

## Overview of the MS4 Program within Fauquier County

The primary purpose of the Clean Water Act is to maintain and restore the environmental integrity of the nation's waters. Pollution can enter our waters either through "non-point sources" (spread out in a multitude of incremental inputs across the landscape) or through "point sources" (discrete and focused inputs, such as a pipe's discharge). A component of the Clean Water Act is the National Pollution Discharge Elimination System (NPDES). NPDES permits regulate point source discharges. Stormwater within urbanized areas are known to contain pollutants and when that stormwater system is discharged into natural waters, it is considered as a "point source" and therefore a NPDES permit is required. Stormwater "general construction" permits are NPDES permits issued to oversee the management of stormwater during new construction and land disturbing projects. The form of NPDES permit that oversees ongoing management of stormwater systems within highly urbanized locations is the "MS4 permit." MS4 is an abbreviation for Municipal Separate Storm Sewer System. The MS4 regulations state that land managers within the urbanized areas of Fauquier County, mainly Warrenton and New Baltimore, need to obtain an MS4 permit and manage their stormwater system consistent with the MS4 permit requirements. Since Fauquier County drains into the Chesapeake Bay, our MS4 permit requirements are closely tied to the restoration requirements and goals of the Chesapeake Bay Act. Fauquier County now has an MS4 permit that allows us to discharge pollutants into Virginia waters; however, along with this permission are rigorous standards and requirements that are subject to both state and federal laws. The general premise is that since we own urban stormwater systems, and urban stormwater systems are known to pollute the state's waters, we are now legally obligated to manage these systems in a way that reduces the pollution that our facilities are causing.

There are two main categories of plans required under our MS4 permit, the MS4 Stormwater Management Plan and the MS4 TMDL (Total Maximum Daily Load) Plan.

The MS4 TMDL Plan requires the County to utilize established and approved "Best Management Practices (BMPs) in a manner that reduces the amount of nitrogen, phosphorus and total suspended sediment (three of the primary pollutants within the Chesapeake Bay) to pre-defined limits or caps specific to our watersheds. There are a multitude of ways that we may reduce these pollutants, ranging from constructing stormwater retention ponds or bio-retention filters (BMPs), through regulation of homeowners or businesses that discharge stormwater into our stormwater drainage systems, or through providing tax incentives for homeowners to retrofit the stormwater systems on their private property. However it is accomplished, Fauquier County is the permit holder, so the County is ultimately responsible for the results.

While the MS4 TMDL Plan is focused upon the reduction of the three pollutants regulated under the Chesapeake Bay Act, the MS4 Stormwater Plan pertains to the reduction of all pollutants. The MS4 Stormwater Management Plan is focused upon improving our day-to-day practices in a manner that reduces the amount of pollutants that Fauquier County discharges as a normal function of our operations. The fundamental directive of the permit is for us to reduce the discharge of pollutants to the "maximum extent practical."

The MS4 Stormwater Plan has six main components:

- 1) *Public Education and Outreach* - the regulations within this category are focused upon having Fauquier County be proactive in educating homeowners, businesses and residents upstream

of County properties, with the thought that educating them on stormwater concerns and by providing them with information and other tools, that they would voluntarily alter their day-to-day practices in such a way that would reduce the amount of pollutants that they discharge into the stormwater system, and in turn, our natural waters.

