

2024 USDA EXPLANATORY NOTES – NATURAL RESOURCES CONSERVATION SERVICE

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PREFACE

This publication summarizes the fiscal year (FY) 2024 Budget for the U.S. Department of Agriculture (USDA). Throughout this publication any reference to the “Budget” is in regard to the 2024 Budget, unless otherwise noted. All references to years refer to fiscal year, except where specifically noted. The budgetary tables throughout this document show actual amounts for 2021 and 2022, enacted levels for 2023, and the President’s Budget request for 2024. Amounts for 2023 estimated levels include: non-enacted amounts such as Full-Time Equivalent levels, fleet levels, information technology investment levels, recovery levels, transfers in and out, balances available end of year, and obligation levels.

Throughout this publication, the “2018 Farm Bill” is used to refer to the Agriculture Improvement Act of 2018. Most programs funded by the 2018 Farm Bill are funded through 2023. Amounts shown in 2024 for most Farm Bill programs reflect those confirmed in the baseline.

Pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985, sequestration is included in the numbers for mandatory programs in 2021, 2022, 2023 and 2024.

AGENCY-WIDE**PURPOSE STATEMENT**

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

Over time, the agency’s suite of programs expanded and NRCS provides leadership to address all resource concerns across all natural resources: soil, water, air, plants, and animals. NRCS supports the Nation’s communities by helping urban and rural agricultural landowners and producers, including Indian tribes, protect the natural resource base on their lands. Technical assistance provided to farmers, ranchers, and other private landowners supplies the knowledge and tools they need to conserve, maintain, and restore the natural resources on the lands they manage. Financial assistance partially offsets the cost to install conservation practices necessary to safeguard natural resources and improve wildlife habitat.

According to the National Resources Inventory (NRI), about 71 percent of the land in the United States is privately owned, making stewardship by private landowners and land managers critical to the health of our Nation’s agricultural economy. These are the people who make day-to-day decisions about natural resource use and management on non-Federal lands, and NRCS offers them the technology, technical and financial assistance needed to benefit the resources, sustain productive lands, and maintain healthy ecosystems.

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

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

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

Private Lands Conservation Operations

The programs funded in the Private Lands Conservation Operations account are authorized by the Conservation and Domestic Allotment Act of 1935, P.L. 74-46 (16 U.S.C. 590a-590f) and the Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001-2009), as amended. The purpose of Private Lands 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. Private Lands Conservation Operations has four major program components: Conservation Technical Assistance Program; Soil Survey Program; Snow Survey and Water Supply Forecasting Program; and Plant Materials Centers.

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

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

CTA Program funding is used to:

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

Soil Survey Program. NRCS's Soil Survey Program provides the public with information on the properties, capabilities, and conservation treatment needs of their soils through collection of data and the creation of soil maps and interpretive analyses. The program's science-driven products of the Program help people make informed land use and management decisions that take into consideration various soil characteristics, such as soil carbon, and capabilities to ensure soil is healthy and productive. In addition, the Soil Survey Program provides soils information and tailored interpretations to taxpayers, decision-makers, communities, States, and others to facilitate the wise use and management of soil resources. NRCS conducts Soil Surveys cooperatively with other Federal agencies, Land Grant Universities, State agencies, tribes, and local governments.

NRCS's major Soil Survey Program objectives are to:

- Inventory and map the soil resource on all lands of the United States;
- Keep soil surveys relevant to meet emerging and ever-changing National needs such as mitigation of the impacts of climate change and greater resiliency of working agricultural lands;
- Interpret the data and make soil survey information available to meet public needs;
- Lead the Dynamic Soil Properties for Soil Health project (formerly known as the Science of Soil Health) and other related collaborative efforts to advance the science of the soil survey;
- Contribute to all aspects USDA soil carbon and soil health monitoring and assessment efforts including the soil health monitoring network);
- Provide technical assistance in the use of soil survey information to maximize conservation outcomes; and
- Lead the National Cooperative Soil Survey Program.

Soil Survey Program information is the foundation of resource planning conducted by land-users and policy makers. The Soil Survey Program provides vital information needed to support sustainable and productive soils in the United States. Emerging environmental issues (e.g., soil carbon measurement, nutrient management, and soil health initiatives) require that the Soil Survey Program 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 provides information for the effective application of the Soil Survey to help make good land management possible. The National Soil Survey Center develops national soil policy, technical guidance, procedures, and standards. The Center staff conduct soil research investigations, operate a soil survey laboratory, develop handbooks and manuals, provide training, develop and maintain soil survey data systems, and plan regional work conferences.

Dynamic soil properties (DSPs) are soil properties that change with natural and anthropogenic disturbances and stressors including agricultural practices and wildland management. DSPs are indicators of soil function and soil change. Information about how soils change due to management and how those changes impact soil functions are crucial to sustainable soil management on all kinds of lands. The soil survey program initiated a nationwide DSP data inventory initiative in 2021 to deliver scientifically defensible soil information to support conservation management for healthy soils and sustainable ecosystems. An important, but often overlooked, component DSPs is biological diversity. The soil survey program will be expanding the capacity to perform biological analysis in NRCS' world class soil survey laboratory and in the field. This requires development of methods and procedures for the collection, storage, and analysis of biological diversity and applying this new data to existing soil survey information for predicting and monitoring soil carbon storage to apply to resiliency of ecosystems in response to climate change.

Snow Survey and Water Supply Forecasting (SSWSF) Program. The SSWSF Program and partners collect high elevation snow and climate data in the western United States, apply these data to produce water supply forecasts, and disseminate the snowpack information and forecasts to the public. Snowmelt accounts for approximately 70 percent of the West's water supply meeting agriculture, municipal, and other needs. NRCS staff and cooperators collect and review snowpack and precipitation data at nearly 2,000 mountain sites across the West. Presently, 939 of these remote sites, referred to as SNOTEL or SnoLite, are automated, providing near real-time publicly available information on snow depth, snow water equivalent (SWE), and other parameters such as precipitation, air temperature, and soil moisture. Snow courses and aerial markers supply snowpack information on a monthly basis primarily between January and June (i.e., snow accumulation and melt season). Data are analyzed to assess annual water availability, drought conditions, and flooding potential.

The SSWSF Program has operated under USDA in 12 western States, including Alaska, since 1935 providing seasonal water supply forecasts essential for the national economy and resource management. Program importance exponentially increases as water management in the West adapts to stresses such as population increase, rapid urbanization, flooding, droughts, fires, increased proximity to avalanche, and competing needs over limited water resources.

Snow and climate data and water supply forecasts are used by farmers, ranchers, and irrigation districts; municipal and industrial water providers; hydroelectric power utilities; fish and wildlife management; reservoir

managers; recreationists; Tribal Nations; Federal, State, and local government agencies including transportation departments; and contribute to international treaties.

Program objectives:

- Provide reliable, accurate, and timely seasonal surface water supply forecasts for agricultural producers, water managers, and water users in the West.
- Obtain, manage, and disseminate high quality data and related information on snow, water, climate, and hydrologic conditions.
- Provide climate data supporting NRCS conservation planning tools.

Additionally, the Soil Climate Analysis Network (SCAN) provides climate information as well as soil moisture and temperature data at relatively lower elevations across the country. SCAN consists of 210 sites in the 48 contiguous United States, Alaska, Hawaii, Puerto Rico, and U.S. Virgin Islands.

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

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

Watershed and Flood Prevention Operations

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

Congress established the Watershed Program by enacting the Flood Control Act of 1944 (Public Law 78-534) and the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566). Under these authorizations, the NRCS has assisted watershed project sponsors in the construction of more than 11,850 flood control dams in 1,271 watersheds in 47 States since 1948 with a maximum individual watershed size of set at 250,000 acres. These projects provide an estimated \$2.2 billion in annual benefits in reduced flooding and erosion damages, recreation, water supplies and wildlife habitat.

Emergency Watershed 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.

The program provides 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 to provide protection from

flooding and soil erosion such as streambank stabilization using stone to protect private property. Over the past 6 years, the program has provided \$1.4 billion in relief assistance for 306 disaster events across the county.

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 11,850 watershed dams with assistance from NRCS from 1948 to 2022. These dams protect America's communities and natural resources with flood control, offer recreation, wildlife benefits, water quality, and some may also provide the primary source of drinking water for the area. 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 project cost of rehabilitation not to exceed 100 percent of the construction cost; Federal funds cannot be used for operation and maintenance.

Water Bank Program

The Water Bank Program (WBP) is authorized under Section 748 of the Water Bank Act (16 U.S.C. 1301-1311). The program focuses on technical and financial assistance on flooded cropland, flooded hay and pastureland, and flooded forestland. Under the program, landowners and operators have non-renewable ten-year rental agreements to receive annual payments to protect wetlands and provide wildlife habitat by preventing adverse land uses and activities, such as drainage, that would destroy the wetland characteristics of those lands. Program participants who wish to establish or maintain conservation practices may also apply for financial assistance through other NRCS or State financial assistance programs where available.

Office of Urban Agriculture and Innovative Production

The Office of Urban Agriculture and Innovative Production (OUAIP) is authorized by Section 12302 Urban Agriculture amending Section 222 of the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 6911 et seq.). The Secretary of Agriculture delegated NRCS to lead the USDA-wide office, and work in partnership with numerous USDA agencies that support urban and innovative agriculture. The mission of the OUAIP is to encourage and promote urban, indoor, and other emerging agricultural practices.

Healthy Forests Reserve Program (HFRP)

The Healthy Forests Reserve Program assists private and Tribal landowners in restoring, enhancing, and protecting forest ecosystems to: promote the recovery of threatened and endangered species; improve biodiversity; conserve forest land that provides habitat for at-risk species, 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 the Agriculture Improvement Act of 2018 (the 2018 Farm Bill). The 2018 Farm Bill made changes to HFRP to expand enrollment and eligibility options including providing permanent easements as an enrollment option for acreage owned by an Indian Tribe and adding that eligibility of land may include considerations for a species of greatest conservation need as identified by a State wildlife action plan.

HFRP offers to forestry landowners four enrollment options including 10-year restoration agreements, 30-year or permanent easements, or 30-year contracts on acreage owned by an Indian tribe. Land enrolled in HFRP must restore, enhance, or measurably increase the likelihood of recovery of an at-risk species, improve biological diversity, or increase carbon sequestration. For all enrollment options, a restoration plan is developed that includes practices necessary to restore and enhance habitat for at-risk species. Technical assistance is provided to help landowners develop and comply with the terms of their HFRP restoration plans.

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

HFRP applicants must provide proof of ownership, or an operator (tenant) must provide written concurrence from the landowner of tenancy for the period of the HFRP restoration agreement in order to be eligible. Land enrolled in HFRP easements must be privately owned or be acreage owned by Indian tribes.

Mandatory-Farm Bill Programs:**Environmental Quality Incentives Program (EQIP)**

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

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

Conservation Stewardship Program (CSP)

The purpose of CSP is to encourage producers to address resource concerns in a comprehensive manner by undertaking additional conservation activities in addition to and improving, maintaining, and managing existing conservation activities. The program is authorized by Sections 1240I through 1240L-1 and Section 1241(a) of the Food Security Act of 1985, as amended, by the Agriculture Improvement Act of 2018 (the 2018 Farm Bill). The 2018 Farm Bill eliminated the program authorized by Agricultural Act of 2014 (the 2014 Farm Bill) and established CSP as a dollar-capped program and not acre-based program. Moreover, the new CSP is authorized to be more closely aligned with EQIP. The new CSP expands the definition of conservation activities by adding comprehensive conservation plan, soil health planning (including organic), and fosters the use of predictive analytical tools to measure conservation improvement more accurately.

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 2018 Farm Bill prescribed the following factors for evaluating and ranking applications:

- Requires that at least two resource concern categories meet or exceed a science-based stewardship threshold at the time of contract offer and meet or exceed one additional resource concern category by the end of the contract.
- Level of conservation treatment on all applicable natural resource concern categories at the time of application.
- Degree to which the proposed conservation activities increase natural resource conservation and environmental benefit.

Agricultural Conservation Easement Program (ACEP)

The Agricultural Conservation Easement Program (ACEP) is authorized by subtitle H of title XII of the Food Security Act of 1985, as amended by Section 2301 of the 2014 Farm Bill (P. L. 113-79) and sections 2601-2605 of the Agriculture Improvement Act of 2018 (2018 Farm Bill). ACEP consolidates the purposes and functions of three former easement programs that are no longer authorized: Farm and Ranch Lands Protection Program (FRPP), the

Grassland Reserve Program (GRP), and the Wetlands Reserve Program (WRP). Lands enrolled under these former easement programs are enrolled in ACEP. ACEP is funded by the Commodity Credit Corporation (CCC) and administered by NRCS. ACEP is a voluntary program through which NRCS provides financial and technical assistance to help conserve agricultural lands and wetlands, and their related benefits by directly acquiring or funding the acquisition of conservation easements on private or tribal lands. ACEP has two components - ACEP-Agricultural Land Easements (ACEP-ALE) and ACEP-Wetland Reserve Easements (ACEP-WRE).

ACEP-ALE helps farmers and ranchers keep their land in agriculture. The program also protects grazing uses and related conservation values by conserving or restoring grassland, including rangeland, pastureland and shrubland. Eligible entities include Indian tribes, State governments, local governments, or nongovernmental organizations, which have farmland or grassland protection programs that purchase agricultural land easements for the purpose of protecting agricultural use, grazing uses, and related conservation values, by limiting conversion to non-agricultural uses of the land. To enroll land through ACEP-ALE, NRCS enters into agreements with eligible entities that include the terms and conditions under which the eligible entity is permitted to use ACEP cost-share assistance.

Through ACEP-WRE, NRCS 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 restored and protected on wetland reserve easements 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 ACEP-WRE, NRCS enters into a purchase agreement with eligible private landowners or Indian tribes that includes the right for NRCS to develop and implement a wetland reserve restoration 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 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.

Between 2014, when ACEP was established by the Farm Bill, and 2022, ACEP has been used to enroll 3,559 unique easements. Through these projects, ACEP-ALE has protected the agricultural productivity of 1,479 properties and almost 1,042,000 acres while ACEP-WRE has restored the wetland functions and values of approximately 2,080 easements and 404,000 acres.

Regional Conservation Partnership Program (RCPP)

The Regional Conservation Partnership Program (RCPP) promotes coordination of NRCS conservation activities with partners that offer value-added contributions to expand our collective ability to address on-farm, watershed, and regional natural resource concerns. Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges and provide measurable improvements and outcomes tied to the resource concerns they seek to address.

Through agreements with 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 by Sections 1271 through 1271F of the Food Security Act of 1985, as amended by the Agriculture Improvement Act of 2018 (the 2018 Farm Bill). The 2018 Farm Bill reauthorized RCPP as a stand-alone program and expanded authority for the use of Grants or Alternative Funding Arrangements, authorizing the funding of up to 15 projects through these types of agreements with lead partners accepting nearly all project implementation responsibilities. It also directs the Secretary to allocate 50 percent of funds to a State/Multistate pool, and 50 percent to projects in Critical Conservation Areas.

RCPP partners include agricultural or silvicultural producer associations or other groups of producers, State or local governments, Indian tribes, farmer cooperatives, municipal water treatment entities, irrigation districts, conservation driven nongovernmental organizations, and institutions of higher education are eligible. RCPP projects must be carried out on agricultural and nonindustrial private forest lands, or associated lands. RCPP projects may consist of any combination of five eligible conservation activities—land management, land rental, entity-held easements, U.S.-held easements, and public works activities.

RCPP is administered through funding announcements. Lead partners submit proposals that are evaluated based on four criteria – impact, partner contributions, innovation, and partnership and management. All lead partners must report on the environmental outcomes of their projects.

Agricultural Management Assistance Program (AMA)

AMA provides technical and financial assistance in 16 States: Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. AMA is funded through the Commodity Credit Corporation. The program is permanently authorized by Section 524(b) of the Federal Crop Insurance Act (7 U.S.C. 1524(b)), as amended. 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 has collaborated with NRCS to provide financial assistance for producers to implement high-tunnel conservation practices. The Agricultural Marketing Service also provides AMA financial assistance to program participants receiving certification or continuation of certification as an organic producer.

Voluntary Public Access and Habitat Incentive Program (VPA-HIP)

The Voluntary Public Access and Habitat Incentive Program (VPA-HIP) was authorized by Section 1240R of the Food Security Act of 1985 (P.L. 99-198), as amended (16 U.S.C. 3839bb-5). The program was reauthorized by the Agriculture Improvement Act of 2018. The program encourages private landowners to voluntarily make their land available to the public for wildlife-dependent recreation, such as hunting, fishing and wildlife viewing. States and tribes are eligible for VPA-HIP and compete for funding by submitting proposals to NRCS. VPA-HIP funding can be used both to expand public access to private lands and to improve or enhance wildlife habitat on lands enrolled in the program. The overall goal of VPA-HIP is to enhance wildlife habitat and management and to boost local economies through activities that attract wildlife enthusiasts.

Feral Swine Eradication and Control Pilot Program

The program is authorized by Sections 2408 of the Agriculture Improvement Act of 2018 (P.L. 115-334). The program is implemented by NRCS and the Animal Plant Health Inspection Service to address the threat that feral swine pose to agriculture, native ecosystems, human health, and animal health.

Programmatic and Landscape Conservation Activities

NRCS and its partners have established programmatic and landscape-scale activities to address regionally important conservation needs by providing additional support for voluntary conservation on private lands. NRCS has targeted funding to support activities through a variety of Farm Bill conservation programs. NRCS provides technical assistance through its CTA Program; partners may also provide technical and financial support.

Each activity is intended to raise awareness of a specific resource concern or opportunity, stimulate interest and commitment for voluntary action, help focus funding, and optimize conservation outcomes. NRCS's coordination efforts with other Federal agencies, state and local governments, and other stakeholder groups optimizes efficiency and effectiveness; generates additional partner resources to expand capacity and accelerate action; and establishes mutual support for core conservation practices and systems that benefit the watershed, ecosystem, or species of concern.

National Water Quality Initiative (NWQI). NRCS works with farmers and ranchers in small watersheds throughout the Nation to improve and protect water quality where this is a critical concern. NRCS works collaboratively with the Environmental Protection Agency (EPA) at the national level to facilitate selection of high-priority watersheds and source water protection areas where NRCS and partners target outreach and assistance and demonstrate improvements in water quality. NRCS identifies priority watersheds through the help of local partnerships and State agencies. This strategic approach leverages funds and helps agricultural producers take needed actions to protect drinking water and reduce the runoff of sediment, nutrients, and pathogens into waterways. Water quality-related conservation practices can benefit agricultural producers by lowering input costs and enhancing the productivity of working lands. Eligible producers receive assistance under EQIP to install conservation systems that may include practices such as nutrient management, cover crops, and filter strips. Water quality monitoring data provided to the EPA shows improvements in 36 percent of monitored watershed. This is significant because there is often lag time between the application of conservation practices and water quality improvements. As of 2021, NRCS recorded 16 Clean Water Act impairments removed or proposed for removal in NWQI watersheds. In 2022 NRCS continued to build on partnerships with drinking water partners and conservation delivery in watersheds across the Nation. Through these partnerships, NRCS is now implementing nine source water protecting projects and is in the planning

phase of 16 more. Since the inception of NWQI in 2012 through 2021, NRCS has provided targeted EQIP assistance through about 5,700 contracts treating approximately 1.19 million acres and obligating almost \$273 million. The agency is working with EPA and State agencies to identify additional impairments that will be removed from the impaired list after implementation of the 2020 and 2021 projects.

Longleaf Pine Initiative. Longleaf pine forests once covered more than 90 million acres in the Southeastern United States. Stretching along Eastern Texas, through Central Florida, and north to Southern Virginia, these forests represent one of the world's most unique and biologically diverse ecosystems. However, 97 percent of the historic forests have been lost. According to Forest Service Forest Inventory and Analysis (FIA) data, only 3.4 million acres of longleaf pine and mixed longleaf pine/oak forest types remained in 2008. These remaining forests provide critical habitat for 29 threatened and endangered species. In 2009, America's Longleaf Restoration Initiative (ALRI) released the Range-Wide Conservation Plan for Longleaf Pine. The plan calls for restoring, improving, and maintaining eight million acres of longleaf pine by 2024. This ambitious goal won't be reached by 2024, but the FIA data are showing that in 2022 there are 5.2 million acres of longleaf pine on-the-ground. These accomplishments and favorable trajectory are bolstered by a strong collaborative partnership supporting the conservation work across the range. NRCS is a key partner in ALRI, along with the rest of USDA, Department of Defense, Department of the Interior, National Fish and Wildlife Foundation, and other public and private collaborators. Since the plan's creation, more than 1.8 million acres of longleaf pine forest has been restored through establishment and improvement of longleaf pine stands and over 200,000 acres of land has been protected. Over the past ten years, NRCS has enrolled more than three million acres of private lands in longleaf conservation practices. These conservation practices included vegetation management, prescribed fire, planting, conservation easements, and other supporting conservation practices.

Mississippi River Basin Healthy Watersheds Initiative (MRBI). The MRBI activity was established in 2010 and covers Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Ohio, Tennessee, and Wisconsin. It was established to improve the health of watersheds within the Mississippi River Basin through the reduction of nutrient runoff, restoration, and enhancement of wildlife habitat, wetland restoration, and maintenance of agricultural productivity. In 2015, the activity was refined to support the Nutrient Reduction Strategies developed by each state to address nutrient losses to the Mississippi River and the Gulf of Mexico. In 2019, the initiative strengthened its emphasis on and support of watershed assessment and planning to further target conservation efforts for water quality benefit. From 2010 through 2021 over \$402 million of EQIP financial assistance supported voluntary conservation on over 1.72 million acres in the Mississippi River watershed. The initiative is exceeding milestones for nutrient and sediment reduction and has been associated with the clean-up and delisting of a number of waterbodies.

Working Lands for Wildlife (WLFW). The WLFW activity is designed to provide targeted financial and technical assistance to improve habitat for identified wildlife species. Two-thirds of the land in the lower 48 States is privately owned, and these working farms, ranches, and forests produce much of the country's food and fiber. These working lands also provide much of our Nation's open space and the habitats that wildlife need. NRCS assists agricultural producers who want to voluntarily make wildlife-friendly improvements on their land. These conservation activities or practices benefit fish and wildlife while boosting the land's resilience and production. Producers have conserved millions of acres of wildlife habitat from the sagebrush and grasslands of the West to forests in the East. This work has led to the rebound and recovery of many species, including the Oregon chub, Louisiana black bear, New England cottontail, and greater sage-grouse. In October 2022, the US Fish and Wildlife Service published a proposed finding that listing another WLFW species, the gopher tortoise, was not warranted. This was due in part to the nearly one million acres of voluntary conservation measures put in place with NRCS assistance.

Technical Service Provider Assistance (TSP)

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

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

individuals and entities to provide technical assistance to carry out conservation programs and establish the amounts and methods for payments for that assistance. Technical assistance includes conservation planning and conservation practice design and implementation.

Workforce Status and Locations

As of September 30, 2022, NRCS had 10,297 full time employees with permanent appointments. Of this total, 172 employees were in the Washington, DC metropolitan area, and 10,125 employees were located outside of the Washington, D.C. metropolitan area.

Organizational Structure

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

During 2022, NRCS had 2,539 offices located across the Nation. This represents the number of locations where NRCS performs mission-related activities (e.g., field offices, State offices, Plant Materials Centers, etc.) and reports at least one full time equivalent (FTE) at the location. In addition, this number includes locations used for conservation testing, research, and storage.

National Headquarters (NHQ)

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

NRCS Centers

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

State Offices

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

Service Center Offices

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

Support Offices

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

Accountability

NRCS regularly collects program performance data that provides information to support agency strategic and performance planning, budget formulation, workforce planning, and accountability activities. The Conservation Desktop web application tracks and evaluates field- and State- level conservation planning efforts, and practice implementation through the Conservation Desktop Performance Reports. Further, practices implementation is verified and documented by NRCS through the practice certification process prior to issuing any payments. In addition, Conservation Desktop tracks HELC/WC compliance and is building functionality to track all compliance and quality assurance needed to achieve program accountability.

Compliance Activities

There were nine audits, and 34 recommendations open at the start of this year, and two Audits and 22 recommendations added during the year, leaving a total of 11 Audits and 56 recommendations in 2022. NRCS closed three of 14 active Office of Inspector General (OIG) and Government Accountability Office (GAO) Audits for a year-end closure rate of 21 percent, and closed 18 of 56 recommendations, for a closure rate of 32 percent.

OIG AND GAO REPORTS**Table NRCS-1. Completed OIG Reports**

ID	Date	Title	Results
10601-0005-31 ...	08/03/2022	NRCS' Environmental Quality Incentives Program-Payment Schedule	Completed Report
10403-0002-11 ...	11/26/2019	Natural Resources Conservation Services' Financial Statements for fiscal year 2019	Completed Report

Table NRCS-2. In-Progress OIG Reports

ID	Date	Title	Results
0601-0010-31	04/12/2021	Beginning Farmers	On going
10601-0008-31 ...	10/20/2021	Environmental Quality Incentives Program-Cost Estimate Process	On going
50401-0021-11 ...	02/15/2022	FY 22 USDA Consolidated Financial Statement	On going
50601-0005-23 ...	09/16/2021	Conservation Stewardship Program-Participants Control of Land	On going

Table NRCS-3. Outstanding OIG Audit Reports & Recommendations

ID	Date	Title	Recommendations
10702-0001-23	09/10/2019	NRCS' Hurricane Disaster Assistance-Emergency Watershed Protection Program	1,2,3,4,6,7,8,9
10601-0004-31 (2) ..	11/13/2017	NRCS Regional Conservation Partnership Program	2
10601-0004-31	06/28/2018	NRCS Regional Conservation Partnership Program	3,4
10403-0003-11	03/04/2021	Natural Resources Conservation Service's Financial Statements for Fiscal Years 2020 and 2019	9
10403-0004-11	11/15/2021	Natural Resources Conservation Service's Financial Statements for fiscal years 2021 and 2020	1,2,3,4,5,6,7,8,9

ID	Date	Title	Recommendations
11601-0001-12.....	02/13/2020	USDA's Fiscal Year 2019, First Quarter DATA Act Submission	3

Table NRCS-4. In-Progress GAO Reports

ID	Date	Title	Results
GAO 104241	07/30/2020	Flooding and Erosion in Alaska Native Village	On going
GAO 103431	04/09/2019	Wetland Conservation Compliance	On going
GAO 104449	09/04/2020	Federal Efforts To Address Algal Bloom And Hypoxia	On going
GAO 104716....	02/09/2021	USDA Civil Rights Mandate	On going

Table NRCS-5. Completed GAO Reports

ID	Date	Title	Results
GAO-17-255	11/18/2021	Environmental Quality Incentives Program	Recommendation 1,2,3,4
GAO-22-104436 ..	02/14/2022	Compacts Free Association Grants and Trust Fund Update	No Recommendations

Table NRCS-6. Outstanding GAO Audit Reports & Recommendations

ID	Date	Title	Results
GAO-22-104326 ...	05/21/2020	Emergency Watershed Protection Program	Recommendation 1,2,3,4
GAO-21-241	04/02/2021	Farm Programs-USDA Should Take Additional Steps to Ensure Compliance With Wetland Conservation Provisions	Recommendation 3,4

LEAD-OFF TABULAR STATEMENT

Table NRCS-7. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$1,037,624,000
Change in Appropriation	+207,496,000
Budget Estimate, 2024	<u>\$1,245,120,000</u>

AVAILABLE FUNDS AND FTES

Table NRCS-8. Available Funds and FTEs (thousands of dollars, FTE)

Item	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Account 1: Private Lands Conservation Operations:								
Discretionary Appropriations.....	\$832,727	3,585	\$904,396	3,612	\$941,124	3,894	\$1,022,566	3,985
Mandatory Appropriations.....	-	-	4,800,000	-	-	262	-	1,094
Account 2: Watershed and Flood Prevention Operations:								
Discretionary Appropriations.....	175,000	39	100,000	78	75,000	55	175,000	61
Mandatory Appropriations.....	50,000	3	50,000	1	50,000	2	50,000	2
Supplemental Appropriations	-	124	775,000	105	925,000	131	-	78
Account 3: Emergency Watershed Protection Program:								
Supplemental Appropriations	-	-	300,000	4	-	16	-	10
Account 4: Watershed Rehabilitation:								
Discretionary Appropriations.....	10,000	5	1,000	6	2,000	1	10,009	2
Mandatory Appropriations.....	-	12	-	17	-	3	-	3
Supplemental Appropriations	-	-	118,000	-	-	6	-	3
Account 5: Water Bank Program:								
Discretionary Appropriations.....	4,000	1	4,000	3	4,000	5	4,000	3
Account 6: Healthy Forests Reserve:								
Discretionary Appropriations.....	-	-	-	-	7,000	7	20,011	7
Account 7: Urban Agriculture Innovative Production:								
Discretionary Appropriations.....	-	-	-	-	8,500	7	13,534	7
Account 8: Farm Security and Rural Investments Programs:								
Discretionary Appropriations.....	12,000	2	5,000	-	5,000	-	5,000	-
Mandatory Appropriations.....	3,539,115	5,804	3,639,115	6,394	4,864,115	7,677	7,264,115	8,913
Total Discretionary Appropriations	1,033,727	3,632	1,014,396	3,699	1,042,624	3,969	1,250,120	4,065
Total Mandatory Appropriations.....	3,589,115	5,819	8,489,115	6,412	4,914,115	7,944	7,314,115	10,012
Total Supplemental Appropriations.....	-	124	1,193,000	109	925,000	153	-	91
Total Appropriation	4,622,842	9,575	10,696,511	10,220	6,881,739	12,066	8,564,235	14,168
Sequestration	-204,580	-	-352,780	-	-231,655	-	-416,905	-
Transfers Out	-60,228	-	-60,228	-	-60,228	-	-60,228	-
Total Adjusted Appropriation	4,358,034	9,575	10,283,503	10,220	6,589,856	12,066	8,087,102	14,168
Balance Available, SOY	3,466,923	-	3,512,518	-	8,496,657	-	3,418,732	-
Recoveries, Other	467,232	-	400,119	-	-22,000	-	-4	-
Total Available	8,292,189	9,575	14,196,140	10,220	15,064,513	12,066	11,505,830	14,168
Lapsing Balances	-21,243	-	-8,953	-	-	-	-	-
Balance Available, EOY	-3,512,518	-	-8,496,657	-	-3,418,732	-	-2,847,866	-
Total Obligations	4,758,428	9,575	5,690,530	10,220	11,645,781	12,066	8,657,964	14,168
Other Funding:								
Gulf Coast Restoration Revolving Fund....	12,092	8	4,085	5	6,497	5	4,640	5
Other Federal and Non-Federal Reimbursements	57,657	88	57,255	85	69,000	113	69,000	113
Total Other Funding	69,749	96	61,340	90	75,497	118	73,640	118
Total Obligations, NRCS	4,828,177	9,671	5,751,870	10,310	11,721,278	12,184	8,731,604	14,286
Total Available, NRCS	8,361,938	9,671	14,257,480	10,310	15,140,010	12,184	11,579,470	14,286

PERMANENT POSITIONS BY GRADE AND FTES

Table NRCS-9. Permanent Positions by Grade and FTES

Item	2021			2022			2023			2024		
	D.C.	Field	Actual Total	D.C.	Field	Actual Total	D.C.	Field	Estimated Total	D.C.	Field	Estimated Total
SES.....	13	4	17	11	2	13	17	13	20	17	3	20
GS-15.....	41	72	113	44	74	118	45	74	119	45	74	119
GS-14.....	51	179	230	28	212	240	56	212	268	56	212	268
GS-13.....	8	526	534	7	573	580	34	581	615	34	581	615
GS-12.....	11	2,639	2,650	10	2,654	2,664	28	2,811	2,839	28	2,825	2,853
GS-11.....	7	1,855	1,862	9	1,890	1,899	20	2,123	2,143	20	2,346	2,366
GS-10.....	-	27	27	-	27	27	-	27	27	-	27	27
GS-9.....	11	1,840	1,851	8	2,100	2,108	11	2,359	2,370	11	3,396	3,407
GS-8.....	3	328	331	3	318	321	3	347	350	3	347	350
GS-7.....	1	1,834	1,835	1	1,646	1,647	4	2,156	2,160	4	2,570	2,574
GS-6.....	-	253	253	-	254	254	-	283	283	-	386	386
GS-5.....	-	419	419	-	262	262	-	473	473	-	679	679
GS-4.....	1	118	119	-	133	133	1	171	172	1	274	275
GS-3.....	-	249	249	1	231	232	1	282	283	1	282	283
GS-2.....	-	48	48	1	45	46	1	57	58	1	57	58
GS-1.....	-	3	3	-	2	2	-	4	4	-	4	4
Other Graded.....	-	-	-	-	1	1	-	1	1	-	1	1
Ungraded.....	-	-	-	-	-	-	-	-	-	-	-	-
Total Permanent.....	147	10,394	10,541	123	10,424	10,547	221	11,963	12,184	221	14,065	14,286
Total Perm. FT EOY	147	10,394	10,541	123	10,424	10,547	221	11,963	12,184	221	14,065	14,286
FTE.....	133	9,538	9,671	200	10,110	10,310	142	12,042	12,184	167	14,119	14,286

Note: In addition to the numbers above, and of the end of 2023 NRCS maintained about 42 temporary positions throughout the agency that provides support across the agency programs in their national or field location.

VEHICLE FLEET

Motor Vehicle Fleet

As a field-based agency, NRCS has a significant number of employees who require vehicles to visit field offices, job sites (farms and ranches) and other areas where public transportation is non-existent, uneconomical, or inadequate. Driving takes place on agricultural land and in an assortment of operating conditions for the purpose of providing technical assistance to farmers and ranchers, which often involves transporting large engineering and other field equipment, thereby requiring employees to have access to pickup trucks and sport-utility vehicles.

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

Replacement Criteria

To ensure that vehicles are safe and reliable, NRCS requires annual vehicle inspections per Federal Motor Vehicle Management Regulations. Federal Management Regulation 102-34.280 sets forth the minimum number of years or number of miles an agency must keep its vehicles before replacement. The agency policy is to replace motor vehicles based on economy and safety requirements.

Fleet Optimization

The optimal fleet inventory for NRCS has been identified. The agency will attain and maintain this optimal fleet inventory through one-for-one vehicle replacements, additions and eliminating non-essential vehicles through excess and transfer.

During 2021, an increase of 1,000 vehicles was approved to support the NRCS increase in FTEs for expanded mission delivery at the field level and improve sharing capabilities with Farm Production and Conservation (FPAC) agencies and partners. Due to the vehicle availability market and chip shortages, not all of the vehicles have been delivered. The remaining vehicle are anticipated to be delivered during 2023.

In 2022 extended delivery times and delays continued to be a challenge and required flexibility by parties. The replacements are expected to arrive in 2023 and 2024.

Looking ahead, NRCS will continue to optimize its fleet by:

- Maximizing its participation in an existing and successful vehicle-sharing program that is rapidly expanding.
- Implementing telematics to simplify vehicle usage recording for field staff.
- Vehicle right-typing, ensuring that the fleet inventory reflects a blend of vehicles that are a proper match to the mission and offer best value back to the Government.
- Reducing the number of fossil fuel-based vehicles within the agency's inventory.
- Identifying opportunities to increase electrification. All electric and hybrid (to include plug-in)-electric vehicles will be prioritized within the replacement strategy, where they are a best match to mission requirements, location, and funding availability.
- Conducting a Vehicle Allocation Methodology (VAM) survey in 2023.

Table NRCS-10. Size, Composition, and Annual Costs of Motor Vehicle Fleet

	Sedans and Station Wagons	Vans	SUVs	Light Trucks 4X2	Light Trucks 4X4	Medium Duty Vehicles	Buses	Heavy Duty Vehicles	Total Vehicles	Annual Operating Costs
2018 End of Year Operating Inventory.....	406	-	-	1,558	5,184	570	-	17	7,735	\$21,109
2020 End of Year Operating Inventory.....	337	93	137	1,032	5,463	561	-	17	7,640	21,226
2021 Planned Acquisitions.....	11	7	7	9	416	71	-	-	521	
2021 Planned Disposals.....	31	7	9	112	362	58	-	3	582	
2021 End of Year Operating Inventory.....	317	93	135	929	5,517	574	-	14	7,579	18,700
2022 Planned Acquisitions.....	1	2	1	24	971	1	-	-	1,000	
2022 Planned Disposals.....	-	-	-	-	-	-	-	-	-	
2022 End of Year Operating Inventory.....	318	95	136	953	6,488	575	-	14	8,579	21,635
2023 Planned Acquisitions.....	71	11	94	82	262	11	-	-	531	
2023 Planned Disposals.....	71	11	94	82	262	11	-	-	531	
2023 End of Year Operating Inventory.....	318	95	136	953	6,488	575	-	14	8,579	23,798
2024 Planned Acquisitions.....	-	-	-	-	-	-	-	-	-	
2024 Planned Disposals.....	-	-	-	-	-	-	-	-	-	
2024 End of Year Operating Inventory.....	318	95	136	953	6,488	575	-	14	8,579	26,178

Note: Number of vehicles by type include vehicles owned by the agency and leased from commercial sources or GSA.
Annual Operating Costs excludes acquisition costs and gains from sale of vehicles as shown in FAST.

Table NRCS-11. Statement of Proposed Purchase of Passenger Motor Vehicles

Fiscal Year	Net Active Fleet, SOY	Disposals	Replacements	Additions	Total Acquisitions	Net Active Fleet, EOY
2021.....	317	-	-	1	1	318
2022.....	318	-	-	-	-	318
2023.....	318	-	-	-	-	318
2024.....	318	-	-	-	-	318

SHARED FUNDING PROJECTS*Table NRCS-12. Shared Funding Projects (thousands of dollars)*

Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
Working Capital Fund:				
Administrative Services:				
Material Management Service	\$94	\$44	\$41	\$43
Mail and Reproduction Services	554	324	336	333
Integrated Procurement Systems	1,308	1,068	1,110	1,136
Procurement Operations Services	557	1,262	1,569	1,624
Human Resources Enterprise Management Systems	122	169	208	238
Subtotal	2,635	2,867	3,264	3,374
Communications:				
Creative Media & Broadcast Center	305	357	432	454
Finance and Management:				
National Finance Center	2,430	2,442	2,932	3,034
Financial Management Systems	14,972	15,513	16,545	17,729
Internal Control Support Services	75	79	83	88
Subtotal	17,477	18,034	19,560	20,851
Information Technology:				
Client Experience Center	122,699	119,774	100,292	91,010
AskUSDA Contact Center	-	-	307	319
Enterprise Cybersecurity Services	-	-	4,255	4,438
Enterprise Data and Analytics Services	-	-	4,443	561
Department Administration Information Technology Office	74	300	139	139
Personnel Document Security	-	-	513	550
Digital Infrastructure Services Center	17,473	16,956	14,660	12,319
Enterprise Network Services	20,407	15,202	21,450	26,924
Subtotal	160,653	152,232	146,059	136,260
Office of the Executive Secretariat	113	142	97	101
Total, Working Capital Fund	181,183	173,632	169,412	161,040
Department-Wide Shared Cost Programs:				
Advisory Committee Liaison Services	3	4	6	6
Agency Partnership Outreach	587	682	854	854
Diversity, Equity, Inclusion and Accessibility	-	-	228	228
Human Resources Priority Goals Program	1	-	433	433
Intertribal Technical Assistance Network	290	375	378	378
Medical Services	32	38	55	55
National Capital Region Interpreting Services	-	8	32	32
Office of Customer Experience	822	941	342	342
Personnel and Document Security Program	132	162	-	-
Physical Security	365	460	483	483
Security Detail	392	487	551	551
Security Operations Program	551	670	749	749
Talent Group	-	-	384	384
TARGET Center	101	138	186	186
USDA Enterprise Data Analytics Services	462	475	-	-
Total, Department-Wide Reimbursable Programs	3,738	4,440	4,679	4,679
E-Gov:				
Budget Formulation and Execution Line of Business	9	10	10	10
Hiring Assessment Tool	-	25	-	-
E-Rulemaking	8	11	7	6
Financial Management Line of Business	20	21	22	22
Geospatial Line of Business	13	13	13	13
Benefits.gov	70	71	66	69
Grants.gov	34	60	51	53
Human Resources Line of Business	26	31	31	31
Integrated Acquisition Environment	109	3	16	14
Total, E-Gov	288	245	215	218
Agency Total	185,209	178,317	174,306	165,937

ADVERTISING EXPENDITURES

Table NRCS-13. Advertising Expenditures (dollars in thousands)

Item	2022 Number of Contracts	2022 Dollars Obligated	2023 Number of Contracts	2023 Dollars Obligated	2024 Number of Contracts	2024 Dollars Obligated
Total Contracts for Advertising Services.....	4	\$57,300	-	-	-	-
Contracts for Advertising Services to Socially and Economically Disadvantaged Small Businesses.....	-	-	-	-	-	-
Contracts for Advertising Services to Women-Owned and Minority-Owned Small Businesses.....	1	3,300	-	-	-	-

ACCOUNT 1: PRIVATE LANDS CONSERVATION OPERATIONS

APPROPRIATIONS LANGUAGE

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

For necessary expenses for carrying out the provisions of the Act of April 27, 1935 (16 U.S.C. 590a-f), including preparation of conservation plans and establishment of measures to conserve soil and water (including farm irrigation and land drainage and such special measures for soil and water management as may be necessary to prevent floods and the siltation of reservoirs and to control agricultural related pollutants); operation of conservation plant materials centers; classification and mapping of soil; dissemination of information; acquisition of lands, water, and interests therein for use in the plant materials program by donation, exchange, or purchase at a nominal cost not to exceed \$100 pursuant to the Act of August 3, 1956 (7 U.S.C. 2268a); purchase and erection or alteration or improvement of permanent and temporary buildings; and operation and maintenance of aircraft, [\$941,124,000]\$1,022,566,000, to remain available until September 30, [2024, of which up to \$22,973,000 shall be for the purposes, and in the amounts, specified for this account in the table titled "Community Project Funding/Congressionally Directed Spending" in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act)]2025: *Provided further*, That appropriations hereunder shall be available pursuant to 7 U.S.C. 2250 for construction and improvement of buildings and public improvements at plant materials centers, except that the cost of alterations and improvements to other buildings and other public improvements shall not exceed \$250,000: *Provided further*, That when buildings or other structures are erected on non-Federal land, that the right to use such land is obtained as provided in 7 U.S.C. 2250a.

