	-	-4,982	-	+4,982	-	-	-
Bal. Available, SOY.....	5,944	-	12,022	-	21,628	-	-18,718	-	2,910	-
Other Adjustments (Net).....	15,839	-	-35,778	-	-80,183	-	+80,183	-	-	-
Total Available.....	271,903	40	130,186	33	21,725	1	-4,535	+24	17,190	25
Lapsing Balances.....	-91	-	-211	-	-	-	-	-	-	-
Bal. Available, EOY.....	-12,022	-	-21,628	-	-2,910	-	+2,910	-	-	-
Total Obligations.....	259,790	40	108,347	33	18,815	1	-1,625	+24	17,190	25

Note: Based on Sec. 713. of the USDA General Provisions, of the funds available under sections 14(h)(1)(A) through 14(h)(1)(G) for fiscal year 2017, \$54,000,000 are hereby permanently cancelled.

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Project Statement

Obligations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Watershed Rehabilitation:										
Technical Assistance.....	\$6,831	29	-\$1,279	1	\$1,753	1	-\$1,753	-1	-	-
Financial Assistance.....	7,278	-	28,002	-	17,063	-	-17,063	-	-	-
Subtotal.....	14,109	29	26,723	1	18,815	1	-18,815	-1	-	-
Mandatory Obligations:										
Small Watershed Rehabilitation Program:										
Technical Assistance.....	19,272	11	-31,948	32	-	-	+1,547	+25	\$1,547	25
Financial Assistance.....	226,409	-	113,572	-	-	-	+15,643	-	15,643	-
Subtotal.....	245,681	11	81,624	32	-	-	+17,190	+25	17,190	25
Total Obligations.....	259,790	40	108,347	33	18,815	1	-1,625	+24	17,190	25
Lapsing Balances.....	91	-	211	-	-	-	-	-	-	-
Bal. Available, EOY.....	12,022	-	21,628	-	2,910	-	-2,910	-	-	-
Total Available.....	271,903	40	130,186	33	21,725	1	-4,535	+24	17,190	25
Rescission.....	-	-	-	-	-	-	+54,000	-	54,000	-
Sequestration.....	11,880	-	11,178	-	4,982	-	-4,982	-	-	-
Bal. Available, SOY.....	-5,944	-	-12,022	-	-21,628	-	+18,718	-	-2,910	-
Other Adjustments (Net).....	-15,839	-	35,778	-	80,183	-	-80,183	-	-	-
Total Appropriation.....	262,000	40	165,120	33	85,262	1	-16,982	+24	68,280	25

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Justification of Increases and Decreases

- (1) A decrease of \$12,000,000 and 1 staff year for Watershed Rehabilitation (\$12,000,000 and 1 staff year available in 2016):

No funding is requested in the 2017 Budget. Maintenance, repair and operation of these dams will be the responsibility of local project sponsors.

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands and Staff Years (SYs))

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama.....	\$335	-	\$242	-	\$42	-	\$38	-
Alaska.....	20	-	2	-	-	-	-	-
Arizona.....	98,103	2	16,305	-	2,832	-	2,587	-
Arkansas.....	1,262	-	5	-	1	-	1	-
California.....	74	-	338	21	59	-	54	16
Colorado.....	2,975	-	1,674	-	291	-	266	-
Connecticut.....	939	-	2	-	-	-	-	-
Delaware.....	9	-	1	-	-	-	-	-
Florida.....	70	-	6	-	1	-	1	-
Georgia.....	1,489	-	1,866	-	324	-	296	-
Hawaii.....	24	-	4	-	1	-	1	-
Idaho.....	60	-	3	-	1	-	1	-
Illinois.....	74	-	6	-	1	-	1	-
Indiana.....	395	-	204	-	35	-	32	-
Iowa.....	86	-	24	-	4	-	4	-
Kansas.....	1,849	-	78	1	14	-	12	1
Kentucky.....	1,039	1	108	-	19	-	17	-
Louisiana.....	173	-	29	-	5	-	5	-
Maine.....	84	-	2	-	-	-	-	-
Maryland.....	119	-	2	-	-	-	-	-
Massachusetts.....	9,133	-	2,882	-	500	-	457	-
Michigan.....	55	-	4	-	1	-	1	-
Minnesota.....	340	-	147	-	25	-	23	-
Mississippi.....	6,158	2	5,216	1	906	-	827	1
Missouri.....	65	-	6	-	1	-	1	-
Montana.....	59	-	5	-	1	-	1	-
Nebraska.....	8,820	4	1,662	2	289	-	264	2
Nevada.....	296	1	1,222	-	212	-	194	-
New Hampshire.....	383	-	13	-	2	-	2	-
New Jersey.....	77	-	2	-	-	-	-	-
New Mexico.....	631	-	4	-	1	-	1	-
New York.....	651	1	-1	-	-	-	-	-
North Carolina.....	39	-	165	-	29	-	26	-
North Dakota.....	575	1	272	1	47	-	43	1
Ohio.....	133	-	75	1	13	-	12	1
Oklahoma.....	34,393	9	4,228	1	734	-	671	1
Oregon.....	1,945	-	4,138	-	719	-	657	-
Pennsylvania.....	10,954	1	555	-	96	-	88	-

NATURAL RESOURCES CONSERVATION SERVICE

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Puerto Rico.....	15	-	2	-	-	-	-	-
Rhode Island.....	15	-	1	-	-	-	-	-
South Carolina.....	65	-	82	-	14	-	13	-
South Dakota.....	57	-	5	-	1	-	1	-
Tennessee.....	3,788	-	19	-	3	-	3	-
Texas.....	30,248	8	11,046	2	1,918	-	1,753	2
Utah.....	12,791	1	29,967	1	5,204	-	4,754	1
Vermont.....	102	-	2	-	-	-	-	-
Virginia.....	7,335	4	19,325	-	3,356	-	3,066	-
Washington.....	54	-	5	-	1	-	1	-
West Virginia.....	14,743	2	457	-	79	-	73	-
Wisconsin.....	42	-	4	-	1	-	1	-
Wyoming.....	565	-	4,002	-	695	-	635	-
National Hdqtr.....	5,179	2	1,450	1	252	-	230	1
Undistributed.....	905	1	488	1	85	1	77	1
Obligations.....	259,790	40	108,347	33	18,815	1	17,190	25
Bal. Available, EOY.....	12,022	-	21,628	-	2,910	-	-	-
Lapsing Balance.....	91	-	211	-	-	-	-	-
Total, Available.....	271,903	40	130,186	33	21,725	1	17,190	25

NATURAL RESOURCES CONSERVATION SERVICE

WATERSHED REHABILITATION

Classification by Objects

(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>	<u>Estimate</u>
<b>Personnel Compensation:</b>				
Washington D.C.....	\$1,265	\$419	\$30	\$321
Field.....	4,205	1,079	79	826
11 Total personnel compensation.....	5,470	1,498	109	1,147
12 Personal benefits.....	1,684	538	34	400
13.0 Benefits for former personnel.....	2	1	-	-
Total, personnel comp. and benefits.....	7,156	2,037	143	1,547
<b>Other Objects:</b>				
21.0 Travel and transportation of persons.....	397	372	33	-
22.0 Transportation of things.....	5	1	-	-
23.1 Rental payments to GSA.....	-	32	-	-
23.2 Rental payments to others.....	928	80	12	-
23.3 Communications, utilities, and miscellaneous charges.....	58	-8	1	-
24.0 Printing and reproduction.....	4	5	-	-
25.1 Advisory and assistance services.....	65,141	40,341	3,141	5,000
25.2 Other services from non-Federal sources.....	11,380	4,493	1,520	-
25.3 Other goods and services from Federal sources.....	-	8	-	-
25.4 Operation and maintenance of facilities.....	5,671	-40,399	-	-
25.5 Research and development contracts.....	1,256	-	-	-
26.2 Supplies and materials.....	139	19	17	-
31.0 Equipment.....	364	135	27	-
32.1 Easements.....	-4	2	-	-
41.0 Grants, subsidies, and contributions.....	167,293	101,231	13,922	10,643
99.5 Adjustment for rounding.....	2	-2	-1	-
Total, other objects.....	252,634	106,310	18,672	15,643
99.9 Total, new obligations.....	259,790	108,347	18,815	17,190
DHS Building Security Payments (included in 25.3).....	-	\$8	-	-
<b>Position Data:</b>				
Average Salary (dollars), ES Position.....	\$169,597	\$170,364	\$172,068	\$174,305
Average Salary (dollars), GS Position.....	\$69,075	\$68,631	\$69,317	\$70,218
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).

## NATURAL RESOURCES CONSERVATION SERVICE

### Watershed Rehabilitation Program

#### Status of Programs

##### Current Activities.

**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 because many dams have reached or will soon reach the end of their design life. By December, 2015, approximately 4,336 watershed dams will have reached the end of their originally designed life-span. That total will increase to approximately 5,200 by December 2017. Time has taken its toll on many dams: 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, and could have serious adverse environmental effects.

**Program Operations.** The Watershed Rehabilitation Program's highest priority 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 requires 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 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.

## NATURAL RESOURCES CONSERVATION SERVICE

- 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. Also, some sponsors have used either their own professional staff or acquired technical services as part of their "in-kind" contribution to meet their 35 percent cost-share requirement; and
- Financial assistance. Sponsors have used many innovative means to obtain the funds necessary to address the rehabilitation of the 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.

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.

### 2015 Activities.

The 2014 Farm Bill provided an additional \$142 million (minus rescissions) to the Watershed Rehabilitation program in 2015. However, section 716(1) of the Consolidated and Further Continuing Appropriation Act, 2015 (P.L. 113-235) capped obligation of the mandatory funding at \$73 million, in addition to the \$12 million received in discretionary funding. This is an increase to the typical annual investment in watershed rehabilitation, which 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, create 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.

With the 2015 funding, 76 dams will be rehabilitated in 27 States. Funds will be used for planning, design and construction. In addition, \$3 million dollars were utilized to complete assessments of 114 dams. The dams were identified based on recent rehabilitation investments and the potential risks to life and property if a dam failure occurred.

The agency renewed a contract with US Engineering Solutions Corporation for improved modifications to the web-based software tool called *DamWatch*, for use in monitoring potential dam safety concerns nationwide. This tool monitors, in real-time, the status of dams negatively affected by storms and other events.

In 2015, 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 worked to renew a 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.

NATURAL RESOURCES CONSERVATION SERVICE

Summary of Watershed Rehabilitation Projects and Allocations  
as of September 30, 2015

State	Total Number of Funded Dam Rehabilitation Projects 2000 – 2015	Number of Dams Rehabilitated	2015 Federal Allocations <sup>a/</sup> Mandatory Funds	2015 Federal Allocations <sup>b/</sup> Discretionary Funds
Alabama	1	1	-	-
Arizona	12	2	\$33,100	-
Arkansas	7	1	-	-
California	1	-	-	-
Colorado	7	-	1,026,822	\$452,778
Connecticut	3	-	4,000	-
Georgia	30	7	2,010,000	-
Hawaii	-	-	-	-
Indiana	1	1	1,100	-
Iowa	4	4	-	-
Kansas	15	3	23,200	20,000
Kentucky	8	1	334,042	-
Maine	-	-	-	-
Massachusetts	7	1	3,019,400	-
Mississippi	26	17	3,100,300	2,200,000
Missouri	5	2	-	-
Montana	2	-	-	-
Nebraska	15	9	11,800	-
Nevada	1	-	1,220,000	-
New Hampshire	1	-	40,900	-
New Jersey	2	-	-	-
New Mexico	12	3	200	-
New York	8	-	4,600	-
North Carolina	-	-	-	-
North Dakota	3	-	200,000	-
Ohio	10	8	500	-
Oklahoma	54	34	3,795,605	-
Oregon	2	-	4,408,350	-
Pennsylvania	15	1	97,700	66,094
Tennessee	7	2	13,500	-
Texas	34	14	10,574,795	-
Utah	34	-	30,736,900	-
Vermont	-	-	-	-
Virginia	19	9	7,617,300	11,715,000
Washington	-	-	-	-
West Virginia	7	1	1,156,500	-
Wisconsin	15	11	-	-
Wyoming	1	-	61,200	3,937,500

NATURAL RESOURCES CONSERVATION SERVICE

State	Total Number of Funded Dam Rehabilitation Projects 2000 – 2015	Number of Dams Rehabilitated	2015 Federal Allocations <sup>a/</sup> Mandatory Funds	2015 Federal Allocations <sup>b/</sup> Discretionary Funds
Dam Assessments <sup>c/</sup>	-	-	2,552,493	-
NHQ	-	-	955,693	-
Total	369	132	73,000,000	18,391,372

<sup>a/</sup> Allocations include project planning, design, and implementation.

<sup>b/</sup> Discretionary Funds include carryover funds, prior year recoveries, and annual funds for project planning, design, and implementation. The dams funded in 2015, as shown in the table above, represent a partial list of the 369 projects that have been previously funded.

<sup>c/</sup> Funded 114 assessments of high hazard dams that 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 2015, rehabilitation of 269 dams in 31 States was authorized, and rehabilitation of 130 dams was completed. The remaining 139 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	7,156,781
Average annual non-floodwater damage reduction benefits	7,262,262
Number of people with reduced risk downstream from the dams	13,839
Number of people who benefit from project action	293,753
Number of homes and businesses benefiting from project action	10,253
Number of farms and ranches benefiting from project action	904
Number of bridges benefiting from project action	353

Getting Conservation on the Ground.

Oklahoma: Barnitz 11. Rehabilitation of Barnitz Creek Site 11 in Oklahoma is completed with the exception of vegetation which is scheduled for spring. Rehabilitation included upgrading the dam to meet current agency safety criteria and performance standards for a high hazard dam, extending the service life of the dam to 100 years, and maintaining flood protection. This site was originally constructed in 1953 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 and development downstream of the dam, Site 11 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 Site 11 includes a State Highway 47 and a county road. This site provides \$62,200 in average annual benefits.

Kansas: Spring Creek R-1. Rehabilitation of Spring Creek R-1 in Kansas is completed. Floodwater Retarding Dam (FRD) R-1 is one of 4 Public Law 566 (P.L. 566) FRDs constructed in the Spring Creek Watershed. The original watershed work plan became effective on April 14, 1960, and construction on FRD R-1 was completed in 1972. The dam is located in Sedgwick County, 1 mile west and 2 miles south of Garden Plain, Kansas.

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 two downstream houses and overtopping of a paved county road. The watershed district requested rehabilitation assistance in 2009, and rehabilitation planning was completed with Supplement No. 3 to the original work plan approved November, 2010. Final Design was completed in July, 2012. Rehabilitation Construction was completed in March 2015. The original objective of FRD R-1 was to reduce flood damages along the main stem and tributaries of Spring Creek. The structure was rehabilitated to maintain this objective and upgraded to meet current hydrologic criteria. The existing 18-inch principal spillway and inlet were replaced with a 30-inch principal spillway. The auxiliary spillway and top of dam were raised approximately 1.5 feet and auxiliary spillway widened by approximately 100 feet. In addition, a filter drain and foundation drain were

## NATURAL RESOURCES CONSERVATION SERVICE

added. The completed rehabilitation construction project yielded a compacted earth fill dam that is 27 feet in height with crest length of 1,823 feet and protects a watershed that covers 1.01 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 \$30,700 in average annual benefits- (value based on 2010 Supplement, estimated economic benefit).

