



United States Department of Agriculture

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

DELAWARE FY 2018 Accomplishments Report



Helping People Help the Land

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State Conservationist's Message

Fellow Conservationists and Friends,

I am so honored to be able to share with you the 2018 Accomplishments Report for the USDA Natural Resources Conservation Service (NRCS) in Delaware.

As I reflect on fiscal year 2018, I am reminded just how laser-focused our employees and partners are in helping our hard-working farmers invest in their operations. In fiscal year (FY) 2018, we were able to secure more than \$9 million in funding through our financial assistance programs to help farmers implement conservation systems on the ground. The results are impressive. We helped our farmers implement 63,000 acres of cover crops, which alone resulted in the reduction of 273,000 lbs. of nitrogen. This means those excess nutrients no longer have the potential to interfere in our waterways---ultimately resulting in improved water quality for all. I implore you to read more about our proven successes on our new conservation results page.

In FY 2019 and beyond, we will focus on improving our customers' experience in all aspects. This means streamlining and finding efficiencies for conservation delivery; examining tools, resources and technology available to help improve processes and operations; and assessing and the effectiveness of the best management practices in the State. We are committed to providing the highest level of technical service and outreach assistance needed to help our customers be successful stewards of the land they rely upon.

Our strategy, both at the national level and within the state, to deliver the best conservation results to our customers are centered on the following five key focus areas:

1. **PEOPLE:** Supporting our employees' needs and having the people we need in place to fulfill our mission of helping people help the land.
2. **PROGRAMS:** Improving our program delivery.
3. **POLICY AND PROCESS:** Simplifying how we do things and making sure our services are science-based, data driven and tap into the latest tools and technology.
4. **PARTNERS:** Harnessing the power of partnership to meet our mutual goals.
5. **PHILOSOPHY:** Aligning our mission with our vision for the future.

We are expanding our commitment to our customers because it is our customers who are feeding families around the world. The improvements they are making are protecting our soils, our air and our water supply – for this generation and the next.

I encourage you to review this report to gain a better insight into our delivery of technical and financial assistance to our customers and the importance of voluntary conservation for all Delawareans.

Yours in conservation,



KASEY L. TAYLOR
State Conservationist, Delaware



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Delivering Conservation Results

Delaware farmers and landowners are using conservation systems to protect and improve water quality throughout the state. These systems utilize practices that are proven to reduce nutrient and sediment transport to surface water and groundwater. In addition to improved water quality, this comprehensive approach helps boost soil health, improve air quality, enhance wildlife habitat and strengthen the economic bottom lines for farmers.

Conservation applied on any acre delivers an environmental benefit, but when conservation is approached comprehensively, the results are greater.

Here are the direct results of three essential NRCS-funded conservation systems that are improving water quality within the state (in FY2018):

Cover crops play a major role in improving water quality by scavenging residual nitrogen, reducing erosion and sedimentation and improving infiltration.



Results: Cover Crops

Delaware farmers have planted 63,398 acres of cover crops which has resulted in the following:

- 273,518 lbs. of Nitrogen reduced
- 39 lbs. in sediment reductions

Animal Waste Management Systems include Heavy Use Area Pads (HUAP), Animal Mortality Facilities and Waste Storage Structures. The application of this conservation system ensures effective storage and management of animal manure until the nutrients from the manure can be properly applied to a growing crop.

Results: Animal Waste Management Systems

Delaware farmers have applied 179 HUAPs, 33 Animal Mortality Facilities and 34 Waste Storage Structures, which have resulted in the following:

- 26,811 lbs. of Nitrogen reduced
- 716 lbs. of Phosphorus reduced



Cropping Systems include No-Till, Mulch-Till and Nutrient Management. This suite of practices works to effectively manage the application of nutrients and limit the disturbance of the soil to improve crop nutrient uptake, increase infiltration, and reduce sediment transport—ultimately, improving water quality.