Change Description

This change (line 9-12) in language proposes deletion of funding for Community Project Funding/Congressionally Directed Spending which is not proposed in the 2024 Budget.

LEAD-OFF TABULAR STATEMENT

Table NRCS-14. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$941,124,000
Change in Appropriation	+ 81,442,000
Budget Estimate, 2024	<u>1,022,566,000</u>

PROJECT STATEMENTS

Table NRCS-15. Project Statement by Appropriations Detail (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Chg Key	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		Dec.	Dec.
Discretionary Appropriations:											
Private Lands Conservation Operations											
Conservation Technical Assistance.....	\$731,255	3,071	\$779,424	3,086	\$826,865	3,343	\$904,279	3,434	+\$77,414	+91	(1)
Soil Survey.....	79,444	392	89,444	400	86,757	419	89,166	419	+2,409	-	(2)
Snow Survey.....	9,488	53	9,488	51	16,751	52	17,017	52	+266	-	(3)
Plant Materials.....	9,540	69	10,540	68	10,751	80	12,104	80	+1,353	-	(4)
Watershed Projects.....	3,000	-	-	1	-	-	-	-	-	-	-
Urban Agriculture and Innovative Production Prg.	-	-	8,500	6	-	-	-	-	-	-	-
Healthy Forests Reserve Program.....	-	-	7,000	-	-	-	-	-	-	-	-
Subtotal Disc. Appropriation.....	<u>832,727</u>	<u>3,585</u>	<u>904,396</u>	<u>3,612</u>	<u>941,124</u>	<u>3,894</u>	<u>1,022,566</u>	<u>3,985</u>	<u>+81,442</u>	<u>+91</u>	
Mandatory Appropriations:											
Partnerships for Climate-Smart Commodities.....	-	-	3,357,500	-	-	-	-	-	-	-	-
Conservation Technical Assistance (IRA).....	-	-	1,000,000	-	-	237	-	1,069	-	+832	
Greenhouse Gas Inventory and Assessment (IRA)	-	-	300,000	-	-	25	-	25	-	-	
Subtotal Mand. Appropriation.....	<u>-</u>	<u>-</u>	<u>4,657,500</u>	<u>-</u>	<u>-</u>	<u>262</u>	<u>-</u>	<u>1,094</u>	<u>-</u>	<u>+832</u>	
Total Adjusted Approp.....	<u>832,727</u>	<u>3,585</u>	<u>5,561,896</u>	<u>3,612</u>	<u>941,124</u>	<u>4,156</u>	<u>1,022,566</u>	<u>5,079</u>	<u>+81,442</u>	<u>923</u>	

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Chg Dec. Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Add back:										
Sequestration.....	-	-	142,500	-	-	-	-	-	-	-
Total Appropriation.....	832,727	3,585	5,704,396	3,612	941,124	4,156	1,022,566	5,079	+81,442	+923
Sequestration.....	-	-	-142,500	-	-	-	-	-	-	-
Recoveries, Other	18,603	-	-39,639	-	-	-	-	-	-	-
Bal. Available, SOY.....	143,520	-	138,202	-	4,777,530	-	1,045,750	-	-3,731,780	-
Total Available.....	994,850	3,585	5,660,459	3,612	5,718,654	4,156	2,068,316	5,079	-3,650,338	+923
Lapsing Balances	-20,873	-	-8,140	-	-	-	-	-	-	-
Bal. Available, EOY	-138,202	-	-4,777,530	-	-1,045,750	-	-881,800	-	+163,950	-
Total Obligations.....	835,775	3,585	874,789	3,612	4,672,904	4,156	1,186,516	5,079	-3,486,388	+923

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

Table NRCS-16. Project Statement by Obligations Detail (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Conservation Technical Assistance.....	\$735,689	3,071	\$766,977	3,086	\$914,621	3,343	\$904,279	3,434	-\$10,342	+91
Soil Survey.....	76,033	392	85,059	400	99,180	419	89,166	419	-10,014	-
Snow Survey	10,801	53	9,174	51	17,661	52	17,017	52	-644	-
Plant Materials	10,251	69	11,681	68	14,042	80	12,104	80	-1,938	-
Watershed Projects.....	3,001	-	89	1	4	-	-	-	-4	-
Urban Agriculture and Innovative Production Prg.	-	-	1,809	6	6,691	-	-	-	-6,691	-
Healthy Forests Reserve Program	-	-	-	-	7,000	-	-	-	-7,000	-
Watershed Protection	-	-	-	-	1,955	-	-	-	-1,955	-
Subtotal Disc. Obligations.....	835,775	3,585	874,789	3,612	1,061,154	3,894	1,022,566	3,985	-38,588	+91
Mandatory Obligations:										
Partnerships for Climate-Smart Commodities.....	-	-	-	-	3,357,500	-	-	-	-3,357,500	-
Conservation Technical Assistance (IRA).....	-	-	-	-	237,250	237	130,950	1,069	-106,300	+832
Greenhouse Gas Inventory and Assessment (IRA)	-	-	-	-	17,000	25	33,000	25	+16,000	-
Subtotal Mand. Obligations.....	-	-	-	-	3,611,750	262	163,950	1,094	-3,447,800	+832
Total Obligations.....	835,775	3,585	874,789	3,612	4,672,904	4,156	1,186,516	5,079	-3,486,388	+923
Add back:										
Lapsing Balances	20,873	-	8,140	-	-	-	-	-	-	-
Balances Available, EOY:										
Conservation Technical Assistance.....	64,416	-	1,387,755	-	-	-	-	-	-	-
Soil Survey.....	13,645	-	12,423	-	-	-	-	-	-	-
Snow Survey	703	-	910	-	-	-	-	-	-	-
Plant Materials	5,182	-	3,292	-	-	-	-	-	-	-
Watershed Projects.....	54,256	-	4	-	-	-	-	-	-	-
Watershed Protection	-	-	1,955	-	-	-	-	-	-	-
Urban Agriculture and Innovative Production Prg.	-	-	6,691	-	-	-	-	-	-	-
Healthy Forests Reserve Program	-	-	7,000	-	-	-	-	-	-	-
Partnerships for Climate-Smart Commodities.....	-	-	3,357,500	-	-	-	-	-	-	-
Conservation Technical Assistance (IRA).....	-	-	-	-	762,750	-	631,800	-	-130,950	-
Greenhouse Gas Inventory and Assessment (IRA)	-	-	-	-	283,000	-	250,000	-	-33,000	-
Total Bal. Available, EOY	138,202	-	4,777,530	-	1,045,750	-	881,800	-	-163,950	-
Total Available.....	994,850	3,585	5,660,459	3,612	5,718,654	4,156	2,068,316	5,079	-3,650,338	+923
Less:										
Sequestration.....	-	-	142,500	-	-	-	-	-	-	-
Recoveries, Other	-18,603	-	39,639	-	-	-	-	-	-	-
Bal. Available, SOY.....	-143,520	-	-138,202	-	-4,777,530	-	-1,045,750	-	+3,731,780	-
Total Appropriation.....	832,727	3,585	5,704,396	3,612	941,124	4,156	1,022,566	5,079	+81,442	+923

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

JUSTIFICATION

- (1) A net increase of \$77,414,000 and 91 staff years for the Conservation Technical Assistance Program (\$826,865,000 and 3,343 staff years available in 2023).
- a) An increase of \$15,018,000 and 91 staff years for the Conservation Technical Assistance (CTA) Program to expand staffing capacity to keep pace with increased mandatory financial assistance authorities that exceed \$3.5 billion in 2024.

The Conservation Technical Assistance (CTA) Program remains the agency's primary program to work with private landowners across the country through USDA's unique delivery system of local field offices. Working one-on-one, NRCS can help producers use new technologies and conservation practices that address emerging challenges and opportunities, such as organic production systems, on farm energy management, air quality improvement, and enhancement of pollinator populations.

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

In 2024, NRCS proposes to continue to accelerate proven approaches to conservation that generate results at broader scales, leverage tools and resources to gain efficiencies in service delivery, and optimize use of existing authorities that will strengthen rural communities. NRCS high-level priorities include:

- 1) Expand staffing capacity to keep pace with increased mandatory financial assistance authorities that exceed \$3.5 billion in 2024. Increases in financial assistance will continue to place higher demands on agency products and services for conservation planning and conservation plan development, which are requirements to access the agency's mandatory funding through a wide range of programs.
- 2) Leverage the roll-out of the Conservation Desktop and the Conservation Application and Ranking Tool with continued integration of our automated business processes to reduce data entry and enhance analytics.
- 3) Accelerate conservation results at the landscape scale (e.g., watershed, river basin, multi-state, etc.), building on partnerships and new science and policy tools to focus resources and create non-traditional incentives via new authorities in the 2018 Farm Bill under EQIP-Incentives, RCPP, and other programs. CTA is the conservation planning component for these programs under Private Lands Conservation Operations.
- 4) Support farm- and ranch-specific conservation results that producers rely on to achieve their economic objectives and regulatory requirements.
- 5) Enable conservation access to more producers, including beginning farmers and ranchers and historically underserved producers, urban growers, and leverage State and local government technical capacity.
- 6) Review existing authorities to amplify community action to build natural resource based economic opportunities and accelerate preparedness planning related to climate-driven natural resource effects.

Specifically, NRCS proposes to:

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

conservation investments strategically in priority landscapes to generate the most cost-effective return for producers and taxpayers.

- Leverage partnerships to increase financial resources, expand technical capacity, and accelerate conservation implementation by partnering with State, Federal, Tribal and other stakeholders for delivering and assessing conservation investments in healthy soils, and to accelerate efforts to adapt and mitigate the effects of a changing climate on functioning landscapes.
- Inform conservation-based decision-making through prioritized investments in science-based tools and data, including advancing knowledge of dynamic soil properties (how soils change with land use) to continue improvement and development of 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; NRCS will support applied research and modeling to identify cost effective strategies to maximize the benefits of improved soil health. Through the Conservation Effects Assessment Project (CEAP) initiatives, NRCS will establish a continuing, statistically-valid survey process to track progress in conservation adoption and conservation investment benefits to the nation's water quality, soil health, and agricultural productivity. Through the Conservation Evaluation and Monitoring Activities (CEMA) Program, NRCS is incorporating monitoring activities of key resource concerns and outcomes into the planning process.
- Coordinate CTA efforts to measure conservation outcomes with work across the department, including Measure, Monitor, Report and Verify (MMRV). This will include coordination to ensure data collection is compatible with and complimentary to quantification efforts happening through Partnerships for Climate-Smart Commodities as well as through the Conservation Reserve Program (CRP) Monitoring, Assessment and Evaluation (MAE) projects. NRCS will work to ensure that work done utilizing CTA and planning to measure outcomes, including soil carbon, continue to be compatible and complimentary to this work and will be complimentary to the additional funds provided through the Inflation Reduction Act (IRA) to quantify soil carbon sequestration and greenhouse gas emissions reductions.
- Advance Equity Priorities: NRCS will continue a coordinated, corporate approach to planning, technical assistance, and outreach across NRCS program delivery that will advance the Administration's priorities of racial, environmental, and economic equity to combat climate change. A detailed database and related tools will be developed to identify historic agency funding locations, which will allow NRCS to better align program assistance with areas and communities of greatest need. This will allow an informed and targeted approach to outreach and promote inclusive outcomes. Climate Smart Agriculture Swat teams would be developed for underserved communities where subject matter experts will assist communities in a collaborative approach.

b) An increase of \$50,000,000 for Conservation Technical Assistance to invest in equity conservation cooperative agreements.

In 2024, NRCS proposes to continue investment in cooperative agreements to support historically underserved farmers and ranchers with climate-smart agriculture and forestry. The Equity Conservation Cooperative Agreements are two-year projects that expand the delivery of conservation assistance to farmers and ranchers who are beginning, limited resource, historically underserved and/or veterans. Authorized by the Soil Conservation Act and Domestic Allotment Act (16 U.S.C. 590a-590f, 590q), these cooperative agreements will remove barriers to access from conservation planning and technical assistance by historically underserved groups, by providing outreach to these producers and allow NRCS to address key priority areas.

Key priority areas include addressing local natural resource issues; encouraging use of climate-smart practices; encouraging existing and new partnerships; developing state and community-led conservation leadership for historically underserved agricultural producers, including training students for career in natural resource management.

c) An increase of \$23,000,000 for Climate Smart Agriculture Implementation.

The funds will be used to support and expand NRCS's greenhouse gas MMRV efforts as well as efforts to increase internal capacity related to climate change science. As part of the Department wide efforts on MMRV, NRCS will continue to advance work to quantify carbon sequestration and greenhouse gases. This will include the collection of field-based data, and assessment of outcomes, and the use of data to monitor and track trends through the Greenhouse Gas Inventory and Assessment Program of USDA.

Targeting hiring and training efforts will further expand NRCS's ability to deliver conservation planning and technical assistance that supports soil health and climate science. Internal capacity will also support an expansion of staff understanding of climate change and the interrelationship between conservation planning, practice implementation, and adaptation and resilience to climate change. These efforts were specifically identified as a high priority in the NRCS Climate Adaptation Plan. NRCS will continue to expand efforts to train staff regarding key soil carbon and climate smart activities.

- d) An increase of \$8,000,000 for Climate Hubs.
The Climate Hubs are a framework for connecting a wide range of NRCS partners on climate variability issues including drought, excess rainfall, soil and streams management, and carbon issues. Requested funds will continue to enhance cooperation of the Climate Hubs with NRCS and will result in a greater understanding and delivery of the NRCS mission and programs on a truly national level. The Hubs highlight the technical, financial, and economic benefits of NRCS's voluntary conservation programs so that proven science-based information is reaching stakeholders such as producers and resource managers. The amount requested will support Climate Hubs projects that are consistent with the NRCS mission and goals related to making regional and sectoral based vulnerability assessments that assist NRCS in addressing the needs of working lands and vulnerable natural resources through voluntary conservation programs. Funds will also be used to establish regional and state-based projects that understand how natural resource conditions on working lands are affected by the changing climate. This is essential to improve the performance of programs that conserve the land and sustain agriculture production. The increase in funds will assist the Climate Hubs expand NRCS outreach to the public through more effective and efficient delivery of research to end users. This includes Hub adaptation demonstration projects that serve as concrete responses to real-world agricultural climate management issues.
 - e) An increase of \$20,262,000 for 2024 Pay.
This increase will support the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Conservation Technical Assistance Program activities.
 - f) An increase of \$3,107,000 for Rental Payment Costs.
This increase will cover anticipated increases for mandatory operational expenses for rents. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Conservation Technical Assistance Program activities.
 - g) A decrease of \$22,973,000 for Congressionally Directed Projects.
This item was funded in 2023 Enacted. Funding is not included in the 2024 Budget Request.
 - h) A decrease of \$14,000,000 for Grazing Lands Conservation Initiative.
This item was funded in 2023 Enacted. Funding is not included in the 2024 Budget Request.
 - i) A decrease of \$3,000,000 for Cost Share Perimeter Fencing.
This item was funded in 2023 Enacted. Funding is not included in the 2024 Budget Request.
 - j) A decrease of \$1,000,000 for Soil Health Initiative.
This item was funded in 2023 Enacted. Funding is not included in the 2024 Budget Request.
 - k) A decrease of \$1,000,000 for Phragmite Control.
This item was funded in 2023 Enacted. Funding is not included in the 2024 Budget Request.
- (2) A net increase of \$2,409,000 and no change in staff years for the Soil Survey Program (\$86,757,000 and 419 staff years available in 2023).
- a) An increase of \$2,141,000 and no change staff years for 2024 Pay for the Soil Survey Program.
This increase will support the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Soil Survey Program activities.

b) An increase of \$268,000 and no change in staff years for the Soil Survey Program.

With additional funding, the agency can invest in 1) upgrades of critical soil survey laboratory and field equipment and 2) developing and enhancing decision support systems for integrating soils data information into agency and departmental programs.

(3) An increase of \$266,000 for 2024 Pay for the Snow Survey and Water Supply Forecasting Program (\$16,751,000 and 52 staff years available in 2023).

This increase will support the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Snow Survey and Water Supply Forecasting Program activities.

(4) A net increase of \$1,353,000 and no change in staff years for the Plant Material Centers (PMC) Program (\$10,751,000 and 80 staff years available in 2023).

a) An increase of \$1,000,000 and no change in staff years for Plant Material Centers Program to support climate smart agriculture goals within the agency’s network of 25 Plant Material Centers.

Funding is requested to build back staffing capacity and ensure PMCs have the resources to accelerate development of vegetative information and training for field staff to meet emerging environmental challenges associated with climate change and contribute to agency conservation planning streamlining efforts. Funding will also address continued investments in PMC facilities and equipment to improve operational efficiencies and provide new capabilities so that PMCs continue to be a leader in the development of conservation plants and plant technology resulting in the best conservation solutions for farmer/rancher resiliency. PMC activities directly contribute to USDA goals of healthy soils, grasslands, and forests; abundant and clean air and water; and increasing the resiliency of cropland to support U.S. food production.

Additional funding ensures the PMC program has adequate staffing and budget for supplies, services, and equipment to conduct the plant science studies and field trials efficiently that develop new vegetative plant adaptation and resiliency information related to changing rainfall patterns, average temperature increases, carbon sequestration, and extreme climatic events. Funding will also improve maintenance of PMC facilities allowing employees to focus on technology development and transfer resulting in an additional 10 percent more scientific documents and 30 percent more training for conservation planning staff. Technical documents support NRCS conservation practices, new and innovative technology delivery, and the planning process. Training delivers plant materials information to field employees, so they have the knowledge and skills needed to perform their jobs. Plants used for conservation of natural resources must be adapted to changing environments to ensure they continue to function to protect our soils, water, livestock production, and wildlife habitat. The net result is scientifically sound vegetative conservation practices and more efficient implementation of conservation plans with farmers, ranchers, and private.

b) An increase of \$353,000 for 2024 Pay.

This increase will support the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Plant Material Centers Program activities.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-17. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Alabama.....	\$6,683	39	\$6,529	36	\$9,512	42	\$8,856	52
Alaska.....	4,626	30	5,506	35	8,021	41	7,468	51
Arizona.....	6,633	38	7,012	59	10,215	69	9,511	85
Arkansas.....	12,225	71	12,158	74	19,037	86	16,490	107
California.....	20,356	123	21,418	162	31,203	189	29,050	235
Colorado.....	11,617	83	10,608	84	15,454	98	14,388	122

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Connecticut	3,170	24	5,129	30	7,472	35	6,957	43
Delaware	2,938	19	2,692	19	3,922	22	3,651	28
District of Columbia.....	370,575	394	406,399	342	3,967,560	342	551,217	342
Florida.....	7,480	52	6,818	51	10,108	59	9,248	74
Georgia.....	9,472	59	7,840	66	11,422	77	10,634	96
Hawaii.....	6,083	37	6,358	42	10,263	49	8,624	61
Idaho	8,963	60	8,527	67	12,422	78	11,566	97
Illinois.....	8,997	54	10,109	64	15,702	75	13,711	93
Indiana	10,712	90	10,443	76	15,214	89	14,164	110
Iowa	18,210	119	17,949	128	26,149	149	24,345	185
Kansas.....	12,344	86	11,750	100	17,118	117	15,937	145
Kentucky.....	8,299	76	8,094	67	11,792	78	10,978	97
Louisiana.....	9,338	63	9,866	69	14,373	80	13,382	100
Maine.....	3,784	33	4,894	39	7,130	45	6,638	56
Maryland.....	5,867	41	5,684	46	8,281	54	7,710	67
Massachusetts	3,140	22	3,060	22	4,458	26	4,150	32
Michigan	10,323	65	10,248	75	15,680	87	13,900	109
Minnesota.....	12,628	82	9,451	52	13,769	61	12,819	75
Mississippi	14,631	81	12,380	74	19,236	86	16,792	107
Missouri.....	16,776	118	16,148	105	23,525	122	21,902	152
Montana	11,480	85	11,516	91	16,777	106	15,620	132
Nebraska	15,587	118	16,285	121	23,725	141	22,088	175
Nevada	3,694	25	4,397	34	6,406	40	5,964	49
New Hampshire	3,195	30	3,600	33	5,245	38	4,883	48
New Jersey.....	4,169	30	4,002	29	7,780	34	5,428	42
New Mexico.....	7,426	35	9,071	52	13,215	61	12,303	75
New York.....	8,191	62	8,019	63	16,632	73	10,877	91
North Carolina	7,432	44	6,607	54	9,625	63	8,961	78
North Dakota.....	11,019	78	11,094	79	20,162	92	15,047	114
Ohio	8,428	52	9,678	61	14,099	71	13,127	88
Oklahoma.....	11,826	100	10,534	78	15,346	91	14,288	113
Oregon	10,483	64	9,416	61	13,718	71	12,771	88
Pennsylvania	8,845	74	9,156	82	13,339	96	12,419	119
Puerto Rico	3,180	26	2,992	22	4,359	26	4,058	32
Rhode Island	2,161	13	2,548	15	3,712	17	3,456	22
South Carolina	5,830	31	6,980	36	10,169	42	9,467	52
South Dakota.....	12,245	90	11,577	94	16,866	110	15,702	136
Tennessee.....	10,471	80	12,447	82	18,133	96	16,882	119
Texas.....	35,199	252	31,966	200	50,069	233	43,357	290
Utah.....	7,176	33	7,056	45	10,279	52	9,570	65
Vermont	3,559	35	9,381	30	13,667	35	12,724	43
Virginia	6,607	58	6,933	64	10,100	75	9,404	93
Washington.....	7,881	59	8,310	60	15,254	70	11,271	87
West Virginia.....	6,164	47	6,335	52	9,229	61	8,592	75
Wisconsin.....	10,847	53	11,653	35	16,977	41	15,806	51
Wyoming	6,810	48	6,166	55	8,983	64	8,363	80
Obligations.....	835,775	3,585	874,789	3,612	4,672,904	4,156	1,186,516	5,079
Lapsing Balances	20,873	-	8,140	-	-	-	-	-
Bal. Available, EOY	138,202	-	4,777,530	-	1,045,750	-	881,800	-
Total, Available.....	994,850	3,585	5,660,459	3,612	5,718,654	4,156	2,068,316	5,079

CLASSIFICATION BY OBJECTS**Table NRCS-18. Classification by Objects (thousands of dollars)**

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
	Personnel Compensation:				
	Washington D.C.	\$66,346	\$7,612	\$9,218	\$11,796
	Personnel Compensation, Field	223,498	278,717	337,512	431,929
11	Total personnel compensation	289,844	286,329	346,730	443,725
12	Personal benefits.....	119,657	143,317	158,652	195,750
13.0	Benefits for former personnel.....	46	34	-	-
	Total, personnel comp. and benefits	409,547	429,680	505,382	639,475
	Other Objects:				
21.0	Travel and transportation of persons	-278	1,709	3,206	3,926
22.0	Transportation of things	3,080	2,854	3,538	3,835
23.1	Rental payments to GSA	15,571	8,444	11,167	10,727
23.2	Rental payments to others	31,922	25,769	26,358	28,792
23.3	Communications, utilities, and misc. charges.....	328	128	146	158
24.0	Printing and reproduction	360	136	172	186
25.1	Advisory and assistance services.....	-20	-128	-	-
25.2	Other services from non-Federal sources	161,730	238,825	580,075	307,302
25.3	Other goods and services from Federal sources	1,930	1,921	1,413	1,427
25.4	Operation and maintenance of facilities	152,978	127,461	141,685	146,344
25.5	Research and development contracts.....	-416	-	-	-
25.6	Medical Care	14	-	-	-
25.7	Operation and maintenance of equipment	1,428	1,144	1,539	1,668
26.0	Supplies and materials.....	7,822	8,434	10,905	12,699
31.0	Equipment	42,560	26,002	22,967	27,636
32.0	Land and structures	6,969	2,379	2,120	2,298
41.0	Grants, subsidies, and contributions	-2	-	3,362,190	-
42.0	Insurance Claims and Indemnities.....	259	23	30	32
43.0	Interest and Dividends.....	3	9	11	11
44.0	Refunds	-10	-1	-	-
	Total, Other Objects	426,228	445,109	4,167,522	547,041
99.9	Total, new obligations	835,775	874,789	4,672,904	1,186,516
	DHS Building Security Payments (included in 25.3)	\$1,930	\$1,921	\$1,413	\$1,427
	Information Technology Investments:				
	FBC-1001 Cust Engagement & Mgmt Svcs				
25.2	External Labor (Contractors).....	4,873	6,747	6,764	6,764
	Total FBC-1001 Cust Engagement & Mgmt Svcs.....	4,873	6,747	6,764	6,764
	FSA-127 Geospatial Services				
25.2	External Labor (Contractors).....	478	3,416	10,947	10,947
25.2	Outside Services (Consulting).....	10,337	7,909	272	272
	Total FSA-127 Geospatial Services.....	10,815	11,325	11,219	11,219
	FSA-129 Program Financial Services				
25.2	External Labor (Contractors).....	33	34	35	35
	Total FSA-129 Program Financial Services	33	34	35	35
	NRCS-CDSI Conservation Delivery Streamline Initiative				
25.2	External Labor (Contractors).....	2,525	3,120	2,525	2,525
	Total NRCS-CDSI Conservation Delivery Streamline Initiative.....	2,525	3,120	2,525	2,525
	Total Major Investments.....	18,246	21,226	20,543	20,543
	Mission Area Non-Major Investment Totals.....	52,246	99,067	57,891	57,891
	Mission Area Standard Investment Totals	30,369	33,745	23,280	23,280
25.2	Mission Area WCF Transfers	97,577	97,787	100,655	100,655
	Total IT Investments	198,438	251,825	202,369	202,369
	Position Data:				
	Average Salary (dollars), ES Position	\$186,928	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	\$70,816	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position.....	10	10	10	10

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).

NRCS TECHNICAL ASSISTANCE**Table NRCS-19. NRCS Technical Assistance (millions of dollars)**

NRCS Technical Assistance ¹	2022 Actual	2023 Estimate	2024 ² Estimate
Discretionary:			
Conservation Operations (Technical Assistance):			
Conservation Technical Assistance.....	\$779	\$827	\$904
Soil Surveys	89	87	89
Snow Surveys	9	17	17
Plant Materials	11	11	12
Watershed Projects.....	-	-	-
Urban Agriculture and Innovative Production Program	9	-	-
Healthy Forests Reserve Program	2	-	-
Total, Discretionary Programs	\$899	\$941	\$1,023
Mandatory:			
Farm Bill Programs (Technical Assistance):			
Environmental Quality Incentives Program	625	635	604
Agricultural Conservation Easement Program	219	235	177
Regional Conservation Partnership Program	347	393	270
Conservation Stewardship Program	427	474	278
Agricultural Management Assistance ³	1	1	1
Conservation Reserve Program Tech. Assist	328	269	242
Voluntary Public Access and Habitat Incentive Program	2	-	-
Feral Swine Eradication and Control Pilot.....	1	2	-
Agriculture Water Enhancement Program	5	5	5
Farm and Ranchland Protection Program	40	32	6
Grassland Reserve Program	15	12	8
Wetland Reserve Program.....	11	5	1
Wildlife Habitat Incentives Program.....	5	5	5
Chesapeake Bay Watershed Program	4	4	3
Healthy Forests Reserve Program	1	1	-
Wetland Mitigation Banking Program (Discretionary).....	-	1	1
Total, Mandatory Programs	\$2,031	\$2,074	\$1,601
Inflation Reduction Act (IRA) Funds:			
Conservation Technical Assistance.....	1,000	1,000	763
Greenhouse Gas Inventory and Assessment	300	300	283
Environmental Quality Incentives Program	-	76	581
Agricultural Conservation Easement Program.....	-	35	90
Regional Conservation Partnership Program	-	25	70
Conservation Stewardship Program	-	59	146
Total, IRA Program Funds	\$1,300	\$1,495	\$1,933
Total, Technical Assistance	\$4,230	\$4,510	\$4,557

¹ This table reflects the total staff resources necessary to implement private lands conservation programs administered by the Natural Resources Conservation Service. This table includes the total for discretionary technical assistance and associated science and technology programs provided through the Private Lands Conservation Operations account in addition to the total technical assistance necessary to implement Farm Bill programs.

² The 2024 Budget assumes estimated carryover of \$366 million.

³ NRCS is authorized to receive 50 percent of total AMA funding. The balance of the funds is allocated to the Risk Management Agency and the Agricultural Marketing Service.

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STATUS OF PROGRAMS

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

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

- Conservation Planning and Technical Consultation
- Conservation Implementation
- Natural Resource Inventory and Assessment
- Natural Resource Technology Transfer

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

Conservation Technical Assistance (CTA) Program

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

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

Technical assistance starts with a science-based assessment of the resource concerns and opportunities on farms, ranches, and within watersheds. Conservation professionals then provide farmers and ranchers with the best options for addressing resource concerns and taking advantage of opportunities. Trained conservationists understand the synergies of various conservation practices and activities and can recommend the best strategies to get desired results on the land. Through the development of a conservation plan, resource-related problems are addressed as producers and NRCS work together to use information gleaned from the planning process to make decisions, implement plans, and put conservation practices in place.

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

Conservation technical assistance addresses at the local level natural resource conservation issues that are of State and national concern. NRCS leadership establishes CTA Program national priorities and initiatives on an annual or multi-year basis to focus resources on specific program objectives. States may establish additional priorities and

initiatives for the CTA Program. NRCS has a full array of processes to focus CTA Program resources on national and State priorities and initiatives. These processes include, but are not limited to:

- Strategically positioning staff to address natural resource needs through conservation planning;
- Allocating program funds to address natural resource needs;
- Establishing short-term and long-term performance measures and goals;
- Formulating, enhancing, and expanding partnerships;
- Developing and transferring new and innovative technologies;
- Delivering conservation planning and other technical assistance to help producers meet eligibility requirements for USDA programs and other Federal, State, and local conservation programs;
- Conducting technical and program evaluations and assessments;
- Conducting resource inventories and assessments;
- Developing and delivering training to support conservation planners and conservation planning activities;
- Providing tailored conservation planning and assistance to meet unique need of a diverse customer base;
- Expanding technical capacity, including the use of technical service providers; and
- Developing public information and outreach strategies, including targeted outreach to underserved communities.

Conservation Technical Assistance

Current Activities

In 2022, CTA Program continuing activities included:

- Using new technologies and conservation practices that addressed emerging challenges and opportunities, such as organic production systems, on-farm energy management, air quality improvement, and enhancement of pollinator populations;
- Helping to improve soil health and productivity in States impacted by the historic drought;
- Protecting wildlife through the Working Lands for Wildlife (WLFW), a partnership between NRCS and the U.S. Fish and Wildlife Service (FWS) to use technical assistance with financial assistance to combat the decline of wildlife species;
- Addressing a growing number of niche enterprises that include aquaculture, specialty crops, sustainable, and organic farming;
- Engaging producers who are new to production agriculture and have higher demands for technical assistance or have not previously participated in NRCS programs, but who are critical in solving the identified resource concerns in special initiative areas;
- Entering into agreements with conservation partnerships in order to leverage local funds and provide additional technical assistance;
- Accelerating focused technical assistance through landscape conservation initiatives such as the Great Lakes Restoration Initiative, Sage Grouse Initiative, and the Mississippi River Basin Healthy Watersheds Initiative;
- Addressing threats to drinking water, especially community water systems, targeting technical and financial assistance for source water protection;
- Addressing growing demand for conservation planning support for Farm Bill programs such as the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Regional Conservation Partnership Program (RCPP) through the delivery of over 155,000 conservation assessments, 12 percent increase from 2021;
- Designing natural resource conservation systems to reduce the risk of loss and mitigate the effects of climatic events such as drought, fire, and flood;
- Leveraging the innovative technology and agribusiness applications of the private sector in a collaborative effort to improve the tailored products and assistance provided to customers;
- Bolstering the credibility and technical acumen of staff and partners by strengthening the conservation planner certification program; and
- Attending to the unique needs of urban agricultural customers through the delivery of customized conservation planning and technical assistance.

- In 2022, NRCS developed conservation plans covering over 31 million acres. In accordance with those plans and utilizing CTA Program support, conservation practices and systems designed to improve soil quality were applied to almost 3.5 million acres of cropland.
- CTA Program support also contributed to the owners and managers of grazing lands in applying conservation practices to improve over 8 million acres.
- Almost 10.4 million acres of agricultural land had conservation practices applied as designed by the agency to improve water quality.
- Approximately 137,000 acres had conservation practices applied to improve irrigation water use efficiency, reducing costs to the producer, groundwater withdrawals, and surface runoff.
- 3 million acres had conservation practices and systems applied to improve fish and wildlife habitat quality.
- Creation, restoration, and enhancement of wetlands, which provide critical wildlife habitat, were implemented on over 5,500 acres.
- The Inflation Reduction Act provided \$1 billion for CTA and an additional \$300 million in 2022 for a program to quantify carbon sequestration and emissions, to remain available through the end of 2031.

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

Grazing Lands Conservation

Grazing lands comprise an economic resource base in all 50 States and provide food, fiber, clean air and water, wildlife habitat, and open space. According to the National Resource Inventory (NRI, 2021), the 525 million acres of privately-owned range and pasture lands make up 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 (19 percent). Properly managed grazing land has multiple benefits, including reduced storm water runoff, improved carbon storage in the soil, and continued availability of habitat for wildlife species. In 2022, conservationists helped ranchers and farmers understand the basic principles of rangeland and pastureland soil health. Grazing land conservation practices including their associated enhancements (such as range planting (550), Pasture and Hay Planting (512), Brush Management (315), Herbaceous Weed Treatment (314), Grazing Land Mechanical Treatment (548), Prescribed Burning (338), Prescribed Grazing (528) and Forage Harvest Management (511) were applied on approximately 17.3 million acres of grazing land in 2022 in order to conserve, protect, and properly utilize soil, water, plant and air resources. Revisions of grazing conservation practices standards Grazing Land Mechanical Treatment (548) and Range Planting (550) were completed in 2022.

NRCS works with the Society for Range Management, American Forage and Grassland Council, and other range and grazing entities to assist in technology development and transfer, and infusion of discipline science into NRCS technical assistance. The agency partners with the National Grazing Lands Coalition, a nongovernmental nationwide consortium of individuals, organizations, and agencies working together to maintain and improve the management and the health of the Nation's grazing lands. This coalition spurred major increases in the knowledge and skills of conservationists with the planning, training, and application of conservation of grazing land management, facilitating adoption of grazing conservation practices. The Coalition taught numerous training courses in 2022 including: Introduction to Grazing Management, Working Effectively with Livestock Producer, Pasture Condition Scoring and Rangeland Health. The agency also partners with the National Cattlemen's Foundation to recognize outstanding ranch and farm managers and conservationists through the Environmental Stewardship Award Program. This program encourages all producers in America to strive for improved land management on their farm or ranch for future generations.

NRCS uses the NRI Grazing Land On-Site Data Survey to evaluate and document the environmental conditions of rangelands and pastureland across private lands in America. Our interagency agreement with the Bureau of Land Management (BLM) expands grazing lands NRI onto non-forested BLM lands to provide a statistically based sample design that is common to both agencies. NRI field training was offered in 2022.

Ecological Site Descriptions (ESDs) provide a framework to support conservation planning, implementation, and assessment. An ecological site is a subdivision of the landscape that can be mapped via online tools such as Web Soil Survey. Each ESD contains information that allows a user to determine current conditions (including resource concerns), alternatives for future management (including climate change drivers), and necessary actions (conservation practices) to achieve those objectives. This technology improves land management planning capabilities for private landowners, agencies, and the public by providing blueprints for ecological improvement of grazing lands across the Nation and will have implications and applications in other countries. Joint policy between NRCS, the BLM, and the USDA Forest Service pools the agencies' technical resources to support the development and use of ESDs to describe site characteristics, plant communities, and use interpretations for grazing land and forestland. Through this approach, agencies achieve consistency in classification, technology development, and conservation planning. ESD development is on-going, and all three agencies provide staff support and participation. All, of the relevant information is contained in the Ecosystem Dynamics Interpretative Tool (EDIT) which allows users to directly view information or via other connected platforms.

NRCS continues to work closely with partners and universities in developing and delivering the grazing land training curriculum. In 2022, the following courses were taught: Range Ecology II, Pastureland Ecology I and II, Prescribed Grazing, Prescribed Burning, Grazing Ecology and Management, Vegetation Monitoring and Data Interpretation, and Rangeland Health Field Training.

Clean Water Activities

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

NRCS targets agency efforts to protect water quality, including several national and regional conservation initiatives. The National Water Quality Initiative (NWQI) began in 2012 to implement conservation practices in priority watersheds to reduce agricultural contribution to water quality impairment. Each State has identified watersheds in which to concentrate NRCS efforts and coordinate with State water quality agencies. In 2022, the agency made financial assistance available to help farmers and ranchers implement conservation systems in 220 priority watersheds and provided technical assistance for development of watershed assessments in 283 watersheds. Also, in 2022, NRCS continued to address threats to public water supplies through source water protection in ten States (23 projects). The initiative continued to emphasize watershed assessment and planning to further target conservation efforts by requiring all watersheds receiving financial assistance to have a watershed assessment that identifies critical treatment areas. Landowners and producers participating in the initiative receive conservation payments to work on the land in a sustainable way that provides cleaner water while keeping the land productive into the future. Since its inception, NWQI watersheds have accelerated improvements in waterbodies listed as impaired under the Clean Water Act; at least 18 waterbodies in NWQI watersheds have been delisted as of 2020.

The Mississippi River Healthy Watersheds Initiative (MRBI) is a similar initiative with a primary goal of assisting Hypoxia Task Force States in implementing their nutrient loss reduction strategies. In 2022, there were 246 watersheds receiving financial assistance for practice implementation and an additional 87 watersheds developing watershed assessments. MRBI watersheds have watershed assessments and specific metrics designed to target and measure impacts of conservation practice implementation. Communities benefit by having clean waterways, safer drinking water, and healthy habitat for fish and wildlife.

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

higher rates of financial assistance for selected practices within these priority areas; these practices relate to water quality and quantity and protect drinking water sources while also benefitting producers.