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NATURAL RESOURCES CONSERVATION SERVICE

HEALTHY FORESTS RESERVE PROGRAM

Project Statement

Adjusted Appropriations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	<u>2014 Actual</u>		<u>2015 Actual</u>		<u>2016 Enacted</u>		<u>Inc. or Dec.</u>		<u>2017 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Total Adjusted Approp....	-	-	-	-	-	-	-	-	-	-
Rescissions, Transfers, and Seq. (Net).....	-	-	-	-	\$54	-	-\$54	-	-	-
Total Appropriation.....	-	-	-	-	54	-	-54	-	-	-
Rescission.....	-	-	-	-	-54	-	+54	-	-	-
Bal. Available, SOY.....	\$51	-	\$53	-	54	-	-54	-	-	-
Other Adjustments (Net).....	2	-	1	-	-54	-	+54	-	-	-
Total Available.....	53	-	54	-	-	-	-	-	-	-
Bal. Available, EOY.....	-53	-	-54	-	-	-	-	-	-	-
Total Obligations.....	-	-	-	-	-	-	-	-	-	-

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NATURAL RESOURCES CONSERVATION SERVICE

WATER BANK PROGRAM

Lead-off Tabular Statement

Budget Estimate, 2017.....	-
2016 Enacted.....	\$4,000,000
Change in Appropriation.....	<u>-4,000,000</u>

WATER BANK PROGRAM

Summary of Increases and Decreases

(Dollars in thousands)

Program	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Water Bank Program.....	\$4,000	-	-	-\$4,000	-
Total.....	<u>4,000</u>	<u>-</u>	<u>-</u>	<u>-4,000</u>	<u>-</u>

Note: 2016 funds were provided through General Provision 757 of the Consolidated Appropriations Act, 2016.

NATURAL RESOURCES CONSERVATION SERVICE

WATER BANK PROGRAM

Project Statement

Adjusted Appropriations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	<u>2014 Actual</u>		<u>2015 Actual</u>		<u>2016 Enacted</u>		<u>Inc. or Dec.</u>		<u>2017 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Water Bank Program:										
Technical Assistance.....	\$400	1	\$400	-	\$400	1	-\$400	-1	-	-
Financial Assistance.....	3,600	-	3,600	-	3,600	-	-3,600	-	-	-
Total Adjusted Approp.....	4,000	1	4,000	-	4,000	1	-4,000 (1)	-1	-	-
<hr/>										
Total Appropriation.....	4,000	1	4,000	-	4,000	1	-4,000	-1	-	-
Bal. Available, SOY.....	222	-	545	-	974	-	-974	-	-	-
Other Adjustments (Net).....	653	-	205	-	-	-	-	-	-	-
<hr/>										
Total Available.....	4,875	1	4,750	-	4,974	1	-4,974	-1	-	-
Bal. Available, EOY.....	-545	-	-974	-	-	-	-	-	-	-
<hr/>										
Total Obligations.....	4,330	1	3,776	-	4,974	1	-4,974	-1	-	-

NATURAL RESOURCES CONSERVATION SERVICE

WATER BANK PROGRAM

Project Statement

Obligations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	<u>2014 Actual</u>		<u>2015 Actual</u>		<u>2016 Enacted</u>		<u>Inc. or Dec.</u>		<u>2017 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Water Bank Program:										
Technical Assistance.....	\$164	1	\$64	-	\$1,020	1	-\$1,020	-1	-	-
Financial Assistance.....	4,166	-	3,712	-	3,954	-	-3,954	-	-	-
Total Obligations.....	4,330	1	3,776	-	4,974	1	-4,974	-1	-	-
Bal. Available, EOY.....	545	-	974	-	-	-	-	-	-	-
Total Available.....	4,875	1	4,750	-	4,974	1	-4,974	-1	-	-
Bal. Available, SOY.....	-222	-	-545	-	-974	-	+974	-	-	-
Other Adjustments (Net).....	-653	-	-205	-	-	-	-	-	-	-
Total Appropriation.....	4,000	1	4,000	-	4,000	1	-4,000	-1	-	-

NATURAL RESOURCES CONSERVATION SERVICE

Justification of Increases and Decreases

- (1) A decrease of \$4,000,000 and 1 staff year for the Water Bank Program (\$4,000,000 and 1 staff year available in 2016):

Due to budget priorities, the FY 2017 Budget proposes to terminate funding for this program.

NATURAL RESOURCES CONSERVATION SERVICE

WATER BANK PROGRAM

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

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
North Dakota.....	\$3,253	1	\$3,056	-	\$4,029	1	-	-
South Dakota.....	1,077	-	720	-	945	-	-	-
Obligations.....	4,330	1	3,776	-	4,974	1	-	-
Lapsing Balances.....	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	545	-	974	-	-	-	-	-
Total, Available.....	4,875	1	4,750	-	4,974	1	-	-

NATURAL RESOURCES CONSERVATION SERVICE

WATER BANK PROGRAM

Classification by Objects  
(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>	<u>Estimate</u>
Personnel Compensation:				
Washington D.C.....	-	-	-	-
Field.....	\$38	\$30	\$30	-
11 Total personnel compensation.....	38	30	30	-
12 Personal benefits.....	15	11	11	-
Total, personnel comp. and benefits.....	53	41	41	-
Other Objects:				
31.0 Equipment.....	111	24	979	-
41.0 Grants, subsidies, and contributions.....	4,166	3,712	3,954	-
99.5 Adjustment for rounding.....	-	-1	-	-
Total, other objects.....	4,277	3,735	4,933	-
99.9 Total, new obligations.....	4,330	3,776	4,974	-
Position Data:				
Average Salary (dollars), ES Position.....	\$169,597	\$170,364	\$172,068	\$174,305
Average Salary (dollars), GS Position.....	\$69,075	\$68,631	\$69,317	\$70,218
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).

## NATURAL RESOURCES CONSERVATION SERVICE

### Water Bank Program

#### Status of Programs

##### Current Activities.

Background. Section 748 of the Water Bank Act (16 U.S.C. 1301-1311) authorized the Water Bank Program (WBP). In 2015, NRCS was appropriated \$4.0 million to fund WBP. Enrollment were opened into the program 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 2015 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.

## NATURAL RESOURCES CONSERVATION SERVICE

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

### 2015 Activities.

In 2015, \$4 million in financial and technical assistance were allocated for approval of new WBP ten-year rental agreements. Nearly, \$4 million was obligated to 51 agreements covering 8,844 acres. The first year rental agreement payments were issued in August 2015.

Tribal lands are an important component of the landscape in the States in which WBP is implemented. Therefore, the agency published an update to the WBP regulation, clarifying that lands owned by Indian Tribes are eligible for enrollment, in the Federal Register on June 9, 2015.

The WBP has a backlog of 448 applications with an estimated value of \$19 million covering 48,651 acres in North Dakota and South Dakota.

NATURAL RESOURCES CONSERVATION SERVICE

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Project Statement

Adjusted Appropriations Detail and Staff Years (SYs)

(Dollars in thousands)

Program	<u>2014 Actual</u>		<u>2015 Actual</u>		<u>2016 Enacted</u>		<u>Inc. or Dec.</u>		<u>2017 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Appropriations:										
Agricultural Conservation Easement Program.....	\$366,304	259	\$393,975	368	\$419,400	308	+\$80,600	-	\$500,000	308
Agricultural Management Assistance.....	6,960	5	4,635	6	4,660	6	+340	-	5,000	6
Agricultural Water Enhancement Program.....	1,565	38	-	54	-	54	-	-54	-	-
Chesapeake Bay Watershed Program.....	-	43	-	26	-	26	-	-26	-	-
Conservation Reserve Program.....	67,925	554	85,040	656	46,600	666	+3,400	-	50,000	666
Conservation Security Program.....	124,780	48	28,087	47	4,660	18	+340	-	5,000	18
Conservation Stewardship Program.....	1,078,942	622	1,164,151	1,048	1,225,038	977	+336,082	-	1,561,120	977
Environmental Quality Incentives Program.....	1,350,000	2,500	1,483,200	2,217	1,528,539	3,503	+121,461	-	1,650,000	3,503
Farm and Ranch Lands Protection Program.....	1,778	14	-	14	-	14	-	-14	-	-
Grasslands Reserve Program.....	823	5	-	4	-	4	-	-4	-	-
Healthy Forests Reserve Program.....	-	3	-	1	-	1	-	-1	-	-
Regional Conservation Partnership Program.....	95,680	2	92,700	5	93,200	54	+6,800	-	100,000	54
Voluntary Public Access and Habitat Incentive Program.....	40,000	-	-	-	-	-	-	-	-	-
Wetlands Mitigation Banking Program.....	10,000	-	-	-	-	1	-	-1	-	-
Wetlands Reserve Program.....	19,635	122	-	99	-	99	-	-99	-	-
Wildlife Habitat Incentives Program.....	2,735	54	-	82	-	82	-	-82	-	-
Total Adjusted Approp.....	3,167,127	4,269	3,251,788	4,627	3,322,097	5,813	+549,023	-281	3,871,120	5,532
Rescissions, Transfers, and Seq. (Net).....										
	259,485	-	266,918	-	265,690	-	-265,690	-	-	-
Total Appropriation.....	3,426,612	4,269	3,518,706	4,627	3,587,787	5,813	+283,333	-281	3,871,120	5,532
Sequestration.....	-259,485	-	-266,918	-	-265,690	-	+265,690	-	-	-
Bal. Available, SOY.....	19,240	-	1,011,116	-	1,278,289	-	-572,012	-	706,277	-
Other Adjustments (Net).....	791,975	-	-78,080	-	-77,462	-	+286,262	-	208,800	-
Total Available.....	3,978,342	4,269	4,184,824	4,627	4,522,924	5,813	+263,273	-281	4,786,197	5,532
Lapsing Balances.....	-21,197	-	-233	-	-	-	-	-	-	-
Bal. Available, EOY.....	-1,011,116	-	-1,278,289	-	-706,277	-	+87,790	-	-618,487	-
Total Obligations.....	2,946,029	4,269	2,906,302	4,627	3,816,647	5,813	+351,063	-281	4,167,710	5,532
Technical Assistance Transfer to PLCO Account.....	-	-	-	-	-	-	-	-	-1,033,983	-5,532
Total, Farm Security and Rural Investment Programs.....	2,946,029	4,269	2,906,302	4,627	3,816,647	5,813	+351,063	-281	3,133,727	-

NATURAL RESOURCES CONSERVATION SERVICE

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

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

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Obligations:										
Agricultural Conservation Easement Program.....	\$316,875	259	\$297,303	368	\$522,516	308	-\$35,595	-	\$486,921	308
Agricultural Management Assistance.....	6,570	5	4,402	6	4,660	6	+340	-	5,000	6
Agricultural Water Enhancement Program.....	5,384	38	9,626	54	12,226	54	-9,226	-54	3,000	-
Chesapeake Bay Watershed Program.....	6,956	43	3,948	26	13,677	26	-13,677	-26	-	-
Conservation Reserve Program.....	65,591	554	72,808	656	61,241	666	-11,241	-	50,000	666
Conservation Security Program.....	120,411	48	30,917	47	6,048	18	-1,048	-	5,000	18
Conservation Stewardship Program.....	1,030,871	622	1,095,879	1,048	1,324,029	977	+231,913	-	1,555,942	977
Environmental Quality Incentives Program.....	1,297,026	2,500	1,235,780	2,217	1,520,591	3,503	+285,983	-	1,806,574	3,503
Farm and Ranch Lands Protection Program.....	2,877	14	4,828	14	66,025	14	-12,025	-14	54,000	-
Grasslands Reserve Program.....	1,452	5	6,951	4	13,021	4	-21	-4	13,000	-
Ground and Surface Water Conservation.....	17	-	-	-	-	-	-	-	-	-
Healthy Forests Reserve Program.....	577	3	1,284	1	7,822	1	-7,822	-1	-	-
Regional Conservation Partnership Program.....	1,907	2	43,944	5	54,273	54	+20,000	-	74,273	54
Voluntary Public Access and Habitat Incentive Program.....	18,058	-	2,242	-	19,700	-	-19,700	-	-	-
Wetlands Mitigation Banking Program.....	-	-	75	-	9,925	1	-9,925	-1	-	-
Wetlands Reserve Program.....	61,846	122	81,922	99	161,230	99	-52,230	-99	109,000	-
Wildlife Habitat Incentives Program.....	9,612	54	14,393	82	19,662	82	-14,662	-82	5,000	-
Total Obligations.....	2,946,029	4,269	2,906,302	4,627	3,816,647	5,813	+351,063	-281	4,167,710	5,532
Lapsing Balances.....	21,197	-	233	-	-	-	-	-	-	-
Bal. Available, EOY.....	1,011,116	-	1,278,289	-	706,277	-	-87,790	-	618,487	-
Total Available.....	3,978,342	4,269	4,184,824	4,627	4,522,924	5,813	+263,273	-281	4,786,197	5,532
Sequestration.....	259,485	-	266,918	-	265,690	-	-265,690	-	-	-
Bal. Available, SOY.....	-19,240	-	-1,011,116	-	-1,278,289	-	+572,012	-	-706,277	-
Other Adjustments (Net).....	-791,975	-	78,080	-	77,462	-	-286,262	-	-208,800	-
Total Appropriation.....	3,426,612	4,269	3,518,706	4,627	3,587,787	5,813	+283,333	-281	3,871,120	5,532
Technical Assistance Transfer to PLCO Account.....	-	-	-	-	-	-	-	-	-1,033,983	-5,532
Total, Farm Security and Rural Investment Programs.....	3,426,612	4,269	3,518,706	4,627	3,587,787	5,813	+283,333	-281	2,837,137	-

NATURAL RESOURCES CONSERVATION SERVICE

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Notes:

1. 2017 amounts shown as authorized in the 2014 Farm Bill
2. 2016 sequestration applied at 6.8%
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 2015 and 2016, the amounts not available for obligation are re-appropriated in the next fiscal year (other adjustments)
    - i. 2016: \$208.8 million unavailable for obligation; \$136.2 million previously unavailable for obligation; \$4.9 million of expiring reimbursable authority
    - ii. 2017: \$208.8 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. The 2015-2017 balances EOY amounts available for continuing RCPP projects and repealed Farm Bill programs

NATURAL RESOURCES CONSERVATION SERVICE

FARM SECURITY AND RURAL INVESTMENT PROGRAMS  
 Geographic Breakdown of Obligations  
 2015 Actual  
 (Dollars in thousands)

