



Annual Report

Fiscal 2020

July 1, 2019 — June 30, 2020

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Message from the Chair

We live in 'interesting times' as an old saying goes, and, in the past few months we have seen economic, social and health disruptions on a global scale. In the District, on January 2020 the Board seated more new Members than re-elected Members. After a few meetings in early 2020, the Board began electronic meetings and Staff worked almost entirely from home. And, we also learned that the state budget for Cost Share programs in the coming years would be reduced, and also that the District's participation in a very large grant required modification.

One might be forgiven for thinking the prospects for the District and it's twin missions of conservation and education were looking dim in June 2020. The bright lights burning off such a dark outlook are our Staff who shine even more now. Our Staff rallied and generated multiple grant applications to cover conservation and education missions, adopted new technology and approaches to maintain and improve our service levels, increased outreach to our local communities, and have won the recognition of outside organizations for themselves and the District.

Yes, these times are very 'interesting' and each year seems to bring more challenges, more information, more protocols, more decisions and more opportunities to be sought. The District is currently rewriting it's Strategic Plan for the next four years and seeing more that we can do with our current partners and with potential future partners. While there is uncertainty in what the future may bring, there is certainty in the abilities of our Staff and Directors to meet the future and fulfil our twin missions of conservation and education.

On behalf of the directors and staff of the Colonial Soil and Water Conservation District, I am pleased to offer this annual report of the organization's activities for fiscal year 2020.

~ Charles

The Commonwealth of Virginia supports the Colonial SWCD through financial and administrative assistance provided by the Virginia Soil & Water Conservation Board and the Department of Conservation and Recreation.

Agricultural Programs

Financial & Technical Assistance to Farmers & Landowners

The Virginia Agricultural Cost Share Program (VACS) is a conservation initiative that provides assistance to agricultural producers for the installation and implementation of BMPs. The aim of the program is to reduce the amount of pollutants such as phosphorus, nitrogen, and sediment that enters local waters from agricultural fields.

Annually, Soil and Water Conservation Districts across the state administer the program that is overseen and funded by the commonwealth. The Colonial District received a historic allocation of \$666,528 in VACS program funding in FY 2020. A total of 34 farming operations and entities participated in the program, implementing a total of 10 individual conservation practices. The tables below illustrate how program funds were distributed:

FY 2020 VACS Program Fund Distribution by Conservation Practice		
BMP Type	Acres Benefitted	Dollars Spent
Nutrient Management Plans	24,057	\$48,115
Nutrient Management Techniques	10,742	\$65,775
Continuous No-till	9,123	\$228,079
Cover Crops	7,460	\$309,904

FY 2020 VACS Program Fund Distribution by Locality			
Charles City	James City	New Kent	York
\$367,016	\$23,311	\$261,379	\$169



Above: Multiple conservation practices are visible here as a no-till corn planter places seeds in a field of standing cover crop. The technique known as “planting green” allows the maximum benefit of this cereal/legume mixture and delays herbicide application to terminate the cover crop. The yellow tanks carry liquid fertilizer, which is placed in small quantities in a narrow band slightly beside and below the seed to encourage root development.

In 2004, the Chesapeake Bay Commission published “Cost Effective Strategies for the Bay”. The document identified a handful of BMPs with the greatest potential to positively impact the Bay for the least cost to the tax payer. Among those practices were Nutrient Management Plans, Continuous No-till, and Cover Crops.

The role of the VACS program in helping Virginia meet its water quality is significant. By 2025 agricultural sources within the state’s Chesapeake Bay watershed must reduce nitrogen loads by 6.58 million pounds and phosphorus loads by 541,000 pounds.

Agricultural Programs

Technical Assistance to Local Governments

Chesapeake Bay Preservation Act

*Riparian buffers offer a critical line of defense, protecting local waterways from non-point source pollution carried by surface water runoff, and by stabilizing shorelines and streambanks, thereby reducing erosion hazards. **Right**, a riparian buffer of +/- 50' is supplemented by a zone of mixed vegetation adjacent to a small grain cash crop planted in a farm field. This field complies with the CBPA.*



In 1988 the Virginia General Assembly authorized The Chesapeake Bay Preservation Act (CBPA), which required localities east of I-95 to implement land use regulations to protect sensitive lands, particularly lands near waterways.