During 2022, the agency continued to provide leadership through the development, advancement, and demonstration of new and innovative approaches for water quality conservation. Below are some of these:

- NRCS serves as the lead USDA agency for providing conservation technical assistance for water quality improvement. A major component of this assistance is provided through the establishment of national conservation practice standards (CPSs). In 2022, NRCS completed updates to 26 CPSs, including those that protect, maintain, or improve water quality such as: Constructed Wetland (Code 656); Emergency Animal Mortality Management (Code 368); Feed Management (Code 592); Fishpond Management (Code 399); Pond (Code 378); Stream Crossing (Code 578); and Vegetated Treatment Area (Code 635). Associated resources, including technical notes, are being updated to coordinate with new standards. Practice use is being analyzed and investigated to determine barriers to broader implementation. Training was provided throughout the year and new payment scenarios have been developed.
- Voluntary edge-of-field water quality monitoring enables agricultural producers and scientists to quantify the benefits of conservation practices to water quality. Through edge-of-field monitoring, NRCS works with producers and conservation partners to measure the amount of nutrients and sediment in water runoff from a field and compare improvements under different conservation systems. During the first eight years of edge-of-field water quality monitoring, the agency obligated nearly \$6.8 million for more than 43 monitoring projects in twelve States collecting water quality data across the country.
- The release of nutrients from agricultural operations is a recognized source of contamination for the Nation's waters. Implementing a Comprehensive Nutrient Management Plan (CNMP) and/or a Nutrient Management Plan (NMP) is an effective voluntary step to address the negative water quality issues associated with nutrient loss. NRCS supports the Manure Management Planner (MMP) software developed by Purdue University and My Farms, Inc. through a Development Agreement. MMP is used to generate CNMPs/NMPs by NRCS employees and technical service providers.
- NRCS released and tracked progress of its 2018-2020 Chesapeake Bay Watershed Action Plan, describing its priority resource concerns of water quality, soil health, wildlife habitat, and principles for working with farmers and landowners to restore and improve the Chesapeake Bay Watershed using science-based conservation, partnerships, and voluntary conservation programs.
- NRCS has a goal of putting conservation systems on four million unique acres in the Chesapeake Bay Watershed by 2025. Since fiscal year 2010, NRCS has worked with farmers and ranchers to put conservation on over 2.5 million unique acres.
- NRCS partnered with EPA and USGS in an interagency effort for the purpose of improving the customer experience for conservation groups who utilize our programs. The teams focused on three areas: Funding, Water Quality Monitoring, and Local Workshops. NRCS, EPA, and USGS continue their coordinated, partnership work to enhance conservation opportunities and monitoring in the Chesapeake Bay Watershed.
- Collaborations with agricultural groups, States, Universities, and other Federal agencies continued to provide aggregated data about voluntary conservation practice implementation by NRCS customers which is helping States meet Chesapeake Bay total maximum daily load goals.
- In 2022, NRCS began to delve into and raise awareness about the issue of per- and polyfluoroalkyl substances (PFAS) in the agricultural environment. PFAS originates from multiple sources and can enter farms through contaminated water, soil, and air (for example, from biosolids spread on the land for fertilizer or groundwater used for irrigation or livestock water). Once PFAS is in the water, soil, or air of a farming operation, these chemicals can migrate to crops and livestock that graze on that land, or feed on grain from contaminated fields.
- Federal support provided by USDA programs in response to PFAS contamination is limited. Resources currently in place were not designed to respond comprehensively to the scope of the crisis. Recognizing our limitations, we began exploring ways to better support the range of agricultural producers grappling with PFAS. In 2022, NRCS published a PFAS Factsheet as part of NRCS Guidance to Department of Defense Notification Letters from Potential PFAS Detection and hosted two NRCS Science and Technology Webinars on PFAS and agriculture.

NRCS continues a collaboration with the Agricultural Research Service (ARS) to support, deploy, and expand the geographic range for the Agricultural Conservation Planning Framework (ACPF) for conservation and watershed planning activities. The ACPF is based on a holistic planning concept, using geographic information system tools

and high-resolution geospatial data to determine suitable locations for conservation practices to improve water quality and other ecosystem services, in addition to supporting stakeholder engagement efforts. ACPF results provide a planning resource that enables conservationists and landowners to identify preferred practices and locations suited to their landscape and farms.

In support of the EPA's priority to promote and finance water reuse and recycling projects through the Water Infrastructure Finance and Innovation Act, the USDA has committed to the collaborative efforts of the National Water Reuse Action Plan (WRAP), which was released in 2020. The WRAP features 11 strategic themes, 37 developed actions, 28 unique action leaders, 80 collaborating partners, and 200 implementation milestones geared towards better coordination and focus of taxpayer resources on national water resource concerns. Recognizing that data and information on the quality and quantity of available water can improve opportunities for water reuse, NRCS committed to the action item of increasing water information availability.

In 2020, NRCS fulfilled this action by prioritizing watershed-scale, water-reuse projects through the NRCS Conservation Innovation Grants Program (CIG). Through this priority, CIG funded two water reuse-focused projects in 2021 for a combined \$1.3 million to investigate tailwater recovery and optimize irrigation scheduling and storage. The CIG program has continued to fund projects that included water reuse, with an additional \$0.4 million awarded in 2022. NRCS is leveraging existing USDA programs regarding agricultural water re-use. NRCS provides increased incentives for conservation practices that relate to water quality and quantity and protect drinking water sources while also benefiting producers. The 2018 Farm Bill authorized these enhanced incentive rates.

National Resources Inventory (NRI) Program

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

The NRI compiles natural resources data and information, conservation program data, and data from other Federal and non-Federal sources. These data provide the basic scientific information necessary to inform sound natural resource planning and decision-making at many landscape levels. The NRI is a national assessment of natural resource conditions and trends on non-Federal lands, including privately-owned land, tribal and trust lands, and lands controlled by State and local governments. In all, the NRI provides information on over 80 percent of the Nation's land area. Data and analyses from the NRI are indispensable for developing appropriate and effective conservation programs, sound agricultural policy, and informing national farm policy discussion through the Farm Bill process. In addition, the data from the Grazing Land NRI Onsite Data Study are used in the CEAP-Grazing Lands conservation effects modeling efforts to further enhance optimization of conservation practice application on the Nation's grazing lands.

The NRI is a statistical survey that inventories scientifically selected sample sites in every county across the United States and locations in the Caribbean and Pacific Island areas. From 1977 to 1997, NRI was conducted on five-year cycles. Since 2001, a statistically sound subset of the 800,000 NRI sample sites nationwide has been selected every year for data collection. Collecting NRI data on an annual basis allows the agency the flexibility and capability to gather scientific information on emerging natural resource issues, with its most valuable aspect being 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 2022 NRI activities included:

- **NRI Production Work.** The Remote Sensing Laboratories (RSLs) staff completed data collection on the 2020 NRI from images of 71,867 sample sites and approximately 216,000 points. The RSLs staff also processed 60 percent of the 71,853 images for the 2021 NRI. The contracts for acquiring aerial photography for over 73,892 segments for the 2022 NRI were awarded with the increase due to the addition of Alaska to the NRI.
- **On-site Data Collection on Non-Federal Grazing Lands.** The partnership with the National Employee Development Section (EDS) of the Farm Production and Conservation (FPAC) Business Center conducted all training remotely due to COVID-19 restrictions. In 2022, data collection was conducted on 2,350 non-Federal range and pasture sites.

- On-site Data Collection on Bureau of Land Management (BLM) Lands. In 2022, NRCS and BLM continued their interagency agreement to monitor rangeland resources by expanding NRI data collection on BLM lands with intensified sampling in core sage-grouse habitat. The five-year agreement that began in September 2019, continues the collaborative work that started in 2011. A survey system, developed with BLM funding, provides scientifically credible information on the status of non-forested BLM lands in 13 Western and Midwestern States. In 2022, NRCS collected data on over 1,100 sites on BLM lands. Adoption of standardized NRI protocols on BLM-managed landscapes enhances NRCS's leadership on grazing lands, benefits BLM surveys by providing a well-proven sampling framework, and enables compilation of a consistent and comprehensive database. Combining information derived from NRI data collected on BLM-managed lands with data obtained from NRI points on non-Federal lands provides a statistically sound, virtually seamless, area-wide representation of all grazing lands in the western U.S.

Conservation Effects Assessment Project (CEAP)

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

To build the science base necessary for effective conservation planning, CEAP collaborates with partners from across the spectrum of the conservation research and planning community, including academic partners, NGOs, and government collaborators at the local, State, and Federal levels. CEAP projects are managed by five CEAP component leaders, with portfolios centered on cropland, grazing lands, wildlife, wetlands, and watershed assessments. Assessments of the effects of conservation practices and current agricultural management are carried out at national, regional, and watershed scales.

National assessments are conducted for cropland, grazing lands, wetlands, and wildlife. These assessments use a variety of methodologies to evaluate the impacts of conservation practices and to assess the potential of USDA conservation programs to meet the Nation's conservation goals, including modeling, monitoring and data collection, and geospatial analysis. The watershed assessment component focuses on studies that provide more detailed, in-depth assessments of smaller areas, developing science at the regional and watershed level to inform local decision-making and improve modeling capacities at multiple scales. To inform conservation planning strategies, CEAP-funded assessments have refined and developed models to evaluate the conservation impacts of current conservation implemented and of scenarios for additional conservation treatment to evaluate environmental change in response to practices.

Assessments conducted by all components of CEAP at various scales, from field to regional and watershed, inform the prioritization of conservation needs to enable the agency to focus resources in more effective ways to benefit the American public. CEAP-Watersheds and CEAP-Wildlife are working to support Conservation Initiatives within the agency to help identify and document measurable outcomes of on-the-ground conservation efforts. CEAP continues to provide assessments of the conservation efforts in various NRCS Initiative areas: the Mississippi River Basin Healthy Watersheds Initiative, the Chesapeake Bay Watershed Initiative and related Executive Order, the Great Lakes Restoration Initiative, the National Water Quality Initiative, the Lake Champlain Basin Initiative, the Sage-Grouse Initiative, the Lesser-Prairie Chicken Initiative, the Longleaf Pine Initiative, the Joint Chiefs Landscape Initiative, and Working Lands for Wildlife efforts. CEAP also has assessment efforts to support USDA focal areas such as climate-smart agriculture and America the Beautiful (30x30), as well as providing timely assessments for wildfire damage surveys and conservation needs following emergency declarations via the Emergency Watershed Program (EWP). The Resource Analytics Lab in the Resource Assessment Branch is contributing critical geospatial information and analysis to these assessment efforts.

The 2022 CEAP activities included:

Cropland Assessment

CEAP-Cropland provides science-based estimates of the environmental benefits and effects of conservation practices applied to cropland and the need for additional practices. In 2022 the Cropland Modeling team concentrated on modeling the effects of practices collected during the second CEAP-Cropland farmer survey (for CEAP-2) as well as modeling of alternative conservation scenarios to assist with optimization of conservation practices implementation for use in the Soil and Water Resources Conservation Act (RCA) Analysis. This survey, conducted by National Agricultural Statistics Service (NASS) enumerators, involved face-to-face surveys with

producers across the country to collect detailed data on farm management and conservation practice adoption on 18,745 farms. Practice adoption and management practices used on cropland in CEAP-2 was compared to those reported in the CEAP-1 farmer survey (conducted 2003-2006) to show trends that have emerged on cropland during the decade between the two survey periods.

A national-level summary of CEAP-2 findings was released in March 2022, documenting the changes in practice levels, differences in edge-of-field losses (reductions in sediment and nutrient losses), and the impacts on water quality metrics during the 10-year period. Topics covered in the summarization include structural practices and conservation tillage, crop rotations and cover crops, nutrient management, irrigation, and more. An updated report for Reduction in Annual Fuel Use from Conservation Tillage was released in September 2022. In addition to the national-level report release, a series of regional CEAP-2 reports will follow in late 2022 and early 2023. Additionally, several topical reports are in the clearance process and are slated for release in late 2022. Topical reports include:

- CEAP Integrated Pest Management and Pesticide report
- Adoption of Cover Crops on Cultivated Cropland
- Changes in Crop Acres Between CEAP I and CEAP II
- Conservation Crop Rotations and Cover Crop Use
- Assessment of the Effects of Conservation Practices on Cultivated Cropland, CEAP II
- Socio-Economic Drivers of Conservation Adoption on Cropland

CEAP-2 estimates of sediment and nutrient loss reductions from conservation and management practices will also be used in State Landscape Planning Packages and in agency outcomes reports.

Data collected from the CEAP-1 and CEAP-2 Farmer Surveys made it possible to evaluate changes in cropland conservation and tillage practices over a decade.

During this decade:

- Farmers increasingly adopted advanced technology, including enhanced-efficiency fertilizers and variable rate fertilization to improve efficiency and benefit rural economies and the environment.
- Irrigation expanded in more humid areas and as irrigators shifted to more efficient pressure-based systems and improved water management strategies, per-acre water application rates decreased along with national withdrawals.
- More efficient conservation tillage systems, particularly no-till, became the dominant form of tillage, improving soil health and reducing fuel use.
- Farmer adoption of structural practices and conservation tillage, alone or in combination, increased by nearly 42 million acres nationwide between the two CEAP surveys. The greatest gains were made in the adoption of structural practices plus conservation tillage, evidence that farmers were increasingly integrating multiple conservation treatments to achieve improved results.
- Nearly 70 percent of cultivated cropland had conservation crop rotations, and 28 percent had high-biomass conservation crop rotations.
- Nutrient incorporation declined, and consequently the shifts in rate, timing, and method of nutrient application resulted in overall increases in subsurface nitrogen and soluble phosphorus losses over the decade. Without attention to appropriate timing and method, increased application rates are less effective in improving production and may even lead to reduced yields.

As a result:

- Average annual water (sheet and rill) and wind erosion dropped by 70 million and 94 million tons, respectively, and edge-of-field sediment loss declined by 74 million tons.
- Nearly 26 million additional acres of cultivated cropland were gaining soil carbon, and by CEAP-2 carbon gains on all cultivated cropland increased by over 8.8 million tons per year.
- Nitrogen and phosphorus losses through surface pathways declined by three and six percent, respectively.
- Average annual fuel use dropped by 110 million gallons of diesel fuel equivalents, avoiding associated greenhouse gas emissions of nearly 1.2 million tons of carbon dioxide equivalents.

In 2021-2022, the process-based, field-scale APEX model (Agricultural Policy/Environmental eXtender Model) continued to be improved from CEAP-1 and Special Studies findings. These ongoing improvements will enable more realistic comparisons between CEAP-1 and CEAP-2 outputs and will better ground evidence-based agency decision-making. Improvements included increased capacity to capture the impacts of grazing animals on nutrient

and soil dynamics; improved soil carbon modeling capacity and representation of soil carbon response to tillage impacts; inclusion of the impacts of high temperature stresses on yields; improved nitrogen and phosphorus cycle simulation; capacity to simulate slow-release nitrogen and nitrification inhibitor products; improved modeling of soil temperature with depth; enhanced water table dynamics; and better capacity to simulate woody crops, including orchards, vineyards, timber, and nut trees.

The CEAP-Cropland component scientists participated in several collaborative efforts with interagency and university groups related to potential improvements in conservation efforts in the context of numerous initiatives, including the CEAP Conservation Benefits Indicator (CCBI), the Great Lakes Restoration Initiative, the Conservation Assessment Ranking Tool (CART), Chesapeake Bay Ag Modeling Team (AMT), and the National Water Quality Initiative. Both the Cropland and Watershed components also continue to inform interagency Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA) efforts. The Cropland team is also working cooperatively with the Economic Research Service to provide CEAP producer management data to inform agricultural economic shock scenarios.

In mid-2022, the CEAP Cropland team began collaborating with NASS to design and develop the CEAP III survey. In 2023 the Cropland team along with the NRI Technical team, NASS and Iowa State University will continue efforts to determine the sampling dataset, populate the NASS CEAP frame, and finalize the survey instrument questions. The CEAP interviewer's manual along with other survey related documentation will also be updated to include any changes to the survey instrument. The survey will be deployed in 2024, 2025, and 2026. In 2024 20 percent of the survey sample points will be collected, 40 percent in 2025, and the remaining 40 percent in 2026. CEAP III will continue providing benefits of voluntary conservation adoption from both direct and indirect influence of conservation programs and outreach. CEAP III data will support Office of Management and Budget (OMB) and Performance and Results Act needs to produce outcomes from agency investments in conservation.

Grazing Lands Assessment

As with other CEAP components, the Grazing Lands component relies on key partners in completing assessments and providing quick access to uniform modeling datasets on rangeland, pastureland, and in some cases forestland. In 2022, these partners included 15 different Federal agency locations (Agricultural Research Service (ARS), Bureau of Land Management (BLM), National Park Service (NPS), and U.S. Geological Survey (USGS)), seven universities, seven non-profit organizations, and one for-profit organization. Additionally, various NRCS Deputy Areas and State Offices are providing needed technical input and collaboration.

Primary CEAP-Grazing Lands component activities and accomplishments in 2022 include:

- Continued development of the Conservation Outcomes Research Explorer (CORE). CORE will provide the agency with an extensive database that presents peer-reviewed literature findings, as well as the measured conservation outcomes of research. This online geospatial database will contain research papers, measured values, links from research to conservation practices and resource concern components. The database access will be available to all NRCS Deputy Areas to enhance outcome-based assessments, serve as a science-based reference in developing improved conservation practice standards, and help inform conservation planning to achieve programmatic outcomes. Additional information provided by CORE will include assessments and science produced from Farm Bill Conservation Innovation Grants, Conservation Stewardship Program, Regional Conservation Partnership Program, along with other field-based studies. CORE is expected to be released in late 2023.
- Finalized development of the ArcGIS Online tool, RaBET, for use by conservation planners, ranchers, and others. The Rangeland Brush Estimation Tool (RaBET), developed with ARS-Tucson, provides MLRA-based remote sensing woody plant maps and canopy cover estimation using no-cost imagery. In collaboration with multiple NRCS and academic partners, the CEAP-Grazing Land team worked in 2021 to expand coverage of RaBET to an additional 12 MLRAs in five States, complete an online tool (RaBET Online) for easy user access, and published cutting edge research to remotely identify specific woody species which has been a continual request from NRCS field offices. The RaBET team has joined forces with the CEAP-Grazing Lands VGS team and two USFWS Joint Ventures, resulting in more effective training sessions, data exchange, and ground-truthing of the canopy cover values generated via remotely sensed data. RaBET is useful for efficient and effective conservation planning, evaluation of conservation

effects, documentation of Farm Bill funds to treat woody plant concerns and helping States to develop statewide resource assessments. RaBET will be released for agency use in the early months of 2023.

- Completed and released a nationwide ArcGIS Online soil characteristics filter (SSURGO-Query Tool; Soil Survey Geographic Query Tool) to aid in CEAP modeling efforts, soil survey updates and ecological site concepts, correlation, and conservation planning. The tool uses soil properties from the official NRCS soil data. Users select desired soil properties that then appear on the map and lead to effective conservation solutions. In 2022, The CEAP Grazing Lands team conducted a 2nd review of the tool and deployed for use (agency and public) in late 2022.
- Continued development of the Climate-Enhanced Topographic Wetness Index (CETWI)--a new index for conservation planning, soil data quality reviews, and model input parameterization, particularly in very complex, heterogenous landscapes. CETWI is a geospatial mapping representation of landscape, terrain, and climate properties that result in variable soil moisture duration gradients and vegetation potentials (kinds and amounts of plants). When CETWI is used in conjunction with soil mapping products, the combination is a powerful tool for conservation planning, modeling, and soil/ecological site development. The new index is designed to better capture variability in critical site condition factors such as aspect, terrain, position, temperature, effective precipitation, and soil physical and chemical properties than existing indices. The CEAP-Grazing Lands team has developed the tool in collaboration with Teren Inc. The tool is scheduled for extensive state-level review beginning in mid-2023. It has already been used successfully in the post-fire rehabilitation analysis conducted in New Mexico on the Hermits Peak Fire – the largest wildfire in New Mexico’s history. After the emergency declaration by President Biden, CEAP-GL was able to focus data collection, analysis and treatment recommendations within six weeks to help NRCS respond to the Emergency Watershed Program (EWP) needs. Part of the analysis included impacts to communities and outcomes of recommended treatments including: 1) the damage to grazing lands and forestlands occurred in counties where the historically underserved individuals represent about 77 percent of the total population; 2) the value of cattle within privately-owned ranchlands affected by the wildfire was estimated to be over \$12.7 million, with the “small and extra small” (less than 99 head) size operations experiencing about \$9.3 million of cattle value; 3) most of those operations are cow/calf, and have had to either purchase feed (hay, cubes), or lease other grazing lands and move the cattle to those lands, resulting in transportation, possible infrastructure and management costs that were unforeseen; and 4) habitat values for game species was severely affected, resulting in a projected loss of almost one million dollars of annual hunting revenue between the three counties affected. Projected outcomes of the emergency watershed protection and future conservation actions are estimated to produce these outcomes: 1) Annual reduction in sediment yield throughout the 363,000 acre area is approximately 419,000 tons, or 2.2 tons/acre, or a direct cost savings of almost \$368.5 million with the implementation of mulching, seeding (both immediately post-fire), and a future 5-year prescribed burning interval (following a burn prescription); 2) protection of approximately 750 homes within 20 feet of a debris flow path connected to a high priority stabilization zone, using conservation measures such as erosion control structures, small dams, mulching and seeding.
- Finalized the water erosion matrix for the rangeland Soil Vulnerability Index (rSVI-water), and continued work on the final matrix for rangeland soil vulnerability to wind (rSVI-wind). These indices are designed to offer a quick analysis of soils and soil map units that are at High, Moderately High, Moderate, or Low risk of erosion by wind and/or water. These background layers will aid conservation planners in developing options with producers for the treatment of at-risk areas to improve soil stability and resilience. The final rSVI package for water will be released for use in the spring of 2023.
- Expanded current work on a Longleaf Pine study which models water savings and stream baseflows under different forest species, forest structure, and forest management scenarios. The main goals of the existing and expanded portions of the study are to explore the economics of different scenarios – to the rancher/farmer – and offer NRCS clear longleaf pine forest management guidelines, provide data to help target lands for ACEP wetland easements, and quantify the water conservation outcomes of the NRCS Longleaf Pine Initiative (LLPI). The project should wrap up and be fully published and documented in early 2024.

- Continuing work on a study identifying the impacts of applied conservation on ecosystem service valuation in the southwestern and western states that are part of the NRCS Land Resource Region D. Rangeland is a dominant land use in the area, with approximately 40 percent being non-Federal, and 60 percent in Federal ownership/management (Bureau of Land Management (BLM), predominantly). In line with the goals of the America the Beautiful (30x30) USDA initiative, CEAP-Grazing Lands is collaborating with the BLM to evaluate and estimate ecosystem service values on the non-Federal and the BLM lands. NRCS expends approximately \$171 million annually (2005-2016 average) in conservation applied to BLM and USFS lands, and cooperation with the BLM allows CEAP-Grazing Lands to use grazing land data collected within the nationwide NRI statistical framework on federally managed BLM lands. BLM data are added to the non-Federal NRI grazing land data, improving the estimates of ecosystem service values resulting from application of conservation practices and treatments and expanding to scope of the estimates to include investments on Federal lands. Final report and a publication are anticipated at the end of 2023.
- Multi-agency and partner collaborations since 2017 have greatly expanded the CEAP-GL supported “Landscape Data Commons”, which is led by ARS. This project brings many field-collected data sets from several agencies and partners under one umbrella. All data are then processed into individual attribute files which are then available to users, researchers and agencies, with proper clearances, to access as parameterization input data for environmental modeling. This is a huge leap forward in data-sharing and use of common datasets for modeling conservation outcomes. We are connecting several other CEAP-GL projects with the LDC, which will continue to grow in value over time.

Wetlands Assessment

The CEAP-Wetlands component supports on-going outcome-based assessment and modeling projects aimed at quantifying and interpreting effects and effectiveness of conservation practices and programs on ecosystem services provided by wetlands. Assessments are conducted in partnership with US Geological Survey, ARS, US Environmental Protection Agency, and various universities. Results are used to document measurable outcomes of wetland restoration and conservation practices on water quality and storage, habitat values, and other ecosystem services in agricultural landscapes.

Current regional assessments emphasize outcomes of wetland restoration and conservation practices on water quality in priority watersheds including the Chesapeake Bay, Upper Mississippi River Basin, California Central Valley, Lake Champlain, and Lake Okeechobee/Kissimmee River basins. In addition, a project initiated in 2022 will model water quality outcomes at sub-watershed scale in the Kissimmee River watershed.

In addition to water quality outcomes, other projects evaluate effects of conservation practices on ecosystem services such as flood water storage, groundwater recharge, carbon cycling, and pollinator and other habitat values. Evaluation of pollinator habitat associated with wetland conservation practices in the Delmarva Peninsula by ARS researchers indicates the potential for significant additional yields in soybean and economic benefits resulting from the presence of native pollinators. An on-going partnership with USGS will incorporate wetlands in the Prairie Pothole Region into the cropland APEX models to evaluate effects of conservation practices on wetlands. In the southeastern coastal plain, hydrologic modeling will assess the effect of forest management practices on water yield and wetland inundation. Evaluation of ecosystem services of playa lake wetlands in the high plains will be accomplished using remote sensing, simulation models, and artificial intelligence.

Two projects are aimed at developing GIS based tools that will advance the ability of conservation planners to target restoration and assess wetland contributions to ecosystem resiliency, nutrient cycling, and water quality. These include tools that will allow planners: 1) to identify potentially restorable riparian areas in the Sage Grouse Initiative area by accurately mapping valley bottoms over large areas; and 2) to target easement acquisition and forest management practices to maximize water yield and improve management of isolated wetlands in southeastern pine flatwoods. In addition, hydrologic modeling in the Lake Okeechobee basin is aimed at identifying nutrient loading from “hotspots” at the HUC 12 level. These projects will advance NRCS’s ability to target restoration and assess wetland contributions to ecosystem resiliency, nutrient cycling, and water quality.

In 2022, the CEAP-Wetlands National Assessment focused on:

- Developing remote sensing-based protocols that document spatial and temporal changes and effects of wetland conservation practices and programs on ecosystem services in the Delmarva Peninsula, including wildlife and pollinator habitat, water storage, and nutrient cycling.

- Integration of algorithms representing depressional wetlands (prairie potholes, playas) and associated NRI data into the CEAP Cropland model (APEX) to inform watershed-scale SWAT modeling and broaden its conservation application.
- Improving the SWAT model, including the carbon module to simulate sediment diagenesis and sediment carbon resuspension, for better representation of wetland impacts on watershed hydrologic and biogeochemical processes at the watershed scale.
- Development of process-based hydrological and biogeochemical modeling capabilities to quantify downstream water quality and quantify benefits of wetland restoration and conservation practices in the Upper Mississippi River Basin.
- Quantifying the effects of upland pine forest management and restoration on hydrologic function of isolated wetlands in southeastern pine flatwoods and Longleaf Pine Initiative area.
- Determining the efficacy of restored riparian wetland systems for capturing and storing sediment and sediment-bound phosphorus in the Lake Champlain Basin.
- Evaluating carbon storage and development of hydric soil properties in WRP/E restored wetlands at various times post-restoration.
- Developing GIS-based conservation planning tools, including:
 - Valley Bottom Extraction Tool (VBET) to identify restorable riparian wetlands in the Sage Grouse Initiative area.
 - A GIS-based tool to quantify the effects of upland pine forest management and restoration on hydrologic function of isolated wetlands in southeastern pine flatwoods and Longleaf Pine Initiative area.
 - Documenting the effectiveness of conservation practices and working lands treatments within the broader regional study framework to improve modeling results and translate those results to improve on-the-ground conservation.

CEAP-Wetlands regional project reports and publications completed in 2022 include:

- Kahara, S.N., D. Skalos, B. Madurapperuma, and K. Hernandez. 2021. Habitat quality and drought effects on breeding mallard and other waterfowl populations in California. *J. Wildlife Management* 2022;86:e22133
- Du, L., G.W. McCarty, X. Li, M.C. Rabenhorst, Q. Wang, S. Lee, A.L. Hinson, and Z. Zou. 2021. Spatial extrapolation of topographic models for mapping soil organic carbon using local samples. *Geoderma* 404 (2021) 115290
- “Effects of Wetland Habitat Quality and Drought on Breeding Waterfowl.” CEAP Science Note, January 2021. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1719435.pdf

Wildlife Assessment

The CEAP-Wildlife Component is an on-going effort to quantify the effects of USDA conservation practices and programs on fish and wildlife in landscapes influenced by agriculture in the United States. The component relies on cooperative partnerships with the fish and wildlife science and management communities to conduct priority regional assessments in support of Working Lands for Wildlife (WLFW) species and other priority fish and wildlife resource concerns to document outcomes and support the science base for more effective delivery. Some assessments initiated in prior years were continued in 2022, including assessments of the effects of conservation practices associated with the WLFW effort involving golden-winged warblers, New England cottontails, sage-grouse, lesser prairie-chickens, and bog turtles. Assessment studies were continued for WLFW 2.0-associated species, including saltmarsh sparrows, black rails, whip-poor-wills, northern bobwhite, and Monarch butterflies, as well as additional priorities including: an assessment of the effects of various tillage practices on native ground-nesting bees; assessment of the implications of landscape-scale transitions from grasslands to woodlands in the Great Plains; grassland bird response to prescribed grazing and brush management in the Great Plains; documenting Farm Bill conservation program support for at-risk wildlife associated with working lands in central Washington; assessing the value of cover crops as migrating and breeding bird habitat in Iowa and Tennessee, documenting response of the endangered New Mexico meadow jumping mouse to southwestern riparian conservation practices, and a multi-party assessment of the effects of cropland conservation treatment on in-stream fish community health throughout the Upper Mississippi Basin.

In 2022, CEAP Wildlife initiated eight new cooperative agreements with university or NGO partners. These agreements consisted of work with Auburn University to assess pollinator response to various management practices

applied to pollinator plantings in the Southeast, assessing ground-nesting native pollinator response to NRCS wetland easement management practices in the Mississippi Alluvial Valley (Mississippi State University), assessing the role of CRP in contributing to or preventing conifer encroachment on the Great Plains (University of Nebraska-Lincoln), assessing pollinator response to practices applied through the New England Pollinator Partnership in RI and CT (University of Rhode Island), modeling support of pollination ecosystem services provided by conservation practices applied throughout the conterminous U.S. (Virginia Tech), assessing native bee response to conservation practices in Missouri (University of Missouri), assessing the utility of managed and unmanaged log landings as pollinator habitat in eastern forests (University of Massachusetts), and extending modeling of bird response to forest management in the Colorado Front Range (Bird Conservancy of the Rockies). As part of CEAP-Wildlife’s support of outcome-based monitoring and science support for the Sage Grouse Initiative in partnership with the University of Montana and others, CEAP Wildlife continued to support development and use of the Rangeland Analysis Platform (RAP), including continued support for detailed assessments of the ecological and economic implications of encroached conifer and annual invasive grass treatment and removal across the West.

CEAP-Watershed Assessment Studies

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

Significant CEAP-Watershed Assessment impacts and accomplishments in 2022 include:

- Published a USDA report on the CEAP Watersheds Assessments national network (jointly with the USDA Agricultural Research Service) that profiles each of the CEAP watersheds, synthesizes lessons learned from work on that project, and describes future direction of work. These findings, the improved simulation models, and the newly developed conservation practices and assessment tools contribute towards more effective conservation strategies to address goals and document outcomes for the USDA Mississippi River Basin Healthy Watersheds Initiative, the Great Lakes Restoration Initiative, the Chesapeake Bay Watershed Initiative, the Lake Champlain Basin Initiative, and local source water protection efforts. A copy is accessible online here. <https://nrcs.usda.gov/publications/ceap-watershed-2021-WatershedAssessmentStudiesNetwork.pdf>
- Established a new national partnership assessing and evaluating resource concerns around legacy sources of phosphorus. Legacy phosphorus (P) is historical or previously applied phosphorous that can be stored in soils, subsurface water, stream beds, stream banks, reservoirs, lakes, and other locations in a watershed that are emitted downstream of their original source, often with temporal lags. In 2022, NRCS provided additional funding for this expanded partnership with USDA Agricultural Research Service and universities to establish a national network of scientists working under the CEAP Watershed Assessments component to assess and evaluate legacy sources of phosphorus. The multi-year project is working to assess priority water resource regions including Lake Champlain Basin, Chesapeake Bay Watershed, Lake Erie Basin, Mississippi River Basin, and Snake River Basin.
- Additionally, two new legacy source assessments were initiated for nitrate and sediment to collaborate with and supplement the legacy phosphorus assessment. These two projects, and the new national partnership to evaluate legacy sources of phosphorus, will conduct field sampling over the next five years and model enhancement and analysis to evaluate sources and effective conservation practices to reduce risks.
- Continued to apply watershed assessment tools and lessons learned from CEAP-Watershed Assessments to the approach for the Mississippi River Basin Initiative, the National Water Quality Initiative (NWQI), and the Lake Champlain Basin Initiative. A watershed-based assessment tool, the Agricultural Conservation Planning Framework, based on insights and assessment techniques from CEAP Watersheds, has been used in a number of watersheds in these Initiatives and others to support more focused conservation delivery. (See more on ACPF below).
- In 2022, a new [virtual field trip video](#), *Science-Based Solutions: Leveraging Partnerships to Protect the Western Lake Erie Basin*, was produced and released by USDA highlighting assessment efforts with partners in CEAP Watershed Studies in the Western Lake Erie Basin.

- Efforts continued in 2022 to develop and evaluate innovative or existing conservation practice standards for water quality improvement through multiple watershed assessment projects. These include practices such as saturated riparian buffers, phosphorous removal structures, blind inlets, riparian buffers, bioreactors, drainage water management, cover crops, conservation crop rotation, irrigation water management, and specific nutrient management approaches within the 4Rs that are effective for no-till, tile drained, or cover cropped areas. Two projects are evaluating the impacts of stacked conservation practices as part of a conservation treatment system in the Western Lake Erie Basin and Ohio River Basin, and another in the Lake Champlain Basin. This will provide new data on outcomes when multiple practices are necessary and used together to achieve further reductions and how best to couple practices in the landscape.
- Additional funds from NRCS (\$5 million) were utilized in 2020 to support new or on-going projects for innovative phosphorous-reducing practices in harmful algal blooms (HABs) affected watersheds. These projects are on-going this year. They include stacking conservation practices in systems to achieve greater reductions and address tradeoffs among practices; evaluating innovative practices for legacy sources of phosphorus; assessing legacy sources of phosphorus across fields and small watersheds in the Western Lake Erie Basin; and developing and evaluating innovative technologies to reduce phosphorus in manure.

Continued support for the development and evaluation of a new small watershed-scale conservation planning tool, the Agricultural Conservation Planning Framework (ACPF). This tool, developed by USDA ARS and others with funding from NRCS CEAP and CIG, is largely based on findings, insights, and assessment techniques developed as part of CEAP-Watersheds projects and data. A new project to evaluate and enhance tools within the ACPF was funded by NRCS to ARS and will utilize data and capacity from CEAP Watersheds to do so. New assessment tools and guidelines for expanded regions of the country are being developed under this project as well as improving the NRCS Soil Vulnerability Index to refine those risk classifications.

Natural Resource Technology Transfer

NRCS ensures field employees have the appropriate resources and necessary training to utilize the latest scientific research and technology for natural resources assessment, conservation planning, conservation system installation, and program delivery. Science and Technology staff developed and provided training on a wide range of topics as part of NRCS's goal of making the latest technology available to our field offices.

In particular, NRCS has three National Technology Support (NTSCs) staff with core technical disciplines: agricultural engineer, agronomist, biologist, economist, energy specialist, environmental compliance specialist, environmental engineer, forester, Geographic Information Systems (GIS) specialist, natural resource specialist, plant materials specialist, pasture/rangeland management specialist, sociologist, soil scientist, and water management specialist. The NTSC locations and specialized functions are listed below.

1. Greensboro, North Carolina – East NTSC
 - a. National Animal Manure and Nutrient Management Team (NAMNMT)
2. Fort Worth, Texas – Central NTSC
 - a. National Grazing Lands Team (NGLT)
3. Portland, Oregon – West NTSC
 - a. Air Quality/Atmospheric Change Team (AQACT)
 - b. Bioenergy Team
 - c. Water Quality/Quantity Team (WQQT)

Key activities in 2022 included:

- The NRCS National Resource Inventory (NRI) rangeland data was used to evaluate *Asclepias* species densities, geolocations, and environmental gradients thus providing a source of information to improve NRCS assistance to landowners and producers with respect to Monarch recovery efforts. In January 2022, findings from this research were published in the peer-reviewed journal *Ecosphere* (citation: Spaeth, K. E. Jr, P. J. Barbour, R. Moranz, S. J. Dinsmore, and C. J. Williams. 2022. *Asclepias* dynamics on U.S. rangelands: implications for conservation of monarch butterflies and other insects. *Ecosphere* 13(1):e03816. 10.1002/ecs2.3816).

- Natural Resources Specialists (NRS) provided support to revise practice narratives, assign practice points to each narrative revision, resource concern component, and land use in the Conservation Assessment and Ranking Tool (CART). This effort required across the Agency and resource concern teams rewrote all national practice narratives and assigned practice points for individual resource concern components and land use for each practice and narrative.
- NTSC staff provided support for the development and annual update of several new and existing tools. Some of the tools were the Conservation Practice Document-Document Management System (CPD-DMS), Conservation Practice Data Entry System (CPDES), Conservation Desktop (CD), NRCS Engineering Tool Suite (NETS) (formerly Engineering Field Tools (EFT)), Field Office Technical Guide (FOTG), SSURGO-QT Tool, CRP Soils Data Tool, ROSETTA, Prairie Pothole Region HGM Wetland Class, National HEL Determination Tool, National Wetland Determination Tool, Water Erosion Prediction Project (WEPP), Wind Erosion Prediction System (WEPS), Irrigation Water Requirement, Manure Management Planner (MMP) and Agricultural Waste Management (AWM).
- NTSC staff is supporting the Grazing land Resource Analysis System (GRAS) design and deployment into CD. NETS will replicate and simplify all the functionality of the existing Engineering Field Tools (EFT) as well as provide significant enhancements, including incorporating a new Hydrology Tool. The new software is web-based, simplifying management of data sets such as rainfall, soils, and land use. It will additionally allow the user to easily utilize and access aerial imagery and NRCS Light Detection and Ranging (LiDAR) point cloud and Digital Elevation Model (DEM) raster data.
- NTSC economists, with support from a team of NRCS State economists, redesigned the Conservation Economics class to be delivered asynchronously to Conservation Planner staff as required for planner certification. The course has been streamlined from a total of 24 hours in-person training to a series of webinars totaling about eight hours of training time delivered remotely. The course has been favorably received and resulted in significant travel and staff time savings. Approximately 2,245 people completed the course in 2022.
- NTSC technical specialists hosted three workshops for national or State technical and discipline leads on writing conservation practice standards and using CPD-DMS to manage practice standards and associated practice documents. These workshops provided technical, and discipline leads with the tools to develop conservation practice standards and supporting documents effectively. Technical staff also provided timely guidance and leadership to States with the new conservation practice variance request and interim conservation practice request processes in CPD-DMS.
- NTSC staff provided geospatial technical assistance to States in all regions. A national workshop was organized for States to share workflows and methods of digital field data collection and implementation within the NRCS geospatial enterprise.
- NTSC staff served as Technical Contact on multiple CIG Classic and On-Farm Trials grant programs and assisted in developing program priority areas. These priority areas were used in the 2022 Classic CIG Notice of Funding Opportunity. NTSC Natural Resources Specialist is also serving as a classic CIG discipline lead for one of the priority areas, putting together and guiding a ranking panel for the applications received in that priority area. NTSC staff with a CIG Classic team with the “NRCS Innovations, Energy & Water Benchmarking Tools and Best Practices to Improve Resource Efficiency for Controlled Environment Agriculture (CEA)” webinar in June 2022. This webinar highlighted the series of best practice guides, web-based benchmarking tool, and other tools supported the USDA grant funds. The webinar was viewed by over 200 people, with about 40 percent of the viewers from outside of USDA. The U.S. Department of Energy Advanced Manufacturing Office has sought opportunities to collaborate on joint efforts to optimize CEA operations in terms of a water-energy nexus.
- NTSC Water Management Engineers provided joint training and direct assistance to multiple State NRCS staff and partners on water management issues, including aspects of irrigation or drainage systems.
- NTSC staff provided independent design reviews for PL-566 projects.
- NTSC technical specialists, supported by NHQ technical specialists updated and refreshed 38 Small Farm Fact Sheets providing information about typical conservation practices appropriate for small scale farms. The fact sheets are hosted on the Farmers.Gov website and are available to the public and NRCS Offices.
- NTSC has provided Pest Management training to more than 50 NRCS staff and partner planners across two States. This training has better equipped planners to provide higher quality customer service related to Pest Management planning and the implementations of conservation contracts containing the Pest Management Conservation System conservation practice.

