DELAWARE
FY 2020
Accomplishments
Report

Helping People Help the Land
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Fellow Conservationists and Friends,

As we continue to navigate life amid this unprecedented coronavirus pandemic, this year’s accomplishments report is truly significant. The work that was able to be completed is indicative of the hard work and dedication of our conservation community—from the producers, to our employees, to our partners and everyone in between. I am in awe of the resiliency that I see around me every day.

Working together, we were able to deliver on conservation results. We helped our Delaware farmers plant 7,595 acres of cover crops, apply over 200 animal waste systems and install nutrient management practices on 9,725 acres. These achievements have all been done through the Environmental Quality Incentives Program (EQIP). As a result, there has been a reduction of 250,000 lbs. on nitrogen, phosphorus and sediment, which is helping to improve water quality.

As we move forward, I reflect on the impact of the pandemic to our state. It has shown us that we must be ready to adapt to innovative ideas, tools and technologies to respond to our customers’ needs. Although we are always striving to enhance customer service, we have a renewed and ongoing focus on Continuous Process Improvement (CPI) to identify the very best tools and technologies in all areas to move conservation forward.

NRCS and its core conservation partners have identified and developed several priorities over the next year and beyond. They include the following:

- Implement and deliver the 2018 Farm Bill to our nation’s farmers, ranchers, and private forests landowners.
- Streamline our processes and program delivery to best serve our customers.
- Better understand our customer needs and improve overall customer service.
- Increase internal mentoring, training opportunities, and experiences that collectively involve staff, customers and partners.
- Expand focused outreach efforts to increase agency awareness among populations of Young, Beginning, Small, Veteran and Historically Underserved Farmers and Ranchers.
- Elevate the importance of soil health across our agency’s outreach and communication efforts to further enhance and promote the delivery of soil health principles to staff, customers and partners.

In addition, Delaware NRCS has released its 2020-2025 Strategic Plan that focuses on two key goals:

- The People — Support our valued external and internal stakeholders in service to Delaware’s natural resources.
- The Land — Support resilience of agricultural in Delaware through addressing priority resource concerns.

I am confident that our strategic approach will put us in the best position to meet the changing needs of agriculture and protect our natural resources in the future.

I invite 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
Conservation Results Delivered!

In Delaware, farmers and landowners are using conservation systems to protect and improve water quality. These systems utilize conservation practices that are proven to reduce nutrient and sediment transport to surface water and groundwater. In addition to improved water quality for all, this comprehensive approach benefits soil health, air quality, wildlife habitat and strengthens the profitability of agricultural operations.

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

Here are the direct results\(^2\) of three essential NRCS-funded\(^2\) conservation systems that are improving water quality within the state in FY2020:

### Results: Cover Crops\(^3\)

Delaware farmers have planted 7,595 acres of cover crops which has resulted in the following:

- 122,392 lbs. of Nitrogen reduced
- 84,257 lbs. in sediment reductions

### Results: Animal Waste Management Systems

Delaware farmers have applied 157 HUAPs, 31 Animal Mortality Facilities and 30 Waste Storage Structures, which have resulted in the following:

- 27,794 lbs. of Nitrogen reduced
- 963 lbs. of Phosphorus reduced

### Results: Cropping Systems

Delaware farmers have installed Nutrient Management practices on 9,725 acres. Together, these practices have made the following impact:

- 16,369 lbs. of Nitrogen reduced
- 148 lbs. of Phosphorus reduced

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1 Nutrient and sediment reduction rates for the practices are taken from the Chesapeake Bay Model. 2 Funding through NRCS’ Environmental Quality Incentives Program. 3 Cover crop based on a rye mix disked in by 10/30.
Agricultural Conservation Easement Program (ACEP)

ACEP provides financial and technical assistance to help conserve agricultural lands and wetlands 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.

**2020 Accomplishments**

Delaware NRCS entered into an agreement with the Delaware Department of Agriculture (DDA), Delaware Agricultural Lands Preservation Foundation (DALPF) to purchase easements on 44 farms in Delaware.

ACEP-ALE provided funds of $5.3 million to the DALP Foundation to help purchase these farmland easements, which totaled $10.6 million. The total acreage enrolled into the preservation easements were approximately 6,048 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.

