



# Cost Share Programs Annual Report

FY2021 | SOIL AND WATER CONSERVATION COMMISSION



The Soil and Water Conservation Commission (Commission) has the statutory responsibility to create, implement and supervise three voluntary, incentive-based conservation programs: Agriculture Cost Share Program (ACSP), the Community Conservation Assistance Program (CCAP), and the Agricultural Water Resources Assistance Program (AgWRAP). These programs are governed by 02 NCAC 59D. This report consolidates the annual reporting for the three programs for fiscal year 2021 (FY2021).

Through these voluntary, incentive-based conservation programs, cooperators are provided educational, technical and financial assistance through their local soil and water conservation districts. The 96 local districts of North Carolina are comprised of 492 elected and appointed district board supervisors, assisted by their staff and partners in natural resource conservation.

The Soil and Water Conservation Commission (SWCC), the governing body of seven members chosen by the local district boards, provides statutory authority and allocates financial resources for the cost share programs according to rules.

The North Carolina Department of Agriculture and Consumer Services, Division of Soil and Water Conservation provides administrative and technical support to the local districts. The Division develops the standards of the program approved by the Commission, completes the accounting of funds for program implementation, and provides professional engineering assistance to the local staff. For more information, please refer to Appendix A: Funding and Compliance Process.



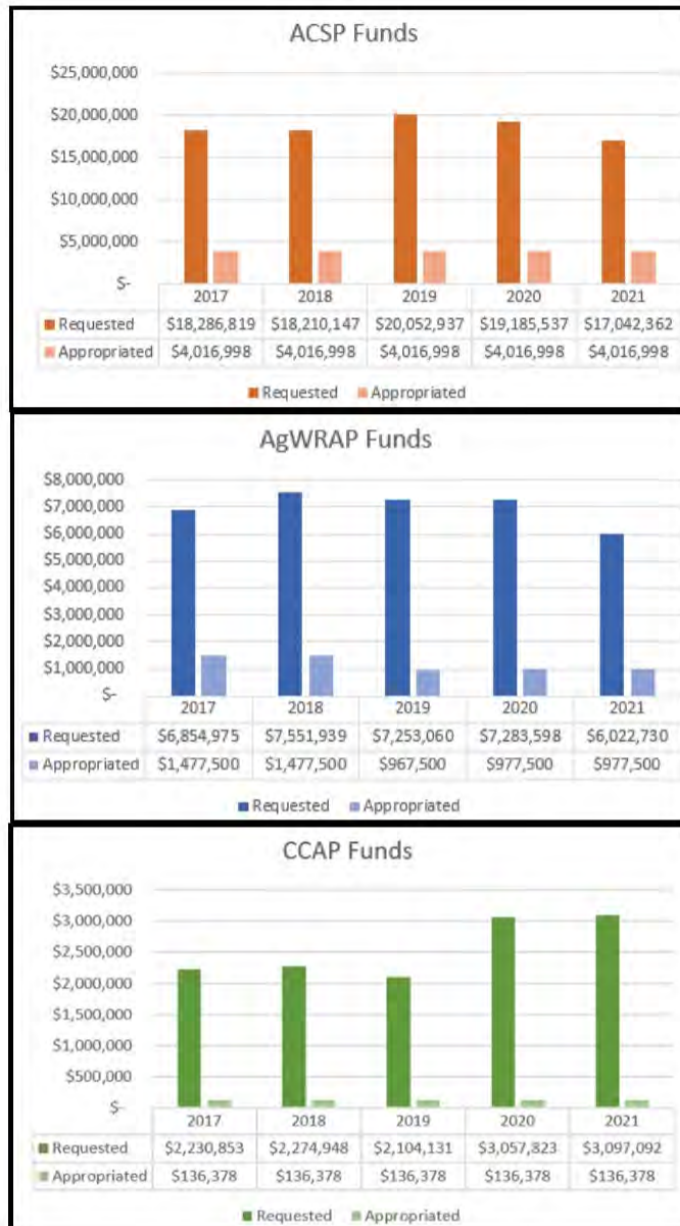
Those in the Conservation Partnership include technical and professional employees of the soil and water conservation district or county, the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), the North Carolina Department of Agriculture and Consumer Services (NCDACS), NCDACS Division of Soil and Water Conservation (Division), and the North Carolina State University Cooperative Extension Service as well as local resource conservation groups. Through these partnerships, districts provide the framework for contracting with participants and ensuring the work is performed according to established standards and specifications.



