

# Stormwater Management

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LOB #362:

## **NORTHERN VIRGINIA SOIL AND WATER CONSERVATION DISTRICT CONTRIBUTORY PROGRAM**

### **Purpose**

It is the mission of Northern Virginia Soil and Water Conservation District (NVSWCD) to lessen the impact of urban and suburban activities on the land, water, and air resources in Fairfax County – vital components of the Chesapeake Bay Watershed. The NVSWCD achieves this through effective leadership, technical assistance, and outreach programs in partnership with government, industry and the public. Founded in 1945 by citizens concerned about conserving natural resources, the NVSWCD is now one of 47 conservation districts in Virginia and approximately 3,000 nationwide, each unique with the local services that it provides. NVSWCD is a political subdivision of the Commonwealth of Virginia, governed by a five-member Board of Directors. Its boundaries are the same as those of Fairfax County.

### **Description**

The NVSWCD is a locally-led conservation agency with a long history of responding to Fairfax County's changing rural to urban landscape, transitioning programs based on identified needs. However, programs remain consistent in developing comprehensive plans to conserve soil resources, control and prevent soil erosion, prevent floods and conserve, utilize, and dispose of water. NVSWCD is valued for its leadership in using new and emerging techniques to address traditional issues and modern challenges.

NVSWCD is not a regulatory agency. Instead, it collaborates with Fairfax County and other partners to provide conservation information, technical services, educational programs and volunteer opportunities to residents on many aspects of water quality, nonpoint source pollution and stream health. In addition, it connects residents with environmental initiatives and opportunities.

The role of the NVSWCD as a trusted advisor and partner of Fairfax County was established 70 years ago and continues today. NVSWCD receives contributory funding from Fairfax County for the direct on-going support it provides for many County programs, advising on development plans, stream restoration projects, innovative stormwater and agricultural best management practices, and natural resource protection during land use changes. These programs and those that address public education and assistance support Fairfax County in meeting local ordinance requirements and state and federal regulations.

### **Benefits**

Virtually all of NVSWCD's work supports and implements the Board of Supervisors' Environmental Vision and Plan, particularly in the areas of water quality protection and environmental stewardship. NVSWCD is consistently able to create partnerships and to leverage significant state, federal, private and volunteer resources to benefit natural resource protection in Fairfax County. NVSWCD often can take the lead to introduce and demonstrate innovative techniques and effective measures to deal with natural resource problems such as stream restoration and low-impact development demonstration projects. Additionally, NVSWCD conducts research and studies to understand opportunities to enhance efficiency and effectiveness of on-the-ground practices.

As a neutral expert, NVSWCD works with all segments of the Fairfax County community and can effectively advise and assist the County, the development community, agricultural community, environmental community, homeowners associations, organizations, and individual residents. This on-call expertise is valuable when planning, designing, reviewing, facilitating collaboration, and solving natural resource problems and supports the County in receiving credit through the Community Rating System managed by FEMA's National Flood Insurance Program, which reduces the flood insurance rates of hundreds of Fairfax County properties.

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NVSWCD has a multi-faceted and vibrant information and education program that reaches out to and engages all segments of the Fairfax County community through many avenues, including:

- Volunteer Stream Monitoring Program
- Storm Drain Education and Marking
- Northern Virginia Rain Barrel Program Partnership
- Conservation Current newsletter
- Bi-monthly Green Breakfast Forums
- Presentations to schools, organizations, and communities

## Mandates

The authorization to establish Soil and Water Conservation Districts (SWCD) as political subdivisions of the Commonwealth of Virginia is provided for in the Virginia Code § 10.1-538. Title 10.1, Chapter 5, Article 3 describes the authorizations designated to SWCDs. For example, SWCDs shall provide the local delivery of the Commonwealth's Agricultural Best Management Practices Cost-Share Program in cooperation with the Department of Conservation and Recreation (Virginia Code § 10.1-546.1).

NVSWCD staff and Board of Directors are responsible for the preparation and approval of Soil and Water Quality Conservation Plans (SWQCP) required for the establishment and renewal of Agricultural and Forestal Districts in Fairfax County (Fairfax County Code § 115-5-1(8)). For lands upon which agricultural activities are conducted, the County's Chesapeake Bay Preservation Ordinance also requires SWQCP and designates the NVSWCD Board of Directors as the plan approving authority (§ 118-3-2(h)).

NVSWCD is referenced in several sections of the Public Facilities Manual (PFM) for the following:

- The Charter of the members of the Engineering Standards Review Committee (ESRC) states it shall contain one representative of the NVSWCD (§ 1-0301.1).
- Professional Engineers may perform geotechnical investigations to determine the seasonal high water table if they demonstrate that they successfully completed the Soil Morphology Training Class offered by NVSWCD, or are on its list of certified professionals (§ 4-0702.3).