Results: Cropping Systems

Delaware farmers have implemented 252 acres of No-Till, 4,551 acres of Mulch-Till and installed Nutrient Management practices on 6,946 acres. Together, these practices have made the following impact:

- 15,213 lbs. of Nitrogen reduced
- 302 lbs. of Phosphorus reduced
- 64,131 lbs. in sediment reductions

Nutrient and sediment reduction rates for the practices are taken from the Chesapeake Bay Model.



Agricultural Conservation Easement Program (ACEP)

The Agricultural Conservation Easement Program (ACEP) has two components--one for agricultural lands (ACEP-ALE), one for wetlands (ACEP-WRE)--in which financial and technical assistance is provided to conserve these lands and their related benefits.

Agricultural Land Easements

(ACEP - ALE) - Under this component, the Natural Resources Conservation Service (NRCS) helps partners protect working agricultural lands and limit non-agricultural uses of the land.

NRCS works with approved state or local units of government and certain nongovernmental organizations who arrange for the purchase of development rights through conservation easements on private lands. The entity holds and manages these conservation easements in perpetuity.

NRCS may contribute up to 50 percent of the fair market value of the agricultural land easement on approved parcels. All parcels are ranked individually on their own merit. Funds are awarded to the highest ranked eligible parcels through a statewide competitive process. Partner entities must bear the cost of appraisals, surveys when needed, title search, legal and closing costs, and monitoring and enforcement of the easement.

2018 Accomplishments

Delaware NRCS entered into an agreement with the Delaware Department of Agriculture (DDA), Delaware Agricultural Lands Preservation (DALP) Foundation to purchase easements on nine farms in Delaware.

ACEP-ALE provided funds of \$1.3 million to the DALP Foundation to help purchase these farmland easements, which total \$2.72 million. The total acreage enrolled into the preservation easements total approximately 1,500 acres.

Wetlands Reserve Easements

(ACEP - WRE) - Under this component, NRCS helps to restore, protect and enhance enrolled wetlands. Through the wetlands reserve enrollment options, NRCS may enroll eligible land through:

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

30-year Easements – 30-year easements expire after 30 years. Under 30-year easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.

Term Easements - Term easements 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. NRCS also pays between 50 to 75 percent of the restoration costs.

2018 Accomplishments

Delaware completed restoration on one wetland reserve easement site totaling 114 acres in FY 2018.

Although no new WRE applications were funded in FY 2018, an expanded outreach effort was conducted to identify potential areas for restoration and preservation in the future. This effort will continue into FY 2019.



Agricultural Management Assistance (AMA)

Agricultural Management Assistance provides financial and technical assistance to farmers to voluntarily address issues such as water management, water quality and erosion control by incorporating conservation into their farming operations.

Farmers 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).

Historically underserved producers (limited resource farmers, beginning farmers, socially disadvantaged producers, and Veterans who are beginning farmers)

may be eligible for a higher practice payment rate for the implementation of conservation practices and conservation plans.

AMA is available in 16 states where participation in the Federal Crop Insurance Program is historically low: Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia and Wyoming.

2018 Accomplishments

Delaware received three AMA applications in FY 2018. Delaware approved all contracts, which cover 29.3 acres for a financial assistance total of \$61,285.

Conservation Stewardship Program (CSP)

The Conservation Stewardship Program is a voluntary program that encourages agricultural and forestry producers to address resource concerns by undertaking additional conservation activities, and improving and maintaining existing conservation systems. CSP participants are maintaining and enhancing the treatment of soil quality, soil erosion, water quality, water quantity, air quality, plants, animals and energy. Eligible lands include cropland, grassland, improved pasture land and nonindustrial private forestland.

Due to improvements, CSP is easier to understand, more flexible and more accommodating to local priorities. NRCS also added a significant number of enhancements and practices.

CSP is available to all producers nationwide, regardless of operation size or crops produced. Applications are accepted on a continuous basis with announced ranking cut-off dates when the ranking and funding of applications on file will occur. Applications need to include the applicant's entire operation and are evaluated and ranked relative to other applications that address similar resource

concerns in Delaware. In the ranking process, applicants receive credit for both - conservation measures they have already implemented and for new measures they agree to add. Applications addressing the most resource concerns to the highest degree will receive the highest rankings.