	<u>WRP</u>	<u>CRP a/</u>	<u>EQIP</u>	<u>Con. Sec. Program</u>	<u>WHIP</u>	<u>FRPP</u>	<u>CSP</u>	<u>AWEP</u>	<u>GRP</u>	<u>CBWP</u>	<u>HFRP</u>	<u>AMA a/</u>	<u>ACEP</u>	<u>RCPP</u>	<u>VPAP</u>	<u>WMBP</u>
ALABAMA.....	\$1,284	\$439	\$18,033	\$585	\$922	\$10	\$7,601	\$124	\$34	\$1	-	\$1	\$1,311	\$75	-	-
ALASKA.....	17	19	7,961	15	761	1	1,466	-	5	-	-	-	162	2,706	-	-
ARIZONA.....	43	40	13,286	40	142	10	5,357	1	21	1	-	1	396	211	-	-
ARKANSAS.....	2,151	979	53,978	292	524	1	77,861	68	18	1	-	1	24,964	530	-	-
CALIFORNIA.....	1,422	124	123,665	381	432	59	7,504	2,663	22	2	-	1	20,852	2,783	-	-
COLORADO.....	191	915	37,198	1,239	42	494	26,165	111	48	1	-	1	4,456	19	-	-
CONNECTICUT.....	8	17	6,423	31	480	199	507	-	17	-	-	180	3,346	511	-	-
DELAWARE.....	29	40	7,702	159	9	173	1,511	-	2	79	-	14	4,493	82	-	-
FLORIDA.....	21,497	130	17,844	5	442	4	3,749	1	-	1	-	1	30,919	14	-	-
GEORGIA.....	253	1,308	29,697	338	1,061	1	43,331	534	-	1	\$7	1	7,095	539	-	-
HAWAII.....	35	91	9,726	108	82	2	706	1	13	1	178	337	372	15	-	-
IDAHO.....	261	484	18,253	3,951	163	11	6,994	421	67	1	-	-	1,302	50	-	-
ILLINOIS.....	2,175	9,587	15,599	320	199	5	35,742	3	21	1	-	1	3,633	476	-	-
INDIANA.....	975	6,659	27,454	308	115	1	9,350	87	2	1	11	1	4,759	389	-	-
IOWA.....	868	9,602	24,439	789	26	4	43,328	1	23	2	-	1	13,659	594	-	-
KANSAS.....	847	2,251	27,068	204	226	63	50,195	684	62	1	-	1	2,818	2,409	-	-
KENTUCKY.....	864	1,393	14,853	72	83	59	5,087	1	40	1	64	-	11,311	123	-	-
LOUISIANA.....	4,993	197	23,105	22	8	1	34,828	1	1	1	-	1	16,686	240	-	-
MAINE.....	14	41	14,109	130	545	51	916	-	-	-	-	1,031	562	44	-	-
MARYLAND.....	119	925	10,292	721	132	53	1,387	-	-	783	-	190	2,947	1,441	-	-
MASSACHUSETTS.....	57	18	4,624	9	99	303	463	-	4	-	-	134	2,963	93	-	-
MICHIGAN.....	\$1,223	\$798	\$17,340	\$930	\$98	\$49	\$8,424	\$832	-	1	-	-	\$3,523	\$1,341	-	-
MINNESOTA.....	4,752	7,686	24,009	140	247	45	85,018	1,267	13	1	-	1	2,140	315	-	-
MISSISSIPPI.....	1,534	857	43,766	155	310	1	33,276	605	-	1	-16	-	3,876	136	-	-
MISSOURI.....	1,241	2,120	34,886	2,048	152	1	34,740	1	1	1	-	1	6,489	210	-	-
MONTANA.....	1,187	436	19,671	922	161	57	42,406	35	60	1	-	1	5,354	57	-	-
NEBRASKA.....	1,255	2,601	28,698	3,718	13	4	60,449	1,354	2	2	-	1	4,522	50	-	-
NEVADA.....	1,981	17	9,861	15	130	3	1,312	-	41	-	-	135	3,748	1,478	-	-
NEW HAMPSHIRE.....	381	11	6,418	1	339	136	399	-	5	-	-	82	4,413	68	-	-
NEW JERSEY.....	515	86	6,243	88	107	157	592	54	-	-	-	293	5,413	427	-	-
NEW MEXICO.....	18	316	27,220	3	132	10	28,290	-	9	1	-	-	300	4,552	-	-
NEW YORK.....	2,709	334	14,008	25	527	124	6,436	6	4	345	-	404	3,939	8	-	-
N CAROLINA.....	4,006	700	23,656	19	270	473	4,123	1	-	1	-	-	1,683	11	-	-
N DAKOTA.....	492	3,445	18,667	1,541	12	2	75,144	11	-	1	-	1	5,943	3,223	-	-
OHIO.....	813	3,632	17,456	2,848	1	560	6,802	1	-	1	-	1	11,641	17	-	-
OKLAHOMA.....	2,409	137	25,167	1,822	340	13	61,222	84	61	1	726	1	1,668	638	-	-
OREGON.....	2,584	528	21,281	1,922	73	46	22,676	293	1	1	-	1	3,573	4,265	-	-
PENNSYLVANIA.....	12	1,451	27,502	164	239	305	7,743	1	-	827	298	437	4,387	3,608	-	-
PUERTO RICO.....	1,166	13	7,249	1	16	-	231	-	-	-	-	-	107	104	-	-
RHODE ISLAND.....	9	11	3,457	4	196	64	223	-	19	-	-	136	471	115	-	-
S CAROLINA.....	1,165	548	16,790	527	414	45	7,126	-	38	1	-	-	2,222	747	-	-
S DAKOTA.....	1,051	2,824	16,095	501	342	1	75,751	106	85	1	-	1	8,382	367	-	-
TENNESSEE.....	2,176	517	26,872	196	176	7	7,360	1	5	1	-	1	4,075	240	-	-
TEXAS.....	2,321	1,679	95,355	191	1,362	24	35,635	137	134	3	1	2	9,059	33	-	-
UTAH.....	27	239	22,781	1,262	1	2	5,800	1	-	1	-	195	3,675	709	-	-
VERMONT.....	91	66	11,664	13	739	203	323	-	-	-	-	144	1,321	1,804	-	-
VIRGINIA.....	89	1,030	19,830	43	110	32	7,537	1	17	1,137	-	1	2,444	121	-	-
WASHINGTON.....	787	795	17,680	350	288	408	21,785	9	9	1	-	-	588	4,198	-	-
WEST VIRGINIA.....	23	101	12,310	212	798	124	3,851	1	26	660	-	353	567	8	-	-
WISCONSIN.....	2,647	1,099	24,654	662	1	1	23,782	1	1	1	-	-	3,460	480	-	-

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	<u>WRP</u>	<u>CRP a/</u>	<u>EOIP</u>	<u>Con. Sec. Program</u>	<u>WHIP</u>	<u>FRPP</u>	<u>CSP</u>	<u>AWEP</u>	<u>GRP</u>	<u>CBWP</u>	<u>HERP</u>	<u>AMA a/</u>	<u>ACEP</u>	<u>RCPP</u>	<u>VPAP</u>	<u>WMBP</u>
WYOMING.....	256	169	12,900	520	225	100	8,175	51	34	1	-	266	1,042	254	-	-
NATIONAL HDQTR....	4,849	3,184	74,250	343	78	324	53,177	69	5,985	74	14	41	27,322	983	\$2,242	\$75
CENTERS.....	50	119	2,735	12	3	2	2,023	3	1	3	1	2	950	33	-	-
FY 2015 Total																
Obligations.....	81,922	72,808	1,235,780	30,917	14,393	4,828	1,095,879	9,626	6,951	3,948	1,284	4,402	297,303	43,944	2,242	75

a/ Amounts shown for CRP and AMA only include obligations made by NRCS.

NATURAL RESOURCES CONSERVATION SERVICE

FARM SECURITY AND RURAL INVESTMENT PROGRAMS

Statement of Program

Output Metrics	2014 Actual	2015 <sup>a/</sup> Actual	2016 <sup>a/</sup> Target	2017 Target
<b>Environmental Quality Incentives Program</b>				
Cropland with conservation applied to improve soil quality, acres (millions)	3.1	3.0	3.0	3.0
Non-Federal land with conservation applied to improve fish and wildlife habitat quality, acres (thousand)	1.4	1.4	1.1	1.4
<b>Agricultural Conservation Easements Program</b>				
Agricultural land protected in conservation easements, acres (thousand)	N/A	83.2	110.0	130.0
<b>Wetlands Reserve Program</b>				
Wetlands created, restored or enhanced, acres (thousand) <sup>c/</sup>	54.2	33.1	N/A	N/A
<b>Wildlife Habitat Incentives Program</b>				
Non-Federal land with conservation applied to improve fish and wildlife habitat quality, acres (thousand) <sup>c/</sup>	0.5	0.4	N/A	N/A
<b>Farm and Ranch Lands Protection Program</b>				
Farmland protected from conversion to non-agricultural uses by conservation easements, acres (thousand) <sup>b/ c/</sup>	76.9	2.9	N/A	N/A

a/ Wildlife Habitat Incentives Program (WHIP), Wetlands Reserve Program (WRP), and Farm and Ranch Lands Protection Program (FRPP) were repealed in the 2014 Farm Bill. WHIP performance will be captured under the Environmental Quality Incentives Program (EQIP), and FRPP and WRP will be captured under the Agricultural Conservation Easements Program (ACEP)

b/ Definition was changed to include all farmland protected to better represent the program

c/ For presentation purposes the amount for 2016 and 2017 are reflected in ACEP.

NATURAL RESOURCES CONSERVATION SERVICE

**COMMODITY CREDIT CORPORATION  
FOOD, CONSERVATION, AND ENERGY ACT OF 2008  
AND AGRICULTURAL ACT OF 2014**

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.** Through ACEP-Agricultural Land Easements (ALE), 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. Cooperating entities include an Indian Tribe, State government, local government, or a nongovernmental organization which has a commitment 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 paving and buildings. Ultimately this assists with efforts in managing the Total Maximum Daily Load (TMDL) of nutrients to public waters such as the Chesapeake Bay and Mississippi River.

Through ACEP-Wetland Reserve Easements (WRE), ACEP provides technical and financial assistance directly to private landowners and Indian Tribes to restore, protect, and enhance wetlands through the purchase of a 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. 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 of ACEP-WRE projects.

**Program Operations.** ACEP is a voluntary program, consisting of two components: 1) an agricultural land easement (ALE) component under 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 wetland reserve easements (WRE)

## NATURAL RESOURCES CONSERVATION SERVICE

component under which provides financial and technical assistance directly to landowners to restore, protect and enhance wetlands through the purchase of wetlands reserve easements.

To enroll land through agricultural land easements, NRCS enters into cooperative agreements with cooperating entities that include the terms and conditions under which the partner is permitted to use 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 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.

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 a local USDA Service Center. 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.

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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 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.

### 2015 Activities.

For 2015, \$186 million in ACEP funding was used to enroll an estimated 115,233 acres of farmland, grasslands, and wetlands through 347 new ACEP easements. This agreement leverages federal funds with the partners providing an equal contribution in non-federal funds.

### ACEP-ALE Enrollment.

NRCS received 539 high priority ACEP-ALE applications for nearly \$171 million in funding requests on over 249,687 acres, including 60 applications for ACEP-ALE on over 112,137 acres of Grasslands of Special Environmental Significance. Available funding allowed for the enrollment of 26 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 2015, NRCS enrolled a total of 68,895 acres in 138 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 267 acres in general ALE and 2,730 acres in ALE on Grasslands of Special Environmental Significance.

Agreement Type	2015 Agreements	2015 Acres Enrolled
ALE	125	33,401
ALE-Grasslands of Special Environmental Significance	13	35,494
Total	138	68,895

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### ACEP-WRE Enrollment.

In 2015, NRCS received 662 ACEP-WRE applications for nearly \$247 million in funding requests on over 124,000 acres. Available funding allowed for the enrollment of 38 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 2015, NRCS enrolled a total of 46,338 acres in 209 new ACEP-WRE enrollments (table below). The majority were in easements (42,388 acres in 186 permanent easements and 3,950 acres in 23 30-year easements). The average project size was 222 acres.

Agreement Type	2015 Agreements	2015 Acres Enrolled
30-year contracts with Tribes	-	-
30-year easement	23	3,950
Permanent easement	186	42,388
Total	209	46,338

### Get Conservation on the Ground.

Vermont. In 2015, ACEP-ALE funds were used to protect a 232-acre parcel of land in the town of Berkshire, Vermont. This easement will help protect prime and statewide agricultural soils, woodland, and scenic vistas. The easement is held by the Vermont Land Trust and the Vermont Housing and Conservation Board.

The family that protected this farm with ACEP-ALE funds has a long history of farming and is using the proceeds from the conservation of their farm to secure the additional land base to make their dairy operation more competitive and sustainable.

The primary purpose for conserving this property is to protect the agricultural use and future viability, and related conservation values of the land, including agricultural land, open space, and wildlife habitats. The secondary purposes for conserving the land is to protect the associated scenic and natural resources, to improve the quality of life for Vermonters, and to maintain for the benefit of future generations the essential characteristics of the Vermont countryside. Protection of this property ensures that the farm will have an economically viable future and that it is protected from future development. Conserving this property protects the natural resources on the farmland as well as further protecting the Pike River Watershed.

Georgia. The Ivanhoe Plantation is a 1,420 acre site in Camden County Georgia that has been a key site in need of restoration and protection for several years. It was first brought to NRCS by our partner, the Georgia Department of Natural Resources about three years ago. It is a known nesting site for the State protected Swallow-Tailed Kite, the Federally-protected Woodstork, and countless other -shore, wading, and non-game birds. A key component of Ivanhoe Plantation, though, is the over 100 acre impoundment, which serves as great migratory waterfowl habitat as well. This is critical habitat as determined by the Game Management Section of the Georgia Department of Natural Resources.

Ivanhoe is a critical property due to its components of freshwater, saltwater, fresh water marsh, saltwater marsh, riparian areas, and upland pines. It will have impounded water on the 100 acres, a critical alternative community, and the rest will be restored to historic natural conditions. It is also on the Satilla River which is a critical stream for protection in Georgia.

### 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 Commodity Credit Corporation (CCC) funds for financial assistance in selected States where participation in the Federal Crop Insurance Program is historically low (the authorized level of funding was \$15 million in FYs 2008 through 2014). Section 524(b)

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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 fiscal year. With AMA funds, producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming.

**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:

- Irrigation pipelines used to convey irrigation water in an efficient and effective manner;
- Micro-irrigation systems which have the highest irrigation efficiency and which can reduce water usage significantly;
- Sprinkler irrigation systems, which are the most widely used type of irrigation water delivery system that is both effective and efficient;
- Irrigation storage reservoirs used to store irrigation water for reuse;
- Pumping plants installed in conjunction with other irrigation system components to assist in water use or reuse;
- Water wells as a means by which to effectively utilize groundwater, often in conjunction with sprinkler and micro-irrigation systems;
- Fencing installed to assist in the management of livestock grazing, which is a vital component of any grazing management system;
- Brush management used to control invasive species and increase land productivity; and
- Seasonal high tunnel systems for crops, which are temporary structures that control the growing environment and improve the efficiency of water use.