**2020 Accomplishments**

Delaware initiated restoration on two wetland reserve easement sites totaling 377 acres in FY 2020.

Although no new WRE applications were funded in FY 2020, an expanded outreach effort will continue into FY2021 to identify potential areas for restoration and preservation in the future.
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.

2020 Accomplishments
Delaware received 18 AMA applications in FY 2020. Delaware’s approved contracts cover 967 acres for a financial assistance total of $286,788.

Conservation Stewardship Program (CSP)

The Conservation Stewardship Program (CSP) helps agricultural producers build on existing conservation systems and adopt additional conservation activities to address priority resource concerns. 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.

2020 Accomplishments
In FY 2020, Delaware NRCS provided $226,428 in financial assistance through two new contracts on 3,675 acres.

Delaware NRCS renewed three CSP contracts which were up for expiration in 2020. They totaled $141,155 in financial assistance and covered 869 acres.

All CSP contracts are for a term of five years. Overall, DE NRCS is currently providing technical and financial assistance to 62 active CSP contracts on 51,768 acres totaling more than $1 million annually.

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

The Resources staff provides technical leadership to internal and external customers, including producers, conservation planners, agencies, universities, and non-profits, on ecological sciences including agronomy, forestry, wildlife, soil health, and water quality. Staff is responsible for ensuring these practices are installed correctly and managed according to NRCS standards and specifications.

Conservation Planning
The Resources staff has the lead for conservation planning and related training activities. 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. In FY2020, Conservation Assessment Ranking Tool (CART) was introduced and is designed to assist conservation planners as they assess site vulnerability, existing conditions, and identify potential resource concerns on a unit of land. Although CART does not directly rely on planning criteria to assess resource concerns, it utilizes similar inputs to provide thresholds to document whether planning criteria have been achieved, or if additional conservation practices are necessary to meet them. CART results are then used to support conservation planning for the customer. CART also captures this information to prioritize programs and report outcomes of NRCS investments in conservation.

Wildlife
NRCS continues its partnership with Ducks Unlimited (DU) to lead NRCS’ Working Lands for Wildlife initiative, to enhance and restore habitat for the American Black Duck. In FY2020, there was a continued increase in interest and participation, including eight signups, specific to installing conservation practices beneficial to waterfowl habitat.

NRCS continues to provide technical assistance for the Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP) to establish wildlife habitat and improve water quality. In partnership with the Farm Service Agency and the Delaware Department of Natural Resources and Environmental Control, one new CRP site was enrolled and 13 CREP sites were re-enrolled in FY2020.

Cultural Resources
NRCS continues to work with the Delaware State Historic Preservation Office to complete cultural resources reviews through Prototype Programmatic Agreement. NRCS protects cultural resources with the same consideration it does for protecting natural resources on private lands. Keeping cultural resources provides the basis for understanding our human past while keeping natural resources in balance helps provide the basis for a healthy and profitable farm environment. In FY2020, the Cultural Resources Specialist completed 20 reviews and field investigations through the state of Delaware.
# Conservation Technical Resources (continued)

## Urban Conservation
NRCS continued to build upon its strategic outreach effort on urban conservation. Urban farming is one way to provide local, healthy produce to “food desert” communities. Food deserts are areas with limited access to affordable and nutritious food. Helping these farmers properly manage the natural resources on their farm is critical to the productivity and sustainability of their operation. Working with local partners, NRCS engaged and visited with a diverse number and variety of urban growers to understand their barriers.

In FY2020, efforts focused on addressing barriers through partner and agency resources including making our traditional practices more tailored for small/urban farmers and utilizing our EQIP and AMA programs to fund those practices. NRCS also created a ranking pool to specifically target and fund Urban Agriculture. Delaware funded four contracts for $24,644. In FY2021 we will be adding conservation practices to our suite of current practices to better and further assist the urban agriculture community.

## Geographic Information Systems (GIS)
Conservation Desktop has officially replaced Toolkit, as our new conservation planning tool. It is loaded with GIS functionality and integrated with a lot of our applications that NRCS uses daily. Web-based GIS layers are the wave of the future for GIS and are constantly being added to Desktop’s user-friendly interface. Desktop gives our planners the ability to do their conservation planning, effectively and efficiently. There will be a new Wetland Tool integrated into the interface soon. Delaware has a lot of wetlands and Desktop will give conservation planners this very effective tool to utilize for wetland determinations.