For most practices in the three cost share programs, the amount provided in cost share is based on 75 percent of a predetermined average cost for the practice up to a maximum of \$75,000 per cooperating applicant per year. However, some practices are cost shared on 75 percent of actual cost due to the variable nature of the practice. For ACSP and AgWRAP, farmers who qualify as beginning farmers or limited resource farmers, and farmers participating in an enhanced voluntary agricultural district are eligible to receive up to 90 percent cost share up to a maximum of \$100,000 per year.

To ensure compliance of the cost share programs, districts complete site visits, also known as spot checks, to a minimum of 5 percent of randomly selected active contracts each year to ensure that practices are being maintained properly. Spot checks for FY2021 showed excellent compliance with maintenance requirements by cooperators. When practices are discovered to need additional maintenance, the district is usually able to assist the cooperator to restore the practice to its intended function. Districts follow the Commission's Non-Compliance with Maintenance Requirements for Cost Share Contracts Policy which requires cooperators to repair, re-implement or repay a prorated amount of funds for the practice if it is not functioning as planned or not being operated for its intended use as specified in 02 NCAC 59D .0109. For more information, please refer to Appendix A: Funding and Compliance Process.

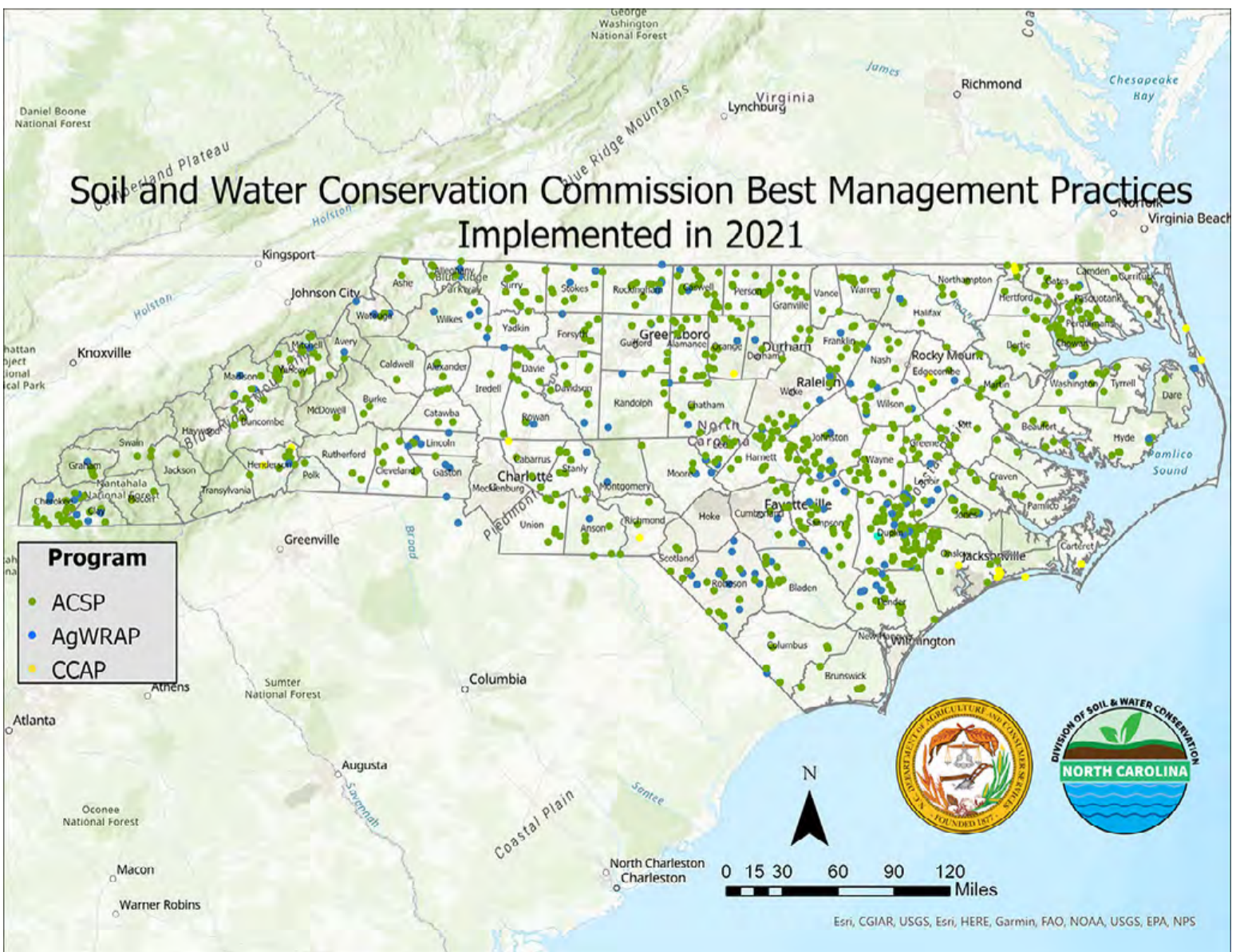
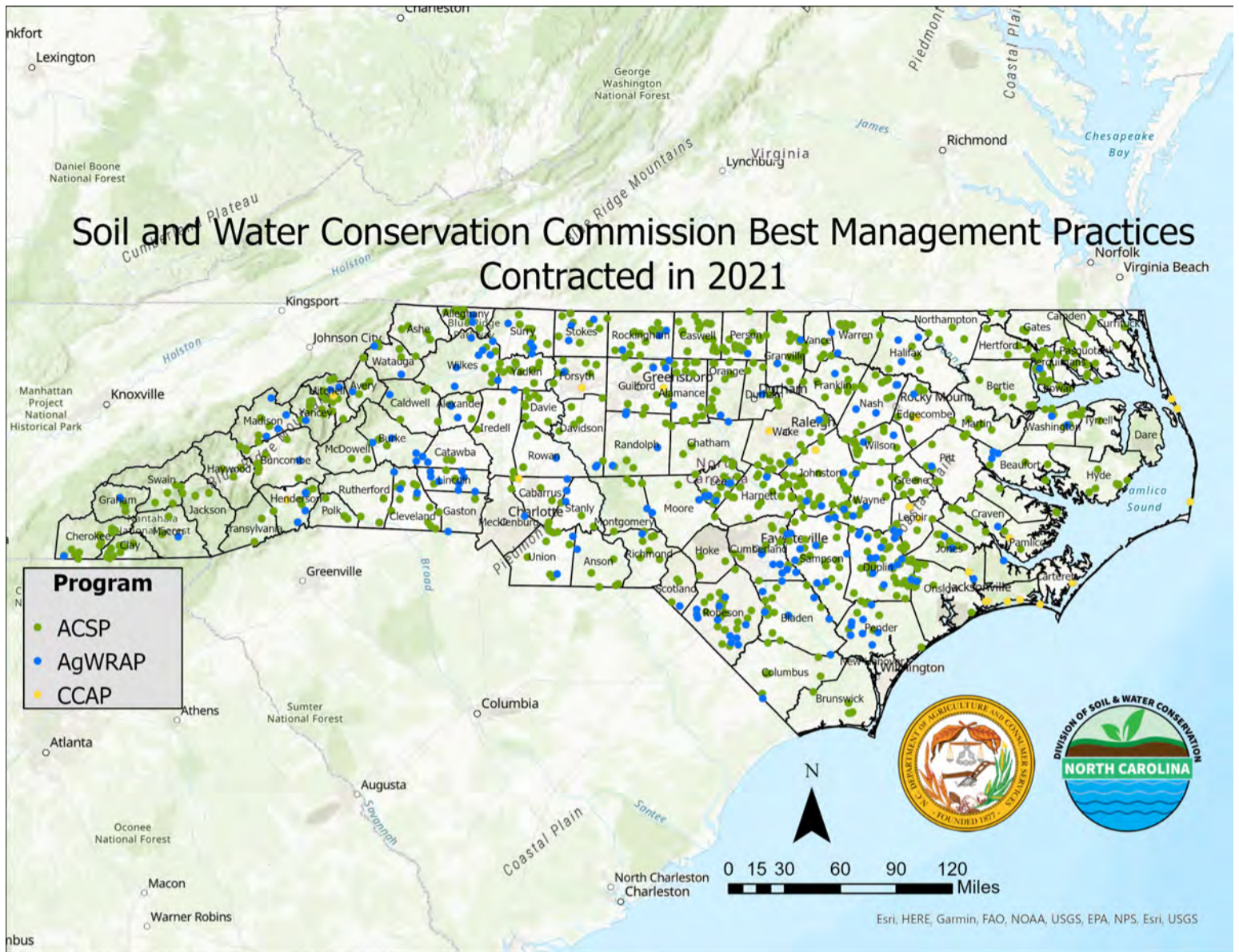
# Program Allocations