The Colonial SWCD continued the service of conducting assessments on agricultural lands for member localities in FY 2020. The goal of the assessments is to validate the effectiveness of riparian buffers that protect receiving streams from unintended consequences of conducting agricultural operations up slope. When necessary, ag land assessments can lead to the development of a conservation plan, which details additional measures that need to be implemented to protect soil and water resources. A total of 62 assessments were conducted, which led to the development of 4 conservation plans.

Agricultural Innovation

Decision Agriculture & Precision Agriculture Grant

The CSWCD continued to implement the Decision Agriculture & Precision Agriculture grant project in 2020. The grant award from the Virginia Environmental Endowment (VEE) aims to reduce agricultural pollution by encouraging precision and decision agricultural management techniques in the James River watershed. The project originally including the Colonial and Henricopolis (Henrico County) Soil and Water Conservation Districts, (SWCD) will expand to the southside of the James in the coming year to include the Peanut and James River SWCDs.

To date, the grant project has awarded nearly \$47,000 to area farmers for their advanced techniques.



Above: The Veris rig (pictured) reads and maps soil electrical conductivity (EC), which is correlated to other soil characteristics. EC soil mapping is one of the BMPs eligible for payment through the DAPA grant.

Education & Outreach Programs

Williamsburg Community Growers

A Partnership Supporting Urban Agriculture

Colonial SWCD directors and staff identified an opportunity and began a journey back in 2014 to provide a community outlet for local food production and environmental education. The project, located in a Dominion Energy powerline easement adjacent to Warhill High School, was first known as the Natural Resource and Farm Link Center and struggled to find its identity in the beginning.



In 2016 the CSWCD helped establish a charitable non-profit corporation, Williamsburg Community Growers (WCG) to coordinate activities at the site. Today WCG is a thriving “experimental teaching farm and community garden”, quoting the WCG website, donating “hundreds of pounds of fresh, locally grown produce to community organizations and low-income neighborhoods...and farm to school cafeteria program[s]”. The 2020 growing season at the garden was the largest yet with 40 participants in the community garden.



The site’s 10 acres also includes opportunities for environmental education. All irrigation water for the garden is provided by a stormwater pond operated by the James City County Service Authority. A large pump pushes the stormwater upstream for use on the adjacent high school’s athletic fields and to two 2,500 gallon cisterns at the garden, which allows the WCG to provide non-potable irrigation water to its gardeners. Reuse of captured stormwater as an irrigation source represents a great achievement and a model for others to follow.

James City County Parks and Recreation maintains a walking path adjacent to the garden. In 2019, Colonial SWCD used funds provided by the Chesapeake Bay Restoration Fund’s License Plate Grant program to purchase and install signage along the walking path to educate pedestrians about the benefits of riparian buffers, pollinators, and wetlands. The 2019 Envirothon Champion team from Jamestown High School helped develop the informational posters inside each sign.



The Colonial SWCD was awarded an Urban Agriculture Initiative grant in 2018, provided by the National Association of Conservation Districts (NACD). With that grant award, the District was able to hire a full-time staff person who helped develop educational curriculum and mold the direction of activities at the garden. Following the conclusion of the first NACD grant, the District was awarded a second grant in 2020, allowing for hiring of a part-time staffer to continue working at the garden, seizing educational opportunities, organizing food distribution, and implementing the WCG’s vision. Currently, there is only one part-time employee working at the garden, so volunteers provide much of the labor force. Over 1,000 volunteer hours are estimated to have been logged at the garden last year.

Top right: Local leaders celebrate the groundbreaking of the Natural Resource and Farm Link Center, which would later become Williamsburg Community Growers.

Left: Two 2,500 gallon cisterns store water pumped from the stormwater retention pond for use by community gardeners.

Middle right: One of the educational signs installed along a walking trail adjacent to WCG.

Lower right: Volunteers show off the fruits (and vegetables) of their labor.



Education & Outreach Programs

Leading Local School Garden Clubs

Over the past several years District staff have led local garden clubs offered in many of the Williamsburg James City County elementary schools. Funding and support for these clubs is provided by the School Health Initiative Program (SHIP).

