

2017 Annual Report



Conserving Natural Resources

Fiscal Year (FY) 2017, which covers the period from July 1, 2016 to June 30, 2017, was another busy one for the John Marshall Soil and Water Conservation District (JMSWCD) with a number of new and exciting things happening. This Annual Report documents our activities and the significant transitions that have occurred over this period. The mission of 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.” In carrying out this mission, some of our many accomplishments include:

Annual Awards Luncheon - The District held its annual awards luncheon on December 14, 2016 at Stoneridge Events Center in Warrenton. Seven awards were presented to local farmers, teachers, contractors, and District partners to acknowledge their work in conservation. Full details can be found on page 8.

Virginia Agricultural Cost-Share Program - During Fiscal 2017, Fauquier County farmers and landowners received over \$1,237,000.00 in cost-share for installing water quality protection practices on their farms. This included continued work to reduce the backlog of stream exclusion practices created from the 100% cost-share offer during FY 2015. See page 3.

TMDL Program - The Total Maximum Daily Load (TMDL) program for Thumb Run and Carter Run ended in December 2016 when the final agricultural and residential best management practices were completed. This brings an end to a 10-year grant to try to enhance the water quality in these two local watersheds. Details on page 4.

USDA Federal Programs - The Natural Resource Conservation service provided Fauquier landowners with technical assistance to install a variety of conservation practices through programs such as the Environmental Quality Incentive Program, the Conservation Reserve Program, the Conservation Reserve Enhancement Program, and the Conservation Stewardship Program. See page 5 for details.

Educational Programs - A total of 5,031 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 6.

Community/Outreach Programs - JMSWCD staff conducted a variety of community and outreach programs including water quality monitoring and our tree planting projects which were conducted for the fifth consecutive year. The District also helped complete Fauquier County’s first project under the Virginia Conservation Assistance Program (VCAP). In addition, the District received a grant from the Path Foundation to build an Augmented Reality Sandbox. More information on page 7.

The staff and board members of the John Marshall SWCD work to help landowners conserve their valuable soil and water resources. Here are some personnel items of note from the past year at John Marshall:

Remembering Those We’ve Lost - In April, former JMSWCD director William Frazier passed away at the age of 85. Mr. Frazier served as a director for 20 years and was the third-longest serving director in JMSWCD histo-

for a Better Environment

ry. John Schied (who served as an associate director) has been appointed by the Virginia Soil and Water Board to fill Mr. Frazier’s unexpired term.

Staffing Changes - The District experienced a number of staffing changes in FY 2017. Most notably was the retirement of District Manager Jennifer Hoysa. Jennifer retired after 33 years with the District. She has been a familiar face at the district office for many years and she will be missed by those at the District as well as those within the farming community. Subsequently, Tom Turner was promoted to District Manager. Tom has previously served as the Conservation Manager. Tom’s responsibilities will cover the overall management of the District as well as continuing with his conservation field work. Conservation Specialist Larry Dunn also retired in the spring after spending nearly 12 years with the District. During this time Larry was instrumental in working within our farming community to put significant conservation on the ground. Prior to coming to John Marshall, Larry served as a forester with the Virginia Department of Forestry for 30 years. Wendy Merwin was hired as the District’s new Office Administrator and has taken over the financial and administrative responsibilities for the District.



Jennifer Hoysa spent 33 years with the District and now looks forward to spending more time with her granddaughters.



Larry Dunn spent nearly 12 years with JMSWCD and now has time for his hobbies: golf and fishing.

Contents

Virginia Agricultural Cost-Share Program	3
TMDL Program	4
USDA Federal Programs	5
Education	6
Community/Outreach	7
Awards	8

Virginia Agricultural Cost-Share Program

The Virginia Agricultural Cost Share and Tax Credit 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 approved by the District Board prior to construction. Since 1985, JMSWCD has paid Fauquier County farmers \$9,498,683.05 to install conservation practices

on agricultural land.

2017 was an eventful year in conservation at the JMSWCD. The back log of FY 2015 practices were center stage and the district staff worked hard to complete many of these practices as funding became available. With \$1,237,140.86 paid out in FY 2017, significant conservation was put on the ground. The majority of this funding went towards building new livestock exclusion practices (91%). But even as staff were fully engaged with the livestock exclusion practices, 2017 also marked the year we returned to funding other practices like cover crops and cropland conversion. It is our hope that as we work through the remainder of the FY 2015 practices we will begin to get back to a more traditional funding scenario that reaches out to all sectors of the agricultural community.

