



# 2020 Annual Report

This Annual Report documents our activities that have occurred during the 2020 Fiscal Year (FY), covering July 1, 2019 to June 30, 2020. The mission of John Marshall Soil & Water Conservation District (JMSWCD) is to “provide leadership, technical assistance, information, and education to the citizens of Fauquier County in proper soil stewardship, agricultural conservation methods, and water quality protection so as to ensure the wise use of the county’s natural resources.” While there were significant challenges adapting to the COVID-19 pandemic, the District had numerous accomplishments. This year’s highlights for the District include:

**Annual Awards Luncheon** - The District held its annual awards luncheon on November 13, 2019 at the John Barton Payne Building in Warrenton. Five awards were presented to local farmers, instructors, and District partners to acknowledge their work in conservation. Full details can be found on page 6.

**Virginia Agricultural Cost-Share Program** - During FY 2020, Fauquier County farmers and landowners received a record \$1,285,824.02 in cost-share for installing water quality protection practices on their farms. See page 2.

**USDA Federal Programs** - The Natural Resource Conservation Service provided Fauquier landowners with technical assistance to install conservation practices through programs such as EQIP, CRP/CREP, and CSP. See page 3 for details.

**TMDL Program** - The District’s Total Maximum Daily Load grant for the Goose Creek Watershed continued, providing \$292,303.38 for landowners while protecting 34,395 feet of streambank. Read about the progress of that effort on page 5.

**Educational Programs** - A total of 3,202 students, parents, teachers, and members of the public participated in educational programs conducted by the District. These programs included Farm Field Days, educational displays, high school water monitoring, and classroom programs that discussed soil and water conservation. See page 4.

**Community/Outreach Programs** - JMSWCD staff conducted a variety of community and outreach programs including our tree planting projects which were conducted for the eighth consecutive year. More information on page 5.

Cover Photo: A stretch of Goose Creek flowing near Atoka.

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# Virginia Agricultural Cost-Share Program

Since its formation in 1966, the JMSWCD has been a reliable partner for the farmers and landowners in Fauquier County. For the last 35 years JMSWCD has used two main vehicles to deliver conservation options to our community partners; the Virginia Agricultural Cost Share Program (VACS) and the Virginia Agricultural Tax Credit Program. These programs provide financial incentives for the installation of more than 60 different best management practices (BMPs) that improve water quality and conserve valuable soil resources.

Farmers and landowners that implement agricultural BMPs can qualify for reimbursement on allowable expenses, as well as a 25% credit on their Virginia state income taxes for their eligible out-of-pocket expenses. The tax credit can be as much as \$17,500. To be eligible for cost-share or tax credit through the

District, practices must be designed in consultation with JMSWCD staff to meet state and federal specifications, be included in a conservation plan, and be approved by the District Board prior to construction. As of July 2020, JMSWCD has allocated over \$11.2 million to Fauquier County farmers for the installation of conservation practices.

In an effort to meet its water quality improvement objectives, the Commonwealth of Virginia funded the VACS Program at unprecedented levels in FY 2020. In the case of JMSWCD, this meant a \$2.4 million allocation for on the ground conservation measures. In FY 2020 JMSWCD dispersed \$1,285,824.02, carrying over the remainder of the allocation on approved practices. The table below is a summary of the practices paid from July 1, 2019 through June 30, 2020.

## 2020 Agricultural Program

PRACTICE	DESCRIPTION	INSTALLED	DOLLARS SPENT
Stream Exclusion (SL-6, WP-2, LE-2)	Fences livestock from streams, provides alternative water sources and crossings	92,462 ft. of stream bank protected, 138.35 acres of riparian buffer created	\$686,554.64 Cost-Share \$1,409.88 Tax Credit
Continuing Conservation Initiative (CCI-SE1, CCI-FRB)	Provides incentives to extend the lifespan of livestock exclusion and buffer practices	81,580 feet of stream bank protected, 330.95 acres of riparian buffer protected	\$127,934.25 Cost Share
Small Grain Cover Crop (SL-8B, SL-8H)	Small grain winter cover on cropland	6130.55 acres in cover crops	\$204,899.95 Cost Share
Cropland Conversion (SL-1)	Plants perennial grass on cropland to reduce soil erosion	196.80 acres of grass planted	\$57,477.45 Cost Share
Grazing Land Management (SL-7, SL-10)	Rotational Grazing Plans, and extension of watering systems	1766.09 acres of pastureland	\$129,421.16 Cost-Share \$2,224.67 Tax Credit
Nutrient Management (NM-1A, NM-5N, NM-5P)	Provides incentives for the efficient use of nutrients	3262 acres under management	\$32,544.32 Cost-Share
Summary		174,042 ft. of stream bank protected, 13,197 acres of conservation treatment	\$1,285,824.02 Cost-Share \$3,634.55 Tax Credit