- The NGLT revised the National Range and Pasture Handbook. The handbook is a companion document to the new manual. Chapters provide technical information related to the current extent of grazing land resources, ecological sites, resource concerns and rangeland trends and conditions, rangeland ecohydrology, rangeland soil health, livestock nutrition, wildlife planning considerations, grazing economics, inventory, assessment and monitoring of grazing lands and pollinator considerations for range and pasturelands.
- The NGLT, grazing specialists with the NTCs and other partners including NGOs and Universities offered the following grazing land training courses: Pastureland Ecology I and II, Pasture Condition Scoring, Prescribed Grazing, Prescribed Burning, Grazing Land Economics, Vegetation Monitoring and Data Interpretation, Grazing Ecology and Management, Rangeland Ecology II, Natural Resource Inventory (NRI), Interpreting Indicators of Rangeland Health (IIRH), and Working Effectively for Livestock Producers.
- NTSC Engineers led the Dam Consortium, which serves as an interdisciplinary community of engineers and geologists focused on dam safety issues. The Dam Consortium provides technology transfer, informal mentoring, and on the job training on dam safety topics related to geology; hydrology; and hydraulic, geotechnical, structural, and construction engineering. This consortium works to increase engineering technical capacity and efficiency across regions and implement efficient methods to enable specialists to sustain high quality technical assistance to our customers on dam safety issues. Ten sessions were delivered resulting in 11 Professional Development Hours offered to the participants. Sessions included a mix of case studies from the States, external speakers, and technical presentations from the NTSCs.
- Updated analysis of rangeland NRI data using Statistical Analysis System (SAS). Statewide and MLRA specific analyses include data analysis and reports for rangeland health assessment, similarity index, apparent rangeland trend, resource concerns, conservation practice application and needs and soil stability. Additionally, plant rankings based on frequency of occurrence and presence (acre extent) were conducted and reported for numerous States (Texas, New Mexico, Oklahoma, North Dakota, South Dakota, Arizona). Reports identified if the plants were native or introduced species. This is an ongoing effort.
- Delivered Comprehensive Nutrient Management Plan (CNMP) training to multiple State NRCS staff, partners, and technical service providers. Training was held both virtually and in-person by the National Animal Manure and Nutrient Management Team (NAMNMT) with support from subject matter experts from the NTSCs. Training is integral to Level 2 Conservation Planner Certification requirements. Over 120 employees received the training.
- Maintained NRCS's agency approved Manure Manager Planner (MMP) software incorporating updated State specific input data; updates are released twice per fiscal year; implemented an agreement to convert the version of MMP to a web-based version of the software; delivered six small group MMP and Geospatial Nutrient Tool (GNT 4.1) trainings for 22 field office employees in Mississippi, Kentucky, and Ohio. Additionally, "Feed Management for Small and Organic Operations" was released January 2022.
- Wetland Conservation Compliance Technology Development and Transfer: NTSC staff and Ecological Sciences Division (ESD) staff provided five different NTSC Wetland Compliance in-person training courses, for a total of ten different sessions, reaching 213 employees. An additional 87 employees attended three sessions of a virtual Farm Production and Conservation – Employee Development Section (FPAC – EDS) course, instructed by NTSC and ESD staff. Most of the courses are required for job approval Authority (JAA) for agency wetland delineators. To assure high quality adverse technical determinations, two new NTSC Wetland Compliance courses were developed, and three new technical briefs were developed and posted on the Highly Erodible Land Conservation (HELIC) and Wetland Conservation (WC) SharePoint, this includes a technical brief on the concept and process to determine best-drained conditions, a requirement of a recent 2021 Government Accountability Office (GAO) audit.
- The Science & Technology Deputy Area provides a set of webinar series to provide training and technology transfer to State and local NRCS staff. Webinar topics are requested from State Resource Conservationists, State Engineers, and National Specialists. Topics are voted upon by State staffs to determine national State-requested, national specialist-requested, and regional webinar series schedules.
- NTSC staff hosts monthly Conservation Innovation Webinars. These webinar series are designed to highlight innovative technologies used to implement conservation on the landscape around the country. The monthly webinars are attended by NRCS National, Regional, State, and field office staff.
- The National Environmental Engineering cadre worked with the U.S. Environmental Protection Agency AgSTAR staff to develop content for a new website dedicated to identifying options for reducing methane from manure management.

- NTSC Ecologist provided virtual training on documentation of environmental compliance to three States, reaching approximately 300 staff. NTSC also created a new Environmental Compliance Consortium for State Environmental Liaisons and Watershed Planners to share best practices and innovations related to preparation and review of environmental documents.
- NTSC staff played a key role in the development of the NRCS Adaptation Plan. NRCS developed the NRCS Adaptation Plan as part of the USDA Climate Change Adaptation Plan to identify and address vulnerabilities USDA agencies will face in light of climate change.
- WQQT Hydraulic Engineers and ACES employees developed newly rainfall distribution using NOAA Atlas 14 data for Arizona, New Mexico, and Utah. The rainfall values and newly developed rainfall distributions are used within NRCS's tools such as AWM, EFH-2, WinTR-55, WinTR-20, and WinPond computer programs. The newly developed rainfall distributions were used in State of New Mexico wildfires to determine the peak discharge (cfs) for sediment control structures design.
- The WQQT leads implementation of NRCS' Edge-of-Field (EoF) monitoring program. These projects are intended to evaluate the effectiveness of conservation practices on farm field and provide direct feedback to the farmer. To date, NRCS has implemented 43 projects in 12 States. WQQT analyzes EoF data, and the experience acquired over the past decade of EoF monitoring projects to incorporate scientific and technical insights into the Agency's conservation delivery tools and to identify opportunities to improve project administration in the future.
- The WQQT facilitated monthly meetings to promote knowledge transfer and foster collaboration among State water quality specialists from across the country. Topics and discussions aimed to provide attendees with a better background and understanding and technical skills to achieve the agency's water quality objectives. Meeting content spanned topical discussions on water quality programs and practices, specific project case studies addressing water quality resource concerns, and exploration of new approaches to improve the efficiency and efficacy of water quality conservation efforts.
- West NTSC Environmental Engineer led the organization and delivery of three virtual events for Engineers Week 2022. These webinars highlighted the contributions of women and LGBTQ+ people in engineering and geology at NRCS. Across three events, over 500 employees participated. A PDF program was developed for the events which provided a list of mentors, information on professional licensing reimbursement, and organizations to join for professional development.
- The AQAQ works with several NRCS State offices to develop plans for addressing local air quality and climate-related issues through the National Air Quality Initiative (NAQI). Typically, between 7-10 States utilize NAQI funds each year. Additionally, the AQAQ provided several webinars and presentations to NRCS staff and partners.
- WQQT Hydraulic Engineers, along with NTSC Environmental Engineer and NDCSMC Hydraulic Engineers, coordinated and delivered a virtual HEC-RAS for NRCS Introductory training course to multiple State NRCS staff with Water Quality and Quantity Team, West NTSC, NDCSMC cadre members. Normally delivered in-person, the cadre delivered a recorded, virtual weeklong training session that resulted in 16 Professional Development Hours (PDHs) for participants.
- After two years of limited travel due to the COVID pandemic and many new hires, NTSC Biology discipline focused on providing needed training to our State and field staff. Both the terrestrial and aquatic biologist were able to combine virtual and in-person teaching practices to more efficiently deliver courses, as well as use a Train the Trainer format in order to provide State technical staff with the expertise they need to be able to lead future technical trainings in their States. NTSC biologists provided: On the Job training to five newer State biologists, provided Train the Trainer courses for the Stream Visual Assessment Protocol for three States, assisted one State with Conservation Planner certification training, and provided numerous webinars.
- Addressing staff turnover has been an emphasis for the biology discipline. NTSC biologists provided a West Region Biology Workshop bringing together both seasoned State Biologists and new hires. The workshop helped familiarize new hires to the roles and responsibilities associated with the State Biologist position and provided an opportunity for seasoned biologists to share new technology, current science findings, and successes in their States. To go along with the workshop, NTSC biologists have developed a New Biologist Orientation Guide outlining where to find important information and biology responsibilities. A monthly meeting is then set up to go over information found in the Guide. By providing a formalized process to share information through the Workshop and Orientation, staff retention has significantly improved.

- NAMNMT staff member serves as the technical lead for Sustainability with a Soil Health focus for 2022. USDA and European Union Directorate General Agriculture and Rural Development hosted a Soil Health Stakeholder webinar on June 24, 2022. The 2022 Collaboration Platform on Agriculture areas of focus included soil health, greenhouse gas emissions mitigation, food systems resilience and adaptation, and communication.
- NTSC staff provided additional expert support to States across the east region on integration of S&T and conservation planning concepts to the urban agriculture and climate smart agriculture initiatives. NTSC staff also serve as the Co-Leads for the Regional Climate Hubs.
- NTSC entered into a cooperative agreement the Texas A&M University – Kingsville (TAMUK) to promote NRCS as an employer of choice for diverse populations, with an emphasis on Hispanic Students. Outreach efforts target and draw under-represented students to the work performed by interdisciplinary scientists at the CNTSC, on behalf of all States, in the context of Soil and Water Conservation Practices.
- The Soil Mechanics Laboratory (SML) provided tours to a dozen or more visitors to the lab. The purpose of the tours is to help visitors understand the products and services the lab provides and how to access them. In addition to onsite tours, the lab routinely receives inquiries by phone or email about services and testing. The lab provides general information as well as project-specific responses to help clients plan and execute sampling and testing plans.
- Providing training and supporting State soil health efforts were the focus of the Soil Health Division (SHD) in 2022 with over 100 training presentations delivered, including 32 total EDS supported Soil Health and Sustainability trainings with 890 participants in 29 States. Additional soil health presentations were delivered on topics ranging from urban agriculture, soil health economics, and grazing management for soil health and were delivered to over 3,000 attendees.
- To align with the 2018 Farm Bill, NRCS put together a team to address Conservation Innovation Grants – Conservation Practice Database (CIG-CPD) to provide access to data regarding the benefits and outcomes of conservation practice implementation, and innovations in conservation technology. Under this larger objective, the SHD is in process of releasing a mechanism to collect and analyze information management and economic information from CIG Soil Health Demonstration Trial awardees called the Producer Operations Data System (PODS). Possessing an agreement with an organization called OpenTEAM, the Soil Health Division will be utilizing PODS to explore data structures, ontologies, and how a government agency can collect producer data in accordance with FAIR data principles, allowing for data portability and interoperability while ensuring the protection of PII.
- A new public-facing website ([Soil Life](#)) was launch in May 2022, as part of a cooperative agreement between UC-Davis, NRCS External Affairs team, and SHD. The website demonstrates the benefits of healthy biologically active soils as the foundation of healthy people and a healthy planet through intriguing videos and interactive content explaining both fundamental soil concepts as well as inviting the participants to explore how their lives are impacted by the “web of soil”. Over 5,800 total website views and more than 15,000 social media followers were reported at the end of 2022. Conversations on Soil Health, series of webinars on numerous soil health topics focusing on delivery of technical assistance to field staff that has over 12,000 combined views since May of 2020.
- A Soil Health Specialist and the Western Team Leader from the SHD are members of the Kuwait IAAT Rapid Response Climate Team. The IAAT team was formed at the request of the Kuwait government via the U.S. Embassy. The members of the SHD are collaborating with an interdisciplinary group from USDA Forest Service, Agriculture Research Service, Environmental Protection Agency, and U.S. DOI Surface Mining and Reclamation and Enforcement to develop a report and recommendations to increase climate change resiliency, prevent desertification and remedy soil degradation in Kuwait. A comprehensive plan is being developed and will be presented to the U.S. Embassy and representatives of the Kuwait government in 2023.
- NDCSMC has conducted several Civil 3D workshops covering subject matter from Survey to Corridor design to different software packages such as ReCAP Pro and Infracore. CAD experts from NDCSMC have conducted individual meetings and small workshops to support end users in different designs scenarios, sometimes getting other design disciplines involved to get the most information to the designer as possible to help with design decisions.
- NDCSMC has conducted four virtual trainings covering Civil 3D design aspects from Survey, Surfaces to gradings and designs to creating NRCS postproduction deliverables for customers. These classes had 50 students each with a large waitlist. We figure we had 190 students completed the class. This class had some experts in CAD from other States that were on the training Cadre.

Highly Erodible Land Conservation (HELC) Compliance

Highly erodible land is made up of soils that have a high vulnerability to increased erosion due to wind and water. This vulnerability is higher when the land is cropped, than when the land is in permanent vegetative cover. Participants in USDA programs (including those receiving Federal crop insurance subsidies) are required to protect their HEL cropland from excessive soil erosion in order to comply with the HELC regulations at 7 CFR Part 12 and statutory provisions of 16 U.S.C. Sections 3801, 3811, 3812, 3812a, and 3814. USDA program participants must implement a conservation plan or system on highly erodible cropland, that provides for a substantial reduction in soil erosion. In addition, when breaking out native vegetation after 1985, a program participant must implement a plan or system that results in no substantial increase in soil erosion. According to the 2017 National Resources Inventory, about 109.3 million acres, or approximately 30 percent of America’s cropland, is land that is classified as HEL.

As part of the technical responsibilities of implementing the HELC provisions, NRCS conducts HEL determinations to identify cropland fields, that are highly erodible and subject to the provisions. In 2022, over 35,000 HEL determinations were conducted nationwide. The agency also provides conservation planning assistance on HEL.

Wetlands Conservation (WC) Compliance

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

One of the NRCS’s significant responsibilities for WC involves conducting wetland determinations, to identify wetlands subject to the provisions, in violation of the provisions, or that are eligible for a specific exemption to the provisions. In 2022, over 18,000 wetland determinations were conducted nationwide.

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

Penalties for noncompliance with the HELC or WC provisions range from a Good Faith Exemption issued by the FSA to a determination by FSA that the producer is ineligible for any government payment and must pay back any current and/or prior year funding. The compliance review year runs from January 1 to December 31. The results of the 2021 reviews, which are displayed in the table below, show that a high percentage of program participants are following approved conservation plans or systems on HEL and complying with the WC requirements.

In 2021, compliance reviews were conducted on 21,846 tracts, which included approximately 3.6 million acres of cropland. A total of 365 tracts, or 1.7 percent of the total reviewed, were found not to be compliance: 208 tracts had HELC violations, and 159 tracts had WC violations. Of the 21,479 tracts that were in full compliance, approximately 968 tracts or 4.5 percent were deemed to be compliant, because they had been issued variances or exemptions as provided by statute or regulation. This indicates a low rate of noncompliance, with exemptions provided due to extenuating circumstances.

Data from the past four years suggest that conservation measures prescribed are being effectively implemented on our most vulnerable land (Note: the number of tract reviews in 2019 is lower due to NRCS forgoing reviews in most Federally declared disaster counties due to extreme weather events).

Table NRCS-20. Summary of Tract Reviews and Tracts Out of Compliance (HELC and WC):

	2018	2019	2020	2021
Total Tracts Reviewed	23,926	18,206	22,113	21,846
Tracts out of Compliance	456	261	334	365

	2018	2019	2020	2021
Percent out of Compliance.....	1.9	1.4	1.5	1.7
Number of States Recording Noncompliance.....	41	34	36	37

CTA Customer Assistance

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

In 2022, over 22,000 individual customers received comprehensive planning assistance through the CTA program (and over 104,000 individual customers across all NRCS programs) received comprehensive planning assistance. Results from this assistance are approximately:

- 31.4 million acres covered under written conservation plans (33.9 million acres across all NRCS programs);
- 10.4 million acres treated with conservation practices to improve water quality (37.1 million acres across all NRCS programs);
- 8 million acres of grazing lands conservation (32.5 million acres across all NRCS programs);
- 3 million acres of fish and wildlife habitat quality improvement (5.9 million acres across all NRCS programs); and
- 3.5 million acres of conservation applied on cropland to improve soil quality (13.5 million acres across all NRCS programs).

NRCS has continued to implement Conservation Desktop (CD) to support the Conservation Delivery Streamlining Initiative. CD is an internally-facing, map-based tool for field conservationists to efficiently develop science-based conservation plans, and practice schedules to support implementation. CD also helps field staff with the management of Farm Bill conservation program contracts. The first release of CD to NRCS field conservationists was in July 2017. In early October 2019, a completed CD release replaced and exceeded the current functionality of the Customer Service Toolkit.

In 2020, NRCS integrated CD with the Conservation Assessment Ranking Tool (CART). Together, CD and CART modernize and streamline NRCS’s conservation planning and program delivery, reduce workload for field staff, and improve the customer experience by creating an efficient application process. NRCS planners can use CD and CART to help address a variety of 47 resource concerns, across seven land uses, for over 350 conservation practices, enhancements, and bundles, and clients can submit one application for many considerations of a program simultaneously. Along with targeted questions, CD and CART also enable planners to take advantage of over 1,000 geospatial layers of data to automate processing calculations during conservation planning. This enables the planner to move the client from program application to program contract much quicker than in past years. CD and CART establish a system that reduces the amount of paperwork on NRCS clients, and the amount of work on our field offices.

In 2022, NRCS made many further enhancements to CD and CART, including implementing field inventory maps, complete pre-planning analysis for nutrient management, and addressing download speeds. As of the end of 2022, there were approximately 6,000 individual users in CART. NRCS evaluated resource concerns on over 96 million acres and completed almost 89,000 unique ranked assessments, with over 140,000 total ranked assessments (since applications can be submitted for multiple funding pools).

Technical Service Providers (TSP)

TSPs expand and accelerate NRCS’s ability to plan and apply conservation practices that enhance, restore, or conserve the Nation’s soil, water, and related natural resources on non-Federal land. TSPs assist landowners and agricultural producers in applying conservation practices on the land. TSPs may be individuals or entities such as private businesses, nonprofit organizations, Indian tribes, or State and local governments. TSPs provide participants in USDA conservation programs with convenient access to technical services, quality work, and professional one-on-one technical assistance. TSPs develop conservation plans; perform selected compliance studies; plan, design, and implement conservation practices; and evaluate completed conservation practices.

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

To become a certified TSP, individuals or entities must enter into a certification agreement with NRCS. TSPs must meet education, experience, and credential requirements that are established for each conservation practice and conservation activity. This ensures that technical assistance is provided in accordance with the agency's statement of work associated with each conservation practice and plan development criteria for each conservation activity.

All technical service certification criteria are reviewed and updated annually. The TSP website hosts a link to view and access certification criteria and hosts a publicly accessible registry of certified TSPs. The TSP website contains other important information about the TSP Program for TSPs and customers: <https://www.nrcs.usda.gov/getting-assistance/technical-assistance/technical-service-providers>.

Currently, there are approximately 1,100 individuals and 92 businesses serving as certified TSPs that are available to help program participants apply conservation efforts through programs such as the Environmental Quality Incentive Program (EQIP), Agricultural Conservation Easement Program, Conservation Reserve Program, Conservation Stewardship Program, Conservation Technical Assistance Program, and Watershed Programs.

TSPs continue to play the primary role in the planning and implementation of conservation activities in EQIP. There are three types of conservation activities: Conservation Planning Activities (CPAs), Design and Implementation Activities (DIAs), and Conservation Evaluation and Monitoring Activities (CEMAs). NRCS offered 26 approved conservation activities during 2022 and is expanding the number of conservation activities offered in 2023.

International Conservation

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

The agency cooperates with other Federal agencies in providing technical assistance in natural resource conservation to countries affected by disasters, conflicts, or mismanagement of natural resources. NRCS assists other Federal agencies by arranging meetings between agency specialists and foreign visitors, who are interested in how the agency provides technical and financial assistance to private landowners and works with other countries on scientific and exchange projects that benefit both countries.

Current Activities

In 2022, the International Programs Division (IPD) arranged for 20 employees to meet online with visitors from approximately 20 countries and four multilateral organizations. IPD assisted eight agency employees with participating in three international virtual webinars on topics supporting agricultural and livestock production, soil health, water management, and conservation practices. IPD aided 24 agency employees on international travel to six foreign countries. This included programs such as the World Congress of Soil Science, Embassy Science Fellowship, and other meetings.

In particular, during the week of July 31 to August 5, 2022, the Soil and Plant Science Division sent a contingent of nine staff to attend and participate in the 22nd World Congress of Soil Science (WCSS) held in Glasgow, Scotland. The WCSS is considered a principal international soil science conference and is held once every four years in various locations around the world. This year, the WCSS was hosted by the British Society of Soil Science (BSSS) and the International Union of Soil Sciences (IUSS) with a theme of "Soil Science: Crossing Boundaries, Changing Society."

IPD assisted in implementing four employees to participate in virtual fellowships for the Embassy Science Fellowship Program and the Ambassador's Water Expert Program covering seven countries. IPD assisted 18 employees with visitors in Washington D.C. IPD assisted NRCS in promoting the 2022 World Water Day USG interagency social media campaign. An NRCS assistant State conservationist assisted Kuwait's efforts to prevent and remedy soil degradation and develop a strategy for conserving desert terrain. These efforts will advance Kuwait's contributions under the U.N. Framework Convention on Climate Change. They will also promote the U.S. Mission to help Kuwait meet their environmental goals of combatting climate change and air pollution.

In a virtual presentation at the 2022 XVI Jornadas Idera conference for Soil Survey Cooperators of the Argentine Republic, NRCS shared recent information on the Soil Survey Program to around 500 participants. The presentation was also transmitted to other participants in Latin America through YouTube. It included information about the mechanisms used by NRCS to nurture and promote cooperation and how soil survey information is provided to the end user through the internet.

The European Union’s Directorate-General for Agriculture and Rural Development and USDA held a virtual external meeting on soil carbon and biodiversity as it relates to soil health. This exchange allowed the participants from both sides of the Atlantic to exchange views and experiences related to understanding and promoting carbon sequestration and soil diversity.

Three NRCS staff traveled to Guatemala as part of a project led by the Foreign Agricultural Service to assess the agricultural resilience to address climate change and food security in the Northern Triangle region of Central America. This assessment will help to inform potential interagency efforts to address the root causes of migration from the region. The trip provided first-hand observation and direct contact with the Guatemala government’s agricultural production sector.

NRCS conducted a collaborative program with the Bureau of Reclamation of the Department of the Interior to train a delegation of 26 specialists from the Republic of Iraq. The program improved the participants inspection and evaluation capacity skills to assess their water infrastructure with emphasis on dams and irrigation systems. The program included both field visits and evaluations of current irrigation systems, classroom-style training and workshops that encourage efficient water utilization.

Scholarship/Internship Programs

In 2022, the NRCS participated in the USDA 1890 National Scholars Program, a partnership between USDA and the 1890 Land-Grant Universities. This program is intended to increase the number of minority students enrolling in agriculture, food, natural resource sciences, and other related programs in pursuit of a bachelor’s degree at any of the Nation’s 1890 Land Grant Universities, all of which are Historically Black Colleges and Universities. In 2022, the agency obligated \$1.35M for these scholarships and career training for students enrolled in this program, referred to as “Scholars”. Applicants include inbound freshmen and rising college sophomores and juniors. Students must maintain a minimum Grade Point Average of 3.0 and are required to work during the summers as conservation interns. In return for Scholarship funding, Scholars commit through a service agreement to fulfill one year of permanent employment upon graduating for every year of tuition received. There were 59 new Scholars Sponsored in 2022 by NRCS, which led all USDA Agencies. Currently, there are 128 NRCS Sponsored Scholars.

In past years, NRCS participated in the USDA 1994 Tribal Scholars Program designed to strengthen the long-term partnership, between USDA and the 1994 Land-Grant Institutions. The objective is to promote USDA’s Farm Production and Conservation (FPAC) Mission Area as an employer of choice for diverse populations, with an emphasis on American Indian/Alaska Native (AIAN) tribal students. In 2022, the agency obligated \$23k for initial expenses associated with these new Scholarships. The program offers a unique strategy for sharing information and ideas focused on best practices in outreach to American Indian/Alaska Natives interested in careers in Agriculture and Natural Resource management. In 2022, FPAC built upon early special recruitment efforts yielding one Scholar, to successfully sponsor an additional five New Tribal Scholars during the annual recruitment period. Currently, there are six NRCS Sponsored Tribal Scholars. This also led all USDA Agencies.

Outreach Partnerships

The Outreach and Partnerships Division (OPD) within NRCS provides leadership and funding to ensure NRCS programs and services are made accessible to all NRCS customers, fairly and equitably, with emphasis on reaching the historically underserved farmers, ranchers and landowners.

In 2022, NRCS announced a new funding opportunity, Conservation Outreach: Equity and Conservation Cooperative Agreements, making available up to \$50 million for projects that provide outreach to underserved groups. Through this and other opportunities, NRCS continues to develop new and enhanced existing partnerships to expand the delivery of conservation assistance to underserved producers across rural, suburban, and urban landscapes affecting 44 States and territories, Washington, D.C., and three with nationwide impact:

- 85 agreements with new partners
- 32 agreements with current partners
- 15 agreements with tribal organizations

- 7 agreements with Historically Black Colleges and Universities (HBCUs) and the 1890s Foundation
- 2 agreements with Hispanic Serving Institutions

Beginning, Limited Resource, Underserved, and Veteran Farmers and Ranchers

NRCS assists underserved producers by creating opportunities for transparent dialogue, promoting open partnerships, coordinating economic viability through innovative conservation programs, increasing program access and services in persistent poverty communities, and expanding program participation avenues by improving internal guidelines.

In 2022, NRCS programs, including the Environmental Quality Incentives Program, Conservation Stewardship Program, and Agricultural Management Assistance Program aided underserved producers, which include beginning, limited resource, and veteran farmers and ranchers.

The following financial assistance contracts were provided to customers in fiscal year 2022:

- \$238.7 million in financial assistance on 5,329 contracts with underserved farmers and ranchers to treat about 2,692,188 acres.
- \$484 million in financial assistance on 12,866 contracts with beginning farmers and ranchers to treat about 2,431,632 acres.
- \$39.7 million in financial assistance on 1,286 contracts with limited resource farmers and ranchers to treat about 308,611 acres.
- \$23.2 million in financial assistance on 960 contracts with veteran farmers and ranchers to treat approximately 71,622 acres.

Assistance to American Indians and Alaska Natives

In 2022, NRCS continued to increase American Indians and Alaska Natives tribal participation in financial assistance programs among the 574 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 Tribal Nations;
- consult to the greatest extent practicable with Tribal Nation Governments before taking actions that affect Federally-recognized Indian Tribes;
- work with Tribal Nations and tribal organizations to incorporate tribal knowledge and perspectives to improve NRCS conservation programs to address more issues on tribal lands.
- 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 Tribal Nations and tribal producers receive financial and technical assistance through NRCS programs such as the Environmental Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), the Regional Conservation Partnership Program (RCPP), and the Agricultural Conservation Easement Program (ACEP), and initiatives such as the Great Lakes Restoration Initiative (GLRI), as well as the Conservation Technical Assistance (CTA) program. NRCS also works with Tribal Nations and their natural resources staffs, through grants, agreements, and cross training. NRCS employees are trained in tribal culture and protocol. The agency has 46 offices, including 42 full-time and eight part-time offices, located on or near tribal lands. There are approximately 169 agency tribal liaisons assisting the 574 Federally-recognized Tribes.

NRCS continues to work with tribal leadership and tribal resources staffs to improve NRCS technical and financial assistance programs to increase Tribal Nation and tribal producer program participation, to meet the agency's tribal trust responsibilities. NRCS strives to assist Tribal Nations and tribal producers in achieving their goals for improving 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.

Current Activities

In the past year, the NRCS Tribal Working Group made progress on a number of existing initiatives helping to address issues raised at consultation and working on the resolutions:

- The 2022 Equity Agreements will help NRCS expand assistance to tribal producers and strengthen tribal community agriculture.
- Efforts underway to restore funding to implement Tribal Soil Climate Analysis Networks (TSCANs) installations.
- The planned revamping of the NRCS Data Gateway Geographic Information System (GIS) data sharing website.
- Resources related to the Inflation Reduction Act present opportunities to work more closely with Tribal Nations on climate change adaptation and mitigation issues.

NRCS Tribal Working Group Membership

The membership includes: four Regional Conservationists, one representative from each Deputy area, and State level Tribal Liaisons from each of the four regions. Others that inform work of the NRCS Working Group include: State level decision making on the part of the State Conservationists, Deputy area subject matter experts including National Technology Support Centers, and representatives of Tribal Nations and staff from tribal organizations.

Soil climate stations to support agricultural operations on Tribal Lands

The majority of the 574 Federally-recognized Indian Tribes located in 34 States are involved in agriculture as farmers and ranchers that require adequate decision support tools to maintain productive and profitable systems. In 2020, 23 Tribal Soil Climate Analysis Networks (TSCANs) were purchased. The final four stations were installed in 2022 as one of the original Tribal Nations was no longer interested in participating in the program. Data is readily available to the Tribes and other customers through the NWCC web site. Value added information products are also available through the ScanTools web site supported by Cornell University.

This, now completed, joint agency pilot project between the Bureau of Indian Affairs (BIA) and NRCS has increased capacity, broaden the network of advanced soil climate information critical to managing crops and evaluating environmental concerns, and enhance our partnership highlighted in a national Memorandum of Understanding (MOU) between the BIA, NRCS and FSA. With the support of current TSCAN recipients, additional SCAN sites on Tribal lands have been recommended as the focal point of a comprehensive proposal to support an expand the existing network of monitoring stations throughout the country with a focus on providing additional data and information to tribal nations and other underserved groups.

With continued support from both NRCS and the tribal nations, the soil-climate stations can also serve as a focal point for education of tribal youth using the Science, Technology, Engineering and Mathematics (STEM) model. STEM is an interdisciplinary and applied learning approach to integrate these four disciplines into a cohesive and real-world application. There are many opportunities for the development of age-appropriate STEM K-12 education and demonstrations using the soil climate stations with resulting data in collaboration with the tribes' Department of Natural and Water Resources (DNR/DWR), NRCS, BIA and the United States Forest Service. The USDA Hubs can play a key outreach role in this area, and the Northeast Hub already has an active network with tribes in their region.

Program Activities/Participation

In 2022, American Indian and Alaska Natives were awarded the following:

- 813 EQIP contracts totaling \$43,037,388
- 2 RCPP proposals totaling \$38,333
- 296 CSP contracts totaling \$22,440,632
- 7 Agricultural Management Assistance program contracts totaling \$42,041

Tribal Conservation Districts (TCD)

There are 63 TCDs established under tribal laws and are essential to delivering conservation planning and conservation programs assistance in Indian Country. These TCDs are recognized by the Secretary of Agriculture.

Accountability

NRCS regularly collects program performance data that provides information to support agency strategic and performance planning, budget formulation, workforce planning, and accountability activities. The Conservation Desktop web application tracks and evaluates field- and State- level conservation planning efforts, and practice implementation through the Conservation Desktop Performance Reports. In addition, Conservation Desktop tracks HELC/WC compliance and is building functionality to track all compliance and quality assurance needed to achieve program accountability.

Compliance Activities

There were nine audits, and 34 recommendations open at the start of this year, and two Audits and 22 recommendations added during the year, leaving a total of 11 Audits and 56 recommendations in 2022. NRCS closed three of 14 active Office of Inspector General (OIG) and Government Accountability Office (GAO) Audits for a year-end closure rate of 21 percent, and closed 18 of 56 recommendations, for a closure rate of 32 percent.

Soil Survey Program

Soil survey provides essential baseline data for regional and local conservation planning that allows people to manage natural resources. Soil is a strategic natural resource that sustains the health and economy of our Nation. In order to achieve responsible stewardship of this resource, data and the understanding about soil is needed. Scientists and policy makers use soil survey information in studying climate change and evaluating the sustainability and environmental effects of land use and management practices. Soil surveys provide input data that computer simulation models use to predict the dynamics of carbon, nutrients, and water in soils. Planners, engineers, farmers, ranchers, developers, and homeowners use soil surveys to evaluate soil suitability and make management decisions for farms, home sites, subdivisions, commercial and industrial sites, and wildlife and recreational areas.

National Cooperative Soil Survey

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

Four regions comprise the NCSS and correspond to the agricultural experiment station regions: North Central, Northeast, Southern, and Western. The conference steering committee publishes the conference proceedings and distributes copies to regional NCSS cooperators and others. Each region convenes a soil survey conference in even-numbered years, while national conferences occur in odd-numbered years. NCSS business is generally generated at the regional conferences and acted on at the national conference level.

Standards and Mechanisms for Soil Information

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

Current Activities

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

Soils Inventory

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

(FS), Fish and Wildlife Service (FWS), Bureau of Land Management (BLM), National Park Service (NPS), Department of Energy (DOE), and Department of Defense (DOD). Public lands are important to include with private lands when planning land use and conservation for watersheds, landscapes, or ecological sites. NRCS is working cooperatively within the NCSS to accomplish these goals. In 2022, the Soil and Plant Science Division (SPSD) published a National Instruction institutionalizing the collection of Dynamic Soil Properties (DSP) data as part of SPSD operations. DSPs are those properties that change with land use and management and are used to measure and predict the response of soils to disturbances caused by human and non-human factors. Dynamic soil properties link traditional soil inventories to advancing areas of soil health, conservation, and management practices. There is an increasing demand for dynamic soil property data to inform management activities, to better assess the effect of these ecosystem services, and to provide more detailed and site-specific information for model development and applications.

Ecological Inventory

Ecological sites (ES) are subdivisions of working landscapes; defined and mapped by their associations with soil properties. These management-scale (acres) units have similar abiotic (climate, soil) properties so that they respond predictably to natural and management changes. Each ES is documented by an Ecological Site Description (ESD) containing information resource managers can use to: 1) verify the ES for their area of interest; 2) conduct inventories of soil properties, vegetation dynamics and land use/management interpretations for conservation planning; 3) identify management objectives; and 4) evaluate outcomes. All ES information is stored and managed in a common platform, the Ecological Dynamics Interpretive Tool (EDIT). EDIT is connected to other NRCS databases and platforms.

By policy, ES are used as a technical resource for inventories, assessments, and to make and document management decisions by NRCS, Bureau of Land Management, and Forest Service on rangelands; NRCS also uses ES applications on croplands, pastureland, and forestland. These agencies have a long history of collaboration at national and local projects including training, database development, on-the-ground implementation, national inventory, and research.

To get ESDs to end users quickly, the Provisional Ecological Site (PES) initiative was established to organize all the existing soil survey map units across the continental United States into provisional ecological sites suitable to guide conservation planning decisions.

Progress: At the end of 2022, more than 12,500 Ecological Site Descriptions (ESDs) are contained in the EDIT information platform. More than 75 percent of MLRAs have at least some ESDs available. More than half of the MLRAs have all of the State-Transition Models (STMs) developed in the digital model builder, which will be the primary link to other NRCS conservation planning tools, such as Conservation Desktop. STMs are graphical models of temporal change, unique to each ES. This project will allow users to compare the ecosystem service (erosion control) vulnerabilities/benefits of different management objectives and possible responses. The remaining STMs stored as images need to be converted to a digital format to ensure their availability via the agency planning platform.

In 2022, several collaborative research projects with other Federal agencies and universities have sought to find new, more efficient, and accurate ways to bring information into EDIT and make it available for end users.

Adapting to climate change requires both an understanding of current conditions as well as predictions of the impacts of changes on dynamic soil and vegetation properties. In a collaborative project with IBM Machine Learning scientists, the National Ecological Site Team (NEST) developed algorithms to predict how changes in climate variables will change the soil groupings behind ES and how those changes will affect the outcomes associated with common conservation concerns and practice implementation. NEST staff organized a virtual symposium at the 2022 Society for Range Management Annual Meeting on using STMs to integrate climate change concerns into management decisions <https://www.youtube.com/watch?v=tphhsAwGyUo&t=5785s>. Another aspect of climate change that will challenge managers is the impacts of more variable and intense events (rainfall, drought, flooding, windstorms) on soil erosion. In a collaborative project with New Mexico State University (NMSU) and Jornada ARS, the NEST is developing automated techniques for including the output of predictive erosion tools into ES State and Transition Models (STMs). We have published several papers: <https://doi.org/10.1016/j.ecolind.2019.105881>; <https://doi.org/10.1016/j.rama.2021.02.003>.

An objective site-based assessment of the outcomes of conservation practice application has long been a goal in NRCS. Through a research agreement with NMSU and US Geological Survey-Moab UT, the NEST have developed

a new approach to grouping soil properties into landscape units that can improve the efficiency of site ID and interpretation. <https://doi.org/10.1016/j.rama.2021.11.003>; <https://doi.org/10.1016/j.foreco.2021.119879>.

Kellogg Soil Survey Laboratory (KSSL)

In 2022, the KSSL conducted analysis and validation on 15,000 soil samples collected from individual soil horizons that represent 1,808 soil profiles (pedons). The soil samples analyzed come from NRCS and other agency clientele that include Soil Survey Field Offices, State Soil Scientists, Resource Soil Scientists, University Cooperators, NGOs, Plant Materials Centers, NRI Soil Monitoring Network, the National Ecological Observatory Network, and outreach activities such as collegiate soil judging and the United Nations-Food and Agriculture Organization (UN-FAO). During 2022, the KSSL recorded 150,250 analytical results on chemical, physical, mineralogical, and biological soil properties by more than 50 different analytical methods. This quantitative data is essential for the National Cooperative Soil Survey and NRCS programs such as Conservation Technical Assistance and Farm Bill Programs. National programs and research projects depend on KSSL data for soil classification, soil screening and assessment, soil health, and dynamic soil properties.

KSSL is the primary laboratory providing quantitative analyses to support National Cooperative Soil Survey and NRCS activities around the Nation. In addition, The KSSL develops and maintains standard soil laboratory procedures specifically applicable to soil assessment programs and provides technical consultation and reference samples to other soil laboratories as participants in lab testing comparison studies.

The quantitative soil data produced by the KSSL serves as input for models and interpretations for land use and management, baseline data to assess Soil Health, and measured values to determine effectiveness of conservation practices and programs (e.g., CEAP, Environmental Policy Integrated Climate model, Revised Universal Soil Loss Equation).

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

The KSSL participates in the Food and Agriculture Organization (FAO), Global Soil Partnership (GSP), Global Soil Laboratory Network (GLOSOLAN) (<http://www.fao.org/global-soil-partnership/glosolan/en/>), that facilitates harmonization of methods of analysis and standards for laboratory quality control, and improve capacities of laboratories worldwide to perform soil analysis. The KSSL participated in the 5th annual GLOSOLAN meeting, ([Fifth GLOSOLAN meeting | Global Soil Partnership | Food and Agriculture Organization of the United Nations \(fao.org\)](http://www.fao.org/glosolan-5th-annual-meeting/)). In 2022, the KSSL continued involvement in global, consensus-based developments of GLOSOLAN Standard Operating Procedures (SOPs) for various soil analysis methods (<https://www.fao.org/global-soil-partnership/glosolan-old/soil-analysis/standard-operating-procedures/en/>).

Over the last 12 years, the KSSL has been assembling a mid-infrared (MIR) spectral library towards using soil infrared spectrometry as a low-cost tool for the rapid prediction of soil carbon and other properties. The growing KSSL MIR spectral library represents over 90,000 legacy samples from the KSSL soil archive, the largest public collection in the United States with over 400,000 specimens. Local calibration models are being developed for use by NRCS soil survey field offices for rapid prediction of organic carbon for soil health and soil resource assessment. MIR spectrometry allows rapid data collection while assuring data quality and consistency with a tool that any NRCS field soil scientist can use for soil survey and soil health investigations.

Based on its demonstrated capacity to produce quality measured and spectral data as well its open data policy, the KSSL plays a key role in the GLOSOLAN soil spectrometry initiative (<https://www.fao.org/global-soil-partnership/glosolan-old/soil-analysis/dry-chemistry-spectroscopy/en/>). Work continues toward the establishment of a global spectral calibration library that the KSSL and a soil property estimation service, and on capacity building in soil spectrometry, on national and global levels. Standard operating procedures are in place for sample preparation and MIR spectral data collection, that will also help GLOSOLAN regional champion laboratories support capacity building activities in soil spectrometry. For example, in 2022, under a special license from the Office of Foreign Asset Control, the country of Iran submitted 41 diverse samples to the KSSL on the GLOSOLAN platform for both conventional and spectral analysis. This effort offers science diplomacy and organized science, and the joint Iran-KSSL data set will provide an important methods comparison concerning carbonate-bearing soil samples that will

inform best practices. As another example in 2022, the KSSL assisted global stakeholders with research and development efforts in soil spectroscopy, resulting in several publications, e.g. [A global soil spectral calibration library and estimation service – ScienceDirect](#), [Prediction of exchangeable potassium in soil through mid-infrared spectroscopy and deep learning: From prediction to explainability – ScienceDirect](#), and [Calibration set optimization and library transfer for soil carbon estimation using soil spectroscopy—A review - Dorantes - 2022 - Soil Science Society of America Journal - Wiley Online Library](#).