District staff are able to engage students and give advice on planting and caring for garden plants while incorporating environmental education components including the benefits of soil health, the role of honey bees as pollinators, and opportunities to reduce garden irrigation with potable water.



Right: WJJC students get their hands dirty planting seeds in the school's garden.

Recognition Banquet

The Colonial SWCD held a recognition banquet in 2020, recognizing among others, two long-time District Directors. Norman Hofmeyer, a retired Charles City County farmer and Ed Overton, a former James City County Extension Agent, served on the Colonial District Board of Directors for a combined 83 years before stepping down at the end of 2019.

Others recognized for their achievements included Clean Water Farm Award winners Fred Browning and R. Randolph Sons, LLC; the Jamestown High School Envirothon Team; York River Academy; Genrose Lashinger; Bob Winters, and the Virginia Environmental Endowment.

The Colonial SWCD uses the event to highlight the many actions taken by individuals and groups throughout the District that positively impacts and supports our conservation mission.

Local Government Relations

The Colonial SWCD is a political subdivision of the Commonwealth of Virginia, governed by a 12 member Board of Directors, 10 of which are elected in the general election. The other two Board members are appointed.

Interaction between elected officials, District Board members, County Board of Supervisors, and City Council members is an important step in the education of constituents and funders. This past year, District Board members delivered formal addresses to the Charles City, James City, and Williamsburg local governments, while informal presentations were delivered to members of the New Kent and

York County Board of Supervisors.

One of the greatest assets of the Soil & Water Conservation Districts is the local nature of the organization. It's Board members live, work, and play in the area, which allows for a deep understanding of natural resource concerns on a very local level. Local knowledge, paired with strong local partnerships and connections can yield great results.

Right: District Board member, Bob Lund, addresses the James City County Board of Supervisors.



Urban Programs

Virginia Conservation Assistance Program (VCAP)

One of the District’s keystone programs is the urban/suburban stormwater financial assistance initiative known as VCAP. The program, which provides technical and financial assistance to applicants for the installation of a suite of best management practices (BMPs) is in its fourth year of implementation in the Colonial SWCD.

This year 37 VCAP site visits were conducted by District staff (*details right*), in addition to 4 compliance inspections of completed projects. Those site visits resulted in 5 completed applications that were submitted to a statewide program steering committee. These practices will receive a total of \$33,330 to offset costs associated with the installation of BMPs to reduce the environmental impacts of stormwater. Although the program promotes the implementation of 12 practices, rain gardens, permeable pavers, and living shorelines have garnered the most interest locally.

Within CSWCD jurisdictions, interest in the VCAP program held steady over the past year and is expected to gradually increase over time. Concurrently, interest in the program also increased across the commonwealth, just as the Virginia General Assembly reduced program funding by 50% for the next biennium, which is expected to result in stiffer competition and a backlog of waitlisted applications. VCAP administrators will seek grant funds to supplement State funding to maintain the momentum gained by the program.

Since the program’s inception in 2016, the Colonial SWCD has paid out \$141,752 to district constituents for the installation of VCAP practices, all of which helps Virginia meet the goals of the 3rd phase of the Watershed Implementation Plan (WIP3). The WIP3 was approved by the US EPA and sets the water quality improvement targets each of the Bay states must meet by 2025.

VCAP Site Visits by Locality		
Locality	2020 Visits	2019 Visits
James City	26	20
York	8	15
Williamsburg	1	4
New Kent	1	2
Charles City	1	1
Total	37	42



Above: A “before” picture of an eroding shoreline along a stretch of the Poquoson River in York County. **Below:** VCAP reimbursed for a portion of the installation containing the sill, marsh grasses, and sand in-fill.

The CSWCD has over 1,000 miles of tidal shoreline, most of which is suitable for a living shoreline approach. Recent state legislation requires local Wetland Boards to consider living shorelines before approving other shoreline stabilization practices.



Urban Programs

Turf Love

The Colonial SWCD completed its second year of administering the Turf Love program for James City County. The program, originally developed and implemented by James City County Extension Agent and former CSWCD Board member, Ed Overton, and James City County Extension employee Bob Winters, has been actively serving James City County residents for over two decades.