# USDA Federal Programs

There are several voluntary USDA Natural Resource Conservation Service (NRCS) programs available to landowners and operators in Fauquier County that help provide cost-share assistance to install conservation practices. They are the Conservation Reserve Program (CRP) and the Environmental Quality Incentive Program (EQIP).

There are also easement programs available to protect wetlands and farmland. These programs for 2020 were funded through the 2018 Farm Bill. Federal dollars would not have been available to landowners/operators without the assistance, and sponsorship of the John Marshall Soil and Water Conservation District.

The Conservation Reserve Program is usually piggybacked with another District program called the Conservation Reserve Enhancement Program (CREP). This program encourages landowners to convert highly erodible cropland, marginal pasturelands, or environmentally sensitive acreage to vegetative cover such as warm season-grasses, or mast producing trees. There are 4 CRP/CREP contracts of 20.2 acres in Fauquier which are being renewed.



***Establishment of Pollinator Habitat in Northern Fauquier County. Monarch Butterfly gathering nectar from Indian Blanket and Partridge Pea flowers. Photo Credit: Casey James.***

The Environmental Quality Incentive Program and the Conservation Stewardship Program (CSP) provide landowners with technical assistance to install structural and management conservation practices on eligible agricultural lands. In 2020, two EQIP contracts with 11 conservation practices were approved for landowners to protect 200 acres with \$12,170 federal dollars obligated to Fauquier landowners. One new CSP contract was awarded to landowners for their continued conservation and protection of 273.8 acres (\$40,024 obligated and comprised of 4 conservation practices) of farmland in Fauquier County.

The Agricultural Conservation Easement Program (ACEP) protects agricultural and forest lands by setting aside environmentally sensitive areas such as grassland meadows or wetland marshes from development. ACEP easements help the County with matching funds to preserve some of their prime farmlands as a resource base for future generations. NRCS has partnered with the Fauquier County PDR program, and the Piedmont Environmental Council to protect farmland acres in the past and hopefully in the future.

## Inter-Agency Cooperation

JMSWCD works closely with several other government agencies to meet its technical and educational goals. Staff from other agencies frequently assist the District in conducting technical field assessments, educational programs, and field days. JMSWCD staff in return, have extended their technical expertise to assist other agencies with their programs.

In the last year, personnel from Virginia Cooperative

Extension, Virginia Department of Forestry, Department of Conservation and Recreation, Fauquier Community Development, and numerous volunteers from local farms, the Fauquier Master Gardeners, and Piedmont Environmental Council have assisted with District programs. District staff have made presentations on best management practices, cost share programs, and stream monitoring, all in an effort to further our common interests and goals.

# Educational Programs

JMSWCD conducted conservation education programs for 3,202 individuals in FY 2020. Due to the COVID-19 pandemic, many spring programs were cancelled. It is estimated that these programs would have reached an additional 1,900 individuals.

District employees worked with student and adult audiences, providing information on a variety of conservation topics such as point and nonpoint source pollution, water quality, stream monitoring, soils, and best management practices. Programs are customized to meet each group's needs. This year's educational programs included the following highlights:

## High School Water Quality Monitoring

Several Ecology, Environmental Science, and AP Environmental Science classes at Kettle Run High School conducted water quality monitoring on South Run. Students monitored stream velocity, width, depth, turbidity, temperature, pH, nitrates, phosphates, and dissolved oxygen, as well as collecting macroinvertebrates on a monthly basis to assess the ecological health of the streams.

## Conservation Field Days

Field days were coordinated for approximately 155 7<sup>th</sup> grade students from Taylor Middle School who visited the Messick Farm in October. Instructors presented talks on cattle, water quality/macroinvertebrates, soils, forestry, and insects among others. Field days were planned for approximately 350 3<sup>rd</sup> Grade Students in the spring but were cancelled due to the pandemic.