The NCSS Characterization Database is maintained and delivered by the Kellogg Soil Survey Laboratory of the NRCS, Soil and Plant Science Division. It delivers a comprehensive soil laboratory dataset of chemical, physical, and mineralogical properties from over 64,000 sample sites, representing multiple decades of natural resource inventory of soil resources of the USA and its territories. The database is used by a wide range of customers, including farmers, ranchers, internal USDA staff, other Federal agencies, nonprofit organizations, local governments, and university partners.

National Soil Survey Center

In 2021, the Soil Survey Program entered into agreements with multiple NCSS partners to use their expertise in innovative research and new technology development to achieve efficiencies in assessing and delivering soil and ecological site information. These investments are the foundation for information delivery of the future.

Technical Soil Services

Technical Soil Services (TSS) provides five basic types of service: technical policy and program services; planning services; site-specific soil investigations, testing, interpretation, and evaluation; expert services for judicial requests; and information services. These services are primarily provided through the USDA Service Centers. TSS also supports new and innovative models of conservation delivery such as the Conservation Assessment and Ranking Tool (CART) and Conservation Desktop. In 2022, over 98,000 hours of TSS were delivered to internal and external customers. Wetland and highly erodible land compliance, onsite investigations, technical consultations, and delivering maps, presentations, and training comprised nearly 77 percent of the services delivered.

Web Soil Survey

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

Digital Soil Surveys

The NCSS develops and maintains two scales of soil surveys:

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

Acres Mapped

During 2022, soil scientists mapped or updated 46.8 million acres bringing the total of soil survey acres mapped to 2.02 billion in the United States. About 95 percent of private lands are completed and 72 percent of Federal lands have a soil survey inventory.

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

Conservation planners use soils data to choose, implement, maintain, and evaluate conservation practices. In 2022, the value to producers as a result of soils data being used by conservation planners is estimated at \$1.9 billion. The metric uses the obligation data from certified conservation practices, planned or implemented, that are dependent on soils data. Cover crops (\$136 million), fence (\$79 million), brush management (\$79 million), sprinkler system (\$51 million), and irrigation pipeline (\$45 million) were the top five conservation practices, in terms of dollars obligated, for which planners use soil data.

Soils Information and Soil Surveys used interactively online

In 2022, soils information was the most requested information on the NRCS web site. The total number of visits was over 3.4 million. The top information requests, by number of visits, are: Soil Surveys by State (92,719), Soil Texture Calculator (73,787), Soil Survey (71,128), soils homepage (67,744), and Soil Classification (39,233).

Soil surveys used interactively online are accessed via Web Soil Survey, SoilWeb, and Soil Data Access. Users can view summaries of soil types for any geographic location where NRCS soil data exists. In 2022, the Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) logged over 3.2 million user visits and accessed data for over 3.4 million areas of interest. Customers generated about 1.0 million printed documents. Customers downloaded data over 378,016 soil datasets. Users can view summaries of soil types for any geographic location where NRCS soil data exists. SoilWeb was developed in collaboration with the University of California-Davis Soil Resource Lab and NRCS. The website is available at <http://casoilresource.lawr.ucdavis.edu/soilweb>. The SoilWeb interface received about 233,150 visits. Soil Data Access (SDA) is the name of a suite of web services and applications whose purpose is to meet requirements for requesting and delivering soil survey spatial and tabular data that are not met by the Web Soil Survey and Geospatial Data Gateway websites. Customers queried soil data using SDA over 62.3 million times. Combine SDA with Web Soil Survey and SoilWeb applications, and the NRCS Soil homepage soil data has been supplied over 65 million times in 2022.

Soil Resource Assessment for Conservation Planning

NRCS soils information is foundational for the agency to continue to provide technical assistance and support to landowners efficiently and effectively. The increasing availability of geospatially referenced natural resource data (e.g., soil, climate, land cover) and the expansion of computing resources and web feature services does allow the opportunity to provide field staff with an unprecedented amount of information to help support and inform their discussions with landowners. The Conservation Assessment Ranking Tool (CART) modernizes and streamlines NRCS's conservation planning and program delivery, reduces workload on field staff, and improves the customer experience by creating an efficient assessment and application process. The tool combines and analyzes geospatially referenced data and site-specific information provided by the landowner within a decision support system framework.

In 2022, soils information was accessed over 7.4 million times in the resource assessment part of CART. Documentation for soils data inputs into CART are at <https://jneme910.github.io/CART/>.

Dynamic Soils Hub

The Dynamic Soils Hub, initiated in 2021, is an innovative, high-end, geospatial data user interface that builds new data products from a wide variety of existing data sets. It will support the Conservation Innovation Grants, Environmental Quality Incentives Program, and Soil Health programs. It is focused on rapidly responding to customer requests for science-based soil property data at the Deputy Chief, Chief, and Under Secretary levels. The hub expands USDA capacity to model and report on soil properties that change with conservation management. It will empower the collection, storage, and delivery of data related to dynamic soil properties and conservation management. The Hub will link soil and conservation databases, providing the ability to assess outcomes in conservation programs by accessing otherwise siloed data and models across Agency divisions. The Dynamic Soil Hub is a flagship innovation that expands USDA capacity to model and report on soil properties that change with conservation management on a human time scale.

Nutrient Sensitive Areas Analysis - Soil Sensitivity Model (Nutrient Runoff) for CART/CD

To support the NRCS SMART Nutrient Management initiative, a soil sensitivity index (interpretation) was developed to rate soils based on their sensitivity for nutrient runoff. The index can be used in conservation planning to assist in identifying soils and areas with greater vulnerability to nutrient runoff. The most sensitive soils are those that are most vulnerable, or highly susceptible to nutrient runoff.

Nutrient Sensitive Areas Analysis – The Soil Sensitivity (Nutrient Runoff) model provides a science-based methodology, a tool and visualization for the conservationists to use with clients in Conservation Desktop. Conservationists can use this pre-planning tool and map to assist clients with a plan to reduce nutrient runoff from their operations. Conservation planners will be able to select practices and fields to run the sensitivity analysis to help with planning alternatives. Results of the sensitivity analysis will be stored for future use within the CART assessment and ranking process. The Conservation Products module will retrieve the results and develop a map and report and to provide to the client with information for planning practices on their operation.

Snow Survey and Water Supply Forecasting (SSWSF) Program

The SSWSF Program collects high elevation snow data in the Western U.S. and produces snowpack information, water supply forecasts, and other climatic data for a myriad of water managers and users. Snowmelt in the West delivers approximately 70 percent of the regional water supply, vital to continued success of Western agriculture. NRCS field staff and cooperators measure snow depth, snow water equivalent (SWE), and other parameters such as precipitation, air temperature, and soil conditions at thousands of remote mountain sites. Further analysis provides estimates for water supply and usefulness related to planning, drought, flooding, fire, and avalanche.

Google Analytics reports indicate use of SSWSF data and associated products comprise more than 60 percent of all NRCS web traffic. Customers and partners include farmers; ranchers; irrigation and conservation districts; municipal and industrial water providers; individual providers; hydroelectric power companies; fish and wildlife management; water masters; reservoir management; recreationists; Tribal Nations; Federal, State, and local government; and Canada and Mexico. Users and use cases continue to grow. Federal partners and users include the U.S. Army Corps of Engineers (USACE), Bureau of Reclamation (USBR), Federal Emergency Management Agency (FEMA), National Weather Service (NWS) River Forecasting Centers and other National Oceanic and Atmospheric Administration (NOAA) departments, U.S. Geological Survey (USGS), U.S. Forest Service (USFS), Department of Energy (DOE), and Bureau of Land Management (BLM).

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

Because snowmelt is the greatest source of water supply in the semi-arid West, information provided by SSWSF is critical. Demographic, physical, and political landscapes in the Western U.S. are rapidly changing due in large part to population growth, increased urbanization, and land use change. Recent high temperatures, prolonged droughts, and more damaging fires further stress this valuable resource. Competition continues to intensify over water for irrigation, municipal uses, and industrial uses. Competition also includes in-stream requirements such as river-based recreation, aesthetic enjoyment, fish and wildlife habitat, and hydroelectric power generation. Increasing water demands require more precise management starting with snowpack evaluation.

NRCS Snow Survey data are routinely used in matters of commerce and public safety in addition to Western water supply management. Road closure determinations, flooding or drought potential, avalanche mitigation, fire prediction and mitigation, NOAA weather modeling, and streamflow forecasting all rely on SSWSF data. With much of the West lately in drought, SSWSF data, products, and forecasts are extensively used. Drought impacts or flood damages are often mitigated with early preparation based on snowpack information and streamflow forecasts.

Established in 1935, the cooperative SSWSF Program is widely recognized for its historical record of high-elevation snow data. SSWSF provides consistent and accurate water supply forecasts. The Program accomplishes this by operating and maintaining a world-renowned snowpack monitoring system with over 1,100 manually measured snow courses, aerial markers, and cooperator sites in the U.S. and in watersheds draining into the U.S. SSWSF also maintains 939 automated SNOTEL (Snow Telemetry) and SnoLite sites. Additionally, the NWCC, in cooperation with the NRCS Soil and Plant Science Division, operates 211 automated Soil Climate Analysis Network (SCAN) stations across the U.S. Although most of the funding and field efforts occur through the agency, partners and cooperators provide a share of financial burden and contribute to data-collection activities.

Snow courses are locations where snow is manually measured, typically on a monthly schedule during winter months. SNOTEL sites automatically collect a suite of hydrometeorological data in high-elevation settings reporting real-time information on hourly intervals via telemetry. Sensor measurements typically include: SWE, snow depth, precipitation, and air temperature. Soil moisture sensors are being added at many SNOTEL sites, along with wind speed and wind direction, relative humidity, and net solar radiation. SnoLite sites have fewer sensors. Automated telemetered sites provide continuous up-to-date information and reduce costs and safety concerns versus use of field personnel for manual measurements in remote locales. SCAN stations focus on gathering soil and climate information. A limited number of SCAN stations collect snow depth in addition to the typical suite of sensors. Valuable data play a key role in flood and drought forecasting, water supply determination, understanding fire and avalanche risks and behaviors, and for evaluating climate change.

Snow Survey information and water supply forecasts are used extensively in hydroelectric power operations, in reservoir management, to project water quantity available for crops, to project probability of flooding, to determine available water for aquifer recharge, to predict flows for wildlife and recreation, and to inform the public about mountain conditions including avalanche likelihood. No other products in the Western U.S. fulfill these informational needs. Past assessment of SSWSF Program economic and societal values are outlined in an agency-released report “A Measure of Snow.”

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

Current Activities

Water Supply Forecasts

Water supply forecasts predict snowmelt runoff volume and are issued from January-June in collaboration with the NWS and other Federal and State agencies. Seasonal forecasts for 600+ streamflow locations were delivered during 2022. SSWSF also distributed peak flow, recession, and threshold forecasts with surface water availability index values. Additionally, automated forecasting models ingesting SNOTEL climate data tracked daily forecast trends for 322 points providing up-to-date guidance for water resource managers, for water users, and for augmenting official volume forecasts. The program published 5,774 water supply forecasts during the 2022 water year.

Site Upgrades and Installations

In 2022, nine new SNOTEL sites were installed and three were re-built across the West and Alaska. One of those rebuilt was destroyed by wildfire last year in California. New SnoLite and new snow course sites also were added. One of the new SNOTEL sites is on Confederated Salish and Kootenai Tribes (CSKT) land in Montana and supports CSKT water management. In New Mexico, the first SNOTEL site on Pueblo land just completed its first full year of data collection and remains a source for continued kudos to the Snow Survey Program.

Amidst the continued pandemic and numerous wildfires, summer maintenance for SNOTEL sites was prioritized to verify sensor calibrations, reset precipitation gages, and perform site upkeep. Maintenance also included repairing or replacing data loggers, radios, transducers, sensors, plumbing, electrical wiring, solar panels, batteries, snow course point markers, and snow pillows. Hazardous trees that could potentially damage stations were removed.

Significant headway continued for telemetry modernization. Moving away from Meteor Burst telemetry to alternative telemetry options at sites across the West reduces equipment costs and increases reliability. Current expectation is for all telemetry upgrades to be completed in 2023, well in advance of an original 2027 projection. Many sites were switched to cellular, GOES, or Iridium modems. Montana and Alaska Data Collection Offices completed both telemetry and data logger upgrades for all sites in their regions, and Colorado, Idaho, Oregon, and Utah Data Collection Offices are on their way to removing Meteor Burst telemetry from sites in their regions of responsibility. A large number of SCAN sites were updated and maintained across the country this past year and plans are to expand the network.

SNOTEL Sites Affected by Disasters and Vandalism

Western U.S. wildfires continued into 2022 as extreme drought conditions persisted. The SSWSF Program sites mostly were spared this year although it appears a site was lost in the Cedar Creek Fire in Oregon, which still was not contained as of this writing even with recent rains in late October. Similar to clear cuts, fire alters the landscape affecting snow accumulation, snowmelt, and resulting streamflow runoff. The historical relationship between snow and streamflow forms the foundation for water supply forecasts.

Vandalism, winter conditions, and animal damage remain a struggle. Two sites suffered unintentional pillow damage from humans; although elsewhere, a trailer’s tires were slashed on work trip and a site’s coaxial cables were cut. A tree fell on a SNOTEL site and snow load bent an aerial marker. Bears marred multiple SNOTEL sites affecting pillows to shelters. Rodents often are attributed in damaged plumbing and wiring.

Outreach, Partnerships, and Investigative Research

SSWSF offices in each State perform extensive outreach around snow and water conditions. A broad illustration of SSWSF work and data availability is shown in this final draft video developed by the Nevada office:

<https://www.youtube.com/watch?v=cbX2NvM45Vg>

Multiple collaborations continue to be established with private and public partners. The following exemplifies a portion of the on-going work by the State snow survey offices:

- Alaska partners with the USGS on multiple fronts including recently along with the Alaska Department of Geological and Geophysical Surveys to install a precipitation gage to monitor conditions near the Barry Arm landslide.
- Arizona collaborates with the City of Flagstaff and the USFS, monitoring snow in a burned watershed for suitability analysis of a new SNOTEL site.
- Colorado continued partnerships with Colorado State University (CSU) researchers and USACE on two separate ventures enhancing monitoring sites in connection to wildfire ecosystems and spatial snowpack modeling. Colorado also works with water conservation districts and municipalities on requests for SNOTEL and SnoLite upgrades.
- Idaho finds partners for cost sharing SNOTEL site sensors for climate monitoring and participates on several drought committees focused on water supply.
- New Mexico focuses on building partnerships with cooperators throughout the State including with the Taos Pueblo.
- Oregon sustains efforts to integrate SSWSF data and products into Farm Bill conservation planning efforts using the Strategic Approach to Conservation.
- Utah contributes bi-weekly to the multiagency Drought Monitor evaluation group with Utah’s Department of Agriculture and Foods and Department of Water Resources, among others.
- Washington cooperates with four tribes on manual snow survey responsibilities and assistance for SNOTEL maintenance and just established a new partnership with the Snohomish County PUD.

Studies range from determination of wildfire impacts and drought to snowpack assessment and water supply forecast prediction. Alaska continues evaluation of various equipment including heated tipping buckets, snow scales, and alter shields. Montana set up snow temperature profile arrays to monitor temperatures at various snowpack depths for determination of timing of snowmelt onset and prediction of streamflow peaks. A “super-site” concept was developed by SSWSF which involves placing additional sensors at sites to evaluate best available technology to support the SSWSF Program, partner, and researcher needs ultimately leading to improved water resource management. This work also is supported through collaboration with the USBR on network design, enhancement, and sensor evaluation.

Other investigative research by the SSWSF Program has been enhanced by partnerships. An affiliation with NASA’s Western Water Assessment Office involves remotely sensed snow data as a tool for data quality control and as input into hydrologic forecast models. The SSWSF and USBR partner on identifying emerging snow monitoring technologies to advance water supply forecast performance. And NRCS SNOTEL and snow course data play a critical role in ground truthing private airborne lidar data and providing accurate snow density measurements.

Plant Materials Centers (PMC)

The NRCS Plant Materials Centers (PMCs) develop vegetative solutions to critical natural resource concerns. PMCs focus on priorities such as soil stabilization, soil health and productivity, water and air quality, enhancement of pollinator habitat to support agricultural production, habitat for at-risk species such as sage grouse, and restoring productivity to degraded landscapes. PMCs directly support the agency mission by providing scientifically sound plant information and tools used by conservation planners, partners, producers, and private landowners. PMCs develop technology and information for the use, establishment, and maintenance of plants for a wide variety of natural resource conservation practices; provide training and education to staff, partners, and the public; assess and characterize plant attributes to provide data and information important in the operation of predictive models and effective management of climate impacted plant resources; and assemble, evaluate, and release seed and plants to provide for the commercial production of plant materials that protect and conserve our natural resources. The Field Office Technical Guide (FOTG) delivers Plant Materials Program information directly to field staff and partners in conservation planning. PMC staff tailor vegetative information to the unique conditions of the areas they serve and provide extensive training to field staff and partners on the selection and establishment of vegetation adapted to specific resource concerns. Program information is available to the public at <https://www.plant-materials.nrcs.usda.gov>.

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

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

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

Current Activities

In 2022, NRCS continued its efforts to improve the operations and mission of PMCs to produce products needed by field staff and conservation partners. The following are highlights of PMC activities:

- **Technology Development and Transfer.** PMCs provide agency staff, conservation partners, and the public with information needed to successfully get natural resource conservation on the ground. Plant Materials Program studies resulted in over 114 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. PMCs transferred the results of studies through 15 new study reports, the application of PMC vegetative information in 12 new technical notes or conservation practice implementation requirements, and information on the use, establishment, and management of conservation plants in 12 new or revised plant guides. The program continues its efforts to reduce redundancy in technical materials through the development of one new national technical note – “The Importance of Seed Quality for Natural Resource Conservation Practices” released by NRCS headquarters – and one regional plant materials technical note released under the NRCS National Technology Support Centers (NTSC) – “Selection and Use of Native Warm-Season Grass Varieties for the Mid-Atlantic Region”. These technical notes, like other PMC State technical notes, provide vegetative information packaged for NRCS conservation planners and customers to assist with implementing conservation practices.
- At the end of 2022, there were over 3,000 documents and detailed information on over 440 conservation plants available on the PMCs’ website. The website enhancement continues, with special features, improved linkages to technical topics, national and regional program documents, and connections with other NRCS websites. Plant Materials updates, released as GovDelivery emails to over 100,000 subscribers, continue to disseminate new information monthly. These actions are improving the accessibility and usefulness of the plant materials website for all users.
- Plant Materials Program staff conducted 60 technical training sessions for 2,133 field staff and conservation partners. Training included: 1) selecting, planting, and managing cover crops; 2) selecting and establishing conservation plants; 3) plant identification; 4) planning a conservation planting; 5) enhancing wildlife and pollinator habitat; 6) improving the productivity of range and pastureland; 7) planting windbreaks and hedgerows; and 8) importance of vegetative covers for preventing erosion. Technical knowledge of the NRCS field staff is improved by holding many of these PMC trainings in conjunction with Conservation Planner Certification training sessions. PMCs provided field days, tours and presentations to 3,900 participants including NRCS employees, Federal and State government employees, farmers, ranchers, and the public. PMC trainings, field days, and tours continue to be impacted in 2022 by

COVID-19 restrictions, though many PMCs have been able to reach their customers through outdoor and virtual events.

PMC Climate Smart Activities. The PMC program’s Climate Smart Action Plan, established in 2021, provides the foundation for PMC support for USDA and NRCS goals to address the impacts of changes in climate. In 2022, PMCs addressed the five goals of the action plan through targeted activities, such as the following examples from throughout the program:

- Goal 1: Characteristics and adaptation of conservation plants – PMCs in the Southeast and South-Central began a multi-year evaluation to assess adaptation and performance of conservation plant releases in different environments and PMCs in Maryland, North Dakota, Oregon, and West Virginia are evaluating the productivity of forage grasses to improve grazing recommendations.
- Goal 2: New plant selection to increase adaptability and climate resilience – PMCs released six new conservation plants (see below) and are working cooperatively with a Cover Crop Breeding Network, consisting of USDA-ARS scientists and Land Grant Universities, to develop new regionally-adapted cover crops with improved traits for productivity and cold hardiness.
- Goal 3: Evaluate establishment technologies and management strategies – PMCs are conducting time-of-seeding studies to determine if changes are needed in recommended planting dates and the impacts on performance; other PMCs are evaluating alternative methods for establishing pollinator habitat or to find the best adapted selections of forage grasses to improve the success of conservation practices.
- Goal 4: Increase outreach, training, and the development of documents and tools – Many of the technical documents, training sessions, and presentations developed and delivered by PMCs support climate smart literacy by delivering the latest findings and most appropriate recommendations on the selection, use, establishment, and management of conservation plants in different parts of the nation.
- Goal 5: Improve the sustainability of PMCs – NRCS invested in facility improvements to boost the energy efficiency of PMC facilities and water use efficiency of irrigation systems. Additionally, PMCs continue to improve the sustainability of field operations by increasing soil health of PMC fields and reduce inputs when possible.

PMCs invested \$830,000 in studies and activities (goals 1-4) and \$615,000 in facility improvements (goal 5) for a total of about \$1.44 million to support climate smart activities, well over the additional \$1 million in PMC funding appropriated in 2022 for climate smart activities.

Conservation Plants

PMCs have selected and released 753 conservation plants over the past 80 years, of which 580 are active and commercially available today. These plants are tools used to support conservation practices that stabilize soil, improve pollinator and wildlife habitat, provide livestock forage, and increase the diversity in conservation plantings. All PMC plant releases support NRCS conservation activities on private lands as well as the National Seed Strategy, a Federal interagency effort to select appropriate plants for restoration and conservation on both public and private lands. PMC efforts with the Agricultural Research Service (ARS) Forage and Range Research Laboratory in Logan, Utah, for genetic analysis to support many current and in-development plant releases are beginning to generate information which will support decisions to maintain the genetic diversity of new conservation plant development, so they are better adapted to changing environments.

In 2022, PMCs released six new conservation plants to the public:

- Loma Germplasm purple threeawn (*Aristida purpurea*) was released by Texas Native Seeds in cooperation with the Kingsville, Texas PMC and others. Loma Germplasm is a native, perennial bunchgrass used for critical site revegetation, right-of-way seedings, erosion control, inclusion in range seeding mixes, and wildlife plantings throughout south Texas.
- Pineland Gold Germplasm swamp sunflower (*Helianthus angustifolius*) was released by the Nacogdoches, Texas PMC. Pineland Gold Germplasm is a native, perennial forb recommended for conservation cover, field borders, wildlife habitat, and native pine understory plantings and intended for use in eastern Texas
- Cibolo Germplasm little barley (*Hordeum pusillum*) was released by Texas Native Seeds in cooperation with the Kingsville, Texas PMC and others. Cibolo Germplasm is a native, cool-season annual grass used for critical area plantings, erosion control, range seed mixes, rights-of-way plantings and adapted to central and south TX.
- ‘Ahring’ little bluestem (*Schizachyrium scoparium*) was released by the USDA-ARS in Woodward, Oklahoma in cooperation with the Knox City, Texas PMC. Ahring is a native, perennial, bunchgrass with

an upright and compact canopy selected for improved seed germination and field establishment. Ahring is used for wildlife habitat, forage, roadside stabilization, renewable energy, and natural landscapes and is adapted to the southern Great Plains in TX and OK.

- ‘Sims’ little bluestem (*Schizachyrium scoparium*) was released by the USDA-ARS in Woodward, Oklahoma in cooperation with the Knox City, Texas PMC. Sims is a native, perennial, bunchgrass with an upright and open canopy selected for improved seed germination and field establishment. Sims is used for wildlife habitat, forage, roadside stabilization, renewable energy, and natural landscapes and is adapted to the southern Great Plains in TX and OK.
- Sunrise Germplasm eastern gamagrass (*Tripsacum dactyloides*) was released by the University of Florida in cooperation with the Brooksville, Florida PMC. Sunrise Germplasm is a native, perennial, bunchgrass recommended for forage, rangeland plantings, filter strips, and wildlife habitat and is adapted throughout Florida.

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ACCOUNT 2: WATERSHED AND FLOOD PREVENTION OPERATIONS PROGRAM

APPROPRIATIONS LANGUAGE

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

For necessary expenses to carry out preventive measures, including but not limited to surveys and investigations, engineering operations, works of improvement, and changes in use of land, in accordance with the Watershed Protection and Flood Prevention Act (16 U.S.C. 1001–1005 and 1007–1009) and in accordance with the provisions of laws relating to the activities of the Department, [~~\$75,000,000~~]\$175,000,000, to remain available until expended[, of which up to \$20,591,000 shall be for the purposes, and in the amounts, specified for this account in the table titled "Community Project Funding/Congressionally Directed Spending" in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act)]; *Provided*, That for funds provided by this Act or any other prior Act, the limitation regarding the size of the watershed or subwatershed exceeding two hundred and fifty thousand acres in which such activities can be undertaken shall only apply for activities undertaken for the primary purpose of flood prevention (including structural and land treatment measures); *Provided further*, That of the amounts made available under this heading, [~~\$10,000,000~~]\$65,000,000 shall be allocated to projects and activities that can commence promptly following enactment; that address multiple resource concerns and provide ecosystem benefits, or regional priorities for flood prevention, agricultural water management, inefficient irrigation systems, fish and wildlife habitat, or watershed protection; or that address authorized ongoing projects under the authorities of section 13 of the Flood Control Act of December 22, 1944 (Public Law 78–534) with a primary purpose of watershed protection by preventing floodwater damage and stabilizing stream channels, tributaries, and banks to reduce erosion and sediment transport[: *Provided further*, That of the amounts made available under this heading, \$10,000,000 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].

Change Description

The first change (line 5-7) in language proposes deletion of funding for Community Project Funding/Congressionally Directed Spending which is not proposed in the 2024 Budget.

The second change (line 12-13) proposes to add language to address multiple resource concerns and provide ecosystem benefits.

The third change (line 17-20) deletes the language providing funding for authorized ongoing watershed projects with a primary purpose of providing water to rural communities.

LEAD-OFF TABULAR STATEMENT

Table NRCS-21. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$75,000,000
Change in Appropriation	+ 100,000,000
Budget Estimate, 2024	<u>175,000,000</u>

PROJECT STATEMENTS

Table NRCS-22. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Chg Dec. Key
	Actual	FTE	Actual	FTE	Estimated	FTE Estimated	Estimated	FTE		
Discretionary Appropriations:										
Small Watershed P.L. 83-566:										
Technical Assistance.....	\$15,000	33	\$16,000	59	\$19,250	40	\$56,000	46	+\$36,750	+6
Financial Assistance	85,000	-	64,000	-	35,750	-	104,000	-	+68,250	-
Subtotal Small Watershed P.L. 83-566	100,000	33	80,000	59	55,000	40	160,000	46	+105,000	+6 (1)
Flood Prevention Operations P.L. 78-534:										
Technical Assistance.....	9,750	6	2,000	18	3,500	14	5,250	14	+1,750	-
Financial Assistance	55,250	-	8,000	-	6,500	-	9,750	-	+3,250	-
Subtotal Flood Prevention Operations	65,000	6	10,000	18	10,000	14	15,000	14	+5,000	- (2)
Rural Water Operations Program:										
Technical Assistance.....	1,500	-	1,500	1	3,500	1	-	1	-3,500	-
Financial Assistance	8,500	-	8,500	-	6,500	-	-	-	-6,500	-
Subtotal Rural Water Operations Program.....	10,000	-	10,000	1	10,000	1	-	1	-10,000	- (3)
Total Discretionary Appropriations	175,000	39	100,000	78	75,000	55	175,000	61	100,000	+6
Mandatory Appropriations:										
Watershed and Flood Prevention Operations:										
Technical Assistance.....	16,502	3	4,715	1	9,394	2	9,394	2	-	-
Financial Assistance	30,648	-	42,435	-	37,756	-	37,756	-	-	-
Total Mandatory Appropriations	47,150	3	47,150	1	47,150	2	47,150	2	-	-
Supplemental Appropriations:										
Small Watershed P.L. 83-566 (IIJA):										
Technical Assistance.....	-	-	125,000	-	-	15	-	15	-	-
Financial Assistance	-	-	375,000	-	-	-	-	-	-	-
Subtotal Small Watershed (IIJA)	-	-	500,000	-	-	15	-	15	-	-
Emergency Watershed Protection Program (EWP):										
Technical Assistance.....	-	124	55,000	105	185,000	116	-	63	-185,000	-53
Financial Assistance	-	-	220,000	-	740,000	-	-	-	-740,000	-
Subtotal EWP	-	124	275,000	105	925,000	116	-	63	-925,000	-53
Total Supplemental Appropriations	-	124	775,000	105	925,000	131	-	78	-925,000	-53
Total Adjusted Approp	222,150	166	922,150	184	1,047,150	188	222,150	141	-825,000	-47
Sequestration	2,850	-	2,850	-	2,850	-	2,850	-	-	-
Total Appropriation	225,000	166	925,000	184	1,050,000	188	225,000	141	-825,000	-47
Sequestration	-2,850	-	-2,850	-	-2,850	-	-2,850	-	-	-
Recoveries, Other	66,037	-	-11,460	-	-22,000	-	-4	-	+21,996	-
Bal. Available, SOY	924,904	-	815,258	-	1,057,470	-	551,856	-	-505,614	-
Total Available	1,213,091	166	1,725,948	184	2,082,620	188	774,002	141	-1,308,618	-47
Lapsing Balances	-172	-	-18	-	-	-	-	-	-	-
Bal. Available, EOY	-815,258	-	-1,057,470	-	-551,856	-	-238,158	-	+313,698	-
Total Obligations	397,661	166	668,460	184	1,530,764	188	535,844	141	-994,920	-47

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

Table NRCS-23. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Small Watershed P.L. 83-566:										
Technical Assistance.....	\$43,686	33	\$35,255	59	\$59,456	40	\$28,493	46	-\$30,963	+6
Financial Assistance	40,985	-	35,569	-	221,106	-	66,360	-	-154,746	-
Subtotal Small Watershed P.L. 83-566	84,671	33	70,824	59	280,562	40	94,853	46	-185,709	+6
Flood Prevention Operations P.L. 78-534:										
Technical Assistance.....	6,078	6	1,983	18	25,993	14	17,597	14	-8,396	-
Financial Assistance	20,500	-	9,980	-	96,663	-	40,984	-	-55,679	-
Subtotal Flood Prevention Operations	26,578	6	11,963	18	122,656	14	58,581	14	-64,075	-
Rural Water Operations Program:										
Technical Assistance.....	-	-	163	1	5,365	1	2,806	1	-2,559	-
Financial Assistance	-	-	2,900	-	19,952	-	6,536	-	-13,416	-
Subtotal Rural Water Operations Program.....	-	-	3,063	1	25,317	1	9,342	1	-15,975	-
Total Discretionary Obligations.....	111,249	39	85,850	78	428,535	55	162,776	61	-265,759	+6
Mandatory Obligations:										
Watershed and Flood Prevention Operations:										
Technical Assistance.....	3,912	3	9,415	1	9,394	2	9,394	2	-	-
Financial Assistance	43,188	-	37,732	-	37,756	-	37,756	-	-	-
Total Mandatory Obligations.....	47,100	3	47,147	1	47,150	2	47,150	2	-	-
Supplemental Obligations:										
Small Watershed P.L. 83-566 (IIJA):										
Technical Assistance.....	-	-	90,496	-	37,109	15	56,422	15	+19,313	-
Financial Assistance	-	-	185,615	-	89,131	-	24,000	-	-65,131	-
Subtotal Small Watershed6 (IIJA)	-	-	276,111	-	126,240	15	80,422	15	-45,818	-
Emergency Watershed Protection Program (EWP):										
Technical Assistance.....	34,939	124	42,028	105	182,717	116	57,727	63	-124,990	-53
Financial Assistance	204,373	-	217,324	-	746,122	-	187,769	-	-558,353	-
Subtotal EWP.	239,312	124	259,352	105	928,839	116	245,496	63	-683,343	-53
Total Supplemental Obligations.....	239,312	124	535,463	105	1,055,079	131	325,918	78	-729,161	-53
Total Obligations	397,661	166	668,460	184	1,530,764	188	535,844	141	-994,920	-47
Lapsing Balances	172	-	18	-	-	-	-	-	-	-
Balances Available, EOY:										
Small Watershed.....	269,053	-	243,521	-	17,960	-	23,107	-	+5,147	-
Flood Prevention Operations	122,469	-	120,508	-	7,852	-	14,271	-	+6,419	-
Emergency Watershed Protection Program	413,736	-	452,615	-	426,775	-	181,278	-	-245,497	-
Rural Water Operations Program.....	10,000	-	16,937	-	1,621	-	2,275	-	+654	-
Small Watershed P.L. 83-566 (IIJA).....	-	-	223,889	-	97,648	-	17,227	-	-80,421	-
Total Bal. Available, EOY.....	815,258	-	1,057,470	-	551,856	-	238,158	-	-313,698	-
Total Available	1,213,091	166	1,725,948	184	2,082,620	188	774,002	141	-1,308,618	-47
Less:										
Sequestration	2,850	-	2,850	-	2,850	-	2,850	-	-	-
Recoveries, Other	-66,037	-	11,460	-	22,000	-	4	-	-21,996	-
Bal. Available, SOY	-924,904	-	-815,258	-	-1,057,470	-	-551,856	-	+505,614	-
Total Appropriation	225,000	166	925,000	184	1,050,000	188	225,000	141	-825,000	-47

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

JUSTIFICATION

A net increase of \$100,000,000 and 6 staff years for the Watershed and Flood Prevention Operations Programs (\$75,000,000 and 55 staff years available in 2023).

- (1) A net increase of \$105,000,000 and an increase of 6 staff years for the Small Watershed Operations Program (\$55,000,000 and 40 staff years available in 2023).
 - a) An increase of \$104,756,000 for Small Watershed Operations Programs. This will allow NRCS to address the increased cost of projects that are now ready for implementation. Because the implementation phases (design and construction) are more expensive, the additional funds will help to address this increase in cost.
 - b) An increase of \$244,000 for 2024 pay. This increase will support the annualization of the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Small Watershed Operations Program activities.
- (2) A net increase of \$5,000,000 and no change in staff years in Program activities for the Flood Prevention Operations Program (\$10,000,000 and 14 staff years available in 2023).
 - a) An increase of \$4,974,000 for the Flood Prevention Operations Program. This will allow NRCS to address the increased cost of projects that are now ready for implementation. Because the implementation phases (design and construction) are more expensive, the additional funds will help to address this increase in cost.
 - b) An increase of \$26,000 for 2024 pay. This increase will support the annualization of the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Flood Prevention Operations Program activities.
- (3) A decrease of \$10,000,000 and no change in staff years for the Rural Water Operations Program (\$10,000,000 and 1 staff year available in 2023).

No funds are requested in the 2024 Budget for this program.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-24. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Alabama.....	\$2,120	2	\$1,286	-	\$16,702	4	\$5,567	2
Alaska.....	5,226	1	812	1	10,000	2	4,500	1
Arizona.....	2,106	2	23,780	2	35,000	4	5,000	2
Arkansas.....	65,396	10	91,419	28	1,575	3	525	1
California.....	3,581	3	1,383	3	11,984	6	2,661	3
Colorado.....	49,071	3	10,658	3	9,137	3	3,046	2
Connecticut.....	3,312	2	648	1	1,000	1	400	1
Delaware.....	40	-	48	-	750	1	250	1
District of Columbia.....	14,101	10	27,947	36	14,665	10	15,251	10
Florida.....	4,032	-	4,073	-	35,000	2	6,000	1
Georgia.....	269	2	46,343	1	33,561	2	11,187	2
Hawaii.....	1,306	-	18,742	-	225	1	75	1
Idaho.....	33	-	487	-	18,211	3	6,070	1
Illinois.....	9,215	-	1,247	-	500	1	200	1
Indiana.....	10	-	2,694	-	40,843	8	13,614	6
Iowa.....	34,036	9	9,035	7	1,004	3	335	1
Kansas.....	1,050	2	517	-	4,552	2	1,517	2

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Kentucky.....	810	1	6,332	5	725	1	242	1
Louisiana	11,975	2	61,453	2	6,000	2	2,000	1
Maine.....	367	1	61	-	500	1	100	1
Maryland.....	-	-	88	-	40	-	20	-
Massachusetts.....	1,386	2	42,697	2	3,750	2	1,250	2
Michigan.....	30,067	2	3,404	2	200	1	100	1
Minnesota	119	1	123	-	100	1	200	1
Mississippi.....	16,476	5	40,249	6	25,000	6	6,000	2
Missouri.....	44,612	24	24,501	8	19,163	8	6,388	3
Montana.....	-	-	5,858	-	2,000	1	1,200	1
Nebraska.....	10,519	6	7,610	7	17,365	7	5,788	3
Nevada.....	804	-	297	-	11,248	1	3,749	1
New Hampshire.....	8	-	56	-	50	-	20	-
New Jersey.....	27	-	3,935	1	2,000	1	800	1
New Mexico	962	-	1,833	2	110,090	2	23,363	2
New York	2,746	7	59,933	7	20,000	7	5,000	3
North Carolina.....	1,565	2	10,319	6	5,000	3	2,000	1
North Dakota	775	-	225	1	2,620	-	873	1
Ohio.....	705	1	1,462	1	800	1	400	1
Oklahoma.....	2,440	3	8,338	3	1,125	1	375	1
Oregon.....	23,578	6	15,143	6	22,824	7	7,608	3
Pennsylvania.....	67	-	2,173	1	800	-	600	-
Puerto Rico	4,260	1	261	1	100	-	50	-
Rhode Island.....	999	1	11,714	1	8,258	1	2,753	1
South Carolina.....	5,461	-	9,357	-	2,000	1	500	1
South Dakota	294	-	139	-	100	-	50	-
Tennessee.....	4,485	3	3,988	4	2,000	1	1,200	1
Texas.....	16,952	42	12,888	18	6,000	8	6,472	8
Utah.....	17,338	5	80,439	8	98,333	9	66,111	7
Vermont.....	364	-	1,024	1	500	1	200	1
Virginia.....	-	-	887	-	400	-	400	-
Washington.....	106	-	865	-	600	-	450	-
West Virginia.....	-47	1	6,025	7	1,481	1	494	1
Wisconsin	611	3	3,377	2	1,500	1	600	1
Wyoming.....	1,926	1	287	1	1,307	1	1,200	1
Distribution Unknown	-	-	-	-	922,078	59	311,090	59
Obligations.....	397,661	166	668,460	184	1,530,764	188	535,844	141
Lapsing Balances.....	172	-	18	-	-	-	-	-
Bal. Available, EOY.....	815,258	-	1,057,470	-	551,856	-	238,158	-
Total, Available.....	1,213,091	166	1,725,948	184	2,082,620	188	774,002	141

CLASSIFICATION BY OBJECTS**Table NRCS-25. Classification by Objects (thousands of dollars)**

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
Personnel Compensation:					
	Washington D.C.	\$1,293	\$843	\$928	\$737
	Personnel Compensation, Field	14,893	17,352	19,097	15,166
11	Total personnel compensation	16,186	18,195	20,025	15,903
12	Personal benefits	6,332	7,306	7,815	6,200
13.0	Benefits for former personnel.....	-	3	1	2
	Total, personnel comp. and benefits	22,518	25,504	27,841	22,105
Other Objects:					
21.0	Travel and transportation of persons	222	443	598	485
22.0	Transportation of things	3	7	7	7
23.1	Rental payments to GSA	-	1,062	267	1,009
23.2	Rental payments to others	-	2,586	651	100
23.3	Communications, utilities, and misc. charges.....	-	1,136	240	83
24.0	Printing and reproduction.....	2	1	1	1
25.1	Advisory and assistance services.....	13,808	76,354	281,868	63,273
25.2	Other services from non-Federal sources	57,439	128,275	229,918	116,390
25.3	Other goods and services from Federal sources	1	154	39	6
25.4	Operation and maintenance of facilities	10,684	18,815	58,721	30,008
25.5	Research and development contracts.....	-538	-	-	-
25.7	Operation and maintenance of equipment	-20	-	-	-
26.0	Supplies and materials.....	144	94	253	198
31.0	Equipment	905	1,239	1,652	2,100
32.0	Land and Structures.....	57,171	17,074	65,050	32,641
41.0	Grants, subsidies, and contributions	235,322	395,716	863,657	267,438
43.0	Interest and Dividends.....	-	-	1	-
	Total, Other Objects	375,143	642,956	1,502,923	513,739
99.9	Total, new obligations	397,661	668,460	1,530,764	535,844
Position Data:					
	Average Salary (dollars), ES Position	\$186,928	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	\$70,816	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position.....	10	10	10	10

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

STATUS OF PROGRAMS

WATERSHED AND FLOOD PREVENTION OPERATIONS

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

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

Watershed and Flood Prevention Operations

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

Current Activities

In 2022, the Agency received \$600 million in discretionary funding, which included \$500 million from the Bipartisan Infrastructure Law. The \$500 million authorized in the Bipartisan Infrastructure Law has been allocated to new and existing watershed projects. NRCS also received \$50 million in mandatory funding. NRCS provided funding to 261 projects in 39 States and the territories of the Commonwealth of the Northern Mariana Islands (CNMI), Commonwealth of Puerto Rico, and the U.S. Virgin Islands. In selecting projects for funding, the Agency prioritized addressing drought in the western States, projects that would have a positive impact on historically underserved and tribal communities, and projects that involved sponsors who had not previously worked with the P.L. 83-566 program.