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

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that 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 duration 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.

### 2015 Activities.

In 2015, over \$5 million of CCC funds for financial and technical assistance was allocated for approval of new AMA contracts. Of this amount, over \$4 million was obligated into 200 contracts covering 3,499 acres. Cumulatively, AMA has 3,602 contracts in implementation, and a continuing backlog of applications that indicates strong interest among producers in the program. At the end of 2015, AMA had a backlog of 1,667 applications, with an estimated contract value of \$29 million on 152,000 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.

Hawaii. The Maui Dragon Fruit Farm is a 15-acre farm in the Launiupoko area of Maui. Their organic crops include dragon fruit, banana, papaya, pineapple, avocado, and sugarcane. Launiupoko was once covered in sugar cane, but much of the area had set fallow since the mill closed in the late 1990's. The soils there are very rocky and barely receive 16 inches of rain per year. When the owners of The Maui Dragon Fruit Farm met with agency personnel and applied for AMA in 2010, they faced multiple resource concerns. Damage to plants and erosion from high winds and the inefficient use of irrigation water were among the most critical. By the time they completed the practices in their AMA contract, the establishment of windbreaks and herbaceous wind barriers had significantly reduced wind erosion and allowed their crops to flourish. Replacing inefficient sprinklers with drip irrigation reduced their overall water usage while increasing their yields. The drip irrigation had another incidental benefit as well, such as reduced fossil fuel use and carbon output. Precision application of the irrigation water meant no overspray which reduced the growth of undesired weeds and the need for mechanical maintenance. Conservation practices lead to reductions in wind erosion and water usage while increasing crop yields and soil quality. This is why The Maui Dragon Fruit Farm is an AMA Success Story.

## Agricultural Water Enhancement Program

### Current Activities.

**Background.** Section 2510 of the Food, Conservation, and Energy Act of 2008 (the 2008 Act) (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 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.

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AWEP was specifically created to address serious surface and ground water shortages and water quality concerns in many agricultural areas. AWEP followed the established national priorities for EQIP:

- Conservation of ground and surface water resources;
- Reduction of nonpoint source pollution, such as nutrients, sediment, pesticides, or excess salinity, in impaired watersheds consistent with Total Maximum Daily Loads (TMDLs) where available;
- Reduction of surface and groundwater contamination;
- Reduction of contamination from agricultural point sources, such as concentrated animal feeding operations; and
- Reduction in soil erosion and sedimentation from unacceptable levels on agricultural land.

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 increased 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. .

### 2015 Activities.

The 2014 Farm Bill repealed the authority to enter into new AWEP agreements and contracts. As a result priority was shifted to assist producers to implement existing contracts. In 2015, the assistance given to the producers helped to implement more than 2,300 practices on about 205,000 acres and made \$17 million in payments for the completed practices.

Get Conservation on the Ground.

California –Addressing water conservation concerns in the Anderson-Cottonwood Irrigation District (ACID). The ACID-AWEP project is improving irrigation efficiency and water quality for water users within the ACID service area. Earthen ditches that carry water from the ACID canal to agricultural fields are being replaced with more

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efficient pipes. ACID, a 32,000-acre irrigation district in Shasta and Tehama counties, was formed in 1914 to assist producers along a 109-mile long water distribution system for irrigation purposes. The ACID system of canals and landowner laterals delivers irrigation water to more than 800 farmers and ranchers. Using \$3 million in AWEP funding, the grant is helping to pay for lateral improvements over a four-year period. Participating ACID customers pay 10 to 25 percent of the cost of replacing the lateral, depending on the project. Water savings from replacing open ditches with pipelines and on-farm improvements are expected to range from 1.5 - 2 acre-feet per acre per year. The project will improve ACID's operational efficiency and increase available flows at turnouts for on-farm deliveries, increasing the efficiency of individual irrigators. Higher downstream flows will increase the area irrigated with each acre-foot of water delivered.

### 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 added 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), which was authorized by Section 2401 of the 2014 Farm Bill.

**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 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 included 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 helps 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, issued by President Obama in May 2009. 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 will be used to support existing contracts. The CBWP contracts 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.** All remaining technical assistance through CBWP will be used to help agricultural producers implement their existing contracts.

#### 2015 Activities.

In 2015, there were no new CWBP funds authorized for new contracts. As such, all activities focused on implementing existing contracts. Under CBWP, the agency assisted producers to implement 3,893 practices in 2015

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on 139,000 acres and made \$18 million in payments for the completed practices. Implementation of existing CBWP contracts played an important role in 2015 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.

Get Conservation on the Ground.

West Virginia. A Pendleton County farmer, who owns 1,500 acres of farmland and rents an additional 560 acres, is using conservation practices funded through the Chesapeake Bay Watershed Program to protect the natural resources on his farm. He is using cover crops to reduce runoff and erosion, proper forage harvest management to extend the life of the hay stand, and buffer strips to protect the water resources on the farm. Water systems have been installed over the past few years, utilizing wells and renovated farm ponds as the source. This extensive system has allowed the operation to fence all of the streams and the South Fork River to keep livestock from damaging the sensitive river banks. “Our cows never have direct access to the River,” stated the landowner. With emphasis being placed on the quality of the Chesapeake Bay, this is very important to conservationists. Manure is also stored in the winter months when the ground is frozen, and can be applied to the fields as nutrients in the spring without as much danger of runoff and pollution.

### Conservation Security Program

#### Current Activities.

Background. The Conservation Security Program is not currently authorized for new enrollments. It was originally authorized by Section 2001 of the Farm Security and Rural Investment Act of 2002 (the 2002 Act) 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 2014 Farm Bill 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.

#### 2015 Activities.

In 2015, approximately \$24 million were provided in financial assistance payments on slightly more than 3,218 contracts from signups held in 2006 and 2008. Among the many benefits of this program, the Conservation Security Program has been a significant contributor within 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. Funded activities include:

- Sequestration of greenhouse gases as measured by improvements to the soil conditioning index, which reflects soil organic matter levels;

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- Generation of renewable energy;
- Use of renewable energy fuels such as biodiesel and ethanol;
- Recycling of on-farm lubricants; and
- Reductions in soil tillage intensity ratings.

### 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 2014 Farm Bill re-authorized the CSP through 2018 and made minor adjustments to its administration.

Program Objective. 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.

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

The program is national in scope, but the agency did not establish national priority resource concerns. Instead, States determine not less than five 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 and 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 fiscal 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.

2015 Activities.

In 2015, CSP provided more than \$91 million in financial assistance funding for new enrollments, as shown in the State distribution table below. These funds will be used to treat over 7 million acres.

2015 Enrollement<sup>1</sup>

State	Acres Treated	Financial Assistance (\$ obligated)
Alabama	18,976	\$431,244
Alaska	98,013	154,666
Arizona	11,020	96,902
Arkansas	258,317	6,795,850
California	134,063	682,354

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State	Acres Treated	Financial Assistance (\$ obligated)
Colorado	157,639	\$1,037,035
Connecticut	818	10,454
Delaware	5,942	125,262
Florida	45,262	322,466
Georgia	109,593	4,873,784
Hawaii	722	9,781
Idaho	60,585	416,015
Illinois	214,557	4,460,873
Indiana	36,498	873,955
Iowa	135,223	3,086,528
Kansas	268,684	3,112,175
Kentucky	24,923	575,103
Louisiana	184,051	4,078,525
Maine	591	14,014
Maryland	1,924	64,101
Massachusetts	521	6,748
Michigan	23,342	439,264
Minnesota	312,786	7,986,522
Mississippi	136,235	3,027,210
Missouri	117,487	1,709,638
Montana	442,188	3,012,507
Nebraska	398,847	3,992,262
Nevada	5,337	49,714
New Hampshire	6,069	40,629
New Jersey	1,679	33,724
New Mexico	595,308	2,094,643
New York	16,265	251,280
North Carolina	11,341	158,233
North Dakota	146,663	6,864,173
Ohio	24,200	674,925
Oklahoma	432,125	5,066,815
Oregon	298,067	2,071,458
Pennsylvania	36,314	735,662
South Carolina	100,329	1,281,042
South Dakota	1,054,608	11,875,477
Tennessee	38,926	826,001
Texas	358,118	2,607,795
Utah	179,191	846,177
Vermont	3,201	11,391
Virginia	13,830	355,898
Washington	155,994	2,489,750
West Virginia	12,605	123,647
Wisconsin	90,610	1,561,850
Wyoming	76,973	245,939
Total	6,856,560	91,661,461

<sup>1</sup> Source: NRCS Protracts October 5, 2015

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Since the program started in 2009, more than 72.8 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 2015 sign up enrollment of about 7 million acres, the total acreage of lands now enrolled in CSP exceeds 104,000 square miles, an area larger than Iowa and Indiana, combined.

2015 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 priority resource concerns by the end of the renewed contract period or to exceed the stewardship thresholds of at least two existing priority resource concerns specified 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 first renewal offers from 2010 contracts were obligated in 2015, 55 percent of the initial contracts were renewed for another five year term extending and exceeding the conservation benefits gained from the initial contracts.

2015-1-Renewal, from initial 2010 Contracts

State	Contract Acres	FA Obligations
Alabama	287,386	\$2,511,688
Alaska	113,716	486,688
Arizona	422,156	1,404,396
Arkansas	323,907	6,621,457
California	277,059	2,023,940
Colorado	833,561	6,047,888
Connecticut	8,303	45,901
Delaware	12,992	275,849
Florida	39,420	353,564
Georgia	306,711	7,652,859
Idaho	191,978	1,876,864
Illinois	329,446	6,579,273
Indiana	158,867	3,218,641
Iowa	442,213	8,503,481
Kansas	761,387	8,573,856
Kentucky	40,331	516,585
Louisiana	254,420	5,445,743
Maine	53,783	175,750
Maryland	14,785	318,798
Massachusetts	5,092	24,004

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State	Contract Acres	FA Obligations
Michigan	130,164	2,103,949
Minnesota	552,586	10,374,137
Mississippi	339,964	8,226,754
Missouri	585,182	8,719,050
Montana	1,453,518	9,895,427
Nebraska	1,115,349	10,774,383
Nevada	9,820	88,901
New Hampshire	1,370	24,411
New Jersey	1,606	52,796
New Mexico	1,209,992	3,557,810
New York	120,810	1,989,147
North Carolina	13,253	226,197
North Dakota	880,890	12,957,659
Ohio	61,399	1,303,450
Oklahoma	1,010,444	11,348,391
Oregon	727,885	5,175,622
Pennsylvania	99,589	2,193,892
Rhode Island	233	1,751
South Carolina	174,835	1,909,935
South Dakota	1,067,411	11,321,576
Tennessee	93,607	1,212,487
Texas	1,071,604	7,556,492
Utah	86,541	349,523
Vermont	1,255	15,063
Virginia	132,710	2,406,685
Washington	361,564	4,454,510
West Virginia	32,006	355,111
Wisconsin	254,200	4,677,603
Wyoming	535,523	2,376,339
Total	17,002,820	188,306,276

Getting Conservation on the Ground.

A Parke County, Indiana grower and his two sons are corn/soybean farmers and are well known for their conservation philosophy. Some of the land they rent-to-farm is adjacent to the Big Raccoon Creek which drains much of Parke County, making water quality an important concern to them.

This Indiana grower is a long-time no-till farmer, but over the past few years, he has worked with his District Conservationist to incorporate a Soil Health Management System approach on the land he owns and rents. This systems approach combines conservation practices such as no-till systems, cover crops, pest management, nutrient management and precision technology in a way that leads to better soil biology, increased yields and less inputs. It is a different way of managing the land.

In 2012, he enrolled approximately 200 acres into the CSP that allowed him to integrate continuous cover crops to improve his soil health and utilize split nitrogen application and precision technology to be more effective and efficient with herbicide and fertilizer application.

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To determine if these conservation activities really do make a difference, he decided to set up his own on-the-farm trial in one of his large fields to study the impact of cover crops on nitrogen management over the life of the five-year CSP contract.

He worked with Indiana's InField Advantage program to help with the research and learn from other growers and conservation professionals. The InField Advantage program is led by the Indiana State Department of Agriculture, Indiana Corn Growers and Indiana Soybean Association who work with local Soil and Water Conservation Districts and farmers to take corn stalk samples which are then analyzed for nitrates. When results are available, farmers use the information to determine how to improve their nitrogen efficiency.

The study on his CSP contract divided the no-till field equally. Each fall, one half the field is aerially seeded with cover crops and the other is not. Everything else in the field is constant including seed, soils, herbicide, and commercial fertilizer.

One of the reasons this Indiana grower started his on-farm trials was to determine the impact cover crops have on soil health, nutrient cycling, and ultimately yield and profit, and he is getting measurable results. In 2013, when the stalk samples were pulled about three weeks before harvest, he did a moisture sample of the corn. The corn without cover crops was nine percent dryer than the corn with cover crops, an indicator that the corn with cover crops was healthier and taking longer to mature and dry down. At harvest, the corn with cover crops was still two to three percent wetter than the corn without and the average yield (based on the combine yield monitor) was eight to nine bushels better in the area of the field with cover crops. During the year the field will have stalk nitrate tests taken from both the cover crop portion as well as the non-cover crop.

This Indiana grower says he will continue to participate in programs such as CSP that will allow him to utilize innovative conservation practices that make his land more resilient while improving water quality and his bottom line.

### 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;

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- 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 Total Maximum Daily Loads (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 a history of being actively irrigated for two out of the last five years.

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

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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. 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.

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.

Chiefs' Joint Landscape Restoration Partnership – The Chiefs' Joint Landscape Restoration Partnership targets 28 priority watersheds in 25 States where NRCS and Forest Service are combining resources and coordinating activities to restore landscapes across ownership boundaries. These projects aim 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 watersheds will be more efficient and effective. The 28 priority watersheds chosen had existing local partnerships and work in progress. In 2015, NRCS obligated \$17 million to forestry activities in these watersheds. The agencies are reviewing lessons learned and considering additional sites for the partnership in 2016.

StrikeForce Initiative – The USDA StrikeForce Initiative's mission is to increase investments and create opportunities in persistent poverty-stricken rural communities using a multi-agency approach to achieve its mission. The Secretary of Agriculture launched StrikeForce in 2010 as a pilot project in persistent poverty areas in rural Arkansas, Georgia and Mississippi. By 2015, StrikeForce efforts have expanded an additional 110 persistent poverty counties in Colorado, New Mexico, Nevada, Alabama, Alaska, Arizona, North Carolina, North Dakota, South Carolina, South Dakota, Texas, Utah, Virginia, Kentucky, Louisiana, Tennessee, West Virginia, Oklahoma and Puerto Rico. There are now over 880 identified persistent-poverty counties, parishes, boroughs, Colonias, and tribal reservations in the 22 States and U.S. territory of Puerto Rico eligible to receive StrikeForce funding opportunities. Since its inception, StrikeForce has formed over 400 community based partnerships and supported over 80,300 projects and opportunities to strengthen America's rural economy. Additional States are being considered for eligibility in 2016.