In addition, NVSWCD representatives participate as members of the following Fairfax County Board and Committee:

- Erosion and Sediment Control Review Board (Fairfax County Code § 104-3-5(a))
- Tree Commission (Fairfax County Zoning Ordinance § 5-19-500)

NVSWCD reviews and comments on site plans for the County for the adequacy of the erosion and sediment controls and stormwater management (PFM, 11-0405.7C(2)). In addition, NVSWCD reviews all rezoning and special exception applications and provides comments to the Department of Planning and Zoning. Finally, NVSWCD partners with the County and the Natural Resource Conservation Service (NRCS) to sponsor the Pohick Creek Watershed PL-566 projects, support rehabilitation efforts, and participate in annual operation and maintenance inspection of the structures. NVSWCD reviews all site plans within the Pohick Watershed and those within three miles of the Potomac River or have those that have special problems such as steep slopes, problem soils, or those that are in environmentally sensitive areas such as stream valleys.

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## Trends and Challenges

The trends that affect this LOB include:

- Since the establishment of the Chesapeake Bay Preservation Ordinance, NVSWCD has developed and approved Soil and Water Quality Conservation Plans (SWQCP) for more than 8,000 acres in Fairfax County.
- The roughly 40 Agricultural and Forestal Districts with SWQCP prepared by NVSWCD require renewal on a continual basis.
- On average, NVSWCD reviews 250 site plans on an annual basis. Although the types of developments may change, the number of plans to be reviewed is expected to continue at the same rate.
- Over the last five years, NVSWCD has seen a significant increase in requests from property owners for technical assistance in resolving drainage and erosion issues on their properties (see Metrics chart on the following page). This trend is expected to continue, particularly as more residents learn about the services of the NVSWCD and if heavy rain patterns continue. NVSWCD's response program has adapted to improve communication among cooperating agencies within the County.
- The transient nature of the County's area continues to draw new residents. Ensuring adequate outreach and education programs on Fairfax County's natural resources and services to communities will continue to be important.

The challenges that this LOB faces include:

- State and federal regulators are placing increasing pressure on urban areas to meet their requirements for the Chesapeake Bay TMDL. With limited space on public lands, it is expected that efforts will be made to address stormwater runoff on private lands. State and federal regulators are looking to the roles and responsibilities of non-regulatory agencies that have demonstrated support on private lands, such as Soil and Water Conservation Districts, to lead such efforts.
- According to the U.S. Census, 7.7 percent of Fairfax County's residents moved to the area in 2013. This means that at least 1 in 10 Fairfax County residents is not familiar with the Northern Virginia Soil and Water Conservation District, its programs, or the services it provides.

## Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
<b>LOB #362: Northern Virginia Soil and Water Conservation District Contributory Program</b>			
<b>FUNDING</b>			
<u>Expenditures:</u>			
Capital Projects	\$460,064	\$485,064	\$485,064
Total Expenditures	<u>\$460,064</u>	<u>\$485,064</u>	<u>\$485,064</u>
Total Revenue	\$460,064	\$485,064	\$485,064
<b>POSITIONS</b>			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	0 / 0	0 / 0	0 / 0
Total Positions	<u>0 / 0</u>	<u>0 / 0</u>	<u>0 / 0</u>

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## Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Number of Storm Drain Inlets Marked	2,688	3,931	2,303	3,200	3,200
Number of Site Visits in Response to Requests for Technical Assistance	111	172	285	220	240
Number of Soil and Water Quality Conservation Plans Developed and Approved	16	14	16	14	14

The Storm Drain Marking and Education Program was initiated in FY 2006 in an effort to raise awareness of stormwater management and to reduce illicit dumping of waste into the storm drainage network. The program is managed by NVSWCD and is dependent upon the availability and willingness of volunteers. Although this program is primarily output based (i.e. number of storm drains marked or volunteers engaged), an anecdotal outcome is greater awareness and less dumping. In the future, efforts could be made to quantify this outcome based upon the number of responses by the Fire and Rescue Department Hazmat team to illicit discharges into storm drain inlets. In FY 2013, volunteers marked 2,688 storm drains. In FY 2014, an increase in storm drain inlets marked is noted, with volunteers marking 3,931. During this year, a milestone was reached with over a quarter of Fairfax County's 80,000 storm drain inlets being marked. In FY 2015, volunteers marked 2,303 inlets. It should be noted that the fluctuation in numbers is not due to level of effort. Projects are performed in partnership with the community and project leaders and delays or challenges can occur.

Annually, NVSWCD receives hundreds of phone calls from County residents requesting support with a flooding, drainage or erosion issue on their property. While many can be resolved over the telephone or redirected to appropriate County agencies, many require a field visit by a NVSWCD team member. The number of requests for assistance is steadily growing with a significant jump in FY 2015 compared to prior years, a trend consistent with other agencies that respond to drainage issues. There is consensus that the spike in numbers is likely due to an unusually wet spring. The technical assistance program is a service offered at no additional cost to County residents and lowers Fairfax County's Community Rating by half a point, providing significant flood insurance rate savings for residents.

NVSWCD prepares new and revised Soil and Water Quality Conservation Plans on an annual basis. These plans are primarily prepared in the Springfield, Sully, Mt. Vernon, and Dranesville Supervisor Districts and support the requirements of Agricultural and Forestal Districts and Chesapeake Bay Preservation Ordinance. New property owners often discover NVSWCD through word of mouth or through the internet. NVSWCD's Senior Conservation Specialist/Agricultural Water Quality Specialist reaches out to property owners that are in need of revision.