

Overview of the MS-4 Permit

by the City of Manassas

The primary purpose of the federal 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



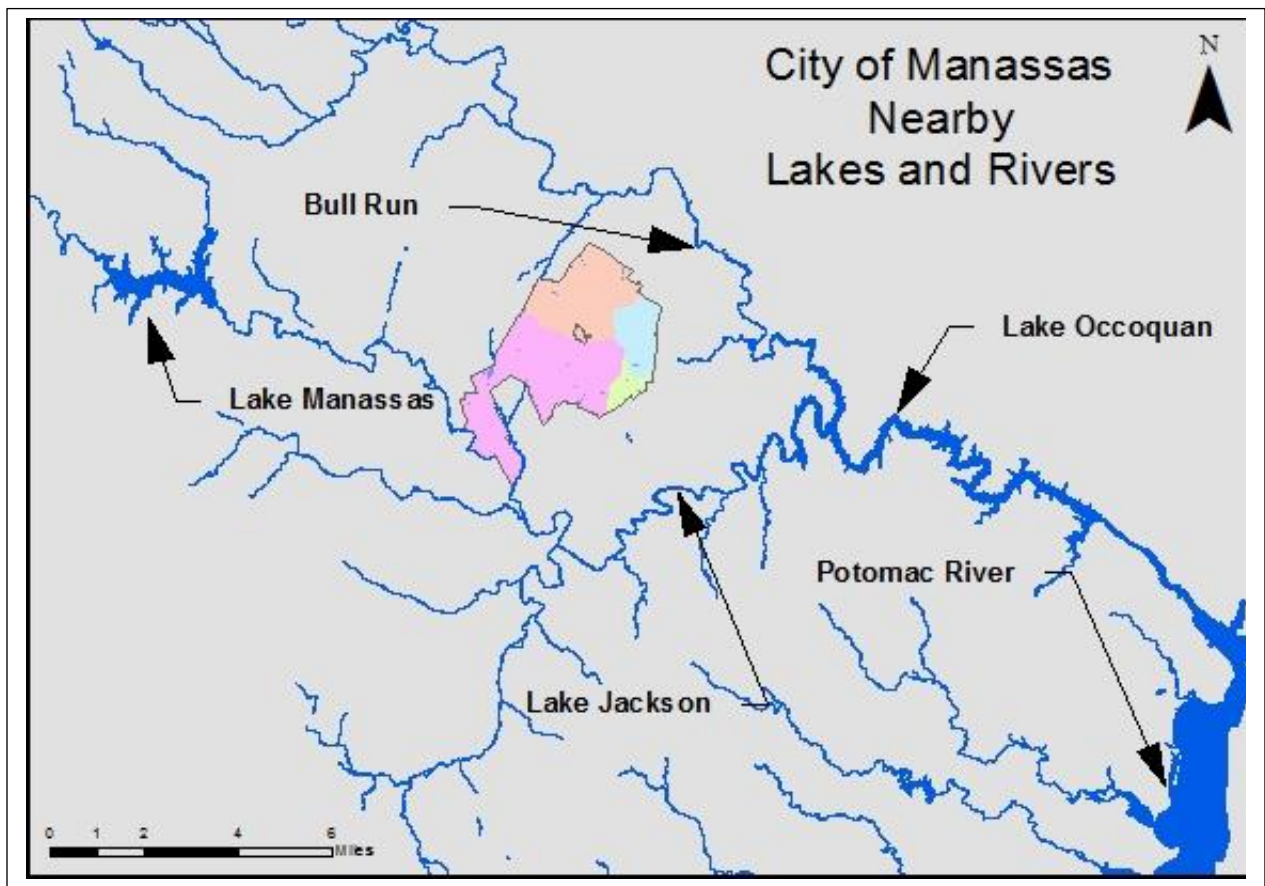
(spread out in a multitude of incremental inputs across the landscape) or through "point sources" (discrete and focused inputs, such as a pipe's discharge). A component of the Clean Water Act is the Virginia Pollution Discharge Elimination System (VPDES). VPDES permits regulate point source discharges. Stormwater within urbanized areas is known to contain pollutants, and the point where that stormwater system discharges into natural waters is considered a "point source;" therefore, a VPDES permit is required.

Stormwater "general construction" permits are VPDES permits issued to oversee the management of stormwater during new construction and

new land disturbing projects. The form of NPDES permit that oversees ongoing management of stormwater systems within highly urbanized locations is the "MS-4 permit." MS-4 is an abbreviation for Municipal Separate Storm Sewer System. The MS-4 regulations state that land

managers within the urbanized areas need to obtain a MS-4 permit and manage their stormwater system consistent with the MS-4 permit requirements. Since the City of Manassas drains into the Chesapeake Bay, our MS-4 permit requirements are closely tied to the restoration requirements and goals of the Chesapeake Bay Act. Manassas has a MS-4 permit that allows us to discharge pollutants into Virginia waters; however, along with this permission come 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 discharging outside of the City limits.