### 2015 Activities.

In 2015, EQIP financial assistance obligations were over \$861 million in 32,957 active or completed contracts covering an estimated 9.9 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 seasonal high tunnels.

Air Quality – In 2015, approximately \$34 million in financial and technical assistance was provided 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. During 2015, 838 active and completed contracts supported 2,036 practices on more than 97,300 acres.

Organics – 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 2015, nearly \$5 million was obligated in EQIP funds to 339 active and completed contracts, treating 21,100 acres in organic production or in transition to

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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 2015, over \$8 million was obligated in 264 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 address 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 31 percent of qualifying projects (valid applications) were funded in 2015, as the table below shows.

2015 Total EQIP Program Demands<sup>1</sup>

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	Average Contract Amount	Estimated Unfunded Application Amount
Alabama	3,556	1,180	2,376	33.2	\$10,658	\$25,323,313
Alaska	284	111	173	39.1	46,744	8,086,682
Arizona	304	119	185	39.1	77,879	14,407,629
Arkansas	6,352	1,833	4,519	28.9	23,928	108,129,150
California	4,143	2,299	1,844	55.5	42,139	77,703,917
Colorado	1,793	561	1,232	31.3	50,276	61,940,424
Connecticut	327	127	200	38.8	32,909	6,581,832
Delaware	410	173	237	42.2	35,275	8,360,254
Florida	1,327	411	916	31.0	29,678	27,184,929
Georgia	6,814	1,294	5,520	19.0	17,078	94,269,119
Hawaii	160	79	81	49.4	53,174	4,307,064
Idaho	773	299	474	38.7	46,281	21,937,087
Illinois	2,591	341	2,250	13.2	31,761	71,461,654
Indiana	1,562	971	591	62.2	21,063	12,448,472
Iowa	3,032	899	2,133	29.7	18,271	38,971,742
Kansas	1,739	674	1,065	38.8	30,372	32,346,277
Kentucky	2,224	627	1,597	28.2	15,868	25,341,396
Louisiana	2,670	690	1,980	25.8	25,610	50,707,537
Maine	1,509	385	1,124	25.5	27,512	30,923,981
Maryland	560	231	329	41.3	30,966	10,187,947
Massachusetts	284	163	121	57.4	19,454	2,353,960
Michigan	1,639	638	1,001	38.9	21,594	21,615,471
Minnesota	1,836	1,006	830	54.8	17,817	14,788,412
Mississippi	7,513	2,198	5,315	29.3	16,056	85,337,275
Missouri	3,339	983	2,356	29.4	25,847	60,894,765
Montana	1,339	208	1,131	15.5	62,738	70,956,203
Nebraska	3,827	796	3,031	20.8	25,754	78,059,801
Nevada	251	100	151	39.8	75,795	11,444,983
New Hampshire	498	227	271	45.6	18,300	4,959,421
New Jersey	366	207	159	56.6	21,077	3,351,187
New Mexico	1,129	346	783	30.6	57,420	44,959,838

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State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	Average Contract Amount	Estimated Unfunded Application Amount
New York	1,013	380	633	37.5	29,485	18,663,808
North Carolina	2,007	593	1,414	29.5	30,285	42,822,433
North Dakota	2,024	593	1,431	29.3	21,053	30,126,727
Ohio	2,312	599	1,713	25.9	22,129	37,907,306
Oklahoma	5,987	946	5,041	15.8	18,584	93,684,042
Oregon	1,116	500	616	44.8	32,804	20,207,050
Pennsylvania	2,920	482	2,438	16.5	41,514	101,211,746
Rhode Island	152	71	81	46.7	31,887	2,582,875
South Carolina	2,131	562	1,569	26.4	22,883	35,903,892
South Dakota	1,082	270	812	25.0	39,870	32,374,534
Tennessee	2,404	1,081	1,323	45.0	18,579	24,580,668
Texas	6,784	3,199	3,585	47.2	22,588	80,977,254
Utah	918	307	611	33.4	55,035	33,626,413
Vermont	811	382	429	47.1	22,043	9,456,554
Virginia	1,763	418	1,345	23.7	32,108	43,185,581
Washington	1,358	335	1,023	24.7	38,786	39,677,980
West Virginia	2,087	403	1,684	19.3	18,816	31,686,169
Wisconsin	2,620	1,047	1,573	40.0	21,380	33,630,391
Wyoming	606	192	414	31.7	47,843	19,806,827
Pacific Basin	101	55	46	54.5	39,922	1,836,393
Caribbean Area	714	366	348	51.3	12,028	4,185,839
Total	105,061	32,957	72,104	31.4	26,150	1,885,527,502

<sup>1</sup>Source: Protracts as of October 5, 2015. 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 2015, NRCS offered a funding opportunity through CIG to support the demonstration of projects addressing natural resources concerns. The Secretary of Agriculture awarded \$20.5 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:

- Iowa State University received \$760,897 to develop and accelerate the adoption of innovative approaches to monarch butterfly conservation, with a focus on developing methods appropriate for use in the agriculturally-intensive Midwestern corn and soybean production regions.
- Nuestras Raíces received \$811,148 to provide guidance on environmentally sound growing practices and develop a language- and culturally-appropriate training program to support the production of Caribbean Latino specialty crops in the Northeast.
- The Farm Foundation received \$685,990 to collect, analyze, and disseminate site-specific soil health and economic information related to cover crops and no-till to producers interested in adopting these soil health improving practices.
- Indian Land Tenure received \$295,000 to adapt greenhouse gas protocols and increase engagement and participation of Indian Tribes in greenhouse gas markets.
- Environmental Defense Fund received \$960,000 to create the first large-scale pilot project generating and selling greenhouse gas credits from nutrient management practices on corn farms in the Midwest and almond orchards in California.

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Get Conservation on the Ground.

Alaska: EQIP Twenty Miles of Spawning Habitat established for Alaskan Natives. The Tyonek Tribal Conservation District, in cooperation with the NRCS Native Village of Tyonek, the Tyonek Native Corporation, the US Fish & Wildlife Service, the Alaska Department of Fish and Game, and many others, has open more than 20 miles of salmon spawning habitat by replacing culverts that formed barriers to fish passage. Farm Bill programs EQIP and the RCPP both assisted funding culvert replacements with engineers help in developing the plans. Most of the old culverts were small, did not allow for continuous streambed habitat, and sat above the natural water level. The replacement culverts correct each of these problems and, in time, the additional habitat will boost salmon populations for both subsistence and commercial use.

Alabama: EQIP Tuscaloosa Farmer Used EQIP to Rebuild Longleaf Legacy. A symbol of the South is experiencing a renaissance across Alabama. After decades of decline, longleaf pine forests are beginning to thrive across the State. Alabama State office has worked with private landowners to reverse this trend through its Longleaf Pine Initiative (LLPI) which is funded through EQIP. The LLPI focuses on restoring longleaf pine forests and enhancing wildlife habitat for keystone species such as the gopher tortoise, red-cockaded woodpecker, and more. A forest landowner in Tuscaloosa, Alabama, is doing his part to help the critical ecosystem. He's worked with NRCS in Alabama to plant more than 40 acres in longleaf pine since 2012, utilizing more than \$13,000 of financial assistance provided under EQIP. The landowner, a committed conservationist, said he has had a great experience working with his local field office and plans to keep the land in his family for generations. "It'll be nice to pass it on to two my two daughters and my grandchildren." Since 2010, over \$12 million have been invested in restoring more than 94,000 acres of longleaf pine forests and enhancing wildlife habitat for nearly 600 plant and animal species, including 29 threatened and endangered species.

Arkansas: EQIP Landscape Initiative Results in Delisting Stream from State's Impaired List. Four years into an eight-year EQIP Initiative to improve water quality of the Illinois River Sub-Basin and Eucha-Spavinaw Lake Watershed (IRWI) progress is being realized with a portion of the river in Arkansas being removed from the State's 2014 Clean Water Act section 303(d) impaired waters list. Since the IRWI began in 2011, 538 contracts have been funded totaling more than \$16 million to apply conservation practices on 43,681 acres in Arkansas. The 1,315,673-acre initiative includes 576,517 acres in Benton and Washington counties in Arkansas and 739,156 acres in Oklahoma. Work by NRCS and our partners, such as the Arkansas Natural Resources Commission (ANRC); Illinois River Watershed Partnership (IRWP); and the Washington and Benton county conservation districts; and landowners in six sub-watersheds in the IRWI project area contributed to the delisting. The delisting highlights the efforts of Federal, State, and county agencies as well as watershed groups and local landowners working together to implement best management practices on agricultural lands along this stream reach that ultimately improved water quality along a significant portion of the river.

Minnesota: EQIP Improving Pollinator Habitat. The work of pollinators has value beyond providing food and resources for people. Pollinators help keep plant communities healthy and productive. Realizing the importance of improving pollinator habitat in Minnesota, a special outreach effort was made to fund the plantings of pollinators. In the spring of 2014, a Minnesota producer planted a 28 acre field to a pollinator habitat in Swift County, Minnesota. The planting of this new habitat was made possible through technical and financial assistance through EQIP. The field planting consisted of Mustard, Buckwheat, Cowpea, and sunflower and addressed the resource concern of inadequate habitat – food and forage. Bees from neighboring bee hives are already taking advantage and thriving with their new pollinator habitat resources.

### 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. FRPP was repealed by Section 2301 of the Agricultural Act of 2014 (P.L. 113-79) (the 2014 Farm Bill). However, Section 2704 also provided transitional language that ensured prior enrollees will continue to be provided technical and financial assistance by NRCS. 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.

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**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 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 decreases the availability of local food markets and increases the travel distance and cost of delivery of food to the consumer market. Having enrolled in FRPP, farm and ranch lands 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 purchase conservation easements to protect the agricultural use of eligible land. Potential partners provided written evidence of their:

- 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 is 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 hold, monitor, manage, and enforce 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 includes a provision granting the United States the right of enforcement to protect the Federal investment. To ensure responsible land stewardship, the landowner must implement a conservation plan protecting highly erodible land on each parcel acquired in part with Federal funds. Technical assistance was provided 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 such 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

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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.

2015 Activities.

No new enrollments of FRPP occurred in 2015.

Cumulative Program Activity Through 2015	
Closed Easements (Permanent)	Cumulative
Number of Easements	4,138
Number of Acres	994,612
Enrolled Easements (Permanent)	Cumulative
Number of Easements	4,361
Number of Acres	1,090,444

2009 to 2014 FRPP Enrollment Summary	
	Easements
No. of Agreements	431
No. of Parcels	1,696
No. of Acres Enrolled	555,932
Financial Assistance Funding	\$666,019,600

Get Conservation on the Ground.

American Farmland Trust study. In addition to keeping land available for agricultural use, FRPP improved agricultural viability, encouraged farm conservation, and assisted farmers gain access to land according to a study published by the American Farmland Trust in 2013. Based on responses from the FRPP landowners, the study concluded that:

- 84 percent spent a portion of the proceeds from the sale of their easement on improving their agricultural operation;
- 75 percent applied at least one conservation practice, in addition to conserving their land through FRPP. Of these, the majority applied practices intended to protect soil from erosion; and
- 55 percent spent a portion of their easement proceeds on repaying loans on agricultural land or buying additional land.

Nebraska. Through the financial assistance provided by FRPP, the Nebraska Land Trust, the Nebraska Environmental Trust, and NRCS worked together to protect the Patterson Farm in Sarpy County, Nebraska. This completed an effort that started in 2008 with the Patterson Farm and the Nebraska Land Trust and resulted in the second largest protected property in Sarpy County, which is the fastest growing county in Nebraska. The Patterson Farm FRPP easement consists of a beautifully terraced working farm with prime soils of statewide importance, Native American earth lodge sites, spring fed streams, and a high quality oak/hickory woodland. The FRPP program provided the funding that made it possible for the Nebraska Land Trust to purchase an easement on this farm which highlights the three components of the Nebraska Land Trust’s mission of protecting agricultural, historical, and natural resources. As a result, the entire 693-acre farm is now protected from development in an area of intense development pressure.

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

## NATURAL RESOURCES CONSERVATION SERVICE

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 Farm Service Agency (FSA) jointly administered GRP. The agency 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 Conservation Reserve Program (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 than to poorer-quality grassland that also required 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 such 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.

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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.

2015 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. The Food, Conservation, and Energy Act of 2008 authorized GRP to enroll an additional 1,220,000 acres of eligible land in 2009 through 2013. In 2009 to 2013, the program obligated and committed \$414 million of the financial assistance funding allocated to the States and enrolled 1,112,777 acres. Enrollments include current active and completed agreements, enrollments do not include cancelled or expired agreements.

FY 2009 to FY 2013 GRP Enrollment Summary			
	Active Easements	Rental Contracts Signed	Total
No. of Agreements	403	1,650	2,053
No. of Acres Enrolled	273,355	839,422	1,112,777
Financial Assistance Funding	\$320,641,800	\$ 93,123,211	\$ 413,765,011

GRP Cumulative Program Activity						
GRP Accomplishments (FY)	2003 to 2008	2009	2010	2011	2012	2013
Number of Enrolled Easements	251	52	134	114	62	41
Enrolled Easement Acres	117,471	27,748	69,847	77,907	39,851	58,002
Rental Acres Enrolled	538,855	136,815	273,902	120,698	177,790	89,390
Total Acres Enrolled	656,326	164,563	343,749	198,605	217,641	147,392
Cumulative Acres enrolled under 2008 Farm Bill		164,563	508,312	706,917	924,558	1,071,950

Get Conservation on the Ground.

Idaho: GRP Enrollments Support Agency Commitment to Sage Grouse Habitat. Funding was provided for the Sage Grouse Initiative through several programs, including GRP, to work proactively with ranchers voluntarily enrolling critical habitat. Idaho experienced higher-than-expected interest in the Sage Grouse Initiative that are helping protect Idaho ranches through preserving large swaths of sage grouse habitat. Interest was so high that the agency enrolled over 42,000 acres in the Sage Grouse Initiative area under GRP. These efforts give ranchers local control over sage grouse recovery while maintaining these large tracts of grazing lands that support both healthy sage grouse populations and sustainable ranching businesses. This now-protected habitat provides ensures properly managed grazing land and viable habitat areas will remain available for to help sustain the Sage Grouse populations.

Montana. The GRP easement on the Hart Ranch in Phillips and Blaine County provides a mixture of working rangeland along with protecting wildlife habitat. The Hart Ranch GRP easement protects over 2,400 acres of land and includes both native rangeland and pastures with a mix of native and introduced grasses. The ranch is home to several species of grassland-dependent birds including the Sage-Grouse. The permanent protection of critical Sage-Grouse habitat through voluntary conservation efforts of landowners enrolling in easements has played an integral role in preventing this listing of the Sage Grouse on the Federal endangered species list. The Hart Ranch is one of many GRP easements through which NRCS has successfully provided permanently-protected habitat to help ensure the viability of the Sage Grouse and other species dependent on similar habitat.