2018 Accomplishments

In FY 2018, Delaware NRCS provided \$242,520 in financial assistance through three new contracts and \$191,626 for nine renewals on 12,861 acres during the 2018 sign-up period. Renewals were offered to CSP program participants who signed up in 2013 and whose contracts were up for expiration.

All CSP contracts are for a term of five years. Overall, DE NRCS is currently providing technical and financial assistance to 94 active CSP contracts on 77,522 acres totaling \$2.849 million annually.

(Note: CSP payments are administered on an annual basis.)



Conservation Technical Assistance (CTA)

The Conservation Technical Assistance Program provides technical assistance supported by science-based technology and tools to help people conserve, maintain, and improve their natural resources. The CTA program provides the technical capability, including **conservation planning**, design and implementation assistance, that helps people plan and apply conservation on the land. This assistance is provided to individuals, groups and communities who make natural resource management decisions on private, tribal and other non-federal lands.

NRCS, through the CTA Program, provides conservation technical assistance to address issues that are of local, state or national concern.

The CTA Program is unique because it provides a substantive level of technical expertise, background and support for Federal, State and local conservation programs. One-on-one help through flexible, voluntary programs occurs every day in local NRCS offices.

Conservation Planning

Conservation planning is a process from which conservation plans are developed by working with the landowner to first understand the resource needs and the landowner's desired land use goals. Based on sound scientific practices, NRCS provides hands-on assistance to help the landowner develop a conservation plan.

A conservation plan is the record of the landowner's decisions and supporting information for treatment of one or more identified natural resource concerns as a result of the planning process. The plan describes the schedule of implementation for practices needed to solve identified natural resource concerns and takes advantage of opportunities.

The benefits for the producer to develop a conservation plan are many. Conservation plans provide a strategic guide for reaching land-use and natural resource goals and provide a complete assessment/inventory of a landowner's

resources. Implemented conservation plans have a positive impact on the producer's bottom line and help improve the condition of their natural resources.

Conservation planning is a priority among NRCS and national conservation partners to improve conservation delivery. To ensure planning continues to be successfully integrated into technical assistance approaches, some of the following efforts are underway:

- Field office planners are currently completing the course work to meet the new requirements to be a certified conservation planner;
- Program support specialists assist field offices by completing administrative tasks related to contract management-- allowing field staff more time in the field planning; and
- The Conservation Delivery Streamlining Initiative continues to combine tools and processes that will integrate planning and contracting software allowing conservation planners to assess resource concerns like soil erosion and wind erosion from one application.

Delaware NRCS along with state and local partners are fully on board with these efforts and are moving them forward. Soil health has continued to accelerate conservation planning throughout the state. In FY2018 the Soil Health Partnership (NRCS, the Districts, Cooperative Extensions, farmers) held seven soil health related workshops with over 400 attendees. Workshops and field days topics included information on basic and advanced soil health concepts, the economics of soil health, and the role of soil biology and how to improve its function.

Delaware's conservation planning partners include Delaware's Conservation Districts, Delaware Department of Agriculture, the Delaware Department of Natural Resources and Environmental Control, the Delaware Conservation District Employees Association and the First State Resource Conservation and Development Council.



Engineering

The Delaware NRCS Engineering Staff provides sound technical leadership and principles to producers and customers to implement conservation systems and practices on the land. Assistance is provided through evaluation, survey, design, construction layout and supervision of practices implemented to address natural resource concerns.

Quality assurance is an important role of the Delaware Engineering team. Engineering oversight of projects implemented through public funding assures they meet NRCS Standards and Specifications and function properly to solve the resource concern as intended.

During 2018, the engineering staff provided technical assistance for traditional waste management practices including manure storage structures, composters and heavy use area pads as construction of many new poultry farms continued in Delaware. Staff also implemented erosion control practices such as streambank stabilization, grade stabilization, grassed waterways, and additional structural practices including agrichemical handling facilities, irrigation water management practices and

practices to benefit wildlife such as shallow ponds.