2017 Agricultural Program Highlights

PRACTICE	DESCRIPTION	INSTALLED	DOLLARS SPENT
Stream Exclusion (SL-6, WP-2, LE-2)	Fences livestock from streams, provides alternative water sources and crossings	134,450 feet of stream bank protected, 147 acres of riparian buffer created	\$1,125,844.06 Cost-Share \$4,129.06 Tax Credit
Continuing Conservation Initiative (CCI-SE1)	Provides incentives to extend the lifespan of livestock exclusion practices	64,260 feet of stream bank protected, 288 acres of riparian buffer protected	\$64,260.00
Small Grain Cover Crop (SL-8B and SL-8H)	Small grain, winter cover crop on cropland	1,092 acres in cover crops	\$37,036.80 Cost Share \$115.39 Tax Credit
Cropland Conversion (SL-1)	Plants perennial grass on cropland to reduce soil erosion	87 acres of grass planted	\$10,000 Cost Share \$2,345.10 Tax Credit
Summary		198,710 feet of stream bank protected, 2,913.19 acres of conservation treatment*	\$1,237,140.86 Cost-Share \$6,589.55 Tax Credit

*Includes pastureland covered under the SL-6 grazing land management practice.

Resource Management Plans

The Virginia Resource Management Plan (RMP) program is voluntary and provides the participant with an assessment of the conservation needs and accomplishments on their farm. The plan documents existing BMPs and provides a schedule for implementing additional conservation practices that may be needed to improve water quality. In fiscal year 2017 the District RMP technical review committee reviewed three resource management plans and the JMSWCD Board approved the plans addressing conservation on 1,795 acres.

TMDL Program

From July–December 2016, JMSWCD completed work on the final TMDL (Total Maximum Daily Load) grant for the Thumb and Carter Run watersheds. For over 10 years, the District implemented a series of grant programs that focused on restoring local impaired streams through the installation of agricultural and residential (septic system) best management practices. The original TMDL grant, which began in 2006, targeted Great, Deep, Thumb, and Carter Run watersheds. Since a significant number of practices were implemented in the Thumb and Carter Run watersheds in particular, the grant was extended in hopes of delisting these two streams from the state impaired waters list. The final grant extension was approved so practices that were installed from July 2015 to December 2016 could be included in the overall effort.

In FY 17 (Jul. to Dec. 2016), two additional livestock exclusion projects, protecting a combined 13,250 feet (2.5 miles) of stream bank, were completed in the Thumb and Carter Run watersheds utilizing TMDL grant resources. This brought the total for the final grant award to four exclusion practices with a total of 14,050 feet (2.6 miles) of new streambank protection in the Thumb Run watershed, and 6,100 feet (1.1 mile) of stream bank in the Carter Run watershed. Additionally, 13.6 acres of riparian buffer were established in the Thumb Run watershed, and 15.8 acres in Carter Run watershed, in conjunction with these final TMDL funded practices.

During FY17, two RB-1 septic pump-outs were also completed. A total of five residential Best Management Practices (three RB-1s septic pump-outs and

two RB-3s septic repairs) were enacted with last Thumb and Carter Run TMDL grant extension.

From July 2015 to December 2016, the District conducted bacteria monitoring on a number of sites in Thumb and Carter Runs in order to gauge progress on bacteria level reduction in specific stream segments. Data from monthly sampling was uploaded regularly to the DEQ Citizen Monitoring Database and shared with other interested parties.

For Carter Run, of the 89 samples (taken from five sites) during the 18-month period from July 2015 to December 2016, only **one** exceeded the state bacteriological standard for *E. coli* of 235 cfu/100mL. One rain event with at least 0.25” of rain in the past 24 hours was sampled on May 18, 2016 and no change was seen in the bacteria levels which is consistent with the downward trend in exceedance rate and improved water quality in Carter Run during the final half of the grant program. For Thumb Run, of the 122 samples taken during the same 18-month period, 13 exceeded the state bacteriological standard for *E. coli*. Specific stream segments in the Thumb Run watershed have improved over time, but overall monitoring results have been mixed. JMSWCD continues to perform bacteria and other stream monitoring activities at key sites in each of the TMDL watersheds.