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### 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 Regional Conservation Partnership Program (RCPP) (Subtitle I of Title XII of the Food Security Act of 1985, 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

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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.

2015 Activities.

Cumulatively, 110 agreements have been enrolled, encompassing approximately 677,337 acres, as the table below shows.

Cumulative Program Activity (Through 2015)	
Closed Easements (Permanent and 30-Year)	Cumulative
Number of Easements	77
Number of Acres	18,808
Active Restoration Cost-Share Agreements	Cumulative
Number of Agreements	16
Number of Acres	654,509
Summary	Cumulative Summary
Total Agreements Enrolled	110
Total Acres	677,337

Getting Conservation on the Ground.

Oklahoma. In the spring of 2010, the agency in partnership with the United States Fish and Wildlife Services, began administering a pilot program under the Healthy Forest Reserve Program (HFRP) called the Ozark Plateau Karst-Dependent Species Conservation Initiative. The intent of the initiative was to aid in the recovery of three species protected under the Endangered Species Act by restoring healthy forest habitat in northeastern Oklahoma. Specifically, restoration efforts targeted improving the foraging habitat of the Ozark big-eared and gray bats and improving ground water quality for the Ozark cavefish. At the time of initiation, the Ozark big-eared bat population was estimated to be composed of only 1,800 individuals.

Since 2010, HFRP easements have been acquired on 4,400 acres of land and is working to close on an additional 1,700 acres. Moreover, 2,100 acres are being restored and managed under conservation agreements. In Adair County of Oklahoma, this includes a 1,000-acre parcel that was initially considered for traditional farm income, however by participating in HFRP landowners have restored and protected the property that had become important to the family.

Due to the long-term absence of fire, many of the forests in the county had become overstocked and unhealthy. Many trees had succumbed to Hypoxylon canker. The strategy for improving the health of the forest through HFRP is to return tree densities toward the historic plant community which consists of a moderately stocked, open canopy, mature forest with an herbaceous understory. Since the properties have been enrolled in HFRP, the forests have been thinned to reduce the numbers of trees and have been burned to meet restoration goals. These restoration efforts have resulted in a more open woodland where the Ozark big-eared and gray bats can more easily maneuver during foraging and a vegetated understory that helps filter water for the Ozark cavefish. Landowners have noted more wildlife on their properties and now serve as advocates for HFRP in Oklahoma.

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 (the 1985 Act), 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 the Natural Resources Conservation Service (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 (Public Law 83-566). The covered programs for RCPP are the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Healthy Forests Reserve Program (HFRP), and Agricultural Conservation Easement Program (ACEP).

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**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 to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales. 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 towards 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.

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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.

### 2015 Activities.

These 2015 submissions called upon potential support of about 5,000 partner organizations to help address resource concerns. Of the 543 eligible pre-proposals received, 204 were for projects in designated Critical Conservation Areas. The Mississippi River Basin CCA received the most eligible pre-proposals with 62. California received 19 pre-proposals, the largest number of pre-proposals for the State funding pool. The agency selected 115 full proposals for a total of \$373 million with partners requesting over \$1 billion. Resource concerns for the 115 partnership agreements included 50 percent for water quality, 19 percent for water quantity, 24 percent for wildlife, and 7 percent for other natural resource concerns. The results demonstrate the Nation's increasing emphasis on water resources—either because of challenges to water quality or water quantity, or both. In nearly 70 percent of all projects, partners identified addressing water resource issues as a primary objective.

In May 2015, the 2016 RCPP Announcement for Program Funding (APF) was issued 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.

### Get Conservation on the Ground.

The need and desire of partners to address local resource concerns is strong in many different areas, as indicated by the wide geographic variation and amounts of pre-proposals submitted. The pre-proposals emphasized partnering on a local watershed level, State level, and multi-state levels to provide practices to benefit resource concerns affecting the entire nation. These pre-proposals demonstrate working across boundaries, bringing forward strong, nontraditional partnerships that break down barriers. Hundreds of partners with wide ranging interests are represented across the projects, including conservation districts, agribusiness, for- and non-profit organizations, local, State and Federal agencies (e.g., State water quality agencies, U.S. Army) and tribal governments.

## 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 Agricultural Conservation Easement Program (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 2014 Farm Bill.

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.

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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 provided a variety of important environmental services that were increasingly valued by society. These included 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 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 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 FY 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.** In 2015, prior year WRP funding was 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;

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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.

2015 Activities.

WRP Acreage. On-going technical and financial assistance is provided on WRP acreage enrolled prior to its repeal by the 2014 Farm Bill. Enrollment is defined as the point at which the landowner and NRCS enter into the agreement authorizing the agency to proceed with the purchase of the easement or 30-year contract, prior to the enactment of 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 2,651,710 acres; this total excludes cancelled, terminated or expired enrollment transactions. In 2015, NRCS closed easements on 34,999 acres through 317 easement transactions, including 117 30-year easements on 588 acres and 200 permanent easements on 23,411 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	10,883	2,097,733
Enrolled 30-year Easements	2,755	436,054
Restoration Cost-Share Agreement	777	115,007
30-Year Contract with Tribes	15	2,916
Total	14,430	2,651,710
Agreement Type	Cumulative Easements	Cumulative Acres
Closed Permanent Easements	10,709	2,074,151
Closed 30-Year Easements	2,676	426,405
Total	13,385	2,500,557

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.

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Initiatives and Partnership Projects. The Wetland Reserve Program has a number of initiatives and program options that provide targeted delivery of conservation assistance to address specific resource concerns on a geographic, species, habitat, natural disaster, or other basis that benefits from a tailored or rapid response. WRP was a key tool in delivering conservation benefits to these initiative efforts:

- Washington: The agency has been working with partners and the Tulalip Tribe to restore natural hydrology to the Qwuloolt Estuary. The project culminated this year with the breaching of the levee at the Snohomish River. Partners involved in this WRP estuary restoration include the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, the City of Marysville, Puget Sound Partnership, and the Washington Departments of Ecology and Fish & Wildlife.
- Iowa: Wetlands Reserve Enhancement Partnership within the Prairie Pothole Region of the northern Great Plains in north central Iowa has been a huge success. As an example, three families with adjoining property lines recently combined efforts with State and Federal partners to restore wetlands on 220 acres. The project has brought Federal and State resources agencies together to restore wetlands through the WREP partnership.
- Louisiana: In the 23 years since the listing of the Louisiana Black Bear as an endangered species in Louisiana, NRCS has worked with private landowners who have enrolled over 225,000 acres in the WRP to restore critical habitat and provide long-term protection for this imperiled species. Primarily due to these efforts, this year a proposal to de-list the Louisiana Black Bear from the Federal Endangered Species list has been announced.

Get Conservation on the Ground.

Minnesota. A joint WRP restoration project on over 1,000 acres involving multiple landowners was completed this year in Minnesota. The project includes hydrologic restoration of shallow marsh basins, removal of monotypic cattail stands, sediment removal, and restoration of stream meanders. This hydrology restoration complements the vegetative restoration previously completed on the site. The diversity of site conditions provides habitat for shorebirds, various duck species, Trumpeter Swans, and at-risk species such as Yellow Rails and Marbled Godwit. Several hundred acres of prairie restoration on the site also provides habitat for the Greater Prairie Chicken.

Oregon. NRCS worked with several private landowners to secure WRP easements in the Willamette Valley of Oregon. The easements allowed the agency to restore, protect, and enhance critical habitat for the Federally-listed Oregon chub. This investment in Oregon chub habitat has led to the protection of 823 acres of critical habitat and the Oregon chub being the first fish in U.S. history to be removed from the Federal Endangered Species List.

Texas. An innovative approach was used to address restoration needs on two large WRP easements. Flat topography and road conditions made it necessary to employ a unique design using cattle guards in conjunction with low water crossings addressing restricted water flow to restore the site. The existing roads were impacting the exchange of fresh water within the wetlands that are used by blue crabs, a major food source for endangered Whooping Cranes that migrate to these wetlands in winter. This large restoration project encompasses nearly 12,000 acres along the Texas Gulf Coast.

### Wildlife Habitat Incentive Program

#### Current Activities.

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 2014 Farm Bill (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 habitat, 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 any of 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

## NATURAL RESOURCES CONSERVATION SERVICE

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 impede 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. States generally selected two to six priority habitat types.

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, February 7, 2014. 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.

### 2015 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 5,192 practices in 2015 on 1 million acres and made nearly \$18 million in payments for the completed practices.

### Getting Conservation on the Ground.

Maine. In 2007, the Houlton Band of Maliseet Indians (HBMI), with support from the U.S. Fish and Wildlife Service (USFWS), began a study of nearby rivers with fluvial-geomorphologist John Field to determine what could be done to improve fish habitat. Armed with this information, they approached the agency for assistance. After receiving funding through WHIP in 2011, HBMI further teamed up with Eastern Brook Trout Joint Venture and USFWS to obtain enough funds to complete stream restoration on over two miles of the Meduxnekeag. After several years of restoration work, a stretch of the Meduxnekeag has been enhanced and restored for fish habitat. Now the river can begin reforming pools, riffles and more log traps as it meanders around the structures, with full restoration expected in five years. But anglers won't have to wait that long to see the benefits, immediately after installation, fish and other wildlife were already seen congregating around the structures. It's a new beginning for the Meduxnekeag thanks to the dedicated efforts of the HBMI, NRCS, partners and landowners.

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Shared Funding Projects

(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Actual</u>	<u>Enacted</u>	<u>Estimate</u>
<b>Working Capital Fund:</b>				
<b>Administration:</b>				
HR Enterprise System Management.....	-	-	\$83	\$83
Integrated Procurement Systems.....	\$1,744	\$1,843	1,555	1,557
Mail and Reproduction Management.....	1,583	966	1,024	977
Material Management Service Center.....	92	115	153	150
Procurement Operations Division.....	-	549	485	460
Subtotal.....	3,418	3,473	3,299	3,227
<b>Communications:</b>				
Creative Media and Broadcast Center.....	210	305	230	128
<b>Finance and Management:</b>				
Financial Management Services .....	18,960	8,960	9,178	9,224
Internal Control Support Services .....	140	185	215	222
National Finance Center .....	3,652	2,777	2,685	2,553
Subtotal.....	22,752	11,922	12,079	11,999
<b>Information Technology:</b>				
Client Technology Service .....	121,728	117,485	109,678	108,288
National Information Technology Center.....	5,473	11,589	8,656	12,438
Subtotal.....	127,201	129,074	118,334	120,726
Correspondence Management.....	157	128	135	154
Total, Working Capital Fund.....	153,738	144,901	134,076	136,235
<b>Department-Wide Reimbursable Programs:</b>				
1890's USDA Initiatives.....	308	288	369	369
Advisory Committee Liaison Services.....	1	2	2	2
Classified National Security Information.....	-	104	59	59
Continuity of Operations Planning.....	213	219	228	228
Emergency Operations Center.....	244	234	256	256
Facility and Infrastructure Review and Assessment.....	47	47	49	49
Faith-Based Initiatives and Neighborhood Partnerships.....	23	40	44	44
Federal Biobased Products Preferred Procurement Program.....	37	-	-	-
FITARA Administration and Operations.....	-	-	446	615
Hispanic-Serving Institutions National Program.....	210	188	251	251
Honor Awards.....	8	8	8	8
Human Resources Transformation.....	180	178	162	162
Identity & Access Management (HSPD-12).....	710	699	734	734
Intertribal Technical Assistance Network.....	322	320	417	417
Medical Services.....	27	51	36	36
People's Garden.....	61	75	71	71
Personnel Security Branch.....	93	77	78	78
Preauthorized Funding.....	382	392	449	449
Retirement Processor Web Application.....	60	62	65	65
Sign Language Interpreter Services.....	62	-	-	-
TARGET Center.....	97	145	158	158
USDA 1994 Program.....	79	74	144	144
Virtual University.....	206	205	217	217
Visitor Information Center.....	24	-	-	-
Total, Department-Wide Reimbursable Programs.....	3,395	3,405	4,242	4,411

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Shared Funding Projects  
(Dollars in thousands)

	2014 <u>Actual</u>	2015 <u>Actual</u>	2016 <u>Enacted</u>	2017 <u>Estimate</u>
<b>E-Gov:</b>				
Budget Formulation and Execution Line of Business.....	11	10	8	8
Disaster Assistance Improvement Plan.....	51	39	19	-
Enterprise Human Resources Integration.....	236	218	212	212
E-Rulemaking.....	108	82	36	11
E-Training.....	294	287	337	-
Financial Management Line of Business.....	19	17	17	14
Geospatial Line of Business.....	-	-	21	13
GovBenefits.gov.....	139	133	111	85
Grants.gov.....	66	56	46	11
Human Resources Line of Business.....	29	28	30	30
Integrated Acquisition Environment - Loans & Grants.....	200	196	-	-
Integrated Acquisition Environment.....	71	69	183	134
Total, E-Gov.....	<u>1,224</u>	<u>1,136</u>	<u>1,021</u>	<u>519</u>
Agency Total.....	<u>158,357</u>	<u>149,443</u>	<u>139,340</u>	<u>141,164</u>

Note: Detail in this table may not add to the totals due to rounding.

NATURAL RESOURCES CONSERVATION SERVICE

Summary of Budget and Performance  
Statement of Department Goals and Objectives

The Natural Resources Conservation Service (NRCS) was established pursuant to the Department of Agriculture Reorganization Act of 1994, (P.L. 103-354, 7 U.S.C. 6962). The mission of NRCS is “Helping People Help the Land.” The Agency accomplishes its 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. 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), Resource Conservation and Development (RC&D), 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.

All agency programs and performance support USDA’s Strategic Goal 2 as outlined in the following tables. The NRCS mission statement is: To improve the health of our Nation’s natural resources while sustaining and enhancing the productivity of American agriculture. We achieve this by providing voluntary assistance through strong partnerships with private landowners, managers, and communities to protect, restore, and enhance the lands and waters upon which people and the environment depend.

**USDA Strategic Goal 2:** *Ensure Our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources*

**USDA Strategic Objective 2.1:** *Improve the Health of the Nation’s Forests, Grasslands, and Working Lands by Managing Natural Resources*

USDA assists private landowners and managers with soil health improvement since it is the foundation for maintaining working productive farms and ranches. Soil also has tremendous potential to pull carbon dioxide, from the atmosphere and store it as soil organic matter, which helps mitigate climate change. The annual performance below is a direct result of applying conservation practices that reduce soil erosion or increase soil organic matter, the two major aspects of soil health.