Engineering staff assisted the Wetland Reserve Easement (WRE) program by providing technical oversight and contract administration assistance to four easement boundary survey contracts, totaling 210 acres. In addition, contract construction drawings and specifications were prepared for four wetland restoration projects, totaling 461 acres. Fall construction is planned for several projects.

All of the implementation accomplishments included in this report have, in some way, been assisted by the Delaware NRCS Engineering Team.

The engineering staff helps get conservation on the ground.



Structural practices such as riprap protection are used to stabilize streambanks and shorelines when vegetation alone cannot stop the erosion.

Environmental Quality Incentives Program (EQIP)

The Environmental Quality Incentives Program is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help address and improve soil, water, plant, animal, air and other related natural resources on agricultural land and non-industrial private forestland. Another purpose of EQIP is to help producers meet Federal, State, Tribal and local environmental regulations.

EQIP provides financial assistance payments to eligible producers based on a portion of the average cost associated with practice implementation. Technical assistance is available to help producers develop conservation plans, which are required to obtain financial assistance.

Historically underserved (HU) producers (limited resource farmers, beginning farmers, socially disadvantaged producers, and Veterans who are beginning farmers) may be eligible for a higher practice payment for the implementation of conservation practices and conservation plans. HU producers may also be eligible for advance payments up to 50 percent of the estimated contractual payment to begin installation of approved conservation practices with an NRCS approved design.

Producers may use a certified Technical Service Provider (TSP) for technical assistance needed for certain eligible activities, services and the development of conservation plans.

Delaware's EQIP incorporates environmental priorities as identified at the state level (State Technical Committee) and local levels (Local Work Groups) into the selection of what specific program options will be offered, and

what factors, questions and screening tools will be used in the application ranking process. Ranking worksheets for each program option include evaluation questions that reflect national, state and local priorities.

2018 Accomplishments

Delaware received 538 EQIP applications for FY 2018.

Delaware approved 183 contracts covering 36,826 acres for a financial assistance total of \$6,618,255. Included in these numbers are 53 approved contracts covering 2,715 acres assisting beginning farmers, socially disadvantaged and limited resource producers with financial assistance totaling \$3,156,456.

EQIP funding options:

Beginning Farmers
Cooperative Conservation Partnership Initiative (CCPI)
Energy Initiative
Limited Resource Farmers
National Water Quality Initiative
Organic Initiative
Seasonal High Tunnel Initiative
Socially Disadvantaged Producers
Veterans

Top Practices:

Heavy Use Area Pads
Waste Storage Structures
Energy
Irrigation (Water Management)
Cover Crops
Nutrient management
Composters



Regional Conservation Partnership Program (RCPP)

The Regional Conservation Partnership Program was created in the 2014 Farm Bill.

RCPP encourages multiple partners (such as private companies, local and tribal governments, universities, non-profit groups and other non-government partners) along with farmers, and forest landowners to design conservation-based solutions that work best for their region. Local partners and the federal government both invest funding and manpower to projects to maximize their impact.

RCPP allows local partners the opportunity to design and invest in conservation projects that are specifically tailored to make an impact well beyond what the Federal government could accomplish on its own.

RCPP Funding - Funding for RCPP is allocated to projects in three different categories:

Critical Conservation Areas (CCA)- Each CCA has an overarching goal that includes addressing priority resource concerns that are common throughout the area.

There are eight geographic areas chosen by the Secretary of Agriculture as CCAs. These receive 35 percent of funding. The Chesapeake Bay Watershed CCA encompasses about a third of Delaware.

National - For nationwide and multistate projects that further the conservation, restoration and sustainable use of natural resources. These receive 40 percent of funding.

State - For projects in a single state that address state-specific or national priorities. These receive 25 percent of funding.

2018 Accomplishments

Delaware funded one proposal out of its state funding pool. The proposal, **Protecting Delaware Bay and Inland Bays with Cover Crops** was submitted by the Sussex Conservation District (SCD) along with other key agricultural partners. SCD along with their partners will assist producers in the Delaware Bay and Inland Bay to implement cover crops. The goal is to improve water quality by reducing nutrients entering ground and surface waters.