## Educational Displays

JMSWCD personnel set up and staffed educational displays at several events, including the Goldvein Jubilee and Sky Meadows State Park Fall Farm Field Days.

## Soil Studies

Approximately 100 third grade students received hands-on instruction in soil studies, learning about

structure, texture, the soil profile, and soil testing. All students made and took home soil tubes.

## Leaf Pack Project

More than 430 students and teachers participated in the Leaf Pack Project which studied macroinvertebrates from local water bodies. This project demonstrates the importance of food chains in streams.

## Augmented Reality Sandbox

500 students and teachers saw the District's Augmented Reality Sandbox in action. Demonstrations on watersheds, landforms, and topography were provided.



*Three Fauquier County students attended Youth Conservation Camp in July 2019. Scholarships for students to attend were provided by JMSWCD and the Goose Creek Association.*

# Goose Creek TMDL

The Goose Creek Total Maximum Daily Load (TMDL) grant began in January 2019. This is an effort between the District and the Goose Creek Association to improve the water quality in the Goose Creek Watershed. Both the Virginia Department of Environmental Quality and the Goose Creek Association have provided funds for the effort.

In FY 2020, the district completed eight LE-1T (Livestock Exclusion with Riparian Buffers) practices for a total of \$288,598.38. These practices protected 34,395 feet of streambank and created 56.5 acres of riparian buffer. One SL-10T (Prescribed Grazing Land Management) practice was approved and completed for \$3,705. Nine LE-1T, 1 EM-1T (static equine manure composting system), and 1 EM-1AT (aerated equine manure composting system) practices were approved and are awaiting completion. Two LE-1T practices were cancelled.

The District also completed two education/outreach programs, reaching 122 local landowners. These programs included cost-share education and pasture management night and a presentation to a local horse group on mud management and erosion control. Leaf pack project educa-

tional programs in classrooms reached 180 students at two schools. This project instructed students in analyzing stream health of the Goose Creek Watershed, sources of non-point source pollution, and the habitats of aquatic organisms.

A third education program was planned for the spring of 2020 as well as an outreach event at the Loudoun County Horse Alliance Expo on March 17. The goals of these were to discuss equine manure composting, the TMDL grant, and the VACS program as a whole. Given the global health crisis, these outreach opportunities were cancelled. Outreach for the TMDL grant and its related practices came in the form of advertisements in the *Horse Times* magazine in their autumn 2019 and spring 2020 editions. Tree planting events intended to work with school groups shifted weight of completion towards the Department of Forestry, the Goose Creek Association, Friends of the Rappahannock, and John Marshall to adhere to State and CDC guidelines.

The District has continued monthly water quality monitoring for *E. coli* in the watershed, collecting 144 samples, 26 of which exceeded the state standard for recreational contact.

Time Period	Approved Projects (not completed)	Completed Projects	Dollars Spent	Stream Bank Protected (ft)	Riparian Acres Created
July-December 2019	(2) LE-1T	(3) LE-1T	\$73,597.62	13,000	21
January-June 2020	(7) LE-1T; (1) EM-1T; (1) EM-1AT	(5) LE-1T; (1) SL-10T	\$218,705.76	21,395	35.5

## Community/Outreach

### Web Presence

JMSWCD has a website ([www.johnmarshallswcd.com](http://www.johnmarshallswcd.com)) hosted through Fauquier County as well as a Facebook page ([www.facebook.com/jmswcd](http://www.facebook.com/jmswcd)).

### Water Quality Monitoring

Seven streams were monitored quarterly for macroinvertebrates. 32 sites were tested monthly for *E. coli*.

### Tree Planting

Volunteers assisted the district in planting five acres of riparian buffer on five farms in Fauquier County.

### Virginia Conservation Assistance Program

The District completed one new contract under the Virginia Conservation Assistance Program and conducted 14 site assessments for landowners.

# 2019 AWARDS

## Clean Water Farm Award

### ANN BACKER & SMITTEN FARM

have implemented conservation practices for nutrient management, cover crops, long-term vegetative cover on cropland, continuous no-till, precision ag, prescribed grazing, & forested buffers. Horse manure is traded to local mushroom producers & used in the growing process. The mushroom compost returns the farm for use in poor production areas.