Conservation Client Gateway has officially been replaced by Farmers.gov, which is a portal that gives our farmers and landowners the ability to access NRCS products and services. Farmers.gov has more advanced functionality to able to handle any financial or technical requests from farmers or landowners. It gives the farmers another option of doing business online if they are unable to make it to their local USDA Service Center. GIS functionality is present in this application as well. Spatially, the farmers can see their land, displayed on the latest aerial imagery that NRCS has to offer.

NRCS is giving GIS technology a new name these days—it’s called Business Tools. Operation Dashboards and StoryMaps are now being heavily utilized, to show how GIS can be used in another light. Dashboards are a tool to help track operations using real-time data and information; storymaps use interactive tools for digital storytelling. Web maps and apps are starting to replace the standard shapefiles, which GIS users are accustomed to. 3D Technology, such as better satellite imagery and LiDAR, is the wave of the future for NRCS. GIS is ever-changing and evolving into a tool that even non-GIS users can utilize.

Example of interactive storymap of Delaware farmer committed to improving soil health.
The Delaware NRCS Engineering Staff provides sound technical leadership and guidance to producers and customers to apply conservation on the land. Technical assistance is provided through site evaluations, survey, design, construction layout, construction supervision and certification of proper completion of practices.

Quality assurance is an important role of the Delaware Engineering Team. Engineering oversight of projects implemented using public funding ensures they meet NRCS Standards and Specifications and function properly to solve the resource concern as intended. This ensures that the customers receive quality products which will last beyond the expected life of the practice.

Engineering standards, guidance documents, drawings and details are continuously reviewed and updated to keep current with industry standards and technology.

The engineering team continues to provide technical assistance for some of the State’s top-funded practices including Waste Storage Structures, Heavy Use Area Pads, Animal Mortality Management, Energy Conservation and Irrigation Water Management Practices. In addition, technical assistance was provided to our newer urban customers to address their conservation needs such as composting and runoff management.

With the challenges of 2020 brought on by the COVID pandemic and the need to socially distance, the engineering team was able to utilize technology to continue to provide service to customers. Electronic robotic survey equipment allows technicians to survey independently. Use of GIS data allows location and elevation information to be gathered in the office. Designs and plans prepared using Computer Aided Design and Drafting (CADD) may be sent electronically. Of course, there is still the need to meet with contractors and inspect projects for compliance with standards, and the engineering team continued to accomplish this while ensuring everyone’s safety.

This year, in partnership with the Conservation Districts and Delaware Natural Resources and Environmental Control (DNREC), DE NRCS received funding through the NRCS Watershed Operations program to develop a watershed plan for the Upper Nanticoke River Watershed. The watershed plan will identify and evaluate sites where channel stabilization, ecosystem restoration and/or water quality habitat improvement practices along the tax ditches could provide the greatest benefit. Partners and a private contractor will complete the plan over the next two years. Funding will be requested for design and construction of identified projects.

The team is always discovering new and innovative approaches to solving resource concerns. In partnership with Iowa-based Ecosystem Services Exchange and local non-profit ShoreRivers, we are promoting and implementing Conservation Drainage practices which provide water quality improvements to traditional drainage practices. One example includes replacing surface tile wells with stone-filled blind inlets which remove sediment and phosphorus from surface runoff water before discharging through the tile into the ditch or stream.

In a Blind Inlet, surface water flows through the stone which filters sediment and attached phosphorus before discharging through the pipe outlet.
The Environmental Quality Incentives Program is a voluntary program that provides financial and technical assistance to agricultural producers to help address and improve soil, water, plant, animal, air and other related natural resources on agricultural land and non-industrial private forestland. In addition, EQIP can 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. 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.

NRCS offers incentives for Historically underserved (HU) producers (limited resource farmers, beginning farmers, socially disadvantaged producers, and Veterans who are beginning farmers) including a higher practice payment for the implementation of conservation practices, advanced payment options and dedicated funding pools.

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 Advisory 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.

**2020 Accomplishments**

Delaware received 319 EQIP applications for FY 2020.

Delaware approved 132 contracts covering 18,616 acres for a financial assistance total of $6.8 million. Included in these numbers are 55 approved contracts covering 3,269 acres assisting beginning farmers, socially disadvantaged and limited resource producers with financial assistance totaling $4.8 million.