There are two main categories of plans required under our MS-4 permit, the MS-4 Stormwater Management Plan and the MS-4 TMDL (Total Maximum Daily Load) Plan. The City is required to post their plans on-line for the upcoming years, as well as their previous accomplishments.



The MS-4 TMDL Plan requires the City 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 ways the City may use to reduce these pollutants.

While the MS-4 TMDL Plan is focused upon the reduction of the three pollutants regulated under the Chesapeake Bay Act, the MS-4 Stormwater Plan pertains to the reduction of all pollutants. The MS-4 Stormwater Management Plan is focused upon improving our day-to-day practices in a manner that reduces the amount of pollutants that is discharged into area waters. 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 the City proactively educate homeowners, City businesses and residents, with the thought that educating them on stormwater concerns and providing them with information and other tools, will reduce the amount of pollutants discharged into the stormwater system, and in turn, natural waters.

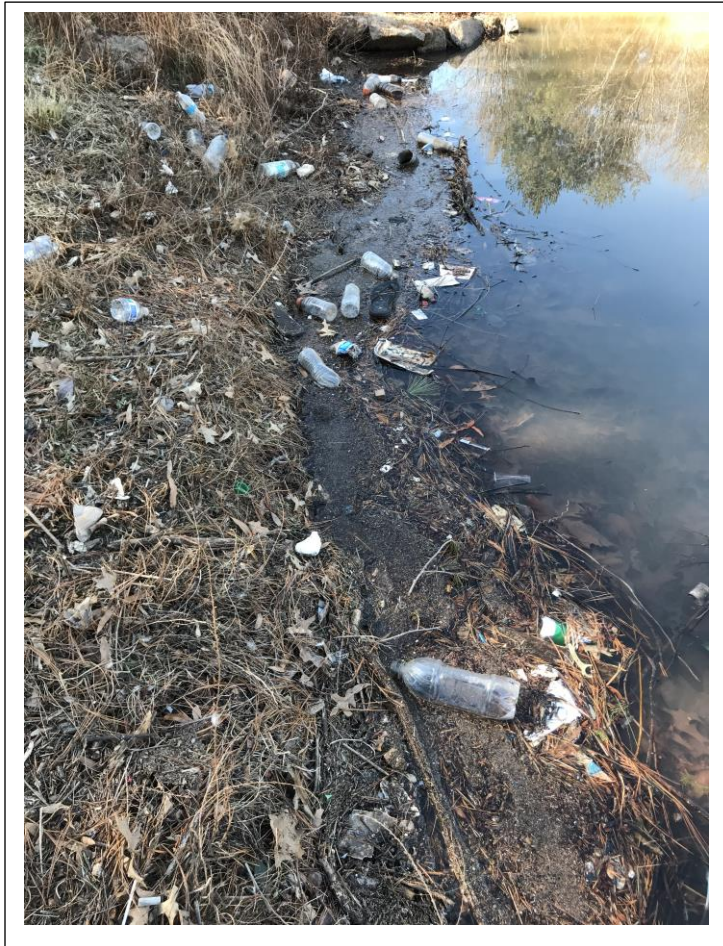
2) Public Involvement and Participation - studies have consistently shown that people are more effective in meeting environmental goals when they are personally involved and have a sense of ownership to the issue. This is the primary purpose of this requirement.

3) Illicit Discharge and Elimination – the MS-4 permit requires the City to monitor the water quality of all our points of discharge - with a specific focus on identifying flows into the stormwater collection 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, improper plumbing connections, or illegal discharges into the stormwater system. The MS-4 permit requires the City 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 impacts.



4) Construction Site Stormwater Runoff Control - this provision requires the City to adopt, operate, and maintain a sediment and erosion control management program consistent with Virginia's regulations and standards.

5) Post-construction Stormwater Management of Newly Developed Lands - this provision requires the City to adopt, operate, and maintain a construction stormwater management program consistent with Virginia's regulations and standards.



6) Pollution Prevention/Good Housekeeping - this category requires the City to critically evaluate and improve upon activities and operations that have the potential to affect the area's streams. The main thrust of this requirement is that the City is expected to embrace and integrate water quality protection functions as a normal part of its business practices. Ideally, when evaluating new or old tasks, the City should carefully consider how these actions may influence water quality within our managed stormwater systems, in addition to consideration of other financial, employee, and public impacts.

A philosophical difference between an MS-4 permit and construction stormwater permits, or many other "typical" permits, is that unlike most others, an MS-4 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 issued for a limited time period. Conversely, an MS-4 permit deals with the City's ongoing operations, so as a consequence, an MS-4 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 the everyday way that we conduct our business.