Through the program, which includes a site visit by a trained Master Gardener volunteer, known as a Lawn Ranger, a homeowner learns how to grow and maintain healthy turf while preventing environmental harm through over-application of fertilizers or pesticides, limiting soil erosion, and reducing water waste through responsible irrigation. Lawn Rangers also take soil samples and measure the area of lawn to make site specific nutrient and lime recommendations. The District accepts a minimum of 75 Turf Love applications annually.

In the most recent program year, 70 separate soil samples were taken to test for essential nutrients and pH. Of those, 63% needed lime to adjust soil pH. Only 10% of samples tested in the Very High range for phosphorus, a primary pollutant of the Chesapeake Bay. The goal of a nutrient

Below: VA Tech Turf Research Manager, Adam Nichols, explains the “transition zone” and the difficulties it creates for growing turf grass.



management plan is to inform the landowner of what amendments and management are necessary to improve the quality of turf, thereby improving the quality of the soil and local waterways.

In addition to developing nutrient plans for turf, the District carries out educational seminars related to turf management. In the last fiscal year, Super Turf Saturday was held at the James City County Recreation Center on August 10th. Vendors and speakers offered technical advice on a variety of turf related questions and topics.

The Turf Love program also generates nutrient management plans for turf owned and operated by James City County, including all school system athletic fields, the Warhill Sports Complex, and the James City County Recreation Center. When combined, these areas dedicated to recreational turf total over 100 acres.

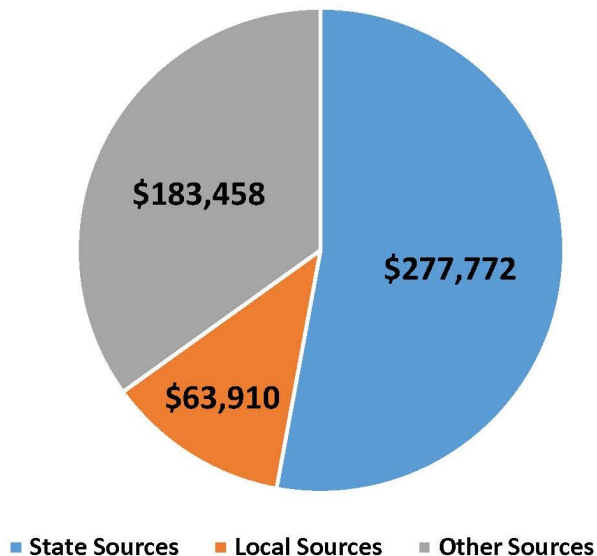
The investment made in the Turf Love program by James City County is not simply a goodwill gesture. Nutrient management planning is credited by the US EPA Chesapeake Bay Program as a model BMP, effective in reducing phosphorus, nitrogen, and sediment from local waterways and is considered one of the most cost effective BMPs known.

Below: Super Turf Saturday attendees check out the local vendor tables.



Colonial SWCD Operations

**Colonial SWCD
FY 2020
Operating Income by Source**



Operating Income

The Colonial SWCD annually receives funds from multiple sources, including federal, state, local, and private sources. In FY 2020 the Commonwealth provided nearly 53% of the District’s operating income through two annual grants. Local government funding accounted for approximately 12% of the District’s income while other projects contributed about 35%.

Historically, the Colonial SWCD has been very successful in implementing grant projects that address local natural resource concerns and bring additional funding into the District. In the past fiscal year these projects included the Virginia Conservation Assistance Program (VCAP), the James City County Turf Love Program, and the Virginia Environmental Endowment (VEE) precision agriculture grant.

Operating Expenses

The CSWCD Board of Directors continues to believe that District staff is the organization’s most valuable asset. As a result, spending to train and retain experienced and qualified staff was the greatest expense over the past year, accounting for nearly 70% of all operating expenses. While spending on staff payroll and training has increased significantly in recent years, the expense item generally ranges between 65% and 75% of all operating expenses. It’s also important to remember that at the end of FY 2015, the District employed one staff person. Today, the organization employs 5 full time and 2 part time staff.

General administrative expenses such as rent, insurance, utilities, outreach, automotive fuel and maintenance, etc., cost \$55,339 in FY ‘20, or just over 10% of operating expenses. Project spending, which includes grant expenses and reimbursement for BMP implementation totaled \$103,062, or approximately 20% of all operating expenses.

**Colonial SWCD
FY 2020
Operating Expenses by Source**