- 2) *Public Involvement and Participation* - studies have consistently shown that people are more effective in meeting environmental goals when they are personally involved and have a sense of ownership to the issue. This is the primary purpose of this requirement.
- 3) *Illicit Discharge Detection and Elimination* - the MS4 permit requires Fauquier County to monitor the water quality of all our points of discharge - with a specific focus on identifying flows into the system that are not stormwater, and then correcting any needed problem. For instance, after an extended dry period, our stormwater drainage system should be dry. If there is active flow, then it may be the result of infiltrating groundwater, leaking septic systems, improper plumbing connections, or illegal discharges into the stormwater system. The MS4 permit requires the County to identify and characterize improper discharges into the system, conduct investigations to determine the source of these pollutants or flows, and demonstrate actions that mitigate these impacts. Affirmative actions in this category therefore include water quality monitoring and analysis, the development of management and enforcement processes, and the development and implementation of ordinances and other legal means to codify and adopt these processes into the County's operations and actions.
- 4) *Construction Site Stormwater Runoff Control* - this provision requires the County to adopt, operate, and maintain a sediment and erosion control management program consistent with Virginia's regulations and standards.
- 5) *Post-construction Stormwater Management in New Development and Development on Prior Developed Lands* - this provision requires the County to adopt, operate, and maintain a construction stormwater management program consistent with Virginia's regulations and standards.
- 6) *Pollution Prevention/Good Housekeeping for County Operations* - this category requires the County to critically evaluate and improve upon all aspects of the County's operations that have the potential to influence stormwater. This can range from how and when the County fertilizes ball fields; what mowers, tractors and other equipment the County uses, and how the County maintains and cleans this equipment between uses; how the County stores chemicals; how the County cleans its vehicles and fuels the fleet; how the County conducts day-to-day maintenance and landscaping needs; how the County mops floors; how high grass is mowed; how swimming pools are drained; how the County de-ices icy sidewalks; the development of the County's "green procurement" procedures; how the County designs and maintains stream buffers; to the nature of the County's Capital Improvement Plan project review procedures. For Fauquier County, this Minimum Control Measure affects to a higher degree Fauquier County Schools, General Services and the Parks and Recreation Departments from an operational perspective, and Community Development, from a program management perspective; however, on one level it affects all departments and all employees. The main thrust of this requirement is that as an organization the County is expected to embrace and integrate water quality protection functions as a normal part of its business practices. Ideally, when employees and managers at all levels of the organization evaluate new or old tasks, the

County should not just think about monetary, budgeting, scheduling concerns, employee safety and morale, political realities, public relations, and the wide array of factors that go into decision-making, but also how this action may influence water quality within our managed stormwater systems.

A philosophical difference between an MS4 permit and construction stormwater permits, or many other “typical” permits, is that unlike most others, an MS4 permit is long-term and operations-oriented. A construction stormwater permit, an erosion and sediment control permit, a building permit, etc. are for a discrete project and it is issued for a limited time period. Conversely, an MS4 permit deals with the County’s ongoing operations, so as a consequence, an MS4 permit is much more broad-based, and the permit will be continually re-issued in perpetuity - not as a separate task or after-thought, but ingrained into everyday way that we conduct our business.

The preceding summary forms the basis of an MS4 permit and program responsibilities; however, it is also important to understand the geographic scope of Fauquier County’s MS4 permit. To fall under the MS4 permitting requirement, a public entity must own and manage some form of stormwater conveyance, such as a ditch, swale, storm drain, pipe, culvert, etc. within urbanized areas designated by the federal census bureau. The 2010 federal census places Warrenton and a large part New Baltimore into the greater Washington, DC—VA—MD Urbanized Area. Since Fauquier County owns and manages stormwater facilities in this area, specifically in: Fauquier High School, Warrenton Middle School, the County Maintenance Facility; County and Health Department offices on Hospital Drive, Brumfield Elementary School, Warrenton Community Center, Taylor Middle School, C.M. Bradley Elementary School, P.B. Smith Elementary School, Auburn Middle School and the Vint Hill Village Green facilities and open spaces, these areas are subject to MS4 Permit requirements. An important part of this requirement is that Fauquier County is not only responsible for stormwater management on these County-owned lands, but for any land that drains into the County’s stormwater system. This is an important distinction, since if the County cannot obtain its pollution reduction goals from County operation improvements alone, then the County may need to implement a strategy that obtains additional improvements from adjacent private property. Complicating this issue, is that the majority of the County’s MS4 properties are located within the Town of Warrenton, and the Town of Warrenton has their own MS4 permit. Although the County’s stormwater systems within the Town of Warrenton drains into the Town of Warrenton’s stormwater system, this does not alleviate the County’s obligations to manage the stormwater within the County’s area of influence. It is also important to understand that if the County should obtain any new properties within this urbanized area, then these new properties would be immediately subject to the MS4 program requirements. This also applies if the County willingly took on the ownership and management of a development’s centralized stormwater system.