The other agency outcome related to USDA Strategic Objective 2.1 is wildlife habitat improvement, as nearly 70 percent of the fish and wildlife habitat in the U.S. is on privately-owned lands. USDA assists landowners with habitat evaluations and improvements with conservation practices and long-term management plans. Some conservation practices have added conditions through the Working Lands for Wildlife partnership with the U.S. Fish and Wildlife Service, providing landowners additional predictability if they have Threatened or Endangered Species on their lands and maintain the practices according to the conditions.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcomes
Goal 1: Get More Conservation on the Ground	Objective 1.1 Advance the performance of voluntary, incentive-based conservation solutions	CTA, EQIP, SOIL, CStP, ACEP, RCPP, HFRP, PMC, RC&D, HFRP, AMA	Maintain productive working farms and ranches.
		CTA, EQIP, ACEP, RCPP, HFRP	Decrease threats to “candidate” and threatened/endangered species.

While the performance results for Objective 2.1 are mixed, the programs are performing well overall. During 2015, there was some spring flooding in the Midwest that delayed some scheduled conservation activities.

The key performance measures chosen for USDA Strategic Objective 2.1 represent the major agricultural land in the Nation, and conservation activities on those land types.

NATURAL RESOURCES CONSERVATION SERVICE

**Key Performance Measures**

Annual Performance Goals, Indicators, and Trends <sup>1</sup>		Actual <sup>2</sup>				Target	Actual	Result	Estimate /Target	Target
		2011	2012	2013	2014	2015		2016	2017	
2.1.2	Cropland with conservation applied to improve soil quality, million acres CTA	NA	NA	NA	6.2	6.8	6.0	Unmet	5.9	5.9
2.1.3	Cropland with conservation applied to improve soil quality, million acres EQIP	NA	NA	NA	3.1	3.4	3.0	Unmet	3.0	3.0
2.1.4	Grazing and forest land with conservation applied to protect and improve the resource base, million acres CTA	NA	NA	NA	13.1	12.8	13.1	Met	13.0	13.0
2.1.5	Grazing and forest land with conservation applied to protect and improve the resource base, million acres EQIP	NA	NA	NA	14.8	13.7	13.9	Met	13.9	16.0
2.1.8	Non-Federal land with conservation applied to improve fish and wildlife habitat quality, million acres EQIP	NA	NA	NA	1.4	1.4	1.4	Met	1.1	1.4
<sup>1/</sup> 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 agency-approved technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied. <sup>2/</sup> Past year actuals were assigned NA in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.										
<b><u>Allowable Data Range for Met</u></b> – The allowable data range for annual performance is 90 to 110 percent of the target.										
<b><u>Assessment of Performance Data</u></b>										
<b><u>Data source</u></b> – NRCS tracks and evaluates field and State level conservation planning efforts and practice implementation through the Performance Results Systems (PRS). The data source is the National Planning and Agreements Database (NPAD).										
<b><u>Completeness of Data</u></b> – The reported performance measures are based on data from October 1, 2014 through September 30, 2015. Numerous data quality mechanisms within NPAD and PRS ensure the completeness of each performance record entry which is automated during the upload of conservation plans into NPAD or error reporting through PRS. On an annual basis there is a complete national data quality review that is completed in each State, followed by the State Conservationists certification that the data is complete and accurate.										
<b><u>Reliability of Data</u></b> – The data reported for performance measures was determined within PRS based on information validated and received from the NPAD. Conservation plans are developed in consultation with the customer, created with the Customer Service Toolkit, and stored in the NPAD. Applied conservation practices are date-stamped, geo-referenced, and linked to employee identification, enabling detailed quality assurance reviews. Periodic reviews are conducted by State office and headquarters personnel to assess the accuracy of reported data.										
<b><u>Quality of Data</u></b> – Data is reported where the conservation is occurring by staff that are trained in conservation planning and approved for certifying the practices. Error checking enhancements and reports within the PRS application maintain data quality by allowing users at local, State, and national levels to monitor data inputs. The agency designates key personnel, at both the State and national levels, to conduct quality assurance reviews periodically throughout the year to ensure the data is reliable and accurate. At the end of the fiscal year, each State Conservationist signs and certifies that the PRS data is valid, complete, and reliable.										

## NATURAL RESOURCES CONSERVATION SERVICE

### Analysis of Results

#### Selected Past Accomplishments Toward the Achievement of the Key Outcomes 2015:

##### Soil Quality

- Soil health practices continue to be applied across the country. Approximately, 3.9 million acres of conservation crop rotation and 1.3 million acres of cover crops planted. These practices take carbon dioxide out of the atmosphere and deposit it into the soil as organic matter, reduce erosion, increase water-holding capacity, and improve water infiltration;
- Across all programs, over 9 million acres of cropland had conservation applied to improve soil quality. This measure is used as the USDA indicator for maintaining or enhancing sustained production of a safe, healthy, and abundant food supply;
- Soil health management systems, the most cutting-edge combination of conservation practices for soil health improvement were applied on 500,000 acres in 2015, this is an increase of six percent from 2014;
- Developed a new Soil Health Division to provide technical and strategic long-term leadership on Objective 2.1;
- Progress was made on compiling and communicating updated information on the science of soil health for stakeholders, and capacity built to further continue these efforts;
- Several dozen soil health demonstration sites were put in place through partnerships that continue to grow;
- Increases in corn and soy crop yields were documented by partners, particularly after droughts; and
- Significant progress was made on better quantification of carbon sequestration achieved due to soil health management systems.

##### Grazing Land Conservation

- Livestock producers are working with NRCS and looking for ways to save on these inputs as well as improve the nutrition of their herds. All programs contributed to the application of over 26 million acres of conservation systems to improve grazing and forest land health; and
- Grazing management also enhances soil resources by preventing erosion, increasing infiltration, facilitating soil building grasses in rotation systems, and sequestering carbon from the atmosphere. There were over 14 million acres of sustainable grazing management done with USDA and partner assistance.

##### Wildlife Conservation

- Almost 9 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 for other species of concern through focused initiatives including: Sage Grouse, Migratory Birds, Longleaf Pine, and the Lesser Prairie-Chicken;
- Through Working Lands for Wildlife, a partnership between NRCS, and the U.S. Fish and Wildlife Service, landowners in 35 States enrolled approximately 6.7 million acres in conservation practices to improve habitat for these species. More than 4.6 million acres were enrolled in the Sage Grouse Initiative, with conservation practices reducing sage grouse death from fence strikes by 83 percent; and
- Over 275,000 acres of invasive conifers were removed thus reducing landscape fragmentation and improving Sage Grouse populations.

#### Selected Accomplishments Expected at the 2017 Proposed Resource Level/Challenges for the Future

- Soil health will be improved on over 8 million acres of cropland, by preventing soil erosion and carbon loss;
- The Soil Health Initiative will expand demonstration sites, literature reviews and technical trainings;
- 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 ecosystem health on 25 million acres; and
- The Working Lands for Wildlife will continue focusing on landowner predictability for management on habitat for species of concern. An additional 1.4 million acres of conservation will be applied.

**USDA Strategic Objective 2.3:** *Contribute to Clean and Abundant Water by Protecting and Enhancing Water Resources in National Forests and on Working Lands*

NATURAL RESOURCES CONSERVATION SERVICE

Within USDA, NRCS is the lead Agency on Objective 2.3 as water running off or infiltrating the ground from agricultural operations can carry a number of pollutants into streams, lakes, groundwater, and estuaries. States and tribal governments have identified sediment and nutrients as the greatest agricultural contaminants affecting surface water quality. Nutrients and agrichemicals are the major concerns for groundwater.

Despite major improvements in water quality over many years, water pollution from a variety of sources is still a significant economic, environmental, and public health challenge. NRCS, along with other key Federal partners such as the U.S. Geological Survey, and the Environmental Protection Agency, work collaboratively with stakeholders, including agriculture producer organizations, conservation districts, States and tribal governments, Non-Governmental Organizations (NGOs), and other local leaders, to focus and coordinate efforts for accelerating water quality improvement.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcomes
<u>Goal 1:</u> Get More Conservation on the Ground	<u>Objective 1.1:</u> Advance the performance of voluntary, incentive-based conservation solutions	CTA, SOIL, PMC, EQIP, CStP, ACEP, RCPP, CRP, SNOW, Water Bank, AMA, REHAB, EWP, WFPO-P.L.78-534, WFPO-P.L. 83-566	Eliminate and reduce impairments to water bodies and help prevent the listing of additional water bodies as “impaired”.

Performance results for Objective 2.3 are all within range, and the programs are performing well overall. The key performance measures chosen to represent USDA Strategic Objective 2.3 are below.

**Key Performance Measures**

Annual Performance Goals, Indicators, and Trends <sup>1</sup>		Actual <sup>2</sup>				Target	Actual	Result	Estimate/Target	Target
		2011	2012	2013	2014	2015		2016	2017	
2.3.1	Land with Conservation applied to improve water quality, million acres CTA	NA	NA	NA	18.2	17.2	18.1	Met	17.9	17.9
2.3.2	Land with Conservation applied to improve water quality, million acres EQIP	NA	NA	NA	12.3	12.0	12.7	Met	12.0	13.5

<sup>1/</sup> 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 agency-approved technical specifications, in addition to a sampling protocol for quality assurance of conservation practices certified as applied.

<sup>2/</sup> Past year actuals were assigned NA in the 2015 Budget Summary and Annual Performance Plan due to an agency data transition in 2014.

**Allowable Data Range for Met** – The allowable data range for annual performance is 90 to 110 percent of the target.

**Assessment of Performance Data**

**Data source** – NRCS tracks and evaluates field and State level conservation planning efforts and practice implementation through the Performance Results Systems (PRS). The data source is the National Planning and Agreements Database (NPAD).

**Completeness of Data** – The reported performance measures are based on data from October 1, 2014 through September 30, 2015. Numerous data quality mechanisms within NPAD and PRS ensure the completeness of each performance record entry which is automated during the upload of conservation plans into NPAD or error reporting through PRS. On an annual basis there is a complete national data quality review that is completed in each State, followed by the State Conservationists certification that the data is complete and accurate.

**Reliability of Data** – The data reported for performance measures was determined within PRS based on information validated and received from the NPAD. Conservation plans are developed in consultation with the customer, created with the Customer Service Toolkit, and stored in the NPAD. Applied conservation practices are date-stamped, geo-referenced, and linked to employee identification, enabling detailed quality assurance reviews. Periodic reviews are conducted by State office and headquarters personnel to assess the accuracy of reported data

**Quality of Data** – Data is reported where the conservation is occurring by staff that are trained in conservation planning and approved for certifying the practices. Error checking enhancements and reports within the PRS application maintain data quality by allowing users at local, State, and national levels to monitor data inputs. The agency designates key personnel, at both the State and national levels, to conduct quality assurance reviews periodically throughout the year to ensure the data is reliable and accurate. At the end of the fiscal year, each State Conservationist signs and certifies that PRS data is valid, complete, and reliable.

## NATURAL RESOURCES CONSERVATION SERVICE

### **Analysis of Results**

#### Selected Past Accomplishments Toward the Achievement of the Key Outcome 2015:

- In 2015, over 31 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, reduce nitrogen surface runoff by 42 percent, reduce nitrogen in subsurface flows by 31 percent, and reduce phosphorus by 41 percent;
- In the lower Mississippi River basin, conservation work, like controlling erosion and managing nutrients, has reduced the edge-of-field losses of sediment by 35 percent, nitrogen by 21 percent and phosphorous by 52 percent;
- Cover crops have a significant impact on reducing edge-of-field losses of sediment and nutrients and improve water quality. In 2015, NRCS assisted with the application of 1.3 million acres of cover crop nationwide; and
- With increased focus and technical assistance, drainage water management, increased by 12 percent over 2014. Drainage water management is a key conservation practice for some farms in managing their impacts on off-site water quality.

#### Selected Accomplishments Expected at the 2017 Proposed Resource Level/Challenges for the Future:

- NRCS will continue to focus conservation investments in water quality and quantity, especially in priority watersheds; and
- In 2017, 35 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.

NATURAL RESOURCES CONSERVATION SERVICE

Strategic Goal Funding Matrix  
(Dollars in thousands)

Program / Program Items	2014 <u>Actual</u>	2015 <u>Actual</u>	2016 <u>Enacted</u>	Increase or <u>Decrease</u>	2017 <u>Estimate</u>
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**Department Strategic Goal 2:** Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources

**Discretionary:**

Conservation Technical Assistance.....	\$714,383	\$742,272	\$741,556	\$19,155	\$760,711
Staff Years.....	5,387	4,772	5,390	-	5,390
Soil Survey.....	80,000	80,000	80,000	802	80,802
Staff Years.....	402	462	403	-	403
Snow Survey and Water Supply Forecasting.....	9,300	9,300	9,300	80	9,380
Staff Years.....	50	53	50	-	50
Plant Materials Program.....	9,400	9,400	9,400	81	9,481
Staff Years.....	77	40	77	-	77
Watershed Projects.....	-	5,600	5,600	-5,600	-
Staff Years.....	-	-	-	-	-
Watershed Protection.....	-	-	5,000	-5,000	-
Staff Years.....	-	-	-	-	-
Watershed Operations P.L. 78-534					
1. Technical Assistance.....	-	-	-	-	-
2. Financial Assistance.....	-	-	-	-	-
Subtotal, P.L. 78-534.....	-	-	-	-	-
Staff Years.....	-	-	-	-	-
Emergency Watershed Protection Program					
1. Technical Assistance.....	-	13,573	27,400	-27,400	-
2. Financial Assistance.....	-	65,008	109,600	-109,600	-
Subtotal, EWP.....	-	78,581	137,000	-137,000	-
Staff Years.....	63	31	31	-31	-
Small Watershed Operations P.L. 83-566					
1. Technical Assistance.....	-	-	-	-	-
2. Financial Assistance.....	-	-	-	-	-
Subtotal, P.L. 83-566.....	-	-	-	-	-
Staff Years.....	4	-	5	-5	-
Watershed Rehabilitation					
1. Technical Assistance.....	4,797	4,800	4,800	-4,800	-
2. Financial Assistance.....	7,203	7,200	7,200	-7,200	-
Subtotal, Rehabilitation.....	12,000	12,000	12,000	-12,000	-
Staff Years.....	29	1	1	-1	-
Water Bank Program					
1. Technical Assistance.....	400	400	400	-400	-
2. Financial Assistance.....	3,600	3,600	3,600	-3,600	-
Subtotal, Water Bank.....	4,000	4,000	4,000	-4,000	-
Staff Years.....	1	-	1	-1	-
Total Cost, Discretionary.....	829,083	941,153	1,003,856	-143,482	860,374
Total Staff Years, Discretionary.....	6,013	5,359	5,958	-38	5,920