## Conservation Farm Award

**VIRGINIA FARMS LLC** has completed grazing land protection practices which have protected

over 25,600 linear feet (4.8 miles) of streambank in the Goose Creek Watershed, creating more than 120 acres of riparian buffer. There are plans to complete more practices which will protect an additional 20,000 feet (3.8 miles) of streambank & create an extra 53 acres of riparian buffer.

## Conservation Partner Award

### VIRGINIA DEPARTMENT OF FORESTRY - RAPPAHANNOCK WORK AREA

serves as a technical service provider for forestry practices in the Virginia Agricultural Cost-Share Program. In the past seven years, the area team has assisted JMSWCD & over 1,000 volunteers with planting 65.8 acres of riparian buffer. The forestry team also assists with other programs & reaches about 750 students through their work with JMSWCD.

## Edwin F. Gulick Conservation Educator Award

**O.B. MESSICK & SONS** began hosting Conservation Field Days for students of Fauquier County starting in 1995. Since then, they have hosted a total of 29 field day events. & have welcomed 5,255 students, teachers, & chaperones to their farm, providing important education in agriculture, natural resources, & conservation.

## Special Recognition Letter

**SARAH COSTELLA & ALEXANDRA AVERY** of the Farm Service Agency were recognized for their consistently prompt, professional assistance in initiating the conservation planning process, as well as their ongoing promotion of programs & services that benefit the agricultural community. The information provided is critical to generating accurate plans & avoiding the duplication of services.



The John Marshall SWCD award winners (from left to right) Sarah Costella & Alex Avery (Farm Service Agency), Sarah Parmelee & Kyle Dingus (Virginia Department of Forestry), Gene Doody, Hunter Marek, & Susan Dunham (Smitten Farm). Not Pictured: O.B. Messick & Sons, Virginia Farms LLC



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#### **DISTRICT DIRECTORS**

John Schied, Chairman

Deirdre Clark, Vice Chairman

Ed Deberry, Sec./Treas.

A. Gray Coyner

Tim Mize

#### **ASSOCIATE DIRECTORS**

Ken Alm                      Leslie Grayson

John Bauserman      Patricia Johnson

Normal Bower        Michael Webert

#### **HONORARY DIRECTOR**

Henry Green

#### **JMSWCD STAFF**

District Manager  
Tom Turner

Conservation Specialist  
Kris Jarvis

Conservation Specialist  
Melissa Allen

Conservation Specialist  
John Prizzi

Conservation Education Specialist  
Michael Trop

Office Administrator  
Wendy Merwin

#### **NRCS STAFF**

District Conservationist  
Jeff Barr

Soil Conservationist  
Casey James

## **OUR MISSION**

**THE MISSION** of the John Marshall Soil and Water Conservation District is to provide leadership, technical assistance, and education to the citizens of Fauquier County in proper soil stewardship and water quality protection to ensure the wise use of the county's natural resources.

## **OUR VISION**

**THE VISION** of the John Marshall Soil and Water Conservation District is to serve the citizens of Fauquier County as the leader in ensuring proper stewardship of soil, water and related resources.

## **SUPPORT**

The Fauquier County Board of Supervisors supports the John Marshall Soil and Water Conservation District through an annual contribution and provides administrative assistance through the Department of Finance, the Department of Human Resources, and the IT Department to administer payroll, benefits, personnel matters, and provide IT support.

The Commonwealth of Virginia supports the John Marshall Soil and Water Conservation District through financial and administrative assistance provided by the Virginia Soil and Water Conservation Board and the Department of Conservation and Recreation.

## **BOARD MEETINGS**

The District conducts monthly board meetings to deal with conservation issues and landowner concerns within Fauquier County. The public, as well as cooperating agencies, are invited to attend meetings and provide input. Unless otherwise noted, meetings are held on the second Wednesday of each month at 4:00 pm at the John Marshall Soil and Water Conservation District office at 98 Alexandria Pike, Suite 31 in Warrenton.

All programs and services are offered on a nondiscriminatory basis without regard to race, color, religion, national origin, gender, age, disability, political beliefs, sexual orientation, marital or family status.