Cost share programs are operated on a budget approved by the state legislature for each fiscal year. In recent years, the budgets for the cost share programs have remained relatively consistent, as shown on the graphs.

However, current appropriations do not enable districts to meet demand for financial assistance for installing BMPs to protect water quality and improve water resources in North Carolina. Appropriations are often three to five times lower than the requested amount for program funding.

This trend can be seen in each of the last five years, as depicted on the graphs. Additional appropriations given to the programs may go a long way to help improve the water resources in North Carolina and support agriculture in the state.





The North Carolina Agriculture Cost Share Program (ACSP) was authorized by the General Assembly in 1983 to improve water quality associated with agriculture in three nutrient sensitive watersheds covering 16 counties. In 1990, the program was expanded to include 96 soil and water conservation districts covering all 100 counties across the state. In FY2021, there were 67 approved BMPs in the ACSP that cover both short-term and long-term practices.

While the program was established to improve water quality associated with agriculture, ACSP also benefits the general public. The implementation of the program ensures water quality improvements to local bodies of water, improves soil health and reduces erosion, creates local jobs, and improves the sustainability and resiliency of agribusiness in North Carolina.

N.C.G.S 106-850.74(e) requires that each project's benefits to water quality be estimated before funding is awarded. To meet this requirement, the Commission chose three indicators of water quality benefits (not all benefits are required for each type of contract - required benefits are determined by a workgroup of technical experts):

1. Tons of soil saved
2. Pounds of nitrogen saved or managed
3. Pounds of phosphorous saved or managed

Soil savings estimates have been required on all ASCP contracts since the start of the program. Beginning with the 1997 program year, estimates of nitrogen and phosphorus savings were required. These estimates have allowed the Division to track progress made by agriculture relative to the nutrient reduction requirements in the Neuse, Tar-Pamlico, Jordan Lake and Falls Lake Nutrient Sensitive Water Strategies for agriculture. The ACSP is playing a key role in helping farmers achieve and maintain the nutrient reductions required by these rules.



In FY2021, the Districts obligated \$5,242,462 to 762 new contracts through ACSP.

In FY2021, 686 ACSP contracts were implemented, including those that were contracted in previous years. The BMPs installed through these contracts saved 59,905 tons of soil, managed 90,095 pounds of phosphorus, and 327,292 pounds of nitrogen on 35,250 acres of land.

Since the inception of the program in 1984, the practices implemented through ACSP have saved 7.7 million tons of soil, 21.3 million pounds of phosphorous, and 6.9 million pounds of nitrogen.



In FY2021, 3,329 acres of marginally or environmentally sensitive cropland were contracted to convert to trees, grass or wildlife habitat area. During this timeframe, 2,838 acres were installed and since the program began 216,790 acres have been converted.



ACSP supports assistance for the implementation of wet and dry waste management to ensure the proper storage of animal waste. In FY2021, districts contracted 30 waste management practices and implemented 38 waste management practices, bringing the total to 4,294 implemented.