NATURAL RESOURCES CONSERVATION SERVICE

Program / Program Items	2014 <u>Actual</u>	2015 <u>Actual</u>	2016 <u>Enacted</u>	Increase or <u>Decrease</u>	2017 <u>Estimate</u>
<b>Mandatory:</b>					
Wetlands Reserve Program					
1. Technical Assistance.....	16,203	-	-	-	-
2. Financial Assistance.....	3,432	-	-	-	-
Subtotal, WRP.....	19,635	-	-	-	-
Staff Years	122	99	99	-99	-
Environmental Quality Incentives Program					
1. Technical Assistance.....	368,285	430,128	449,828	36,097	485,925
2. Financial Assistance.....	981,715	1,053,072	1,078,711	85,364	1,164,075
Subtotal, EQIP.....	1,350,000	1,483,200	1,528,539	121,461	1,650,000
Staff Years	2,500	2,217	3,503	-	3,503
Agricultural Water Enhancement Program					
1. Technical Assistance.....	1,565	-	-	-	-
2. Financial Assistance.....	-	-	-	-	-
Subtotal, AWEP.....	1,565	-	-	-	-
Staff Years	38	54	54	-54	-
Wildlife Habitat Incentives Program					
1. Technical Assistance.....	2,540	-	-	-	-
2. Financial Assistance.....	195	-	-	-	-
Subtotal, WHIP.....	2,735	-	-	-	-
Staff Years	54	82	82	-82	-
Farm and Ranch Lands Protection Program					
1. Technical Assistance.....	1,671	-	-	-	-
2. Financial Assistance.....	107	-	-	-	-
Subtotal, FRPP.....	1,778	-	-	-	-
Staff Years	14	14	14	-14	-
Conservation Security Program					
1. Technical Assistance.....	7,865	6,460	1,058	77	1,135
2. Financial Assistance.....	116,915	21,627	3,602	263	3,865
Subtotal, CSP.....	124,780	28,087	4,660	340	5,000
Staff Years	48	47	18	-	18
Conservation Stewardship Program					
1. Technical Assistance.....	116,071	221,189	238,882	65,536	304,418
2. Financial Assistance.....	962,871	942,962	986,156	270,546	1,256,702
Subtotal, CStP.....	1,078,942	1,164,151	1,225,038	336,082	1,561,120
Staff Years	622	1,048	977	-	977
Grassland Reserve Program					
1. Technical Assistance.....	553	-	-	-	-
2. Financial Assistance.....	270	-	-	-	-
Subtotal, GRP.....	823	-	-	-	-
Staff Years	5	4	4	-4	-

NATURAL RESOURCES CONSERVATION SERVICE

Program / Program Items	2014 <u>Actual</u>	2015 <u>Actual</u>	2016 <u>Enacted</u>	Increase or <u>Decrease</u>	2017 <u>Estimate</u>
<b>Agricultural Management Assistance</b>					
1. Technical Assistance.....	1,439	959	937	68	1,005
2. Financial Assistance.....	5,521	3,676	3,723	272	3,995
Subtotal, AMA.....	6,960	4,635	4,660	340	5,000
Staff Years	5	6	6	-	6
<b>Chesapeake Bay Watershed Program</b>					
1. Technical Assistance.....	-	-	-	-	-
2. Financial Assistance.....	-	-	-	-	-
Subtotal, CBWP.....	-	-	-	-	-
Staff Years	43	26	26	-26	-
<b>Healthy Forests Reserve Program</b>					
1. Technical Assistance.....	-	-	-	-	-
2. Financial Assistance.....	-	-	-	-	-
Subtotal, HFRP.....	-	-	-	-	-
Staff Years	3	1	1	-1	-
<b>Agricultural Conservation Easement Program</b>					
1. Technical Assistance.....	111,493	118,193	124,981	24,019	149,000
2. Financial Assistance.....	254,811	275,782	294,419	56,581	351,000
Subtotal, ACEP.....	366,304	393,975	419,400	80,600	500,000
Staff Years	259	368	308	--	308
<b>Regional Conservation Partnership Program</b>					
1. Technical Assistance.....	21,142	38,934	39,610	2,890	42,500
2. Financial Assistance.....	74,538	53,766	53,590	3,910	57,500
Subtotal, RCPP.....	95,680	92,700	93,200	6,800	100,000
Staff Years	2	5	54	-	54
<b>Voluntary Public Access and Habitat Incentive Program</b>					
1. Technical Assistance.....	7,220	-	-	-	-
2. Financial Assistance.....	32,780	-	-	-	-
Subtotal, VPA.....	40,000	-	-	-	-
Staff Years	-	-	-	-	-
<b>Wetlands Mitigation Banking Program</b>					
1. Technical Assistance.....	1,000	-	-	-	-
2. Financial Assistance.....	9,000	-	-	-	-
Subtotal, WMBP.....	10,000	-	-	-	-
Staff Years	-	-	1	-1	-
<b>Small Watershed Rehabilitation</b>					
1. Technical Assistance.....	21,931	13,059	6,146	-5,657	489
2. Financial Assistance.....	216,189	128,883	62,134	-48,343	13,791
Subtotal, SWRP.....	238,120	141,942	68,280	-54,000	14,280
Staff Years	11	32	-	25	25
<b>Conservation Reserve Program</b>					
1. Technical Assistance.....	67,925	85,040	46,600	3,400	50,000
2. Financial Assistance.....	-	-	-	-	-
Subtotal, CRP.....	67,925	85,040	46,600	3,400	50,000
Staff Years	554	656	666	-	666
Total Costs, Mandatory	3,405,247	3,393,730	3,390,377	495,023	3,885,400
Total Staff Years, Mandatory	4,280	4,659	5,813	-256	5,557
Total Costs, All Strategic Goals	4,234,330	4,334,883	4,394,233	351,541	4,745,774
Total FTEs, All Strategic Goals	10,293	10,018	11,771	-294	11,477

NATURAL RESOURCES CONSERVATION SERVICE

Full Cost by Department Strategic Goal  
(Dollars in thousands)

**Department Strategic Goal: Ensure Our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources**

Program/Program Items	2014 Actual	2015 Actual	2016 Estimate	2017 Estimate
<u>Conservation Technical Assistance</u>				
Technical Assistance	\$700,069	\$667,547	\$838,961	\$760,711
Total Costs	700,069	667,547	838,961	760,711
Staff Years	5,387	4,772	5,390	5,390
Performance measure: Cropland with conservation applied to improve soil quality Performance, million acres	6.2	6.0	5.9	5.9
Performance measure: Grazing and forest land with conservation applied to protect and improve the resource base Performance, million acres	13.1	13.1	13.0	13.0
Performance measure: Land with conservation applied to improve water quality Performance, million acres	18.2	18.0	17.9	17.9
<u>Soil Survey</u>				
Technical Assistance	81,777	80,003	84,264	80,802
Total Costs	81,777	80,003	84,264	80,802
Staff Years	402	462	403	403
Performance measure: Soil surveys mapped or updated Performance: million acres	59.3	46.4	38.0	38.0
Performance measure: Ecological Site Descriptions developed Performance: million acres	23.6	38.7	30.0	30.0
<u>Snow Survey &amp; Water Supply Forecasting</u>				
Technical Assistance	9,599	8,636	10,707	9,380
Total Costs	9,599	8,636	10,707	9,380
Staff Years	50	53	50	50
Performance measure: Water supply forecasts issued Performance, number	11,942	11,631	11,800	11,800
<u>Plant Materials Centers</u>				
Technical Assistance	8,723	7,622	11,733	9,481
Total Costs	8,723	7,622	11,733	9,481
Staff Years	77	40	77	77
Performance measure: Technical documents prepared and transferred to customers Performance, number	221	194	200	200
Performance measure: Plant materials technical training delivered to conservation delivery staff Performance, number of participants	2,029	1,886	1,800	1,800

NATURAL RESOURCES CONSERVATION SERVICE

Full Cost by Department Strategic Goal  
(Dollars in thousands)

**Department Strategic Goal: Ensure Our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources**

Program/Program Items	2014 Actual	2015 Actual	2016 Estimate	2017 Estimate
<u>Watershed Projects</u>				
Technical Assistance	-	5,593	5,607	-
Total Costs	-	5,593	5,607	-
Staff Years	-	-	-	-
<u>Watershed Protection</u>				
Technical Assistance	-	-	5,000	-
Total Costs	-	-	5,000	-
Staff Years	-	-	-	-
<u>Flood Prevention Operations P.L. 78-534</u>				
Technical Assistance	318	15	-	-
Financial Assistance	-	-	-	-
Total Costs	318	15	-	-
Staff Years	-	-	-	-
<u>Watershed Operations P.L. 83-566</u>				
Technical Assistance	-807	-2,875	669	-
Financial Assistance	5,440	3,199	-	-
Total Costs	4,633	324	669	-
Staff Years	4	-	5	-
<u>Emergency Watershed Protection Program</u>				
Technical Assistance	11,973	5,695	79,216	-
Financial Assistance	66,495	46,844	318,784	15,000
Total Costs	78,468	52,539	398,000	15,000
Staff Years	63	31	31	-
<u>Watershed Rehabilitation Program</u>				
Technical Assistance	26,103	-33,227	1,753	1,547
Financial Assistance	233,687	141,574	17,063	15,643
Total Costs	259,790	108,347	18,816	17,190
Staff Years	40	33	1	25
Performance measure: Dams with watershed rehabilitation plans authorized				
Performance, number	2	1	12	20
<u>Water Bank</u>				
Technical Assistance	164	64	1,020	-
Financial Assistance	4,166	3,712	3,954	-
Total Costs	4,330	3,776	4,974	-
Staff Years	1	-	1	-
<u>Discretionary Total</u>				
Total Costs	1,147,707	934,402	1,378,731	892,564
Staff Years	6,024	5,391	5,958	5,945
<u>Wetlands Reserve Program</u>				
Technical Assistance	24,070	20,149	34,342	-
Financial Assistance	37,776	61,773	126,888	109,000
Total Costs	61,846	81,922	161,230	109,000
Staff Years	122	99	99	-

NATURAL RESOURCES CONSERVATION SERVICE

Full Cost by Department Strategic Goal  
(Dollars in thousands)

**Department Strategic Goal: Ensure Our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources**

Program/Program Items	2014 Actual	2015 Actual	2016 Estimate	2017 Estimate
<u>Environmental Quality Incentives Program</u>				
Technical Assistance	361,010	328,866	447,814	532,036
Financial Assistance	936,016	906,914	1,072,777	1,274,538
Total Costs	1,297,026	1,235,780	1,520,591	1,806,574
Staff Years	2,500	2,217	3,503	3,503
Performance measure: Land with conservation applied to improve water quality				
Performance, million acres	12.3	12.7	12.0	13.5
Performance measure: Cropland with conservation applied to improve soil quality				
Performance, million acres	3.1	3.0	3.0	3.0
Performance measure: Non-Federal land with conservation applied to improve fish and wildlife habitat quality				
Performance, million acres	1.4	1.4	1.1	1.4
Performance measure: Grazing and forest land with conservation applied to protect the resource base				
Performance, million acres	14.8	13.9	13.7	16.0
<u>Grassland Reserve Program</u>				
Technical Assistance	806	1,969	8,529	-
Financial Assistance	646	4,982	4,492	13,000
Total Costs	1,452	6,951	13,021	13,000
Staff Years	5	4	4	-
<u>Agricultural Water Enhancement Program</u>				
Technical Assistance	4,773	9,352	9,170	-
Financial Assistance	611	274	3,056	3,000
Total Costs	5,384	9,626	12,226	3,000
Staff Years	38	54	54	-
<u>Wildlife Habitat Incentives Program</u>				
Technical Assistance	7,080	13,207	16,713	-
Financial Assistance	2,532	1,186	2,949	5,000
Total Costs	9,612	14,393	19,662	5,000
Staff Years	54	82	82	-
<u>Farm and Ranch Lands Protection Program</u>				
Technical Assistance	2,382	3,318	24,297	-
Financial Assistance	494	1,510	41,728	54,000
Total Costs	2,876	4,828	66,025	54,000
Staff Years	14	14	14	-

NATURAL RESOURCES CONSERVATION SERVICE

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**Department Strategic Goal: Ensure Our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources**

Program/Program Items	2014 Actual	2015 Actual	2016 Estimate	2017 Estimate
<u>Conservation Security Program</u>				
Technical Assistance	5,225	6,827	1,373	1,135
Financial Assistance	115,186	24,090	4,675	3,865
Total Costs	120,411	30,917	6,048	5,000
Staff Years	48	47	18	18
<u>Conservation Stewardship Program</u>				
Technical Assistance	111,170	207,979	258,186	303,409
Financial Assistance	919,701	887,900	1,065,843	1,252,533
Total Costs	1,030,871	1,095,879	1,324,029	1,555,942
Staff Years	622	1,048	977	977
Performance measure: Stewardship plans written				
Performance, acres	9.6	7.1	10.0	10.0
<u>Agricultural Management Assistance</u>				
Technical Assistance	1,385	890	937	1,005
Financial Assistance	5,185	3,512	3,723	3,995
Total Costs	6,570	4,402	4,660	5,000
Staff Years	5	6	6	6
<u>Healthy Forests Reserve Program</u>				
Technical Assistance	-3,047	30	1,033	-
Financial Assistance	3,624	1,254	6,789	-
Total Costs	577	1,284	7,822	-
Staff Years	3	1	1	-
<u>Chesapeake Bay Watershed Program</u>				
Technical Assistance	4,627	1,863	6,004	-
Financial Assistance	2,329	2,085	7,673	-
Total Costs	6,956	3,948	13,677	-
Staff Years	43	26	26	-
<u>Conservation Reserve Program</u>				
Technical Assistance	65,594	72,807	61,241	50,000
Financial Assistance	-3	1	-	-
Total Costs	65,591	72,808	61,241	50,000
Staff Years	554	656	666	666
<u>Agricultural Conservation Easement Program</u>				
Technical Assistance	90,768	99,745	155,710	145,103
Financial Assistance	226,107	197,558	366,806	341,818
Total Costs	316,875	297,303	522,516	486,921
Staff Years	259	368	308	308
Performance measure: Agricultural land protected in conservation easements				
Performance, acres	N/A	83.2	110.0	130.0

NATURAL RESOURCES CONSERVATION SERVICE

Full Cost by Department Strategic Goal  
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Program/Program Items	2014 Actual	2015 Actual	2016 Estimate	2017 Estimate
<u>Regional Conservation Partnership Program</u>				
Technical Assistance	1,908	35,820	23,066	31,566
Financial Assistance	-1	8,124	31,207	42,707
Total Costs	1,907	43,944	54,273	74,273
Staff Years	2	5	54	54
<u>Voluntary Public Access and Habitat Incentive Program</u>				
Technical Assistance	525	-1,727	18	-
Financial Assistance	17,533	3,969	19,682	-
Total Costs	18,058	2,242	19,700	-
Staff Years	-	-	-	-
<u>Wetlands Mitigation Banking Program</u>				
Technical Assistance	-	75	993	-
Financial Assistance	-	-	8,933	-
Total Costs	-	75	9,926	-
Staff Years	-	-	1	-
<u>Ground and Surface Water Conservation</u>				
Technical Assistance	-8	-	-	-
Financial Assistance	25	-	-	-
Total Costs	17	-	-	-
Staff Years	-	-	-	-
<u>Mandatory Total</u>				
Total Costs	2,946,029	2,906,302	3,816,647	4,167,710
Staff Years	4,269	4,627	5,813	5,532
<u>Agency Total</u>				
Total Costs	4,093,736	3,840,704	5,195,378	5,060,274
Staff Years	10,293	10,018	11,771	11,477