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. The Consolidated Appropriations Act, 2018 included provisions that increased the threshold for requiring authorization by Congressional committee from \$5 million to \$25 million. 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. The Consolidated Appropriations Act, 2018 also included provisions that the limitation of 250,000 acres only applies for activities undertaken for the primary purpose of flood prevention.

Loan Programs under the Flood Control Act and the Watershed Protection and Flood Prevention Act

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

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ACCOUNT 3: EMERGENCY WATERSHED PROTECTION PROGRAM

PROJECT STATEMENTS

Table NRCS-26. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE			
Supplemental Appropriations:											
Emergency Watershed Protection Program:											
Technical Assistance	-	-	\$60,000	4	-	16	-	10	-	-6	
Financial Assistance	-	-	240,000	-	-	-	-	-	-	-	
Total Appropriation	-	-	300,000	4	-	16	-	10	-	-6	
Bal. Available, SOY	-	-	-	-	\$97,951	-	\$24,000	-	-\$73,951	-	
Total Available	-	-	300,000	4	97,951	16	24,000	10	-73,951	-6	
Bal. Available, EOY	-	-	-97,951	-	-24,000	-	-	-	+24,000	-	
Total Obligations	-	-	202,049	4	73,951	16	24,000	10	-49,951	-6	

Table NRCS-27. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Supplemental Obligations:										
Emergency Watershed Protection Program:										
Technical Assistance	-	-	\$6,083	4	\$49,918	16	\$4,000	10	-\$45,918	-6
Financial Assistance	-	-	195,967	-	24,033	-	20,000	-	-4,033	-
Total Obligations	-	-	202,049	4	73,951	16	24,000	10	-49,951	-6
Balances Available, EOY:										
Emergency Watershed Protection Prg.	-	-	97,951	-	24,000	-	-	-	-24,000	-
Total Bal. Available, EOY.....	-	-	97,951	-	24,000	-	-	-	-24,000	-
Total Available	-	-	300,000	4	97,951	16	24,000	10	-73,951	-6
Less:										
Bal. Available, SOY	-	-	-	-	-97,951	-	-24,000	-	+73,951	-
Total Appropriation	-	-	300,000	4	-	16	-	10	-	-6

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-28. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Arizona	-	-	\$2,232	-	\$107	1	-	-
California	-	-	3,045	1	654	1	\$50	-
Colorado	-	-	6,051	-	412	1	20	-
Kentucky	-	-	927	1	154	1	-	-
Louisiana	-	-	43,159	-	3,320	1	200	1
Mississippi	-	-	2,751	-	2,999	1	150	1
Montana	-	-	1,816	1	12	-	-	-
New Jersey	-	-	33	-	1,262	1	100	-
New Mexico	-	-	136,545	1	419	1	-	-
New York	-	-	886	-	102	1	-	-
North Dakota	-	-	2,871	-	3	-	-	-
Pennsylvania	-	-	1,480	-	121	1	-	-
Tennessee	-	-	17	-	-	-	-	-
Vermont	-	-	120	-	1	-	-	-
Washington	-	-	117	-	149	1	-	-
Distribution Unknown	-	-	-	-	64,237	7	23,480	8
Obligations	-	-	202,049	4	73,951	16	24,000	10
Bal. Available, EOY	-	-	97,951	-	24,000	-	-	-
Total, Available	-	-	300,000	4	97,951	16	24,000	10

CLASSIFICATION BY OBJECTS**Table NRCS-29. Classification by Objects (thousands of dollars)**

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
Personnel Compensation:					
11	Personnel Compensation, Field.....	-	\$432	\$1,806	\$1,187
	Total personnel compensation.....	-	432	1,806	1,187
12	Personal benefits.....	-	171	718	472
	Total, personnel comp. and benefits.....	-	603	2,524	1,659
Other Objects:					
21.0	Travel and transportation of persons.....	-	19	134	38
25.1	Advisory and assistance services.....	-	40,644	4,133	4,148
25.2	Other services from non-Federal sources.....	-	5,370	46,640	2,122
25.4	Operation and maintenance of facilities.....	-	24	171	49
26.0	Supplies and materials.....	-	24	169	48
31.0	Equipment.....	-	42	282	85
41.0	Grants, subsidies, and contributions.....	-	155,323	19,900	15,852
	Total, Other Objects.....	-	201,446	71,427	22,341
99.9	Total, new obligations.....	-	202,049	73,951	24,000
Position Data:					
	Average Salary (dollars), ES Position.....	-	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	-	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position.....	-	10	10	10

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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STATUS OF PROGRAMS

EMERGENCY WATERSHED PROGRAM (EWP)

The Emergency Watershed Program (EWP) is authorized by Section 216 of the Flood Control Act of 1950 P.L. 81-516 (33 U.S.C. 701b-1), and Sections 403-405 of the Agricultural Credit Act of 1978 P.L. 95-334 (16 U.S.C. 2203-2205). EWP implements recovery measures for watershed emergencies created by floods, wildfires, windstorms, and other natural occurrences that threaten life and property. EWP assistance is provided for both major disaster declarations and local watershed emergencies recognized by NRCS.

EWP work is not limited to a set of prescribed practices, but is planned and designed on a case-by-case basis. EWP emergency measures include 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.

EWP projects (except for the purchase of floodplain easements) must be sponsored by a State or local unit of government, or a Native American tribe or tribal organization. Sponsors are responsible for contributing their share of the project costs, obtaining land rights and regulatory permits, and providing operation and maintenance of the completed emergency measures.

NRCS provides the necessary technical assistance for planning and design and may provide up to 75 percent of the construction cost of eligible emergency measures (or up to 90 percent within limited resource areas).

Of the \$300 million authorized in the Bipartisan Infrastructure Law, \$215 million has been allocated to existing disaster needs, and the remaining \$85 million is being used for recent disasters that currently have cost estimates being developed. In 2022, NRCS entered into 221 agreements with local sponsors to implement cooperatively emergency recovery measures, and \$438 million of EWP funds were obligated. Responses to 65 watershed emergencies have been initiated in 2022, including: Hurricanes Ian and Fiona; western wildfires in Arizona, California, Utah, Colorado, and New Mexico; Yellowstone flooding; and the major tornado events across the southeast.

In addition to responding to major disaster declarations, EWP also provides assistance for local flooding, tornados, and significant weather events. For example, in 2022, NRCS addressed an immediate need to protect remote Alaskan native villages from severe erosion as well as to complete projects that protected homes and business from localized erosion threats across Pennsylvania.

EWP Floodplain Easements

NRCS may purchase Emergency Watershed Program Floodplain Easements (EWP-FPE) on floodplain lands that have been impaired or impacted within the last 12 months, have a history of repeated flooding (i.e., flooded at least twice during the past ten years), lands that would be inundated or adversely impacted by a dam breach, or have been damaged by a specific natural disaster, for which Congress allocated funding. Under the floodplain easement option, a landowner voluntarily sells a permanent conservation easement to NRCS that provides NRCS the full authority to restore and enhance the floodplain's natural functions and values. Since the program's inception in 1996, most of the purchased floodplain easements involved undeveloped agricultural lands, but a small portion of the purchased easements involved rural land with residences or other structures present. In recent years, the number of easement transactions involving urban and suburban lands with homes present has dramatically increased. Floodplain easements are only available as part of a larger strategy intended to minimize future flood damage, by removing valuable infrastructure from flood prone areas while prohibiting their future development and restoring the floodplain function.

This type of easement purchase requires a local sponsor that will purchase the underlying land, in fee title, once the floodplain easement is acquired by NRCS.

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

topographic diversity, improving flood storage or detention, and reestablishing native vegetation. EWP-FPE landowners can assist with implementation of the easement restoration plan.

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

Current Activities

The table below reports the number of easements enrolled in EWP-FPE from 1997 through the end of 2022.

Table NRCS-30. Cumulative Program Activity (1997 Through End of 2022)

Enrolled Easements (Permanent)	Cumulative
Number of Easements	1,776
Number of Acres.....	201,795
Closed Easements (Permanent)	Cumulative
Number of Easements	1,685
Number of Acres.....	187,330
Restored Easements	Cumulative
Number of Easements	1,596
Number of Acres.....	184,882

Oneida County, New York

The Sauquoit Creek is a top resource priority for the Town of Whitestown, New York. Since its inception in 2016, the Sauquoit Creek Channel & Floodplain Restoration Program, a collaborative effort between federal, state, county, and local governments, has continued to evolve to address the rapidly changing environmental landscape. The Sauquoit Creek Channel & Floodplain Restoration Program has five major components: 1) mitigation – the construction of floodplain benches; 2) infrastructure improvements of the Main Street Bridge and Oriskany Boulevard Bridge; 3) floodplain management – the adoption of smarter, or "green" development practices in the Sauquoit Creek watershed; 4) debris management – all municipalities in the Sauquoit Creek watershed participating in the "Sauquoit Creek Stream Sediment and Debris Management Plan," which was adopted by the Sauquoit Creek Basin Intermunicipal Commission; and 5) adaption – the implementation of the NRCS EWP – Floodplain Easement program. Each component is important, and collectively, will provide relief of repetitive flood loss to property owners. After delineating the EWP-FPE project area using an inundation study completed, because of the 2019 Halloween Storm, NRCS NY accepted approximately 200 applications. One hundred and thirty-seven applications are now proceeding to enrollment. Ultimately, the goal is for NRCS to acquire a contiguous floodplain easement with all the impacted parcels, raze or relocate the existing structures, and restore the area to its natural condition to the greatest extent practicable. The Town of Whitestown is the Project Sponsor and will acquire the remaining fee title of the properties, creating the largest “buy-out” program currently implemented in New York.

ACCOUNT 4: WATERSHED REHABILITATION PROGRAM

APPROPRIATIONS LANGUAGE

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

Under the authorities of section 14 of the Watershed Protection and Flood Prevention Act, [~~\$2,000,000~~]\$10,009,000 is provided.

LEAD-OFF TABULAR STATEMENT

Table NRCS-31. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$2,000,000
Change in Appropriation	+ 8,009,000
Budget Estimate, 2024	<u>10,009,000</u>

PROJECT STATEMENTS

Table NRCS-32. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Chg Dec. Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Appropriations:										
Watershed Rehabilitation Program:										
Technical Assistance.....	\$4,000	5	\$1,000	6	\$2,000	1	\$2,009	2	+\$9	+1
Financial Assistance.....	6,000	-	-	-	-	-	8,000	-	+8,000	-
Total Discretionary Appropriations.....	<u>10,000</u>	<u>5</u>	<u>1,000</u>	<u>6</u>	<u>2,000</u>	<u>1</u>	<u>10,009</u>	<u>2</u>	<u>+8,009</u>	<u>+1 (1)</u>
Mandatory Appropriations:										
Small Watershed Rehabilitation Program:										
Technical Assistance.....	-	12	-	17	-	3	-	3	-	-
Financial Assistance.....	-	-	-	-	-	-	-	-	-	-
Total Mandatory Appropriations.....	<u>-</u>	<u>12</u>	<u>-</u>	<u>17</u>	<u>-</u>	<u>3</u>	<u>-</u>	<u>3</u>	<u>-</u>	<u>-</u>
Supplemental Appropriations:										
Watershed Rehabilitation Program (IIJA):										
Technical Assistance.....	-	-	30,000	-	-	6	-	3	-	-3
Financial Assistance.....	-	-	88,000	-	-	-	-	-	-	-
Total Supplemental Appropriations (IIJA)	<u>-</u>	<u>-</u>	<u>118,000</u>	<u>-</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>3</u>	<u>-</u>	<u>-3</u>
Total Appropriation.....	<u>10,000</u>	<u>17</u>	<u>119,000</u>	<u>23</u>	<u>2,000</u>	<u>10</u>	<u>10,009</u>	<u>8</u>	<u>+8,009</u>	<u>-2</u>
Recoveries, Other	12,841	-	-6,473	-	-	-	-	-	-	-
Bal. Available, SOY.....	64,327	-	45,349	-	92,255	-	46,363	-	-45,892	-
Total Available.....	<u>87,168</u>	<u>17</u>	<u>157,876</u>	<u>23</u>	<u>94,255</u>	<u>10</u>	<u>56,372</u>	<u>8</u>	<u>-37,883</u>	<u>-2</u>
Bal. Available, EOY	-45,349	-	-92,255	-	-46,363	-	-13,821	-	+32,542	-
Total Obligations	<u>41,645</u>	<u>17</u>	<u>65,621</u>	<u>23</u>	<u>47,892</u>	<u>10</u>	<u>42,551</u>	<u>8</u>	<u>-5,341</u>	<u>-2</u>

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

Table NRCS-33. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021 Actual	FTE	2022 Actual	FTE	2023 Estimated	FTE	2024 Estimated	FTE	Inc. or Dec.	FTE Inc. or Dec.
Discretionary Obligations:										
Watershed Rehabilitation Program:										
Technical Assistance.....	\$4,842	5	\$2,123	6	\$2,791	1	\$2,436	2	-\$355	+1
Financial Assistance.....	6,828	-	26	-	123	-	8,000	-	+7,877	-
Subtotal Watershed Rehabilitation Prog. ...	11,670	5	2,149	6	2,914	1	10,436	2	+7,522	+1
Mandatory Obligations:										
Watershed Rehabilitation Program:										
Technical Assistance.....	8,084	12	12,312	17	8,189	3	3,710	3	-4,479	-
Financial Assistance.....	21,891	-	2,204	-	5,791	-	-	-	-5,791	-
Subtotal Mand Obligations	29,975	12	14,516	17	13,980	3	3,710	3	-10,270	-
Supplemental Obligations:										
Watershed Rehabilitation Program (IIJA):										
Technical Assistance.....	-	-	25,416	-	9,732	6	6,322	3	-3,410	-3
Financial Assistance.....	-	-	23,540	-	21,266	-	22,083	-	+817	-
Subtotal Supp Obligations (IIJA).....	-	-	48,956	-	30,998	6	28,405	3	-2,593	-3
Total Obligations	41,645	17	65,621	23	47,892	10	42,551	8	-5,341	-2
Add back:										
Balances Available, EOY:										
Watershed Rehabilitation Program	3,000	-	1,910	-	996	-	569	-	-427	-
Small Watershed Rehabilitation Program ..	42,349	-	21,301	-	7,321	-	3,611	-	-3,710	-
Watershed Rehabilitation Program (IIJA)..	-	-	69,044	-	38,046	-	9,641	-	-28,405	-
Total Bal. Available, EOY	45,349	-	92,255	-	46,363	-	13,821	-	-32,542	-
Total Available.....	87,168	17	157,876	23	94,255	10	56,372	8	-37,883	-2
Less:										
Recoveries, Other	-12,841	-	6,473	-	-	-	-	-	-	-
Bal. Available, SOY.....	-64,327	-	-45,349	-	-92,255	-	-46,363	-	+45,892	-
Total Appropriation.....	10,000	17	119,000	23	2,000	10	10,009	8	+8,009	-2

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

JUSTIFICATION

- (1) A net increase of \$8,009,000 and an increase of 1 staff year for the Watershed Rehabilitation Program (\$2,000,000 and 1 staff year available in 2023).
 - a) An increase of \$8,000,000 and an increase of 1 staff year for the Watershed Rehabilitation Program.
There are currently 221 active watershed rehabilitation projects, of these there are 161 dams in planning, 40 dams in design and 20 under construction. This funding will provide construction funds for 2 rehabilitation projects which will address critical public health and safety concerns with aging dams reaching the end of their design lives.
 - b) An increase of \$9,000 for 2024 Pay.
This increase will support the annualization of the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Watershed Rehabilitation Program activities.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE**Table NRCS-34. Geographic Breakdown of Obligations and FTE (thousands of dollars)**

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Arizona.....	\$1,716	1	\$196	1	\$143	1	\$127	-
California.....	468	-	74	-	54	-	48	-
Colorado.....	17	-	25	-	18	-	16	-
Connecticut.....	50	-	14	-	10	-	9	-
District of Columbia.....	9,720	2	336	2	245	1	218	1
Georgia.....	5,351	1	21,973	1	16,036	1	14,248	1
Idaho.....	-	1	-	-	-	-	-	-
Illinois.....	93	1	315	1	230	1	204	-
Indiana.....	-1	-	120	-	88	-	78	-
Kansas.....	343	-	157	-	115	-	102	-
Kentucky.....	217	-	56	-	41	-	36	-
Massachusetts.....	401	1	1,169	1	853	1	758	1
Mississippi.....	7	-	6,268	-	4,575	-	4,064	-
Nebraska.....	130	-	538	1	393	1	349	-
Nevada.....	29	-	46	-	34	-	30	-
New Hampshire.....	7	-	43	-	31	-	28	-
New Jersey.....	67	1	913	-	666	-	592	-
New Mexico.....	57	-	1,727	-	1,260	-	1,120	-
New York.....	24	-	87	-	63	-	56	-
North Carolina.....	2,637	2	45	-	33	-	29	-
North Dakota.....	188	-	60	-	44	-	39	-
Ohio.....	1,149	1	23	-	17	-	15	-
Oklahoma.....	1,705	-	3,790	1	2,766	1	2,458	1
Oregon.....	735	-	14	-	10	-	9	-
Pennsylvania.....	1,530	1	4,775	1	3,485	-	3,096	-
Puerto Rico.....	-	-	1,109	-	809	-	719	-
Tennessee.....	94	-	2	-	1	-	1	-
Texas.....	9,634	3	12,419	9	9,064	4	8,053	3
Utah.....	4,701	1	1,609	-	1,174	-	1,043	-
Vermont.....	19	-	58	-	42	-	38	-
Virginia.....	36	-	1,873	-	1,367	-	1,215	-
West Virginia.....	518	3	5,787	3	4,224	1	3,752	1
Wyoming.....	3	-	-	-	-	-	-	-
Obligations.....	41,645	19	65,621	23	47,892	10	42,551	8
Lapsing Balances.....	174	-	-	-	-	-	-	-
Bal. Available, EOY.....	45,349	-	92,255	-	46,363	-	13,821	-
Total, Available.....	87,168	19	157,876	23	94,255	10	56,372	8

CLASSIFICATION BY OBJECTS**Table NRCS-35. Classification by Objects (thousands of dollars)**

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
	Personnel Compensation:				
	Washington D.C.	\$295	\$2,613	\$1,000	\$852
	Personnel Compensation, Field	1,979	247	94	80
11	Total personnel compensation	2,274	2,860	1,094	932
12	Personal benefits.....	847	1,101	453	381
	Total, personnel comp. and benefits	3,121	3,961	1,547	1,313
	Other Objects:				
21.0	Travel and transportation of persons.....	25	177	118	71
25.1	Advisory and assistance services.....	-319	2,501	5,876	832
25.2	Other services from non-Federal sources.....	6,615	32,999	16,507	9,976
25.4	Operation and maintenance of facilities	3,495	2,736	2,635	1,106
25.5	Research and development contracts	-12	-	-	-
26.0	Supplies and materials.....	-	1	1	1
31.0	Equipment	4	2	3	1
41.0	Grants, subsidies, and contributions	28,716	23,231	21,205	29,251
	Total, Other Objects	38,524	61,646	46,345	41,238
99.9	Total, new obligations	41,645	65,607	47,892	42,551
	Position Data:				
	Average Salary (dollars), ES Position	\$186,928	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	\$70,816	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position.....	10	10	10	10

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

STATUS OF PROGRAMS

WATERSHED REHABILITATION PROGRAM

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

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

Since 1948, local communities have constructed 11,850 watershed dams with assistance from NRCS. Local sponsors provide leadership in the program and secure land rights and easements needed for construction. NRCS provided technical assistance and cost sharing for construction. Local sponsors assumed responsibility for the operation and maintenance of the structures once they were completed. These dams protect America's communities, infrastructure, and natural resources with flood control, and many provide the primary source of drinking water in the area or offer recreation and wildlife benefits.

Some communities protected by these watershed dams are now vulnerable to flooding since many dams have reached, or will soon reach, the end of their design life. There are currently 5,938 watershed dams that will have reached the end of their originally designed lifespan. That total is estimated to increase to 6,392 by December 2023; 6,609 by December 2024; and 6,782 by December 2025. More than half of the 11,850 watershed dams in the Nation are beyond their design life. Over time, dam spillway pipes have deteriorated, and reservoirs have filled with sediment. More significantly, the area around and below many dams has changed as homes and businesses have been constructed on what was once agricultural land. Thus, a dam failure could pose a serious threat to the health and safety of those living downstream and to the communities that depend on the reservoir for drinking water. Dam failure could also cause serious adverse environmental effects like lost wildlife habitat and poor water quality.

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

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

The Watershed Rehabilitation Program provides up to 65 percent of the total project 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 four phases, all of which require a request from a local public sponsor: 1) conduct a dam assessment to evaluate the condition of the dam, including safety hazards, and provide preliminary alternatives for rehabilitation; 2) prepare project plans; 3) prepare designs for implementation; and 4) implement the dam rehabilitation plan. Partnerships among local communities, State governments, and NRCS leverage services and funds to allow many projects to move quickly through the planning and implementation stages.

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

The Architectural and Engineering (A&E) Service contract was awarded in 2018 for private A&E firms to perform dam assessments, rehabilitation planning, engineering designs, and construction inspection services under the agency’s guidance. Also, some sponsors have used their own professional technical staff or acquired technical services as part of their “in-kind” contribution to meet their 35 percent cost-share requirement.

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

Current Activities

In 2022, the Watershed Rehabilitation Program received \$1 million in mandatory funding and \$118 million from the Bipartisan Infrastructure Law (BIL). Additionally, \$101 million from the BIL has been allocated to existing rehabilitation projects, and the \$17 million remainder will be used for new projects or existing projects as they progress to construction phases. This investment in watershed rehabilitation recognizes the critical role of these watershed structures in flood management, water supply, erosion control, agricultural productivity, recreation, and wildlife habitat. This funding helps to repair aging infrastructure, creates jobs and commerce, and protects homes and families.

The agency continued to provide funding and promoted assessments of high-hazard potential dams, monitored costs, and examined the rehabilitation program to ensure equitable delivery in economically disadvantaged areas. Projects funded for assessments, planning, design, and construction are included in the chart below.

Table NRCS-36. Summary of Watershed Rehabilitation Projects and Allocations as of September 30, 2022

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2022	Number of Dams Rehabilitated	2022 Federal Allocations of Mandatory Funds ^{b/}	2022 Federal Allocations of Discretionary Funds ^{a/}	2022 Federal Allocations of BIL funding
Alabama.....	1	-	-	-	-
Arizona.....	11	3	-	\$96,519	-
Arkansas.....	7	1	-	-	-
California.....	1	-	-	200,273	-
Colorado.....	5	1	-	-	-
Connecticut.....	4	-	-	-	-
Georgia.....	39	9	-	525,000	\$21,452,000
Illinois.....	1	-	-	277,200	-
Indiana.....	-	-	-	150,000	-
Iowa.....	4	4	-	-	-
Kansas.....	8	3	\$370,500	325,000	540,500
Kentucky.....	4	-	-	76,000	-
Louisiana.....	3	-	-	-	-
Maine.....	1	-	-	-	803,000
Massachusetts.....	9	1	983,850	1,086,049	7,053,333
Maryland.....	1	-	-	150,000	-
Mississippi.....	36	18	-	66,000	7,421,000

State	Total Number of Funded Dam Rehabilitation Projects 2000 - 2022	Number of Dams Rehabilitated	2022 Federal Allocations of Mandatory Funds ^{b/}	2022 Federal Allocations of Discretionary Funds ^{a/}	2022 Federal Allocations of BIL funding
Missouri.....	2	2	-	-	-
Montana.....	-	-	-	136,000	-
Nebraska.....	16	13	150,628	341,816	-
Nevada.....	1	-	-	-	-
New Hampshire.....	4	-	-	55,000	-
New Jersey.....	7	-	-	2,937,640	-
New Mexico.....	9	3	-	1,752,000	-
New York.....	9	-	-	706,210	-
North Carolina.....	7	-	-	52,557	-
North Dakota.....	8	1	-	-	-
Ohio.....	14	8	-	1,722,175	7,365,382
Oklahoma.....	63	40	-	5,356,058	1,697,661
Oregon.....	3	-	-	-	-
Pennsylvania.....	21	2	-	353,163	4,153,750
Puerto Rico.....	2	-	-	-	1,158,111
Tennessee.....	7	3	-	4,968	-
Texas.....	57	26	973,900	4,670,470	21,247,417
Utah.....	25	11	-	1,395,000	-
Vermont.....	4	-	-	-	2,818,064
Virginia.....	17	13	34,300	1,089,000	890,000
Washington.....	-	-	-	-	-
West Virginia.....	23	2	78,750	1,490,183	14,398,471
Wisconsin.....	11	11	-	-	-
Wyoming.....	1	1	-	-	-
Total.....	446	176	\$2,591,928	\$25,014,281	\$90,998,689

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

^{b/} Mandatory funds include carryover funds and prior year recoveries.

In 2022, 144 assessments of high hazard dams were funded. These assessments provided communities with technical information about the condition of their dams, and alternatives for rehabilitation of dams that do not currently meet Federal dam safety standards.

Project Status and Benefits

From 2000 through 2022, 446 dams have been funded for rehabilitation. Of the 446 dams, 269 dams in 26 States were authorized for rehabilitation. There are 156 dams in the planning phase that are subject to funding priorities. Of the 269 dams that were authorized for rehabilitation, 176 have been rehabilitated and 39 are in the design and 23 are in the construction phase.

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

Table NRCS-37. Benefits for lands provided by the completed projects.

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

ACCOUNT 5: WATER BANK PROGRAM

APPROPRIATIONS LANGUAGE

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

In addition to amounts otherwise made available by this Act and notwithstanding the last sentence of 16 U.S.C. 1310, there is appropriated \$4,000,000, to remain available until expended, to implement non-renewable agreements on eligible lands, including flooded agricultural lands, as determined by the Secretary, under the Water Bank Act (16 U.S.C. 1301–1311).

LEAD-OFF TABULAR STATEMENT

Table NRCS-38. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$4,000,000
Change in Appropriation	-
Budget Estimate, 2024	<u>4,000,000</u>

PROJECT STATEMENTS

Table NRCS-39. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE			
Discretionary Appropriations:											
Water Bank Program											
Technical Assistance.....	\$400	1	\$400	3	\$400	5	\$400	3	-	-2	
Financial Assistance	3,600	-	3,600	-	3,600	-	3,600	-	-	-	
Total Appropriation	4,000	1	4,000	3	4,000	5	4,000	3	-	-2	(1)
Recoveries, Other	215	-	485	-	-	-	-	-	-	-	
Bal. Available, SOY	133	-	649	-	1,305	-	89	-	-\$1,216	-	
Total Available	4,348	1	5,134	3	5,305	5	4,089	3	-1,216	-2	
Bal. Available, EOY	-649	-	-1,305	-	-89	-	-	-	+89	-	
Total Obligations	3,699	1	3,829	3	5,216	5	4,089	3	-1,127	-2	

Table NRCS-40. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Water Bank Program										
Technical Assistance.....	\$200	1	\$353	3	\$680	5	\$489	3	-\$191	-2
Financial Assistance	3,499	-	3,476	-	4,536	-	3,600	-	-936	-
Total Obligations	3,699	1	3,829	3	5,216	5	4,089	3	-1,127	-2
Balances Available, EOY:										
Water Bank Program	649	-	1,305	-	89	-	-	-	-89	-
Total Bal. Available, EOY.....	649	-	1,305	-	89	-	-	-	-89	-
Total Available	4,348	1	5,134	3	5,305	5	4,089	3	-1,216	-2
Recoveries, Other	-215	-	-485	-	-	-	-	-	-	-
Bal. Available, SOY	-133	-	-649	-	-1,305	-	-89	-	+1,216	-
Total Appropriation	4,000	1	4,000	3	4,000	5	4,000	3	-	-2

JUSTIFICATION

(1) No change in funding and a decrease of 2 staff years for the Water Bank Program (\$4,000,000 and 5 staff years available in 2023).

Funding was provided in the 2023 Enacted Budget through General Provision Section 762. Funding for 2024 Budget is requested in the Water Bank Program stand-alone account.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-41. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Minnesota	\$67	-	-	-	-	-	-	-
North Dakota	2,719	1	\$3,388	2	\$3,477	3	\$3,618	2
South Dakota	912	-	441	1	1,739	2	471	1
Obligations.....	3,699	1	3,829	3	5,216	5	4,089	3
Bal. Available, EOY	649	-	1,305	-	89	-	-	-
Total, Available	4,348	1	5,134	3	5,305	5	4,089	3

CLASSIFICATION BY OBJECTS

Table NRCS-42. Classification by Objects (thousands of dollars)

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
	Personnel Compensation:				
	Personnel Compensation, Field	\$133	\$260	\$453	\$286
11	Total personnel compensation	133	260	453	286
12	Personal benefits	55	93	163	103
	Total, personnel comp. and benefits	188	353	616	389
	Other Objects:				
23.1	Rental payments to GSA	12	-	-	-
25.4	Operation and maintenance of facilities	-	-	64	100
41.0	Grants, subsidies, and contributions	3,499	3,476	4,536	3,600
	Total, Other Objects	3,511	3,476	4,600	3,700
99.9	Total, new obligations	3,699	3,829	5,216	4,089
	Position Data:				
	Average Salary (dollars), ES Position	\$186,928	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	\$70,816	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position.....	10	10	10	10

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

STATUS OF PROGRAMS

WATER BANK PROGRAM

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

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

WBP participants are not subject to the Farm Bill payment eligibility requirements, including the highly erodible land and wetland conservation provisions, or the adjusted gross income limitations. The rental rates, for the 2022 program, were as follows:

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

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

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

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

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

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

Current Activities

In 2022, \$4 million in financial and technical assistance was available for approval of new WBP ten-year rental agreements. Over \$3.4 million was obligated to 68 agreements covering 7,581 acres.

ACCOUNT 6: HEALTHY FORESTS RESERVE PROGRAM

APPROPRIATIONS LANGUAGE

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

For necessary expenses to carry out the Healthy Forests Reserve Program under the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6571-6578), [~~\$7,000,000~~]\$20,011,000, to remain available until expended.

LEAD-OFF TABULAR STATEMENT

Table NRCS-43. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$7,000,000
Change in Appropriation	+13,011,000
Budget Estimate, 2024	<u>20,011,000</u>

PROJECT STATEMENTS

Table NRCS-44. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Chg		FTE
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE	or Dec.	Dec.	Inc. or Chg Key
Discretionary Appropriations:											
Healthy Forests Reserve Program:											
Technical Assistance.....	-	-	-	-	\$2,313	7	\$6,611	7	+\$4,298	-	
Financial Assistance.....	-	-	-	-	4,687	-	13,400	-	+8,713	-	
Total Appropriation.....	-	-	-	-	7,000	7	20,011	7	+13,011	-	(1)
Total Available.....	-	-	-	-	7,000	7	20,011	7	+13,011	-	
Total Obligations.....	-	-	-	-	7,000	7	20,011	7	+13,011	-	

Table NRCS-45. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.		FTE
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE	or Dec.	Dec.	Inc. or Dec.
Discretionary Obligations:											
Healthy Forests Reserve Program:											
Technical Assistance	-	-	-	-	\$2,313	7	\$6,611	7	+\$4,298	-	
Financial Assistance	-	-	-	-	4,687	-	13,400	-	+8,713	-	
Total Obligations	-	-	-	-	7,000	7	20,011	7	+13,011	-	
Total Appropriation	-	-	-	-	7,000	7	20,011	7	+13,011	-	

JUSTIFICATION

- (1) A net increase of \$13,011,000 and no change in staff years for the Healthy Forests Reserve Program (\$7,000,000 and 7 staff years available in 2023).
- a) A net increase of \$13,000,000 and no change in staff years for the Healthy Forests Reserve Program. The funding increase will allow NRCS to continue to enroll private and Tribal landowners on a voluntary basis for the purpose of restoring, enhancing, and protecting forestland to promote recovery of endangered and threatened species under the Endangered Species Act. Funds will be prioritized to projects that increase plant and animal biodiversity and enhance carbon sequestration.
- b) An increase of \$11,000 for 2024 Pay.
 This increase will support the annualization of the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Healthy Forests Reserve Program activities.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-46. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
Distribution Unknown	-	-	-	-	\$7,000	7	\$20,011	7
Obligations.....	-	-	-	-	7,000	-	20,011	-
Total, Available	-	-	-	-	7,000	7	20,011	7

CLASSIFICATION BY OBJECTS

Table NRCS-47. Classification by Objects (thousands of dollars)

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
	Personnel Compensation:				
	Personnel Compensation, Field	-	-	\$710	\$765
11	Total personnel compensation	-	-	710	765
12	Personal benefits	-	-	293	315
	Total, personnel comp. and benefits	-	-	1,003	1,080
	Other Objects:				
25.2	Other services from non-Federal sources	-	-	1,210	5,426
25.4	Operation and maintenance of facilities	-	-	100	105
32.0	Land and structures	-	-	2,906	8,308
41.0	Grants, subsidies, and contributions	-	-	1,781	5,092
	Total, Other Objects	-	-	5,997	18,931
99.9	Total, new obligations	-	-	7,000	20,011
	Position Data:				
	Average Salary (dollars), ES Position	-	-	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	-	-	\$77,118	\$81,129
	Average Grade, GS Position.....	-	-	10	10

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).

ACCOUNT 7: URBAN AGRICULTURE AND INNOVATIVE PRODUCTION PROGRAM

APPROPRIATIONS LANGUAGE

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

For necessary expenses to carry out the Urban Agriculture and Innovative Production Program under section 222 of subtitle A of the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 6923), as added by section 12302 of Public Law 115–334, [~~\$8,500,000~~]\$13,534,000.

LEAD-OFF TABULAR STATEMENT

Table NRCS-48. Lead-off Tabular Statement (In dollars)

Item	Amount
Estimate, 2023	\$8,500,000
Change in Appropriation	+5,034,000
Budget Estimate, 2024	<u>13,534,000</u>

PROJECT STATEMENTS

Table NRCS-49. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Chg Dec. Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Appropriations:										
Urban Agriculture and Innovative Production Program										
Technical Assistance	-	-	-	-	\$8,500	7	\$13,534	7	+\$5,034	-
Total Appropriation	-	-	-	-	8,500	7	13,534	7	+5,034	(1)
Total Available	-	-	-	-	8,500	7	13,534	7	+5,034	-
Total Obligations	-	-	-	-	8,500	7	13,534	7	+5,034	-

*Note: The 2021 Enacted Appropriation was funded as a General Provision in the Farm Security and Rural Investment Programs Account. The 2022 Enacted Appropriation was funded under the Private Lands Conservation Operations Account.

Table NRCS-50. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE		
Discretionary Obligations:										
Urban Agriculture and Innovative Production Program										
Technical Assistance	-	-	-	-	\$8,500	7	\$13,534	7	+\$5,034	-
Total Obligations	-	-	-	-	8,500	7	13,534	7	+5,034	-
Total Available	-	-	-	-	8,500	7	13,534	7	+5,034	-
Total Appropriation	-	-	-	-	8,500	7	13,534	7	+5,034	-

Note: The 2021 Enacted Appropriation was funded as a General Provision in the Farm Security and Rural Investment Programs Account. The 2022 Enacted Appropriation was funded under the Private Lands Conservation Operations Account.

JUSTIFICATION

- (1) A net increase of \$5,034,000 and no change in staff years for the Urban Agriculture and Innovative Production Program (\$8,500,000 and 7 staff years available in 2023).
 - a) An increase of \$5,000,000 and no change in staff years for the Urban Agriculture and Innovative Production Program. This increase in funding will provide grant opportunities to historically underserved communities, leverage existing authorities within USDA agencies to amplify ongoing programs, manage the needs of the Federal Advisory Committee, and maintain on-going opportunities to address food loss and waste to include encouraging composting through on-going agreements with local government.

- b) An increase of \$34,000 for 2024 Pay. This increase will support the annualization of the 2023 4.6 percent Cost of Living pay increase and the 2024 5.2 percent Cost of Living pay increase. Without this increase the Agency will not have adequate resources available to avoid any disruption or delays in the Urban Agriculture and Innovative Production Program activities.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE

Table NRCS-51. Geographic Breakdown of Obligations and FTE (thousands of dollars)

State/Territory/Country	2021		2022		2023		2024	
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE
District of Columbia	-	-	-	-	\$8,500	7	\$13,534	7
Obligations.....	-	-	-	-	8,500	7	13,534	7
Total, Available	-	-	-	-	8,500	7	13,534	7

CLASSIFICATION BY OBJECTS

Table NRCS-52. Classification by Objects (thousands of dollars)

Item No.	Item	2021 Actual	2022 Actual	2023 Estimated	2024 Estimated
	Personnel Compensation:				
	Washington D.C.	-	-	\$517	\$1,195
11	Total personnel compensation	-	-	517	1,195
12	Personal benefits.....	-	-	198	462
	Total, personnel comp. and benefits	-	-	715	1,657
	Other Objects:				
21.0	Travel and transportation of persons	-	-	52	79
25.2	Other services from non-Federal sources	-	-	7,730	11,793
26.0	Supplies and materials.....	-	-	3	5
	Total, Other Objects	-	-	7,785	11,877
99.9	Total, new obligations	-	-	8,500	13,534
	Position Data:				
	Average Salary (dollars), ES Position	-	-	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	-	-	\$77,118	\$81,129
	Average Grade, GS Position.....	-	-	10	10

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).