Mortality management systems are also a recognized BMP under ACSP. These systems ensure proper management of livestock mortalities to minimize water quality impacts. Since the program began, 1,103 systems have been installed, with 12 contracted and 6 installed in FY2021.



In FY2021, 4 chemical handling and management measures were contracted and 6 were installed to provide an environmentally safe means for application, mixing and storing agricultural chemicals. 199 have been implemented since the program began.



No-till and conservation tillage practices have shown great benefits for water quality, soil health, and carbon storage. In FY2021, 2,543 acres were contracted and 3,418 were implemented using these practices. Through ACSP, no-till or conservation tillage practices have now been implemented on a total of 672,462 acres.



In FY2021, 7 water control structures were contracted with 13 installed. These water control structures improve water management on the farm and reduce nutrient loss. Since the program's inception, 4,494 water control structures have been installed.



Riparian buffers have positive impacts on watersheds by filtering run-off from urban and rural areas. Through ACSP, 17,073 acres of forested riparian buffers have been established to reduce nutrient loss on 68,600 acres of cropland. In FY2021, 1 acre was contracted and 15 acres were planted, reducing nutrients on 172 acres of cropland.



Since the program began, 1,477 miles of fencing have been installed, in combination with other practices (e.g. watering sources) to exclude livestock from streams or other bodies of water. In FY2021, 30 miles of livestock exclusion fencing were contracted and 17 miles were installed.



Session Law 2006-78 established the Community Conservation Assistance Program (CCAP). The purpose of the program is to reduce the delivery of nonpoint source (NPS) pollution into the waters of North Carolina by installing best management practices (BMPs) on developed lands not directly involved in agricultural production.

Often times, CCAP BMPs are implemented on public or private property, such as city or county parks, and private lands. These projects add to the aesthetics of the land, contributing to green spaces in urban environments while providing direct positive impacts to water quality in the local community and at the watershed level. In addition, these projects are often completed with volunteers, including school children, and contain educational components, strengthening the communities' bonds and their bond to the natural environment.

Currently there are 17 BMPs that CCAP utilizes to address the site-specific natural resource concerns of the cooperator. These vary in complexity and cost, ranging from stream restoration projects to the closing of abandoned wells.

The CCAP program also has the ability to provide the local districts with the capacity to request innovative practices that are currently not in our standards. These district BMPs allow the districts to request a practice that is recognized by other professional organizations but has not yet been adopted by the CCAP program. This allows districts and CCAP to test newer practices and further develop guidance and policies regarding these innovative practices.

For FY2021, the Commission chose to allocate funds regionally (eastern, central, western) based upon a competitive priority ranking process for CCAP. The Community Conservation Assistance Program Advisory Committee reviewed the ranking parameters, cost-shared BMPs including their standards and specifications, and general program guidance. This independent advisory committee provides review of existing and potential future policies for the program and makes their recommendations to the Commission, which then decides the program guidelines and functionality.

Through the Regional Application Process, for FY2021, districts obligated \$144,825 to contract 23 projects, ranging from backyard raingardens to large-scale marsh sills, in 10 districts.

For FY2021, these projects have resulted in 78 pounds of nitrogen and 75 pounds of phosphorus removed annually and saved 87 tons of soil per year. Since CCAP began, almost 6,300 tons of soil has been saved annually. In addition, nitrogen and phosphorus have been reduced by 1,105 pounds and 475 pounds annually.



Riparian buffers, stream restorations, and marsh sills are recognized BMPs in CCAP. These BMPs help to reduce soil erosion into North Carolina's public bodies of water, thereby helping increase the health of these water bodies.

To date, over 25,000 linear feet of streambank and shoreline protection have been installed, with 4 BMPs contracted and 1 installed in FY2021. In addition, over 37,000 linear feet of streams have been repaired under CCAP and almost 9 acres of riparian buffers have been planted. In FY2021, 6 of these BMPs were contracted and implemented related to these practices.