Delaware is also a part of a 2018 Chesapeake Bay Critical Conservation Area (CCA) Project, **“Chesapeake Bay Farm Stewardship and Preservation.”** The lead partner is Sustainable Chesapeake from Virginia. The project will focus on helping farmers in the Chesapeake Bay Watershed improve water quality through implementation of cover crops and advanced nutrient management.

FY2018 Accomplishments from Prior Year Projects - Since fiscal year 2015, Delaware NRCS has funded eight RCPP projects. All of these partnership projects focus on expanding conservation efforts on agricultural lands—targeting water quality improvement and energy efficiency.

All RCPP projects extend across multiple years and result in increased accomplishments over time. In FY 2018 alone, there were a total of 22 contracts implemented on 574 acres for a financial assistance total of \$1,038,461.

All RCPP Projects – Delaware:

Accelerating Chesapeake Bay Watershed Implementation Plans; Delmarva Whole System Conservation Partnership – Field to Stream; Watershed Channel Restoration Project; Assisting Beginning Farmers with Poultry Headquarter (HQ) Best Management Practices (BMPs); Meeting Watershed Implementation Plan (WIP) Goals in the Chesapeake Bay; Cost-Share Opportunities for Beginning Farmers; Energize Delaware Farm Energy Efficiency Program; Protecting Delaware Bay and Inland Bays with Cover Crops



Soil Sciences and Geographic Information Systems (GIS)

The main goal of the soils staff in Delaware is to provide scientifically defensible and timely delivery of technical soils information to internal and external customers to meet their ever-changing resource challenges. Accurate soils information is the foundation for NRCS and many partners resource initiatives.

Over the last year the soils staff in Delaware in cooperation with the soil survey division updated 188,463 acres of soil information to more accurately reflect our understanding of these soils. In addition, 11 new soil interpretations have been created to guide resource managers in the proper and wise use of Subaqueous Soils data that is now available for DE. These interpretations provide guidance for engineering potentials, hazardous soils, and restoration interpretation for shellfish and submerged aquatic vegetation.

Moreover, seven additional soil interpretations have been developed which rank soils for their potential to form crust, concentrate salt in their surface and are prone to soil structure weakness (Fragile). This helps farmers and planners develop conservation plans to improve soil health.

Accurate soils information is currently available online for the whole state through [Web Soil Survey](#), [SoilWeb apps](#), [Geo-Spatial Data Gateway](#) and the electronic [Field Office Technical Guide eFOTG](#).

Moreover, Technical Soil Services (TSS) remain the largest workload for the staff in Delaware. Requests range from onsite geo-technical investigations for agricultural structures and best management practices to environmental compliance requirements associated with Farm Bill Programs. In addition, 94 sites have been analyzed with our portable X-ray Florence (XRF) equipment to quantify soil heavy metal contents across the state and region. Furthermore, seven geophysical investigations have been conducted with our Ground Penetrating Radar (GPR) unit to locate subsurface soil features without the typical disturbance of digging test pits. The unit has been used to identify potential cultural resource sites, investigate failing dams, and locate utilities and buried fuel tanks.

In addition, the GIS staff has partnered with state and local working groups who have deployed drone technology to meet their mission needs. From this partnership, we anticipate over time that we will incorporate these technologies and lessons learned into the NRCS toolbox in the future.

**The Natural Resources Conservation Service is an agency of
The United States Department of Agriculture.**

**For more information, contact Dastina Wallace, public affairs specialist, at
302-678-4179. Or visit Delaware NRCS online at www.de.nrcs.usda.gov.**



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Note:

All data included in this report has pulled by NRCS' program specialists through the Program Contracts System, known as ProTracts or through the National Easement Staging Tool (NEST). ProTracts is a web-based system used to manage program data for AMA, CSP and EQIP; NEST is a web-based system used to manage program data for NRCS' easement programs including ACEP-ALE and ACEP-WRE.