ACCOUNT 8: FARM SECURITY AND RURAL INVESTMENT PROGRAMS

PROJECT STATEMENTS

Table NRCS-53. Project Statement by Appropriations Details (thousands of dollars, FTE)

Item	2021 Actual	FTE	2022 Actual	FTE	2023 Estimated	FTE	2024 Estimated	FTE	Inc. or Dec.	FTE Inc. or Dec.	Chg Key
Discretionary Appropriations:											
Wetlands Mitigation Banking	\$5,000	-	\$5,000	-	\$5,000	-	\$5,000	-	-	-	-
Urban Agriculture and Innovative*.....	7,000	2	-	-	-	-	-	-	-	-	-
Subtotal	12,000	2	5,000	-	5,000	-	5,000	-	-	-	-
Mandatory Appropriations:											
Environmental Quality Incentive Program	1,666,663	2,953	1,713,813	2,943	1,878,838	3,819	1,878,838	4,095	-	+276	
Conservation Stewardship Program (2018)	686,066	618	733,216	929	921,816	930	921,816	1,080	-	+150	
Conservation Stewardship Program (2014)	-	857	-	420	-	420	-	-	-	-420	
Agricultural Conservation Easement Program.....	416,043	407	416,043	411	416,043	586	416,043	586	-	-	
Regional Conservation Partnership Program.....	282,900	98	282,900	146	282,900	114	282,900	114	-	-	
Conservation Reserve Program (TA Only).....	220,770	853	220,770	1,530	220,770	1,470	220,770	1,470	-	-	
Agricultural Management Assistance	4,715	7	4,715	7	4,715	7	4,715	6	-	-1	
Environmental Quality Incentive Program – IRA	-	-	-	-	250,000	102	1,650,250	1,145	+\$1,400,250	+1,043	
Conservation Stewardship Program – IRA	-	-	-	-	250,000	132	471,500	264	+221,500	+132	
Agricultural Conservation Easement Program – IRA.....	-	-	-	-	100,000	61	188,600	122	+88,600	+61	
Regional Conservation Partnership Program – IRA	-	-	-	-	250,000	29	754,400	29	+504,400	-	
Voluntary Public Access and Habitat Incentive Prg.....	-	1	-	1	-	1	-	-	-	-1	
Feral Swine Eradication and Control Pilot Program.....	-	4	-	4	-	4	-	-	-	-4	
Agricultural Water Enhancement Program.....	-	-	-	-	-	-	-	-	-	-	
Chesapeake Bay Watershed Program	-	1	-	1	-	-	-	-	-	-	
Farm and Ranch Lands Protection Program	-	-	-	-	-	-	-	-	-	-	
Grassland Reserve Program	-	-	-	-	-	-	-	-	-	-	
Wetlands Mitigation Banking Program.....	-	-	-	-	-	-	-	-	-	-	
Wetlands Reserve Program	-	2	-	1	-	1	-	1	-	-	
Wildlife Habitat Incentives Program.....	-	2	-	1	-	1	-	1	-	-	
Healthy Forests Reserve Program.....	-	1	-	-	-	-	-	-	-	-	
Subtotal	3,277,157	5,804	3,371,457	6,394	4,575,082	7,677	6,789,832	8,913	+2,214,750	+1,236	
Total Adjusted Approp	3,289,157	5,806	3,376,457	6,394	4,580,082	7,677	6,794,832	8,913	+2,214,750	+1,236	
Add back:											
Rescission, Transfers In and Out.....	60,228	-	60,228	-	60,228	-	60,228	-	-	-	
Sequestration	201,730	-	207,430	-	228,805	-	414,055	-	+185,250	-	
Total Appropriation	3,551,115	5,806	3,644,115	6,394	4,869,115	7,677	7,269,115	8,913	+2,400,000	+1,236	
Transfers Out:											
NRCS/ACEP	-8,307	-	-8,307	-	-8,307	-	-8,307	-	-	-	
NRCS/CSP.....	-21,184	-	-21,184	-	-21,184	-	-21,184	-	-	-	

2024 USDA EXPLANATORY NOTES – NATURAL RESOURCES CONSERVATION SERVICE

Item	2021		2022		2023		2024		Inc. or Dec.	FTE Inc. or Dec.	Chg Key
	Actual	FTE	Actual	FTE	Estimated	FTE	Estimated	FTE			
NRCS/EQIP.....	-30,737	-	-30,737	-	-30,737	-	-30,737	-	-	-	-
Total Transfers Out.....	-60,228	-	-60,228	-	-60,228	-	-60,228	-	-	-	-
Sequestration	-201,730	-	-207,430	-	-228,805	-	-414,055	-	-185,250	-	-
Recoveries, Other	369,536	-	457,206	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	2,334,039	-	2,513,060	-	2,470,146	-	1,750,674	-	-719,472	-	-
Total Available	5,992,732	5,806	6,346,723	6,394	7,050,228	7,677	8,545,506	8,913	+1,495,278	+1,236	
Lapsing Balances.....	-198	-	-795	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	-2,513,060	-	-2,470,146	-	-1,750,674	-	-1,714,087	-	+36,587	-	-
Total Obligations.....	3,479,474	5,806	3,875,782	6,394	5,299,554	7,677	6,831,419	8,913	+1,531,865	+1,236	

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

*The 2022 Enacted Appropriation was funded under the Private Lands Conservation Operations Account and the 2023 Enacted and the 2024 Estimate were funded in a standalone account.

Table NRCS-54. Project Statement by Obligations Details (thousands of dollars, FTE)

Item	2021 Actual	FTE	2022 Actual	FTE	2023 Estimated	FTE	2024 Estimated	FTE	Inc. or Dec.	FTE Inc. or Dec.
Discretionary Obligations:										
Wetlands Mitigation Banking	\$5,000	-	\$4,734	-	\$4,927	-	\$5,338	-	+\$411	-
Urban Agriculture and Innovative*	6,959	2	-	-	-	-	-	-	-	-
Subtotal Disc Obligations.....	11,959	2	4,734	-	4,927	-	5,338	-	+411	-
Mandatory Obligations:										
Environmental Quality Incentive Program	1,886,736	2,953	1,955,321	2,943	2,117,633	3,819	1,942,095	4,095	-175,538	+276
Conservation Stewardship Program (2018)	646,076	618	803,445	929	955,497	930	926,868	1,080	-28,629	+150
Conservation Stewardship Program (2014)	216,749	857	100,379	420	208,026	420	35,364	-	-172,662	-420
Agricultural Conservation Easement Program.....	441,986	407	515,143	411	552,056	586	445,966	586	-106,090	-
Regional Conservation Partnership Program	80,286	98	172,978	146	442,546	114	472,561	114	+30,015	-
Conservation Reserve Program (TA Only).....	130,947	853	280,717	1,530	247,643	1,470	230,189	1,470	-17,454	-
Agricultural Management Assistance	4,558	7	4,401	7	4,715	7	4,715	6	-	-1
Environmental Quality Incentive Program – IRA	-	-	-	-	197,644	102	1,375,058	1,145	+1,177,414	+1,043
Conservation Stewardship Program – IRA	-	-	-	-	221,284	132	443,417	264	+222,133	+132
Agricultural Conservation Easement Program – IRA.....	-	-	-	-	80,000	61	164,000	122	+84,000	+61
Regional Conservation Partnership Program – IRA	-	-	-	-	230,000	29	765,000	29	+535,000	-
Voluntary Public Access and Habitat Incentive Prg.....	162	1	397	1	233	1	-	-	-233	-1
Feral Swine Eradication and Control Pilot Program.....	18,336	4	714	4	650	4	-	-	-650	-4
Agricultural Water Enhancement Program	45	-	-5	-	315	-	299	-	-16	-
Chesapeake Bay Watershed Program	31	1	54	1	415	-	395	-	-20	-
Farm and Ranch Lands Protection Program	17,714	-	23,518	-	25,928	-	15,125	-	-10,803	-
Grassland Reserve Program	6,824	-	4,337	-	4,695	-	3,521	-	-1,174	-
Wetlands Mitigation Banking Program.....	263	-	329	-	356	-	53	-	-303	-
Wetlands Reserve Program	13,356	2	9,137	1	4,043	1	607	1	-3,436	-
Wildlife Habitat Incentives Program.....	275	2	142	1	400	1	376	1	-24	-
Healthy Forests Reserve Program.....	3,143	1	36	-	525	-	472	-	-53	-
Conservation Security Program.....	28	-	5	-	23	-	-	-	-23	-
Subtotal Mand Obligations.....	3,467,515	5,804	3,871,048	6,394	5,294,627	7,677	6,826,081	8,913	+1,531,454	+1,236
Total Obligations	3,479,474	5,806	3,875,782	6,394	5,299,554	7,677	6,831,419	8,913	+1,531,865	+1,236
Add back:										
Lapsing Balances	198	-	795	-	-	-	-	-	-	-
Balances Available, EOY:										
Discretionary Farm Security and Rural Investment Prg.....	5,000	-	5,266	-	5,338	-	5,000	-	-338	-
Mandatory Farm Security and Rural Investment Prg.....	2,508,060	-	2,464,880	-	1,745,336	-	1,709,087	-	-36,249	-
Total Bal. Available, EOY	2,513,060	-	2,470,146	-	1,750,674	-	1,714,087	-	-36,587	-
Total Available	5,992,732	5,806	6,346,723	6,394	7,050,228	7,677	8,545,506	8,913	+1,495,278	+1,236
Less:										
Total Transfers Out.....	60,228	-	60,228	-	60,228	-	60,228	-	-	-
Sequestration	201,730	-	207,430	-	228,805	-	414,055	-	+185,250	-
Recoveries, Other	-369,536	-	-457,206	-	-	-	-	-	-	-
Bal. Available, SOY	-2,334,039	-	-2,513,060	-	-2,470,146	-	-1,750,674	-	+719,472	-
Total Appropriation	3,551,115	5,806	3,644,115	6,394	4,869,115	7,677	7,269,115	8,913	+2,400,000	+1,236

Note: The project statement and MAX discrepancy is due to MAX reporting reimbursable funding and FTEs, which are not included in the project statement.

*The 2022 Enacted Appropriation was funded under the Private Lands Conservation Operations Account and the 2023 Enacted and the 2024 Estimate were funded in a standalone account.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND FTE**Table NRCS-55. Geographic Breakdown of Obligations and FTE (thousands of dollars)**

2022 ACTUALS																	
State/Territory/Country	ACEP	AMAP	AWEP	CBWP	CRPG	CSPG	CSTP	EQIP	FRPP	FSCP	GRPG	HFRP	RCPP	VPAP	WHIP	WMBP	WRPG
Alabama.....	\$3,070	-	-	-	\$2,086	-	\$21,301	\$38,137	-	-	-	-	\$431	-	-	-	-
Alaska.....	305	-	-	-	349	-	474	11,850	-	-	-	-	546	-	-	-	-
Arizona.....	8,368	-	-	-	357	-	5,588	19,058	-	-	-	-	9,747	-	-	-	-
Arkansas.....	20,247	-	-\$4	-	2,835	-	38,245	77,453	-	\$171	-	-	4,884	\$18	\$2	-	-
California.....	22,723	-	-	-	1,233	-	8,742	108,350	-	-	-	-	11,042	-	12	-	-
Colorado.....	8,213	-	-	-	4,951	-	19,827	53,873	-	-	-	-	1,680	1	-	-	\$250
Connecticut.....	4,854	\$92	-	-	202	-	1,215	7,600	-	-	-	-	1,264	-	5	-	-
Delaware.....	376	87	-	-	310	-	749	10,433	-	-	-	-	57	-	-	-	-
District of Columbia....	108,980	-	-	-	61,580	-	97,240	220,370	\$23,518	-	\$4,337	-	12,919	169	-	\$75	5,568
Florida.....	34,412	-	-	-	708	-	11,212	36,404	-	-	-	-	5,014	-	-	-	-
Georgia.....	6,118	-	-	-	3,335	-	33,633	63,239	-	6	-	-\$9	921	-	-	496	-
Hawaii.....	557	219	-	-	446	-	2,101	15,421	-	14	-	-	594	-	-	-	-
Idaho.....	8,757	-	-	-	2,089	-	12,491	31,013	-	-	-	-	586	11	4	-	800
Illinois.....	9,193	-	-	-	24,186	-	31,088	24,451	-	-	-	-	7,491	9	-1	601	503
Indiana.....	5,823	-	-	-	12,488	-	17,343	34,527	-	-	-	-5	1,088	7	-	-	-
Iowa.....	7,220	-	-	-	21,242	-	22,489	44,568	-	-	-	-	22,802	10	-	8	-
Kansas.....	3,385	-	-	-	9,992	-	27,541	40,661	-	-	-	-	1,099	-	-	-	-
Kentucky.....	16,954	-	-	-	4,761	-	9,053	31,228	-	-	-	-	633	5	10	-	-
Louisiana.....	30,764	-	-	-	2,753	-	24,034	30,112	-	14	-	-	1,783	-	29	-	-
Maine.....	272	1,017	-	-	483	-	1,160	16,067	-	-	-	-	6,832	-	-	-	-
Maryland.....	4,294	355	-	-\$3	3,155	-	3,169	16,464	-	-	-	-	2,855	-	-	-	-
Massachusetts.....	5,918	211	-	-	266	-	712	6,355	-	-	-	-	1,945	-	37	-	-
Michigan.....	2,760	-	-6	-	4,653	-	13,160	28,197	-	-	-	22	7,679	24	-	2	-
Minnesota.....	2,372	-	5	-	16,968	-	30,618	37,454	-	-	-	-	3,267	11	-	27	2
Mississippi.....	25,837	-	-	-	6,875	-	35,930	70,443	-	-	-	-	1,152	-	-	575	-
Missouri.....	7,075	-	-	-	9,655	-	23,381	45,075	-	225	-	-	3,520	-	5	996	387
Montana.....	18,252	-	-	-	2,893	-	28,360	41,357	-	-	-	-	2,914	11	-	-	-
Nebraska.....	5,890	-	-	-	9,998	-	31,768	37,184	-	-	-	-	3,341	12	-	860	-
Nevada.....	409	210	-	-	309	-	1,105	9,298	-	-	-	-	86	-	-	-	-
New Hampshire.....	5,824	58	-	-	277	-	1,403	7,669	-	-	-	-	1,129	-	-	-	-
New Jersey.....	686	252	-	-	432	-	1,530	9,992	-	-	-	-	286	-	2	-	-
New Mexico.....	1,967	-	-	-	1,214	-	24,978	35,162	-	-	-	-	1,573	11	-	-	-
New York.....	2,791	313	-	56	2,136	-	8,607	21,027	-	-	-	-	91	-	-	-	360
North Carolina.....	10,096	-	-	-	2,203	-	21,821	36,005	-	29	-	-	1,803	-	-	-	-
North Dakota.....	2,887	-	-	-	7,860	-	35,602	26,275	-	-	-	-	6,588	-	-	886	-
Ohio.....	6,000	-	-	-	6,478	-	10,195	42,796	-	-	-	-	2,713	-	-	-	-
Oklahoma.....	6,100	-	-	-	2,572	-	25,824	33,564	-	52	-	18	140	-	-	-	-

2024 USDA EXPLANATORY NOTES – NATURAL RESOURCES CONSERVATION SERVICE

State/Territory/Country	ACEP	AMAP	AWEP	CBWP	CRPG	CSPG	CSTP	EQIP	FRPP	FSCP	GRPG	HFRP	RCPP	VPAP	WHIP	WMBP	WRPG
Oregon	35,734	-	-	-	2,235	-	23,690	31,363	-	-	-	6	6,122	-	-	-	606
Pennsylvania.....	1,521	440	-	-	3,475	-	12,782	42,725	-	-	-	3	5,805	10	-	-	-
Puerto Rico	190	-	-	-	178	-	591	18,332	-	-	-	-	18	-	-	-	-
Rhode Island.....	1,112	152	-	-	190	-	847	4,513	-	-	-	-	420	-	10	-	-
South Carolina.....	1,812	-	-	-	1,422	-	29,826	38,635	-	15	-	-	95	20	-	-	425
South Dakota	3,158	-	-	-	10,826	-	31,576	28,855	-	-	-	-	6,377	11	-	11	-
Tennessee.....	7,231	-	-	-	2,440	-	18,899	47,892	-	-	-	-	940	-	-	-	-
Texas.....	17,922	-	-	-	10,603	-	22,331	128,430	-	188	-	-	1,766	23	26	-	13
Utah	8,943	168	-	-	782	-	9,771	36,774	-	-	-	-	2,052	-	-	-	-
Vermont.....	5,320	152	-	-	514	-	1,026	14,331	-	-	-	-	6,807	-	2	-	-
Virginia.....	6,532	-	-	-	1,906	-	16,407	36,146	-	-	-	-	1,383	5	-	-	-
Washington.....	3,044	-	-	-	3,870	-	21,866	27,192	-	-	-	-	2,668	6	-	-	10
West Virginia.....	1,964	559	-	-	663	-	5,856	19,380	-	-	-	-	483	-	-	-	-3
Wisconsin	4,834	-	-	-	6,261	\$5	21,262	32,927	-	-	-	-	4,894	11	-	527	-
Wyoming	6,077	120	-	-	1,018	-	3,406	28,699	-	-	-	-	654	12	-	-	216
Obligations	515,143	4,401	-5	54	280,717	5	903,824	1,955,321	23,518	714	4,337	36	172,978	397	142	5,064	9,137
Lapsing Balances.....	-	795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bal. Available, EOY....	291,721	-	6,298	8,312	48,406	7,148	452,932	448,231	86,426	1,649	18,780	5,245	1,058,148	4,460	6,666	5,684	4,757
Total, Available*	806,864	5,196	6,293	8,366	329,123	7,153	1,356,756	2,403,552	109,944	2,363	23,117	5,281	1,231,126	4,857	6,808	10,748	13,894

*Total Available balance does not include reimbursable unobligated balances.

CLASSIFICATION BY OBJECTS**Table NRCS-56. Classification by Objects (thousands of dollars)**

Item No.	Item	2021 Actual	2022 Actual	2023 Estimate	2024 Estimate
	Personnel Compensation:				
	Washington D.C.....	\$25,243	\$16,106	\$20,175	\$24,684
	Personnel Compensation, Field.....	398,117	450,461	564,278	690,385
11	Total personnel compensation.....	423,360	466,566	584,453	715,069
12	Personal benefits	189,698	191,749	240,732	293,939
13.0	Benefits for former personnel	62	57	-	72
	Total, personnel comp. and benefits.....	613,120	658,372	825,185	1,009,080
	Other Objects:				
21.0	Travel and transportation of persons	2,988	7,515	9,590	11,405
22.0	Transportation of things	1,460	2,204	2,795	1,918
23.1	Rental payments to GSA	17,928	18,632	26,073	25,045
23.2	Rental payments to others	42,623	49,992	61,543	67,226
23.3	Communications, utilities, and misc. charges	2,455	7,301	9,232	5,606
24.0	Printing and reproduction.....	260	28	50	21
25.1	Advisory and assistance services	-423	-138	-	-
25.2	Other services from non-Federal sources	280,491	326,795	412,331	312,875
25.3	Other goods and services from Federal sources	2,338	2,960	3,299	3,332
25.4	Operation and maintenance of facilities	139,109	280,162	391,919	229,135
25.5	Research and development contracts	-603	-	-	-
25.6	Project Services.....	77	-	-	-
25.7	Operation and maintenance of equipment.....	133	53	55	41
26.0	Supplies and materials.....	5,126	7,312	7,818	8,048
26.1	Project materials.....	-	2	4	-
31.0	Equipment.....	69,410	25,014	28,450	27,317
32.0	Land and structures	222,865	213,887	503,983	752,672
41.0	Grants, subsidies, and contributions.....	2,080,107	2,275,653	3,017,189	4,377,669
42.0	Insurance Claims and Indemnities	5	36	36	28
43.0	Interest and Dividends.....	5	2	2	1
	Total, Other Objects	2,866,354	3,217,410	4,474,369	5,822,339
99.9	Total, new obligations.....	3,479,474	3,875,782	5,299,554	6,831,419
	DHS Building Security Payments (included in 25.3)	\$2,338	\$2,960	\$3,299	\$3,332
	Information Technology Investments:				
	FBC-1001 Cust Engagement & Mgmt Svcs				
25.2	External Labor (Contractors)	6,601	9,139	9,163	9,163
	Total FBC-1001 Cust Engagement & Mgmt Svcs	6,601	9,139	9,163	9,163
	FSA-127 Geospatial Services				
25.2	External Labor (Contractors)	647	4,625	14,828	14,828
25.2	Outside Services (Consulting).....	14,003	10,715	368	368
	Total FSA-127 Geospatial Services	14,650	15,340	15,196	15,196
	FSA-129 Program Financial Services				
25.2	External Labor (Contractors)	45	46	48	48
	Total FSA-129 Program Financial Services.....	45	46	48	48
	Total Major Investments	21,296	24,525	24,407	24,407
	Mission Area Non-Major Investment Totals	70,774	134,195	78,418	78,418
	Mission Area Standard Investment Totals.....	41,133	45,714	31,536	31,536
25.2	Mission Area WCF Transfers	132,176	132,459	136,346	136,346
	Total IT Investments.....	265,379	336,893	270,707	270,707

Item No.	Item	2021 Actual	2022 Actual	2023 Estimate	2024 Estimate
Position Data:					
	Average Salary (dollars), ES Position.....	\$186,928	\$186,454	\$195,031	\$205,172
	Average Salary (dollars), GS Position.....	\$70,816	\$73,727	\$77,118	\$81,129
	Average Grade, GS Position	10	10	10	10

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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STATUS OF PROGRAMS

Agricultural Conservation Easement Program (ACEP)

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

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

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

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

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

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

To enroll land through ACEP-ALE, NRCS enters into agreements with cooperating eligible entities. NRCS requires certain terms and conditions under which the cooperating entity is eligible to receive NRCS ACEP cost-share assistance. For example, each agricultural land easement must be subject to easement deed terms that promotes the long-term agricultural viability of the land.

To enroll land through ACEP-WRE, NRCS enters into purchase agreements with eligible private landowners or Indian tribes that include the right for NRCS to develop and implement a wetland restoration plan. The plans are designed to restore, protect, and enhance the wetlands functions and values of the land. NRCS may authorize

wetland reserve easement lands to be used for compatible economic uses, including activities such as hunting and fishing, managed timber harvesting, or periodic haying or grazing if such uses are consistent with the long-term protection and enhancement of the wetland resources for which the easement was acquired.

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

- ACEP-ALE - cropland, rangeland, grassland, pastureland, and nonindustrial private forest land. NRCS prioritizes applications that protect agricultural uses and related conservation values of the land and those that maximize the protection of contiguous acres devoted to agricultural use; and
- ACEP-WRE - farmed or converted wetlands that can be successfully and cost-effectively restored. NRCS prioritizes applications based on the land's potential for protecting and enhancing wetland habitat for migratory birds and other wildlife.

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

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

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

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

- Permanent Easements, which are conservation easements in perpetuity. NRCS pays 100 percent of the easement value for the purchase of the easement and between 75 to 100 percent of the restoration costs.
- 30-Year Easements, which expire after 30 years. Under these easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement and between 50 to 75 percent of the restoration costs.
- Term Easements, which are easements that are for the maximum duration allowed under applicable State laws. NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement and between 50 to 75 percent of the restoration costs.
- 30-year Contracts, which are only available to enroll acreage owned by Indian tribes. Program payment rates are commensurate with 30-year easements.

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

ACEP-ALE: In addition to helping landowners and eligible entities develop conservation easement deeds 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 agreements; review of deeds, title, and appraisals; and payment processing.

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

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

The Inflation Reduction Act provides \$100 million in ACEP funding beginning in 2023, with additional funding appropriated each year through 2026. This funding is for easements or interests in land that will sequester carbon reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions associated with land eligible for the program. In 2023, NRCS has focused ACEP IRA funding on enrollments that will restore or protect permanent and persistent vegetative cover types (wetlands and grasslands), targeting soils with the highest soil organic carbon storage (including histosols and aquolls) and grasslands under the greatest threat of conversion.

Current Activities

In 2022, \$317 million in ACEP financial assistance funding was used to enroll an estimated 181,437 acres of farmland, grasslands, and wetlands through 352 new ACEP enrollments.

Enrollment is defined as the point at which the landowner, and NRCS enter into the agreement authorizing NRCS to proceed with the purchase of the easement or 30-year contract. The agency also closed 260 ACEP easements which protected 109,449 acres during 2022.

ACEP-ALE Enrollment. NRCS processed ACEP-ALE 278 parcel applications on over 200,175 acres, including applications for ACEP-ALE on acres of grasslands of special environmental significance. Available funding allowed for the enrollment of applications for ACEP-ALE. Enrollment is defined as the point at which the eligible entity, and NRCS enter into the agreements and parcel contracts authorizing the eligible entity to proceed with the purchase of the easement.

In 2022, NRCS enrolled a total of 138,888 acres in 167 new ACEP-ALE parcel contract enrollments through 78 program agreements (see table below). This includes 140 general agricultural land easements and 27 agricultural land easements on grasslands of special environmental significance. The average project size was 447 acres in general ALE, and 2,825 acres in ALE on grasslands of special environmental significance.

Table NRCS-57. Agreement Types

Agreement Type	2022 Parcel Contracts	2022 Acres Enrolled
Total ALE (2022 Parcel Contracts).....	167	138,888

Since the inception of ACEP in 2014, NRCS has cumulatively enrolled 1,479 parcels in the ALE component of ACEP on 1,041,926 acres and has closed 978 easements on 606,404 acres. The table below shows ACEP-ALE cumulative enrollments and closings.

Table NRCS-58. Agreement Types

2014-2022	Parcels Enrolled – Cumulative Number	Parcels Enrolled - Cumulative Acres	Easements Closed – Cumulative Number	Easements Closed – Cumulative Acres
ACEP-ALE	1,479	1,041,926	978	606,404

ACEP-WRE Enrollment. In 2022, NRCS processed 2,583 ACEP-WRE applications for over 454,260 acres. NRCS estimates the funding needed for enrollment of new acres in a given year by projecting the number of acres by enrollment option (i.e., permanent easements, 30-year easements, or 30- year contracts with Indian Tribes), and the geographic rate cap for the location of the acres to be enrolled.

In 2022, the agency enrolled a total of 42,549 acres in 185 new ACEP-WRE enrollments, or approximately seven percent of the demand for ACEP-WRE enrollment (see table below). The average project size was 230 acres.

Table NRCS-59. Contracts

2022	2022 Agreements	2022 Acres Enrolled
Contracts		
30-year contracts with Tribes.....	1	322
Total (Contracts Only)	1	322
Easements		
30-year easement.....	9	1,106
Permanent easement.....	175	41,121
Total	185	42,549

Since the inception of ACEP in 2014, NRCS has cumulatively enrolled 2,083 applications in the WRE component of ACEP on 404,884 acres and closed 1,612 easements on 287,572 acres. The below table shows ACEP-WRE cumulative enrollments and closings.

Table NRCS-60. 2014- 2022 ACEP-WRE Cumulative Enrollments and Closings

2014 – 2022	Applications Enrolled Cumulative Number	Applications Enrolled Cumulative Acres	Easements Closed Cumulative Number	Easements Closed Cumulative Acres
Contracts				
30-year contracts with Tribes...	3	768	N/A	N/A
Total (Contracts Only)	3	768	N/A	N/A
Easements				

2014 – 2022	Applications Enrolled Cumulative Number	Applications Enrolled Cumulative Acres	Easements Closed Cumulative Number	Easements Closed Cumulative Acres
30-year easement	169	34,496	143	30,154
Permanent easement.....	1,911	369,620	1,469	257,418
Total	2,083	404,884	1,612	287,572

Louisiana Wetland Conservation in the Lower Mississippi Alluvial Valley

In 2022, through the Tri-State Wetland Reserve Enhancement Partnership (WREP), Louisiana enrolled four Historically Underserved (HU) landowners and approximately 819 acres into the ACEP-WRE program. Partnering with the Tri-state Conservation Partnership (TCP) through WREP has enabled Louisiana to collaboratively develop and implement a multi-state project that focuses on enrolling HU landowners and restoring forested wetlands within priority portions of the Mississippi Alluvial Valley (MAV) in Arkansas, Louisiana, and Mississippi.

The goals of the Tri-State WREP project are to increase awareness of the ACEP-WRE program among HU landowners, with specific focus on limited-resource and socially disadvantaged landowners. The project also addresses natural resource concerns by specifically targeting acquisition of easements that are adjacent to, or in the immediate vicinity of existing, permanently protected, acres within the MAV. (e.g., ACEP-WRE easements, Wetland Reserve Program easements, Federal and State-owned lands, and other easements). As part of this project, the partner provides 25 percent of the final restoration cost, as well as in-kind services for outreach and project implementation. These four acquisitions will increase size and connectivity of protected forested wetlands and enhance opportunities for building larger habitat blocks and complexes through future ACEP-WRE acquisitions. Fostering connectivity and building onto permanently protected lands will provide more focused benefits to water quality and wildlife habitat.

Agricultural Management Assistance

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. Section 524(b) identifies the following States as eligible for AMA: Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. AMA is administered jointly by NRCS, the Risk Management Agency (RMA), and the Agricultural Marketing Service (AMS).

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

AMA addresses the following national priorities:

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

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

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

- Seasonal high tunnels to control the growing environment and improve plant health;
- Irrigation pipelines to convey irrigation water in an efficient and effective manner;
- Irrigation water management to assist clients in more effective and efficient management of water;
- Micro irrigation systems to deliver water more consistently;
- Cover crops to help improve soil health, reduce erosion, and improve air quality;
- Fencing installation to assist in the management of livestock grazing; and
- Brush management to control invasive species and increase land productivity.

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

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

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

Current Activities

In 2022, over \$6.6 million in CCC funds for financial assistance was obligated for 394 AMA contracts covering 4,814 acres. AMA provides many producers a first-time opportunity to address natural resource concerns on their lands. For example, many producers have not been able to participate in the Environmental Quality Incentives Program (EQIP) due to the eligibility requirement that land must have been irrigated for two of the previous five years to receive EQIP funding. A number of these EQIP-ineligible producers are small-acreage or specialty-crop farming operations that provide high dollar value products to the public. By helping to mitigate the risks associated with these kinds of agricultural enterprises, AMA helps agriculture remain a valuable segment of local economies.

Table NRCS-61. 2022 Total AMA Program Data

State	2022 Obligation	2022 Acres	2022 # Contracts
Connecticut.....	\$326,987	46	12
Delaware.....	218,830	185	10
Maine.....	1,156,505	138	61
Maryland.....	406,311	163	23
Massachusetts.....	494,814	105	20
Nevada.....	348,364	56	34
New Hampshire.....	129,123	1	5
New Jersey.....	339,066	132	17
New York.....	311,505	10	18
Pacific Island Area	185,477	52	12
Pennsylvania.....	542,076	1,450	36
Rhode Island.....	212,789	115	11
Utah.....	490,496	86	54
Vermont.....	231,008	51	13
West Virginia.....	1,001,832	1,826	58
Wyoming.....	211,158	398	10
Total.....	6,606,341	4,814	394

Agricultural Water Enhancement Program

Section 2510 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246) established the Agricultural Water Enhancement Program (AWEP) by amending section 1240I of the Food Security Act of 1985 (16 U.S.C. 3839aa-9). Section 2706 of the Agricultural Act of 2014 (the 2014 Farm Bill) (P.L. 113-79) repealed AWEP. However, Section 2706 also provided transitional language that ensured prior enrollments will continue to provide technical and financial assistance by NRCS. The 2014 Farm Bill consolidated AWEP into the Regional Conservation Partnership Program (RCPP).

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

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

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

- Included a high percentage of agricultural land and producers in the region or other appropriate area;
- Resulted in high levels of applied agricultural water quality and water conservation activities;
- Significantly enhanced agricultural activity;
- Allowed for monitoring and evaluation;
- Assisted agricultural producers in meeting a regulatory requirement that might otherwise reduce the economic scope of the producer's operation;
- Projected achieving the project's land and water treatment objectives within no more than five years;

- Included conservation practices supporting conversion of agricultural land from irrigated to dryland farming;
- Leveraged AWEP funds with funds provided by partners; and
- Assisted producers in areas with high-priority water quantity concerns in the following regions: Eastern Snake Plains Aquifer, Puget Sound, Ogallala Aquifer, Sacramento River Basin, Upper Mississippi River Basin, Red River, or Everglades.

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

- Construct or improve irrigation systems and increase irrigation efficiency; and
- Implement conservation practices to improve water quality and mitigate the effects of drought by conversion to less water-intensive 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 historically underserved receive up to 90 percent of the incurred costs and up to 100 percent of foregone income.

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

Current Activities

The 2014 Farm Bill repealed the authority to enter into new AWEP agreements and contracts. As a result, NRCS is assisting producers to implement existing contracts. In 2022, the assistance provided to the producers helped to implement more than six practices for \$57,422 in payments for the completed practices. Currently, one AWEP contract remains active.

Chesapeake Bay Watershed Program

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

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

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

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

and included focusing on high priority watersheds, focusing and integrating Federal and State programs, accelerating conservation adoption, and accelerating development of new conservation technologies.

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

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

Current Activities

In 2022, all activities focused on implementing and completing the remaining CBWP contracts. All activities have been completed, and there are no longer any active CBWP contracts.

Conservation Stewardship Program

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

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

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

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

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

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

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

farmstead, agricultural land under the jurisdiction of an Indian tribe, and other private agricultural land on which resource concerns related to agricultural production could be addressed.

Once applicant and land eligibility are determined, NRCS uses a science-based stewardship threshold for each resource concern to assess an applicant's existing and planned conservation activities. These activities must meet or exceed the stewardship threshold for at least two resource concerns at the time of the application, as well as one additional resource concern by the end of the CSP contract. In 2019, NRCS began using new tools to evaluate applications, including Conservation Assessment and Ranking Tool (CART) to assist customers and planners with the specific land use evaluations of the overall land use management systems that are part of the agricultural operations. NRCS uses CART to determine eligibility for the program, and to document customer decisions to adopt conservation activities. The evaluations provide estimates of the applicant's current and future conservation levels. The tool also increases awareness of which conservation activities can be adopted to meet additional resource concerns of the operation. Eligible applications are then ranked using CART.

CSP provides participants with two possible types of payments. An annual payment is available for installing new conservation activities and maintaining existing conservation activities. A supplemental payment may be earned by participants already receiving an annual payment who also adopt or improve a resource-conserving crop rotation. CSP pays participants for conservation performance of existing activities in place at the time of supplemental payment enrollment based on resource concerns met at the time of enrollment, the higher the performance, the higher the payment. Payment rates and estimated costs incurred for new conservation activities are documented in the developed and approved NRCS payment schedules. New conservation activities adopted through CSP must meet NRCS technical standards and nationally developed enhancement job sheets to earn program payment. States develop supplements to the job sheets to address additional local conditions and resource concerns. CSP contracts are for a five-year period, and payments are made as soon as practicable after October 1, of each year for contract activities installed and maintained in the previous year. Contract terms for CSP establish that payments to a person or legal entity may not exceed \$40,000 in any year, and \$200,000 during any five-year period. However, joint operations may qualify for up to \$400,000 over the term of the initial contract period.

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

Partnerships have been created with Federal, State, and local entities, including the National Association of Conservation Districts, State Associations of Conservation Districts, and local conservation districts to deliver a program beneficial to participants and the environment.

Cooperation is formed with Federal, State, and local partners to address local and national conservation issues. Through interactive communication between the local community, local interest groups, and State and Federal agencies, the partnership provides the entities with information and resources needed to address local priorities and implement State and national programs such as CSP.

The Inflation Reduction Act provides \$250 million for CSP in 2023, which additional annual funding through 2026. This funding will be used to support CSP contract participants that directly improve soil carbon, reduce nitrogen losses, or that reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions, associated with agricultural production.

Current Activities

In 2022, CSP provided more than \$610.3 million in financial assistance funding for new enrollments, as shown in the three State distribution tables below. These funds will be used to treat over 12.8 million acres. CSP funds also support conservation initiatives focused on targeted areas through the following land conservation initiatives: Lesser Prairie Chicken Initiative, Longleaf Pine Initiative, Sage Grouse Initiative, and Mississippi River Basin Initiative.

Table NRCS-62. 2022 CSP - Classic Enrollment

State	Acres Treated	Financial Assistance (\$ Obligated)
Alabama.....	100,098	\$15,105,139
Alaska.....	20	23,475
Arizona.....	754,165	4,104,471
Arkansas.....	133,465	23,587,483
California.....	180,013	4,689,245
Caribbean Area.....	426	117,231
Colorado.....	260,381	10,448,225
Connecticut.....	2,070	443,488
Delaware.....	3,134	365,466
Florida.....	69,970	5,023,646
Georgia.....	102,255	21,124,940
Idaho.....	196,600	6,741,850
Illinois.....	177,460	17,844,967
Indiana.....	75,513	10,133,717
Iowa.....	137,801	10,047,889
Kansas.....	190,708	15,014,490
Kentucky.....	11,380	1,802,866
Louisiana.....	106,568	12,934,155
Maine.....	7,625	494,523
Maryland.....	14,855	1,327,497
Massachusetts.....	940	94,452
Michigan.....	75,554	7,139,923
Minnesota.....	155,594	18,026,691
Mississippi.....	120,313	22,346,585
Missouri.....	113,302	10,122,587
Montana.....	441,916	15,488,944
Nebraska.....	413,250	16,049,701
Nevada.....	8,473	381,186
New Hampshire.....	3,988	269,136
New Jersey.....	7,901	737,749

State	Acres Treated	Financial Assistance (\$ Obligated)
New Mexico.....	1,635,231	12,481,780
New York.....	34,114	2,602,605
North Carolina	66,291	17,154,760
North Dakota.....	364,182	21,641,445
Ohio	45,516	4,110,948
Oklahoma.....	147,487	8,574,000
Oregon	804,829	13,293,282
Pacific Island Area.....	1,293	1,260,555
Pennsylvania	63,619	7,001,602
Rhode Island	1,449	340,716
South Carolina	166,859	20,511,422
South Dakota.....	314,222	15,789,085
Tennessee.....	128,844	12,257,574
Texas.....	517,188	7,586,035
Utah.....	835,108	5,313,972
Vermont	3,663	292,269
Virginia	33,276	7,500,678
Washington	228,067	13,900,745
West Virginia.....	11,498	1,944,161
Wisconsin	87,967	9,083,437
Wyoming	201,487	1,776,497
Grand Total.....	9,557,928	436,449,285

Source: NRCS Protracts October 2022

Table NRCS-63. 2022 CSP - Renewal Enrollment

State	Acres Treated	Financial Assistance (\$ Obligated)
Alabama.....	12,288.8	\$1,362,195
Arizona	1,484	236,865
Arkansas	34,942	6,447,021
California	176,439	1,069,784
Caribbean Area	374	150,588

State	Acres Treated	Financial Assistance (\$ Obligated)
Colorado	87,689	4,777,314
Connecticut	3,134	231,681
Delaware	1,206	149,037
Florida	60,384	3,497,370
Georgia	34,945	6,537,806
Idaho	79,295	3,317,673
Illinois	55,174	6,315,505
Indiana	30,021	3,967,260
Iowa	89,887	6,467,443
Kansas	89,334	6,476,273
Kentucky	37,360	4,680,683
Louisiana	57,609	5,984,860
Maine	1,471	74,508
Maryland	10,825	839,004
Massachusetts	1,062	212,421
Michigan	34,578	2,781,696
Minnesota	45,417	6,466,085
Mississippi	35,290	6,487,649
Missouri	78,767	6,031,734
Montana	161,890	6,517,484
Nebraska	159,939	6,511,743
New Hampshire	2,511	277,543
New Jersey	63,138	580,154
New Mexico	3,573	322,787
New York	514,950	6,751,160
North Carolina	54,442	3,835,037
North Dakota	16,857	1,946,030
Ohio	103,374	6,573,818
Oklahoma	50,858	3,582,203
Oregon	132,928	6,099,696
Pacific Island Area	112,742	6,116,104

State	Acres Treated	Financial Assistance (\$ Obligated)
Pennsylvania	28,449	3,286,387
Rhode Island	2,809	188,940
South Carolina	55,913	6,420,876
South Dakota.....	131,830	6,536,849
Tennessee.....	20,608	2,436,189
Texas.....	89,711	2,816,575
Utah.....	331,129	2,162,582
Vermont	10,791	146,319
Virginia	45,756	5,951,532
Washington	56,195	3,978,962
West Virginia.....	19,778	2,267,455
Wisconsin	74,584	6,427,212
Wyoming	37,324	346,554
Grand Total.....	3,341,054.80	176,642,646.00

Source: NRCS Protracts October 2022.

Table NRCS-64. 2022 CSP – Grassland Conservation Initiative

State	Acres Treated	Financial Assistance (\$ Obligated)
Alabama	809	\$72,810
Arkansas	409	36,830
California	249	22,170
Colorado	1,951	175,610
Florida.....	71	6,360
Georgia	557	50,145
Idaho	371	33,385
Illinois	97	8,720
Indiana	29	2,615
Iowa	345	31,025
Kansas.....	3,657	329,285
Kentucky.....	190	17,140
Louisiana.....	2,568	224,665

State	Acres Treated	Financial Assistance (\$ Obligated)
Massachusetts	14	1,245
Michigan	7	585
Minnesota	300	26,965
Mississippi	199	17,770
Missouri	2,142	195,467
Montana	113	10,175
Nebraska	536	48,225
New Mexico.....	696	62,650
New York.....	75	6,755
North Carolina	204	18,360
North Dakota.....	1,228	110,595
Ohio	77	6,920
Oklahoma.....	13,365	1,146,090
Oregon	2,132	191,900
Pennsylvania	11	1,030
South Carolina	402	34,634
South Dakota.....	1,816	163,485
Tennessee.....	315	28,375
Texas.....	13,071	1,093,774
Utah.....	55	4,980
Virginia	295	26,560
Washington	75	6,765
West Virginia.....	110	9,915
Wisconsin	134	12,070
Wyoming	212	19,080
Grand Total.....	3,341,054.80	176,642,646.00

Source: NRCS Protracts October 2022, official end-of-year data set.