Permeable pavement and impervious surface conversions are also BMPs in CCAP. These practices help ensure rainfall is able to percolate into the ground rather than run off into streams, taking any pollution near by with it during heavy rainfall events. To date, 7 of these practices have been installed with 3 being installed in FY2021.



Cisterns allow rainwater to be collected from rooftops and used for any non potable purposes such as washing and irrigating. This is one of the more popular BMPs in CCAP with over 200 having been installed since the beginning of the program. In FY2021, three cisterns were contracted and 6 were installed. These cisterns help increase water use efficiency in North Carolina and reduce competition for drinking water sources.

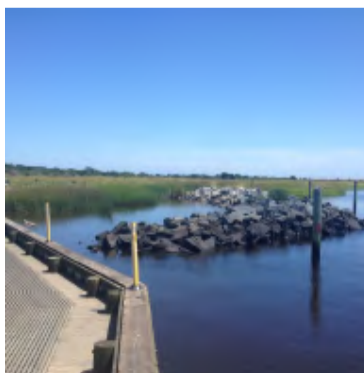


Backyard raingardens, bioretention areas and grassed swales help ensure that run-off caused from heavy rain events can be filtered before reaching streams. Over 25,000 sqft have been installed since the beginning of the CCAP. In FY2021, three raingardens were contracted and 14 were implemented.

Often CCAP practices integrate training and educational and outreach activities for children, adults, and staff as shown in this raingarden installation picture.



Critical area plantings allow for stormwater to be filtered before reaching streams as well as prevent soil erosion on steeped slopes of land, such as that pictured here. These practices ensure better water quality. These types of projects are often at a much larger scale than the raingardens mentioned previously. To date, 8,164 acres of critical area plantings have been implemented and in FY2021, 4 of these practices were contracted and 12 were installed through CCAP.



Marsh sills and other living shoreline protection measure help prevent coastal flooding and the erosion of shorelines. Through CCAP, over 8,575 linear feet of marsh sills have been installed, with 4 marsh sills contracted and 5 implemented in FY2021.



The North Carolina Agricultural Water Resources Assistance Program was authorized through Session Law 2011-145, and became effective on July 1, 2011. This program, referred to as AgWRAP, was established to assist farmers and landowners in doing any one or more of the following through the implementation of one or more of the 8 eligible BMPs:

- Identify opportunities to increase water use efficiency, availability and storage;
- Implement best management practices (BMPs) to conserve and protect water resources;
- Increase water use efficiency;
- Increase water storage and availability for agricultural purposes.

Public benefit of this program is achieved by the following:

- Reducing competition for water resources by public users
- Improving the efficient use of water while enabling the industry to produce food, fiber and other agricultural products
- Preparing the agricultural industry to weather future droughts
- Generating and protecting local jobs in agriculture and agribusiness

In FY2021, the districts obligated \$1,079,599 of state funds to implement 152 contracts through AgWRAP.

These BMPs resulted in over 50 million gallons of water storage increase in FY2021. In addition, these BMPs allowed just over 9,000 acres of cropland to be irrigated.

Since the program began, water storage increased has reached over 2 trillion gallons and has allowed close to 20,000 acres of cropland to be irrigated.

While AgWRAP's primary purpose is water storage, availability and efficiency, the program also has benefits related to soil loss reduction as well as nitrogen and phosphorous savings.

AgWRAP has resulted in close to 51,000 pounds of nitrogen saved, 3,640 pounds of phosphorous saved and over 3.8 million tons of soil saved since the program began.



519 water supply wells have been installed to provide a water source for irrigation, livestock, aquaculture, freeze protection and on-farm processing. In FY2021, 149 wells were contracted and 103 were installed.



AgWRAP through both district allocations and the Regional Application Process, has helped install 93 new water supply ponds for irrigation or livestock watering. In FY2021, 7 new water supply ponds were contracted and 21 were implemented.



AgWRAP has also helped repair 50 water supply ponds to ensure adequate water supply and safety measures related to ponds. In FY2021, 4 pond repair/retrofit ponds were contracted and 5 were successfully repaired or retrofitted.