JMSWCD staff and Board members attended a series of public meetings as a part of the development of a new implementation plan for the upper Goose Creek Watershed, which includes PL 07, 09 and 13, Crooked, Gap and Cromwells Runs and the Little River.

2017 TMDL Program Highlights

Watershed	FY17 Completed Agricultural Projects	Stream Bank Protection Installed with TMDL funds (ft.)	TMDL Cost-Share Funds Allocated (\$)
Thumb Run	1	9,650	\$87,047.25
Carter Run	1	3,600	\$42,209.50
TOTAL	2	13,250	\$129,256.75

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 and the Environmental Quality Incentive Program.

There are also easement programs available to protect wetlands and farmland. All of these programs for 2016 were funded through the 2014 Farm Bill. These 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 (CRP) 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 18 CRP/CREP contracts which are being reviewed for renewal.

The Environmental Quality Incentive Program (EQIP) and the Conservation Stewardship Program (CSP) provide landowners with technical assistance to install structural and management conservation practices on eligible agricultural lands. In 2017, nine contracts with 81 conservation practices were ap-

proved for landowners, to protect 695 acres with \$568,316 federal dollars obligated to Fauquier landowners. Final annual CSP payments were made to landowners for their continued conservation and protection of 417 acres of farm and forestal lands in Fauquier County.

The Agricultural Conservation Easement Program (ACEP) protects agricultural and forestal lands by setting aside environmentally sensitive areas such as grassland meadows or wetland marshes from development. In 2017, another Fauquier landowner began participating in the Wetland Reserve Easement Program (WRE) to protect 70 acres. Federal funds will be used to restore and enhance WRE sites for wetland species. Also, 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.



Matt Eustace, Fauquier Vegetable Producer, discussing the Hi-Tunnel Cropping System during NRCS National Headquarter Tour in August.

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.

Educational Programs

JMSWCD conducted conservation education programs for 5,031 individuals in FY 2017.

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 the needs of the groups requesting the programs. This year's educational programs included the following:

High School Monitoring

Students from Deb Fisher's Fauquier High School Ecology classes conducted water monitoring at Cedar Run and the Fauquier Outdoor Lab. Kara Reffitt's Kettle Run High School Ecology and AP Environmental Science classes conducted monitoring on South Run at Vint Hill Park. 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

Over 180 seventh-grade students, teachers, and chaperones from Taylor Middle School participated in a conservation field day held at Messick's Dairy Farm in October. Field days were also coordinated for approximately 550 third grade students, teachers, and chaperones in April. The Fauquier Education Farm in Warrenton and the Chapman Farm in Bealeton were the hosts for these fun-filled educational events. For all of these events, guest instructors presented talks on cattle, water quality/macroinvertebrates, soils, forestry, and insects among others.

Educational Displays

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

Point & Non-Point Source Pollution

The Enviroscape model was used to demonstrate the impact of everyday rural and urban events on watershed health to over 400 4th, and 6th grade students.

Soil Studies

557 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.

Soil Tunnel

Over 450 youth crawled through John Marshall's soil tunnel at school events, the Goldvein Jubilee, and other events, providing them a worm's view of the world.

Leaf Pack Project

More than 175 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.

Other Events

Staff members assisted the Town of Warrenton with Arbor Day activities, P.B. Smith Elementary School with their Trout Release, and the Old Rag Master Naturalists with their class training.



Third grade students learned about sheep and got to pet them at the Conservation Field Days in April.

Community/Outreach

Web Presence

The District maintains a website hosted through Fauquier County. Our website can be reached by going to: www.johnmarshallswcd.com. The District also maintains a Facebook page which is used to disseminate conservation information. To follow us, go to www.facebook.com/jmswcd.

Water Quality Monitoring

JMSWCD staff and volunteers continued monitoring sites for macroinvertebrates. Streams are monitored quarterly and data entered on the SOS website. Sites on Thumb Run, Great Run, and Marsh Run were tested on a monthly basis for *E. coli* in cooperation with DEQ. Bacterial colonies were grown in the office using Coliscan Easygel, and results entered on the DEQ website. Streams were also monitored to collect baseline water quality data before new conservation practices are established.