**EQIP funding options**

EQIP funds applications throughout the state that are grouped together into fund pools. Like applications are entered and ranked into eligible fund pools for funding consideration. Through the use of fund pools, we are able to ensure that applications are ranked against each other in a fair and equitable manner. Some of those fund pools include mandatory pools such as our Beginning Farmer and Socially Disadvantaged or Working Lands for Wildlife.

**Frequently Used 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 (RCPP) promotes coordination of NRCS conservation activities with partners to further address on-farm, watershed, and regional natural resource concerns.

RCPP allows 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.

The 2018 Farm Bill made several changes to the Regional Conservation Partnership Program (RCPP):

- RCPP is now a standalone program with its own funding—$300 million annually.
- There are now two funding pools. Partners must apply to either the Critical Conservation Area (CCA) or State/Multistate funding pool. (Funding pools are explained below.)
- There is increased emphasis on project outcomes. All RCPP projects must now develop and report on their environmental outcomes.

RCPP Funding - Funding for RCPP is allocated to projects in two different categories, which include the following:

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 50 percent of funding. The Chesapeake Bay Watershed CCA encompasses about a third of Delaware.

State - For projects in a single state or across several states. These receive 50 percent of funding.

RCPP in 2020


RCPP projects selected for funding in FY2020 will offer innovative conservation solutions, leverage partner contributions, provide impactful and measurable outcomes, and will be implemented by capable partners. (Note: As of publish date, RCPP selections for FY20 had not been made.)

FY2020 Accomplishments from Prior Year Projects - Since fiscal year 2015, Delaware NRCS has contributed funding to nine RCPP projects. All of these partnership projects focus on expanding conservation efforts on agricultural lands—targeting water quality improvement and energy efficiency.

Alternative Funding Arrangements (AFA): RCPP offers an additional funding opportunity for partners to consider called Alternative Funding Arrangements or AFA. NRCS Delaware has not funded any AFA projects to date but will continue to work with the partnership and encourage submission of proposals when the program is announced.

All RCPP Projects in Delaware:

Accelerating Chesapeake Bay Watershed Implementation Plans; Delmarva Whole System Conservation Partnership – Field to Stream; Watershed Channel Restoration Project; Assisting Beginning Farmers with Poultry Headquarters’ 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; Sustainable Chesapeake.
Soil Sciences

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 partners to meet their ever-changing resource challenges. Accurate soils information is the foundation on which NRCS and many partners base their resource initiatives on.

Over the last year the soils staff in Delaware in cooperation with the soil survey division updated 26,000 acres of soil information to more accurately reflect our understanding of these soils. In addition, Provisional Ecological Site Descriptions (PESD) are being developed for the state and will be available for use in the next refresh of Web Soil Survey in July 2021.

All updates and maintenance activities to soil survey products are “annual refresh.” In short, that edited data is posted on the web. Access to accurate soils information is always available online for the whole state through Web Soil Survey, SoilWeb apps, Geo-Spatial Data Gateway and the electronic Field Office Technical Guide (eFOTG).

Innovative Soils Staff Projects
The soils staff in conjunction with the Army Corps of Engineers conducted a unique urban soils study. They sampled 30 soils totals (15 in human altered material and 15 in natural soil conditions) to compare physical property differences and metal contents. The results of this study will be useful for determining dynamic soil properties that can and will change based on land use. From this understanding, conservation practices, such as the soil health practices, can be prescribed to reestablish soils properties which will aid in improving soil resiliency (drought tolerance, nutrient cycling, and overall crop production).

Technical Soil Sciences (TSS)
Technical Soil Services (TSS) remain the largest workload for the staff in Delaware. TSS is the action of assisting landowners, partners, and resource managers in using soils information from the soil survey or conducting site specific investigation to more accurately define the types of soil on their farms for specific land uses.

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, more than 400 sites have been analyzed with our portable X-ray Florence (XRF) equipment this year to quantify soil heavy metal contents across the state and region.

Innovative TSS Projects
The TSS team is using mobile field data recorders that use cell phone technology to upload all field notes to ArcGis online. This software allows staff to archive, share, and spatially analyze our data in real time while we are in the field, truck, home or office.
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.

December 2020