In FY2021, 11 pond sediment removal BMPs were contracted and 3 were implemented to increase water storage capacity. AgWRAP has helped 77 pond sediment removals be implemented.



57 conservation irrigation conversions, including micro-irrigation conversions have been completed to increase water use efficiency. In FY2021, 8 Conservation Irrigation Conversion practices (including Micro-irrigation) were contracted and 12 were implemented.



## Disaster Relief Program

Due to the devastating impacts of Hurricane Matthew, Tropical Storms Julia and Hermine, and the western wildfires, the North Carolina General Assembly (NCGA) passed the Disaster Recovery Act of 2016 as Session Law 2016-124 and the Disaster Recovery Act of 2017 as Session Law 2017-119. In 2018, the General Assembly appropriated disaster recovery funds to help implement BMPs that addressed the impacts of Hurricane Florence in Session Law 2018-136. In the legislation, the NCGA notes that the State and federal disaster relief initiatives are not intended to make individuals whole after a loss; they are intended to assist the affected areas in recovering from the damage caused by the disasters.

In Fiscal Year 2021, many of the disaster recovery projects contracted were installed. Through the ACSP and AgWRAP programs, districts obligated \$667,764 in 48 contracts. This vital response work is still ongoing and ensures that cooperators in the state are able to recover from these disaster while meeting North Carolina's and global food production needs.

## Streamflow Rehabilitation Assistance Program

Through S.L. 2021-180 (2021 Appropriations Act) the North Carolina General Assembly established the Streamflow Rehabilitation Assistance Program. The purpose of the Program is to assist eligible grantees in protecting and restoring the integrity of drainage infrastructure through routine maintenance to existing streams and drainage ways by removing blockages caused by accumulated debris or sediment, stabilization and restoration of streams and streambanks, and for rehabilitation or improvement of small watershed structural projects constructed pursuant to the Watershed Protection and Flood Prevention Act of 1954, as amended. Project engineering, permitting, and administrative costs are eligible for payment through the Program. Program funds may also be used to provide nonfederal match for related disaster recovery activities funded by the federal government. The Commission is working with staff of the Division of Soil and Water Conservation to establish criteria for allocating funds to eligible grantees for eligible categories of projects. The Commission expects to begin soliciting applications in January or February 2022. Division staff will review applications and recommend applicants to the Commission for selection in the late Spring of 2022.

# Conclusion

The Commission believes Cost Share Programs are being administered cost-effectively and that considerable water quality and water quantity benefits are being realized for the investment made with state funds. ACSP and AgWRAP aid agricultural operations in making essential water quality and water quantity improvements that benefit the public and the agricultural cooperators the program supports. The cost of the conservation practices installed through these programs cannot be passed on to the consumer in the price of the food or fiber product. ACSP and AgWRAP thereby contribute both to water resource improvement and to sustaining a strong state agricultural economy. CCAP fills a need with voluntary, incentive-based stormwater retrofits where municipal regulatory programs cannot help individual landowners address water quality problems. Where municipalities are hindered by right-of-way and liability issues, CCAP can offer relief to homeowners and businesses to protect their properties and improve water quality. For all three programs, the Commission continues to emphasize prioritization, accountability, adaptability, and the utilization of other funding sources, such as grants, in managing these public funds to further improve the water quality and quantity benefits intended by the General Assembly.

Increased costs of fuel, labor, and materials have significantly impacted the amount of conservation all three programs can implement and the number of cooperators who can be assisted. In the past decade, the appropriations to the ACSP have been reduced by over \$1.1 million. The Commission has taken actions that have helped to offset these impacts in the short-term, but the Commission is still unable to meet over \$17 million requested. ACSP and AgWRAP continue to play a vital role in assisting cooperators with voluntary water quality protection and water resource improvement as well as with state and federal regulatory compliance requirements. CCAP functions as the only program that provides relief to individual property owners that are affected by stormwater that state and local watershed-level regulations cannot address. These programs are our state's cornerstone in efforts to support resiliency and stewardship for the benefit of water quality and quantity and all the citizens of the state of North Carolina.