Tree Planting

Approximately 100 students and adults helped plant trees on more than 6.5 acres of riparian buffers on six farms. Students received lessons on how to plant trees and the benefits of trees for water quality.

Rain Barrels

The John Marshall SWCD purchased and sold 8 Earth-Minded rain barrels to local citizens.



Area Forester Kyle Dingus works with two volunteers to plant a tree. Photo Credit: Paula Combs.

Community Events

The third annual From the Rappahannock, For the Rappahannock event was held at Marriott Ranch in April and was attended by over 180 people. In the morning, volunteers planted trees to restore a riparian buffer and in the afternoon, Rappahannock River oysters were served and tours of the conservation practices were held. The District also held a water monitoring workshop in conjunction with Friends of the Rappahannock and Piedmont Environmental Council to teach local residents how they can monitor water on their property.

Augmented Reality Sandbox

The District received a grant from the Path Foundation to construct an Augmented Reality Sandbox. This sandbox is being used to conduct programs on topography and watersheds and is also being used at other outreach and community events.

Virginia Conservation Assistance Program

The Virginia Conservation Assistance Program (VCAP) is an new program which focuses on treating erosion and stormwater issues from developed sites. In FY 17, the District completed and paid their first project under the program. Any non-agricultural land is eligible for cost-share under VCAP. There are a total of 12 practices that can be implemented including rain gardens, conservation landscaping, dry wells, and vegetated stormwater conveyance systems.



Conservation Landscaping VCAP project in the courtyard at Kettle Run High School.

2016 AWARDS

pipeline all which help to protect 12.5 acres of riparian buffer.

Conservation Farmer Award

NORMAN & BONNIE BOWER have protected over 5.7 miles of streambank and created more than 77 acres of riparian buffer on eight rental properties.

Clean Water Farm Award

MARRIOTT RANCH has built 8.7 miles of fence, 2.3 miles of pipeline, three spring developments, 16 watering facilities, and eight stream crossings. This has protected more than 14 miles of stream bank and 210 acres of riparian buffer.

Conservation Contractor Award

JOHNNY WRIGHT, EARTH & TURF LLC has worked with

landowners in to install livestock exclusion practices which have created 24 acres of riparian buffer and protected over 3.4 miles of stream bank.

Conservation Partner Award

TAMMY HOCKENSMITH of the Fauquier County Information Technology Department has provided computer support services to the District for over 15 years. She also provides professional and timely assistance and training.

Edwin F. Gulick Conservation Educator Award

PATRICIA COLOT (Taylor Middle School) has helped bring over 2,300 students to visit the Messick Dairy Farm over the past 16 years to learn about agriculture and natural resources.

TMDL (Total Maximum Daily Load) Conservation Farm Award

TIMOTHY HARR (Thumb Run) installed a stream exclusion practice which protected 0.9 miles of streambank and created 12 acres of riparian buffer.

Conservation Farm Award

SILVER HILL FARM (owned by Mr. Robert Taylor) completed conservation practices that include a total of 2.4 miles of stream protection fence, 10 watering facilities and 0.9 miles of



The John Marshall Soil & Water Conservation District recognized (from left to right) Pat Colot, Robert Taylor, Winkie Crigler Harr, Norman Bower, Johnny Wright, and Tammy Hockensmith (Not Pictured: Marriott Ranch).



98 ALEXANDRIA PIKE, SUITE 31
WARRENTON, VA 20186

(540) 347-3120 X3

JOHNMARSHALL.SWCD@VASWCD.ORG

WWW.JOHNMARSHALLSWCD.COM

DISTRICT DIRECTORS

A. Gray Coyner, Chairman
John Schied, Vice Chairman
Deirdre Clark, Sec./Treas.
Mary Lou Trimble
Tim Mize

ASSOCIATE DIRECTORS

John Bauserman
Howard Grove
Patricia Johnson
Michael Webert

HONORARY DIRECTOR

Henry Green

JMSWCD STAFF

District Manager
Tom Turner

Conservation Specialist
Claire Hilsen

Conservation Specialist
Kris Jarvis

Conservation Education Specialist
Michael Trop

Office Administrator
Wendy Merwin

NRCS STAFF

District Conservationist
Roger Flint

Soil Conservationist
Casey Dietzen Iames

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.