Environmental Quality Incentives Program

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

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

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

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

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

- Reduction of nonpoint source pollution, such as nutrients, sediment, pesticides, or excess salinity in impaired watersheds consistent with TMDLs, where available;
- Reduction of contamination from agricultural point sources, such as concentrated animal feeding operations;
- Reduction of surface and groundwater contamination and conservation of surface and groundwater resources;
- Reduction of emissions, such as particulate matter, nitrogen oxides, volatile organic compounds, and ozone precursors and depleters, that contribute to air quality impairment violations of National Ambient Air Quality Standards;
- Reduction in soil erosion and sedimentation;
- Promotion of at-risk species habitat conservation; and
- Promotion of energy conservation.

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

An eligible applicant must be an agricultural producer, have control of the land for the life of the contract,

develop an EQIP plan of operations, and comply be in compliance with statutory payment eligibility provisions and limitations, including highly erodible land compliance, wetland conservation compliance, adjusted gross income limitations, and protection of tenants and sharecroppers. Eligible applications are accepted year-round at local USDA Service Centers, but cut-off dates are established by States to allow time for ranking and approval of applications.

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

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

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

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

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

Joint Chiefs' Landscape Restoration Partnership – Through the Joint Chiefs' Landscape Restoration Partnership (LRP), NRCS and Forest Service are combining resources and coordinating activities to restore landscapes across ownership boundaries. The aim of the partnership is to reduce wildfire threats to communities and landowners, protect water quality and supply, and improve habitat for at-risk species seamlessly across public and private lands. By working across agency lines on adjacent public and private lands, conservation work in the project areas will be more efficient and effective. Projects selected for the Joint Chiefs' LRP demonstrate strong collaborations with local partners and readiness to implement the restoration work. These cross-boundary projects address priority conservation needs in that landscape while delivering benefits to local communities. Sixteen new three-year-long projects in fourteen States were selected in 2020. Currently, 36 projects across 23 States and United States territories are being implemented.

EQIP Conservation Incentive Contracts (EQIP-CIC) Pilot — The 2018 Farm Bill authorized NRCS to provide technical and financial assistance for the implementation, adoption, management, and maintenance of incentive practices that address at least one priority resource concern within a State-identified high priority area. Four western States participated in a pilot of the new EQIP-CIC in 2022 to help agricultural producers in Arizona, California, Colorado, and Oregon with impacts of drought and related fire remediations, as well as climate smart resiliency. NRCS entered into contracts with producers with an initial length of five years but has authority to extend EQIP-CIC contracts for up to 10 years, based on science-informed data showing the extension would continue to provide the expected environmental benefits. Through the pilot, NRCS entered

into 514 contracts covering 458,741 acres and totaling \$44.78 million in financial assistance.

The Inflation Reduction Act provides \$250 million for EQIP in 2023, which additional annual funding through 2026. This funding will be used to support EQIP contract participants that directly improve soil carbon, reduce nitrogen losses, or that reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions, associated with agricultural production.

Current Activities

In 2022, EQIP financial assistance obligations totaled over \$1.28 billion in 31,856 active or completed contracts covering an estimated 9.6 million acres. In addition to regular EQIP projects, these funds also supported projects in initiatives focused on environmental benefit and agricultural production as compatible goals, such as air quality, on-farm energy conservation, migratory bird habitat in the Mississippi River Basin, organic production, and high tunnel systems.

Air Quality – Through this initiative, NRCS assists farmers and ranchers in reducing air pollution generated from agricultural operations in areas designated by the Environmental Protection Agency as non-attainment areas for ozone and particulate matter.

Organic Production – The Organic Initiative is a nationwide special initiative that assists provides assistance to organic producers, as well as producers in the process of transitioning to organic production. One critical benefit of the Organic Initiative is sustaining the natural physical, biological, and chemical properties of the soil, which is vital to organic production.

EQIP is popular among producers, and demand for the program is high across the country. Nationally, 55.99 percent of qualifying projects (valid applications which met all program requirements) were funded in 2022, as the table below shows.

Table NRCS-65. 2022 Total EQIP Program Demand

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	2022 Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Alabama	3,224	1,485	573	70.5%	\$18,998	\$10,885,854
Alaska	74	32	10	76.2%	240,957	2,409,570
Arizona	386	151	122	55.3%	95,684	11,673,448
Arkansas	7,190	1,455	1,824	43.4%	39,465	71,984,160
California	5,296	1,246	2,406	31.4%	67,922	163,420,332
Colorado	1,584	412	686	37.4%	86,178	59,118,108
Connecticut	210	79	52	60.3%	68,767	3,575,884
Delaware	367	159	81	65.2%	47,638	3,858,678
Florida	1,939	570	579	48.8%	50,516	29,248,764
Georgia	6,760	1,256	1,527	43.9%	34,963	53,388,501
Hawaii	310	103	132	43.8%	90,678	11,969,496
Idaho	1,125	479	228	65.3%	46,043	10,497,804
Illinois	2,263	371	128	73.8%	44,934	5,751,552
Indiana	2,655	854	600	58.1%	31,960	19,176,000

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	2022 Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Iowa	4,127	823	561	57.5%	38,359	21,519,399
Kansas	2,854	673	972	40.0%	42,753	41,555,916
Kentucky	3,142	782	958	43.8%	28,947	27,731,226
Louisiana	2,173	504	1,048	31.8%	43,325	45,404,600
Maine	1,105	394	490	43.0%	28,910	14,165,900
Maryland	664	260	199	54.9%	40,935	8,146,065
Massachusetts	279	132	65	66.3%	32,387	2,105,155
Michigan	2,043	783	193	79.4%	32,922	6,353,946
Minnesota	3,398	903	438	65.4%	33,253	14,564,814
Mississippi	11,328	2,204	1,854	53.2%	25,400	47,091,600
Missouri	4,232	941	1,502	37.4%	35,803	53,776,106
Montana	1,163	466	245	64.1%	67,590	16,559,550
Nebraska	3,406	949	597	60.6%	28,168	16,816,296
Nevada	157	64	32	66.7%	105,561	3,377,952
New Hampshire ...	502	245	123	66.0%	22,440	2,760,120
New Jersey	761	257	140	63.4%	27,025	3,783,500
New Mexico	1,317	330	184	63.9%	82,926	15,258,384
New York	1,013	403	180	68.5%	38,298	6,893,640
North Carolina	3,259	506	1,967	20.0%	50,033	98,414,911
North Dakota	1,119	532	78	86.7%	38,996	3,041,688
Ohio	2,746	945	1,018	47.0%	33,350	33,950,300
Oklahoma	3,628	871	1,236	40.1%	29,786	36,815,496
Oregon	1,088	445	218	65.5%	50,525	11,014,450
Pennsylvania	2,203	436	909	32.3%	67,174	61,061,166
Rhode Island	202	119	34	77.8%	27,013	918,442
South Carolina	2,690	645	1,187	34.7%	44,839	53,223,893
South Dakota	1,539	378	379	47.6%	55,116	20,888,964
Tennessee	3,127	831	1,550	34.0%	33,129	51,349,950
Texas	8,587	3,004	1,871	58.9%	31,351	58,657,721
Utah	1,728	367	587	38.1%	77,140	45,281,180

State	Total Applications Received	Number of Active and Completed Contracts	Unfunded Valid Applications	Valid Applications Funded (Percent)	2022 Average Contract Amount (Dollars)	Estimated Unfunded Application Amount (Dollars)
Vermont	869	274	29	90.2%	34,820	1,009,780
Virginia	1,405	481	190	70.7%	52,841	10,039,790
Washington	881	271	380	41.3%	80,211	30,480,180
West Virginia	1,429	397	296	56.5%	32,257	9,548,072
Wisconsin	2,937	1,064	639	59.8%	31,440	20,090,160
Wyoming	687	240	220	50.6%	90,565	19,924,300
Pacific Basin	88	47	1	97.9%	18,789	18,789
Puerto Rico	1,270	238	140	62.7%	53,516	7,492,237
Grand Total.....	118,529	31,856	31,658	55.99%	51,011	1,378,043,789

Source: Protracts as of October 2022.

Unfunded valid applications include pre-approved, deferred, and eligible. Estimated value of unfunded valid applications (\$) is determined from number of unfunded valid applications multiplied by average 2022 contract amount.

Conservation Innovation Grants (CIG)

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

The 2018 Farm Bill authorized a new CIG component On-Farm Conservation Innovation Trials (On-Farm Trials). The traditional CIG component (Classic) and On-Farm Trials complement each other, with CIG Classic funding pilot projects, field demonstrations, and on-farm conservation research of promising technologies or approaches, and On-Farm Trials funding wider-scale adoption and evaluation of innovative conservation approaches such as those proven effective in CIG Classic. On-Farm Trials includes the Soil Health Demonstration Trial as a subcomponent.

Annually, NRCS publishes notices of funding opportunity for national Classic and On-Farm Trial competition. In addition, NRCS State offices may opt to administer their own CIG competitions using a portion of their EQIP allocations. Between 20 and 30 States generally take advantage of this opportunity each year.

Current Activities

In July 2022, \$25 million in available funding was announced for the national On-Farm Trials competition, which is accepting proposals in four priority areas: Irrigation Water Management Technologies; Climate Smart Agricultural Solutions; Nutrient Management; and Soil Health Demonstration Trials.

In August 2022, \$15 million in available funding was announced for the national CIG Classic competition, which is accepting proposals in four priority areas: Climate-Smart Agriculture/Producer Adaptation to Extreme Weather Events; Climate-Smart Agriculture/Building Resilience through Emerging Production Systems; Combating Invasive Species; and Conservation in Urban Agricultural Systems.

Both national programs expect to review proposals and make final award announcements by the end of calendar year 2022.

In addition, 28 State offices held State-level competitions in 2022 and offered over \$10 million in funding available.

Farm and Ranch Lands Protection Program

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

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

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

Current Activities

The 2014 Farm Bill repealed FRPP and combined its purposes with the Wetlands Reserve Program and the Grassland Reserve Program to create ACEP. No new enrollments of FRPP occurred in 2022. However, an adjustment of the FRPP acreage is a result of corrections to administrative records. The acquisition and closing of all FRPP-funded conservation easements have been completed.

Table NRCS-66. Cumulative Program Activity Through 2022

Closed Easements (Permanent)	Cumulative
Number of Easements	4,323
Number of Acres	1,068,114
Financial Assistance Funding	\$668,794,600

Grassland Reserve Program

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

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

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

Current Activities

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

Table NRCS-67. 2009 to 2013 GRP Enrollment Summary

No. of Agreements.....	391
No. of Acres Enrolled.....	266,132
Financial Assistance Funding.....	\$320,641,800

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

Healthy Forests Reserve Program

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

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

- 10-year restoration agreement. The landowner may receive 50 percent of the actual or 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 actual or 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 actual or average cost of the approved conservation practices.
- Permanent easement. The landowners may receive 100 percent of the easement value of the enrolled land plus 100 percent of the actual or average cost of the approved conservation practices.

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

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

The agency provides financial assistance payments consistent with enrollment in either a single payment or in ten or fewer annual payments, as agreed to between the agency and the landowner. Cost-share payments are also provided

upon a determination that an eligible conservation practice, or an identifiable component of the conservation practice has been established in compliance with appropriate standards and specifications.

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

Current Activities

Cumulatively, 107 agreements have been enrolled between 2006 and 2022, encompassing approximately 678,430 acres.

Table NRCS-68. Cumulative Program Activity (2006 Through 2022)

Closed Easements (Permanent and 30-Year)	Cumulative
Number of Easements	87
Number of Acres	22,682
Active and Completed Restoration Cost-Share Agreements	Cumulative
Number of Agreements	19
Number of Acres	654,892
Summary	Cumulative Summary
Total Agreements Enrolled	107
Total Acres	678,430

New HFRP Easement acquired in Georgia

The Horse Creek Property is in Telfair County, GA. The approximately 1,660-acre parcel lies just north of the Ocmulgee River and much of its western border is defined by Horse Creek. The property represents an important tract for conservation of the gopher tortoise and is within the region of Georgia where the fire-dependent longleaf pine ecosystem that once thrived, still lingers, and can be substantially restored. The conservation values to be protected on the property include the fire-adapted upland forest dominated by longleaf pine, or restorable to longleaf pine, with continuity sufficient to allow the gopher tortoise population and ecological associates to survive and expand. Multiple years of inventory and monitoring have shown that the property maintains a viable population of gopher tortoises (i.e., > 250 individuals).

The property contains four Special Conservation Areas (SCAs). Three of the SCA’s contain gopher tortoise populations (Cutover, Longleaf, and Under-planted):

- Cutover SCA (672.6 acres)
- Longleaf SCA (376.8 acres)
- Under-planted SCA (111.2 acres)
- Wetland SCA (279.4 acres)

These SCAs denote sensitive, unique, and important habitat types with high priority species. The primary goal of these areas is the conversion of cutover sand pine stand back to a functioning fire-maintained longleaf pine ecosystem.

Regional Conservation Partnership Program

The Regional Conservation Partnership Program (RCPP) was reauthorized by the Agriculture Improvement Act of 2018 (the 2018 Farm Bill). Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges on a regional or watershed scale.

The purpose of RCPP is to further the conservation, restoration, and sustainable use of soil, water, wildlife, and related natural resources on eligible land. It encourages eligible partners to cooperate with producers in meeting or avoiding the need for regulatory requirements related to agricultural production. Through RCPP, NRCS and State, local, and regional partners coordinate resources to help producers install and maintain conservation activities in selected project areas. Partners leverage RCPP funding in project areas and report on the benefits achieved. The goal is to implement projects that will result in the installation and maintenance of eligible activities that affect multiple agricultural or non-industrial private forest operations on a local, regional, State, or multistate 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.

Under the 2018 Farm Bill, RCPP is administered through three components:

- **Classic**—Under this traditional RCPP component, partners apply to target RCPP conservation assistance to a particular place to address an identified resource concern(s). Assistance to producers and landowners flows through NRCS producer contracts and easements.
- **Renewals**—Renewals are available to partners with existing RCPP projects and intended to reward the most successful projects with additional funding.
- **Alternative Funding Arrangement/Grants (AFA)**—AFAs & Grants fund projects that are nearly entirely partner-led. AFA or Grant projects use innovative approaches such as pay-for-performance or have other characteristics that innovate the conservation delivery system.

RCPP projects can include any combination of conservation activities authorized for the program—land management, land rental, easements, and watershed projects.

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

The RCPP project selection process is outlined through notices of funding opportunities (NFOs) posted on www.grants.gov and the NRCS website. Project selections occur after applicants submit proposals using the web-based application system for RCPP. Proposals are then evaluated by NRCS staff using criteria published in the NFO. Beyond the technical proposal evaluations, NRCS may consider available funding, geographic diversity, applicant diversity, and other factors in making the final award decisions.

The Inflation Reduction Act provides \$250 million for RCPP in 2023, which additional annual funding through 2026. This funding will be used to prioritize conservation project proposals that target delivery of project assistance to directly improve soil carbon, reduce nitrogen losses, or reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions associated with agriculture production.

Current Activities

On August 12, 2022, NRCS announced 41 recipients of the 2022 AFA and Classic competitions. Earlier in 2022, 15 Farm Bill 2014 projects were offered renewals. To date, under the 2018 Farm Bill, NRCS has made 234 awards under the Classic, AFA, and Renewals program components. As of October 1, 2022, there were 399 active RCPP projects combined under the 2014 and 2018 Farm Bill programs.

In 2022, 960 RCPP Land Management & Rental producer contracts (for 2018 Farm Bill projects) were obligated for over \$56.5 million. NRCS States and partners executed 112 supplemental agreements, obligated almost \$64 million in financial and technical assistance funding to partners. Five entity-held easements (for 2018 Farm Bill projects) were obligated, and a single entity-held easement was closed (in Maine in December 2021).

The next RCPP Classic and AFA/Grant competitions are scheduled to be announced early in calendar year 2023.

Voluntary Public Access and Habitat Incentive Program

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

VPA-HIP is a competitive grant program that provides opportunities to State and tribal governments to promote programs encouraging owners and operators of privately held farm, ranch, and forestlands to voluntarily make land accessible to the public for hunting, fishing, nature watching, hiking, and other wildlife-dependent recreation.

Only State and tribal governments are eligible to apply for program funding through a competitive grants process. Owners of private forests, farms, or ranchlands are eligible to receive funds from the State or tribal government awardees in a manner consistent with the proposals submitted to the agency and in compliance with the conditions of the established formal agreements between NRCS and the awardees.

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

Current Activities

In September 2019, NRCS published a notice of funding opportunity that made up to \$50 million available for three-year projects. On March 11, 2020, NRCS announced the selection of 27 award recipients in 27 States. NRCS State offices managing the awards finalized award agreements for all 27 award recipients by September 30, 2020. Since that time, the State agency and tribal grantees have been implementing their projects that last up to three years.

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) was authorized by Section 1237 of the Food Security Act of 1985 (P.L. 99-198), as amended. WRP was a voluntary program that provided technical and financial assistance to eligible landowners, enabling them to permanently protect and restore valuable wetland ecosystems, including associated habitats such as uplands, riparian areas, and forest lands. 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 provide technical and financial assistance. WRP purposes were rolled into the Wetland Reserve Easements component of the Agricultural Conservation Easement Program (ACEP-WRE). Lands previously enrolled in WRP are now considered enrolled in ACEP-WRE and are eligible to receive financial and technical assistance services authorized under ACEP. The repeal of WRP does not affect the validity or terms of any contract, agreement, or easement entered into prior to the enactment of the Agricultural Act of 2014. Prior to its repeal, WRP provided landowners four options to enroll acreage: permanent easements, 30-year easements, restoration cost-share agreements, or a 30-year contract (on acreage owned by an Indian tribe only).

The 2014 Farm Bill also authorized the agency to use prior year unobligated WRP funds from 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 included restoration of the easement site, and acquisition-related costs such as title reports, hazardous substance evaluations, due diligence, boundary surveys, and easement closings.

Prior year WRP funding continues to be used to provide ongoing technical assistance to existing WRP easements and contracts entered into prior to the 2014 Farm Bill enactment date. Authorized expenditures include restoration planning and implementation for any unrestored easements, boundary surveys, and management and maintenance activities to support agency easement stewardship responsibilities.

Current Activities

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

Table NRCS-69. WRP Cumulative Enrolled Easements, Restoration Cost-Share Agreements and Contracts with Tribes and Closed Easements

Agreement Type	Cumulative Agreements	Cumulative Acres
Enrolled Permanent Easements	10,860	2,097,285
Enrolled 30-year Easements	2,709	423,878
Restoration Cost-Share Agreement	348	84,927
30-Year Contract with Tribes	15	2,890
Total.....	13,932	2,608,980
Agreement Type	Cumulative Easements	Cumulative Acres
Closed Permanent Easements	10,860	2,097,285
Closed 30-Year Easements	2,709	423,878
Total.....	13,569	2,521,163

Wetlands Mitigation Banking Program

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

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

Program funds may be used to pay for:

- Development of a mitigation banking instrument.
- Identification of suitable mitigation sites and performance of functional assessments to determine the available credits and a credit release schedule.
- Market research and contracting for mitigation activities.
- Land surveys, permitting, and title searches.
- Design and formulation of mitigation plans.
- Restoration, enhancement, or creation of wetland mitigation bank sites in accordance with NRCS conservation practice standards.
- Tracking and management of wetland mitigation data.
- Direct administrative costs associated with implementing the project.
- Indirect costs of the awardee.

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

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

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

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

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

Wildlife Habitat Incentive Program

The Wildlife Habitat Incentive Program (WHIP) was authorized by Section 1240N of the Food Security Act of 1985 (16 U.S.C. 3839bb-1), as amended. NRCS administered WHIP with funds made available through the Commodity Credit Corporation. Section 2707 of the Agricultural Act of 2014 (P.L. 113–79) repealed WHIP. However, Section 2707 also provided transitional language that ensured prior enrollees will continue to be provided technical and financial assistance by NRCS. WHIP provided assistance to agricultural landowners for the protection, restoration, or enhancement of upland wildlife habitat, wetland wildlife habit, threatened and endangered species, fisheries, and other types of habitats. Focused efforts on fish and wildlife habitats also contributed to more sustainable use of resources and reduced greenhouse gas emissions. The purposes of WHIP were consolidated into EQIP by the 2014 Farm Bill.

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

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

Current Activities

The 2014 Farm Bill repealed the authority to enter into new WHIP contracts. As a result, priority was shifted to assist producers to implement existing contracts. In 2022, the agency worked with producers to implement 27 practices and made nearly \$61,436 in payments for the completed practices. Currently, 70 WHIP contracts remain active.

Feral Swine Eradication and Control Pilot Program

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

The objective of FSCP is to pilot collaborative efforts to address the threat that feral swine pose to agriculture, native ecosystems, human health, and animal health. Feral swine are an invasive species that damage agricultural

crops, degrade natural systems, and can carry diseases that can be passed on to livestock and humans. Estimates of the damage caused by this invasive species, as well as associated control costs, exceed \$2 billion annually in the United States. Feral swine are inhabitants across the United States, but the heaviest concentrations are found in the Southeastern portion of the country, and stretch as far west Texas and Oklahoma, with high populations also found in California.

Pilot areas for FSCP are identified collaboratively, by NRCS and APHIS States personnel in consultation with the State technical committee. FSCP is delivered within pilot areas through three coordinated components. First, APHIS works directly to control feral swine populations. Second, NRCS provides funding to partner organizations to provide technical and financial assistance to agricultural producers for on-farm trapping, and other means of feral swine control. Partner organizations also provide other services, including pre-and post-project damage assessments, and other means to assess progress in control efforts. Finally, NRCS provides technical and financial assistance for restoration of damage caused by feral swine after those populations have been controlled.

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

Current Activities

NRCS obligated \$33.9 million dollars through two rounds of grant awards with partners in 12 States to deliver assistance to producers in pilot projects. Through 34 pilot projects, more than 740 landowners received assistance to help reduced feral swine damages on more than 1.3 million acres. Assistance provided through NRCS funded grants may include outreach and educational events, trapping cost-share, damage assessments, and individual project studies. All projects are participating in the landowner damage assessment survey and are working with Auburn University and Texas A&M to collect, report, and analyze damage information.

Office of Urban Agriculture and Innovative Production

The Office of Urban Agriculture and Innovative Production (OUAIP) was newly authorized by Section 12302 Urban Agriculture amending Section 222 of the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. 6911 et seq.). The Secretary of Agriculture delegated NRCS to lead the USDA-wide office, and work in partnership with numerous USDA agencies that support urban agriculture.

The mission of the OUAIP is to encourage and promote urban, indoor, and other emerging agricultural practices, including:

- community gardens and farms located in urban areas, suburbs, and urban clusters;
- rooftop farms, outdoor vertical production, and green walls;
- indoor farms, greenhouses, and high-tech vertical technology farms;
- hydroponic, aeroponic, and aquaponic farm facilities; and
- other innovations in agricultural production, as determined by the Secretary.

OUAIP is directed to administer grants, and cooperative agreement pilot projects in at least ten States, establish ten new Urban/Suburban County Committees for Urban Agriculture, and establish a Federal Advisory Committee for Urban Agriculture. OUAIP is also responsible for engaging in activities to carry out the mission, including managing programs for community gardens, urban farms, rooftop agriculture, and indoor vertical production; advising the Secretary; coordinating with the agencies and officials of the Department to update relevant programs; engaging in stakeholder relations and developing external partnerships; identifying common State and municipal best practices for navigating local policies; coordinating networks of community gardens and facilitating connections to local food banks, in partnership with the Food and Nutrition Service; and collaborating with other Federal agencies. OUAIP used the \$8.5 million in appropriated 2022 funds to meet the requirements, with a focus on developing a new comprehensive grants program and the cooperative agreement pilot project program.

Additional funding from the American Rescue Plan Act was used to fund oversubscribed programs.

Current Activities

Urban Agriculture and Innovative Production (UAIP) Competitive Grants

UAIP Competitive Grants Program supports a wide range of activities through two grant types, which are Planning Projects and Implementation Projects. Activities include operating community gardens and nonprofit farms, increasing food production and access in economically distressed communities, providing job training and education, and developing business plans and zoning. Priority was given to projects with positive impact where limited access to healthy affordable food is an issue as listed in the USDA Food Access Research Atlas. In its third year, USDA received 200 applications for this program. Of these, USDA awarded approximately \$14.2 million for 18 Planning Projects and 34 Implementation Projects. Changes to the notice of funding opportunities resulted in a 11 percent increase in awards (\$415,176) directly to tribal groups or those serving tribes and underserved communities (Blue Lake Rancheria, Guadalupe- Coyote Resource Conservation District, Consortium for Hawai'i Ecological Engineering Education, Kenai Peninsula Borough, and Yakutat Tlingit Tribe). Project recipients are in 45 States and territories. To date \$40.77 million have been invested in 156 projects.

Community Compost and Food Waste Reduction Cooperative Agreement Pilot Program

In 2022, USDA shortened the name of the program from the Community Compost and Food Waste Reduction Program to the Compost and Food Waste Reduction (CFWR) Pilot Program. USDA received 57 applications for the CFWR Pilot Program in 2022. Through the competitive process, USDA will award approximately \$9 million in approximately 50 pilot projects that develop and test strategies for planning and implementing municipal compost plans, and food waste reduction. Priority will be given to projects that anticipate or demonstrate economic benefits, incorporate plans to make compost easily accessible to farmers, including community gardeners, integrate other food waste strategies, including food recovery efforts, and collaborate with multiple partners. Results from CFWR projects are being recorded and show positive results. For example, a project in New York collected and processed over 1.1 million pounds of food scraps from food scrap drop-offs at 20 USDA-funded partner community gardens.

Urban and Suburban County Committees

The 2018 Farm Bill authorized the Secretary to establish ten new Urban and Suburban Farm Service Agency (FSA) County Committees as part of a five-year pilot project. Prior to 2022, FSA announced 11 locations, including Albuquerque, New Mexico; Atlanta, Georgia; Cleveland, Ohio; Dallas, Texas; Minneapolis-St. Paul, Minnesota; New Orleans, Louisiana; Philadelphia, Pennsylvania; Phoenix, Arizona; Portland, Oregon; Richmond, Virginia; and St. Louis, Missouri. These committees will make important decisions about how Federal farm programs are administered locally. Their input is vital to how FSA carries out disaster programs, as well as conservation, commodity and price support programs, county office employment, and other agricultural issues. The committees also help FSA develop outreach, business, and operation plans and associated policies; and conduct national trainings and outreach sessions.

FSA is the lead agency for establishing these committees but worked closely with OUAIP to announce six new urban county committees in Chicago, Illinois; Detroit, Michigan; Grand Rapids, Michigan; Los Angeles, California; Brooklyn, New York; and Oakland, California. Elections will be held for these locations during the next election cycle. OUAIP is coordinating with FSA and the NRCS on the creation of Urban Service Centers (USC) to bolster the work done by the Urban County Committees.

Urban Agriculture and Innovative Production Federal Advisory Committee

In February 2022, the OUAIP announced the 12 members appointed to the USDA Urban Agriculture and Innovative Production Advisory Committee (Committee) pursuant 7 U.S.C. §6923(b)(1). The Committee is to advise the Director of OUIAP and the Secretary on the development of policies and outreach relating to the notice of funding opportunity for urban, indoor, and other emerging agricultural production practices. The Committee will operate in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. App. 2, and 41 CFR § 102-3.

As of November 2022, the Committee has held three public meetings and plans to hold the fourth meeting at the end of February 2023. The meeting is expected to review and deliberate on the Committee's first recommendations to submit to the Secretary, consistent with the 2018 Farm Bill. In January 2023, the Committee renewed the Charter for an additional two-years, along with reappointing four of the initially appointed members to continue business. The

first public meeting had 1,430 registered attendees and 1,105 persons provided responses for the record. The second meeting had 554 registered attendees.

Managing Programs to Encourage and Promote Urban, Indoor, and Other Emerging Agricultural Practices

One of the initiatives the OUAIP is using to encourage and promote urban, indoor, and other emerging agricultural practices is through the restart of the People’s Garden Initiative. USDA originally launched the People’s Garden Initiative in 2009 by Secretary Tom Vilsack and the initiative was renewed in May 2022. It’s named for the “People’s Department,” former President Abraham Lincoln’s nickname for USDA, which was established during his presidency in 1862. The USDA Headquarters People’s Garden is located on the corner of Jefferson Drive and 12th Street, S.W. in Washington, D.C. It educates the public about sustainable gardening practices and local food access. The garden showcases food grown in containers for small urban spaces, raised beds for community plots, and fruit trees. There are also active beehives on the rooftop of the USDA Whitten Building.

In 2022, the People’s Garden Initiative continues to expand. There are 17 flagship gardens located in urban communities nationwide. In addition, USDA has launched an affiliate program for gardens across the country to sign-up to be a People’s Garden by filling out the registration form on the [People’s Garden website](#). To date 398 affiliate gardens have been registered representing 45 States and territories. To participate, gardens must benefit the community, promote collaboration, incorporate sustainable practices and provide education of how local food production supports supply chain resilience.

Coordinating with the Agencies and Officials of the Department to update relevant programs

OUAIP has coordinated with several agencies within the Department to update and market relevant programs. The Office has coordinated with the Farm Production and Conservation-Business Center (FPAC-BC) to create the Urban Agriculture at-a-Glance document which replaces the Urban Agriculture Toolkit. The document highlights 45 technical and financial assistance programs that can be used for urban and innovative agriculture. The office website and [Farmers.gov/urban](#) sites have been updated.

Internal USDA Advisory Committee

USDA established an internal advisory committee with membership from agencies that have a mission which services urban agriculture and innovation. This Committee, identified as the OUAIP Committee, provided guidance to the OUAIP Designated Federal Official and developed recommendations on applicable policy for USDA leadership throughout 2021, and continue in 2022. Membership includes the following agencies: Agricultural Marketing Service, Agricultural Research Service, Animal Plant Health Inspection Service, Economic Research Service, Farm Production and Conservation-Business Center, Farm Service Agency, Food and Nutrition Service, Foreign Agricultural Service, Forest Service, National Agricultural Statistics Service, National Institute of Food and Agriculture, Natural Resources Conservation Service, Rural Development, Risk Management Agency, Office of the Chief Economist, Office of Partnership and Public Engagement, Office of the Secretary, Rural Development, and Risk Management Agency. The committee has three subcommittees (Metrics, People’s Garden, and Training) which support coordination. The training committee has completed two Department training for 1,800 employees.

The Office has also funded, coordinated, or partnered with multiple agencies to further the priority of urban and innovative agriculture. A few highlights include:

- Forest Service (USFS) – Urban Waters Federal Partnership and Urban Agroforestry Outreach Projects
- Farm Service Agency (FSA) – creation of Urban Service Centers and Urban and Suburban County Committees
- Agricultural Marketing Service (AMS) – Local and Regional Food System Workgroup
- Office of the Chief Economist – Food Loss and Waste Workgroup
- Animal and Plant Health Inspection Service - Backyard Animal Keeping Study
- Hiring and Outreach activities with FSA, AMS, Food Nutrition Service (FNS), Office of Partnerships and Public Engagement (OPPE), and National Institute of Food and Agriculture (NIFA)

Engaging in Stakeholder Relations and Developing External Partnerships

- OUAIP has developed a stakeholder topic and outreach lists to promote stakeholder relations. The Urban Agriculture and Innovative Production topic experienced an increase of 112 percent in subscribers (12,658).
- OUAIP sponsored and collaborated on the “Urban Greenhouse Challenge #3, Social Impact Edition” sponsored by Wageningen and University of the District of Columbia.

Coordinating Networks of Community Gardens and Facilitating Connections to Local Food Banks, in Partnership with the Food and Nutrition Service

- Providing all grant and agreement recipients the information to sign up for the USDA Local Food Directory and provided them the list of Local Food Banks that the Food and Nutrition Service works with in partnership with Feeding America.

Collaborating with other Federal Agencies

OUAIP continues to develop strategic Federal partnerships with other departments and agencies. The following partnerships are established or in development:

- Department of Housing and Urban Development (HUD) collaborations at a national and regional level. Potential HUD programs for partnerships include the Choice Neighborhoods and National Coalition of Promise Zones.
- Partnerships with EPA under the Urban Waters Federal Partnership. In addition, engagement with EPA regarding food loss and waste is planned to further promote Composting and Food Waste Reduction cooperative agreements.
- The office has shared data and technical contacts with the Department of Energy.
- OUAIP intends to engage Department of Veteran Affairs and Labor to ensure there is continued discussion of workforce development and support of veterans within the space of urban ag and innovative production.
- The office will continue conversations with the US Botanical Garden to identify areas of overlap with their Urban Agriculture Resilience Program.

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AGENCY-WIDE PERFORMANCE

Introduction

The Farm Production and Conservation (FPAC) mission area is USDA’s focal point for the nation’s farmers and ranchers and other stewards of private agricultural lands and non-industrial private forest lands. FPAC agencies implement programs designed to mitigate the significant risks of farming through crop insurance services, conservation programs and technical assistance, and commodity, lending, and disaster programs. These agencies include the Farm Service Agency (FSA), the Natural Resources Conservation Service (NRCS), the Risk Management Agency (RMA), and the FPAC Business Center (FPAC BC).

FPAC BC’s Performance, Accountability, and Risk (PAR) division leads the mission area in Strategic Planning, Performance Management, Evidence and Evaluation, and Enterprise Risk Management (ERM). PAR works closely with each of the FPAC agencies to develop performance related practices and products. This office frequently works directly with USDA leadership and represents FPAC on the Department’s Performance, Evaluation, Evidence Committee and the ERM Committee, which are facilitated by the USDA Office of Budget and Program Analysis. FPAC’s Enterprise Risk and Strategy Committee, comprised of executives from each of the FPAC agencies, oversees and provides accountability for performance functions across the mission area.

Alignment to USDA 2022 – 2026 Strategic Plan

NRCS contributes to Goal 1 of the Department’s Strategic Goals in the current 2022 – 2026 USDA Strategic Plan. Departmental KPIs are performance indicators that are aligned to the Strategic Objectives laid out in the USDA’s Strategic Plan.

- Strategic Goal 1: Combat Climate Change to Support America’s Working Lands, Natural Resources and Communities
 - Objective 1.1: Use Climate-Smart Management and Sound Science to Enhance the Health and Productivity of Agricultural Lands
 - Objective 1.3: Restore, Protect, and Conserve Watersheds to Ensure Clean, Abundant, and Continuous Provision of Water Resources
 - Objective 1.4: Increase Carbon Sequestration, Reduce Greenhouse Gas Emissions, and Create Economic Opportunities (and Develop Low-Carbon Energy Solutions)

SUMMARY OF PERFORMANCE

A more detailed report of the performance plan can be found at <https://www.usda.gov/our-agency/about-usda/performance>. The following table summarizes the results for the Departmental Key Performance Indicators (KPIs) for which NRCS is responsible.

Table NRCS-70. KPIs

Strategic Objective 1.1		FY 23	FY 24
Cropland with applied Soil Health Management System (SHMS)	Results	-	-
Cropland with Applied Soil Health Management System Practices (Thousand Acres)	Target	225	225
Improve Soil Quality EQIP	Results	-	-
Cropland on Which at Least One Conservation Practice was Applied to Improve Soil Quality Under the Environmental Quality Incentives Program (Million Acres).....	Target	3.4	3.4
Improve Soil Quality CTA	Results	-	-
Cropland with Conservation Applied to Improve Soil Quality through Conservation Technical Assistance (Million Acres) ¹	Target	6.0	N/A

¹ Beginning in 2024, NRCS will split this measure into two separate measures for the CTA-GEN program and the EQIP program to better reflect the work. The two measures following this measure will replace this measure in 2024.

Improve Soil Quality CTA	Results	-	-
Cropland with Conservation Applied to Improve Soil Quality through Conservation Technical Assistance (Million Acres) ²	Target	N/A	11.3
Improve Soil Erosion and Quality EQIP	Results	-	-
Cropland with Conservation Applied to Reduce Soil Erosion and Improve Soil Quality through Environmental Quality Incentives (Million Acres) ³	Target	N/A	3.1
Conservation Easements	Results	-	-
Working Lands Protected by Conservation Easements (Thousand Acres).....	Target	129	129

Expected Performance Progress Towards the Achievement of Strategic Objectives:

Objective 1.1: Use Climate-Smart Management and Sound Science to Enhance the Health and Productivity of Agricultural Lands.

Cropland with applied Soil Health Management System (SHMS), Improve Soil Quality EQIP, Improve Soil Quality CTA: CTA is primarily used for Conservation Planning and not implementation, which is done through programs such as EQIP and CSP. NRCS is adjusting the planning threshold for soil quality related resource concerns. NRCS will update the CTA goal to reflect the role of CTA more accurately within the agency delivery system and target resource concerns.

The applicable practice list was updated to align with Conservation Assessment Ranking Tool (CART) assessments and includes all practices that have positive impacts on cropland for the soil quality resource concerns: organic matter depletion, aggregate instability and/or soil organism habitat loss or degradation health.

Eligible conservation practices are:

- Conservation Cover
- Conservation Crop Rotation
- Residue and Tillage Management, No Till
- Amending Soil Properties with Gypsum
- Controlled Traffic Farming
- Cover Crop
- Residue and Tillage Management, Reduced Till
- Forest Farming
- Wildlife Habitat Planting
- Mulching
- Forage Harvest Management
- Pasture and Hayland Planting
- Prescribed Grazing
- Drainage Water Management
- Nutrient Management
- Tree/Shrub Establishment

Improve Soil Erosion and Quality EQIP: When updates are made to the CTA measure, the EQIP measure will be updated as well. Eligible conservation practices are found in the listing above. Cropland is the only eligible land use. The applicable practice list was updated to align with CART assessments and includes all practices that have positive impacts on cropland for the soil quality resource concerns: organic matter depletion, aggregate instability and/or soil organism habitat loss or degradation health.

² Beginning in 2024, NRCS will use this measure instead of the joint CTA/EQIP measure.

³ Beginning in 2024, NRCS will use this measure instead of the joint CRA/EQIP measure.

Conservation Easements: NRCS proposes to lower future KPI targets to 129 acres due to rising land values. Over the past three years, acres from closed easements have declined 17,500 acres per year on average, from 191,000 acres in 2019 to 146,000 acres in 2021.

The 2018 Farm Bill provided level funding for Agricultural Conservation Easement Program easements annually throughout the life of the bill. At the same time, though, land prices nationally have increased. As a result, the number of easements and easement acres protected with that funding drops annually.

Landowners are also canceling existing agreements or failing to pursue new agreements in some states due to higher land values leading to sales outside conservation and/or better opportunities with other programs. Additionally, normal day-to-day issues such as boundary discrepancies, staffing, and weather can affect the timeline for closings. Thus, most conservation easements close in Q3 and Q4, which makes setting annual targets challenging.

Table NRCS-71. Key Performance Indicators

Strategic Objective 1.3		2023	2024
Cropland Sediment	Results	-	-
Tons of Sediment Prevented from Leaving Cropland and Entering Water Bodies (Million Tons).....	Target	6	6

Expected Performance Progress Towards the Achievement of Strategic Objectives:

Objective 1.3: Restore, Protect, and Conserve Watersheds to Ensure Clean, Abundant, and Continuous Provision of Water Resources.

Cropland Sediment: NRCS has had a sustained and successful soil health campaign and will continue to utilize the effective methodology under this KPI. However, new Farm Bill requirements may pose risks to progress in 2024.

Table NRCS-72. KPIs

Strategic Objective 1.4		2023	2024
Contract Implementation Ratio	Results	-	-
Percentage of Items in a Contract that are Certified During the Life of a Contract.....	Target	87%	87%
Practice Implementation Rate	Results	-	-
Percentage of Timeliness of Practice Certifications or Timely Modification of Past Scheduled Practices to Reflect a New Future Schedule Date.....	Target	53%	53%

Expected Performance Progress Towards the Achievement of Strategic Objectives:

Objective 1.4: Increase Carbon Sequestration, Reduce Greenhouse Gas Emissions, and Ce Economic Opportunities (and Develop Low-Carbon Energy Solutions).

Contract Implementation Ratio: Contract Implementation Ratio (CIR) is the percentage of contract items in a contract that are certified during the life of the contract. The ratio is computed for each individual contract as the percent of practices applied out of total practices agreed to upon obligation. The CIR is calculated for each individual contract using the 3rd Year CIR. NRCS has been meeting its target of 87 percent for the past years. This indicator falls in line with creating economic opportunities to track the number of contracts and acres for conservation. However, new Farm Bill requirements may pose risks to progress in 2024.

Practice Implementation Ratio: NRCS plans to review this target with leadership with the new methodologies now in place when looking at a new possible target for 2024. New Farm Bill requirements may pose risks to progress in 2024.