

Fairfax County 2023 MS4 Program Plan and Annual Report

# Appendix R18

Summary of Program Effectiveness

VSMP Permit Number VA0088587  
9-29-2023

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The purpose of this table is to illustrate how each permit element is assessing the effectiveness of the programs put in place to ensure compliance. Evaluation of program elements for effectiveness is a continuous process as implementation occurs. Staff meets on an annual basis to review and evaluate the effectiveness of the MS4 program.

<b>MS4 Action ID</b>	<b>Permit Element</b>	<b>Description of Assessment</b>	<b>Outcome</b>
A.2.	Permittee Responsibilities	The county reviews the roles and responsibilities section of the MS4 Program Plan annually to verify that it is accurate.	Complete
A.3.	Legal Authority	The county reviews its ordinances annually to determine if any changes are needed to implement the MS4 Program Plan.	Complete
A.4.	MS4 Program Resources	The county reviews its budget annually to ensure that it has adequate resources to implement the MS4 Program Plan.	Complete – MS4 Program Plan budget is adequate.
A.5	Permit Maintenance Fees		Complete – submitted annually.
A.6.	MS4 Program Plan		Complete – the county maintains its MS4 Program Plan on its website.
A.7.	MS4 Program Review and Updates	The county reviews the MS4 Program Plan annually as required.	Complete – minor modifications to the Program Plan are documented in the annual report.
B.1.	Planning		Complete – the summary of potential projects was submitted as required.
B.2.a.	Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands	The county transitioned into a system to streamline and manage processes.	Fairfax County developed a system to streamline the management of site-related construction complaints. The system enables managers, inspectors, administrative staff, and the general public to seamlessly process and resolve complaints efficiently.

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B.2.b.	Retrofitting on Prior Developed Lands	This permit element is assessed by ensuring the county has completed 30 of the projects that were submitted in compliance with Part.I.B.1 of the permit.	Complete – 30 projects constructed.
B.2.c.	Roadways	An annual review of the required SOPs is conducted to assess accuracy. Also, the county maintains an updated list of roadways, parking lots, and streets that are treated and not treated. This list is refreshed annually.	Complete – the annual review resulted in revisions to the SOPs to resolve overlaps and to ensure consistency with the county facility SWPPPs. The updated SOPs are included as a Program Plan appendix. The county also improved the process in which staff were receiving the SOPs to ensure full implementation of the SOPs at county facilities.
B.2.d.	Pesticide, Herbicide, and Fertilizer Application	The county annually reviews the guideline SOP, as well as the status of implementation of NMPs.	Complete –The county improved the process to incorporate FCPA NMP GIS data into the County’s larger MS4 tracking system.
B.2.e.	Illicit Discharges and Improper Disposal	<p>The program is pro-active and works to ensure county processes facilitate enforcement of the stormwater ordinance.</p> <p>The program is evaluated based on satisfactory closeout of reported cases in timely manner by follow-up inspections.</p>	<p>Staff continued to implement the multiple-agency MOU to ensure the plan review process identifies cooling towers and ensures proper permitting.</p> <p>As a preventive measure, staff conducted follow up inspections for a forth year of commercial lots where road salt had been improperly stored that were originally identified in FY2019. Based on corrective action notices, there have been less issued since this effort took place.</p>

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B.2.f.	Spill Prevention and Response	The county evaluates incidents occurring over the reporting period to determine if program changes are needed or if additional training on spill response is required.	Complete – no changes to program.
B.2.g.	Industrial & High Risk Runoff	The program is evaluated annually against performance goals (number of inspections, updated inventory of potential IHRR facilities) documented in SOPs.	The county made updates to the SOP to help identify potential polluters.

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B.2.h.	Stormwater Infrastructure Management	<p>The county reviews its Post Construction Stormwater Inspection and Maintenance Policies and Procedures for stormwater management facilities and Best Management Practices annually and assesses the following performance metrics:</p> <ul style="list-style-type: none"> <li>Percentage of Public Facility Inventory inspections completed</li> <li>Percentage of Private Facility Inventory inspections completed</li> <li>Number of Enforcement Actions brought against the Inspection Program from regulators (EPA or DEQ)</li> </ul> <p>The county assesses the conveyance piece of the permit element by tracking the identification and elimination of “unauthorized intrusions” into the MS4, by tracking responses to drainage complaints, and annually assessing progress toward the program goal of inspecting 15% of the MS4.</p> <p>On an annual basis, the MS4 service area is reviewed and updated based on infrastructure additions and comments by field staff (monitoring programs and IDID) to improve accuracy of stormwater assets in GIS.</p>	<p>Stormwater facility and conveyance system inspections are on track to meet the inspection schedule specified in the MS4 Program Plan with appropriate follow-up. The county has invested in a modernized asset management system and is in the process of updating and improving the way that infrastructure inspections and maintenance are implemented, tracked, and reported.</p> <p>The county is implementing a stream restoration inspection SOP and is in the process of enhancing our GIS assets to facilitate and track inspection and maintenance details.</p> <p>Elimination of “unauthorized intrusions” and response to drainage complaints continue to be performed in a timely fashion.</p> <p>The MS4 system GIS data layers were updated based on new infrastructure information and comments provided by Stormwater staff.</p>

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B.2.i.	County Facilities	<p>The SWPPP Program manager conducts an annual inspection to ensure SWPPP documents are up to date and that inspections and trainings are conducted as specified.</p> <p>The Stormdrain Marking Inspection SOP was updated to ensure storm drain labels are assessed and installed at HPMF facilities and on permittee properties with greater than 2-acres of impervious surface.</p>	<p>Site managers at several facilities have started using Work Order Management (WOM) systems to trigger quarterly inspections and inform upper management on completion of assignment. The remainder of HPMF facilities are in the process of implementing similar procedures.</p> <p>The project team is in the process of implementing the site selection process to identify facilities to inspect in FY24.</p>

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B.2.j.	Public Education/Participation	<p>The county’s MS4 public education team meets annually to assess the status of outreach for target audiences and to determine if additional resources are needed to complete MS4 Program Plan outreach activities.</p> <p>The county continues to coordinate with Clean Water Partners to assess trends in stormwater knowledge and behavior and preferences for receiving information.</p>	<p>The MS4 Public Education and Participation Team developed new categories and units for engagements, so that the information could be better summarized and understood.</p> <p>In coordination with the DPWES website development team, Stormwater Management made significant revisions to its web content to facilitate reporting of stormwater management and pollution issues, streamline and organize educational topics, and provide better search results. Stormwater updated web content related to the illicit discharge and improper disposal program, car washing, swimming pool discharges, cooling tower discharges, and salt storage. Stormwater also created new publications including a fact sheet for food service vendors.</p> <p>Complete: The Clean Water Partner survey results have been provided as an appendix with a summary of the results.</p> <p>The county developed the Fairfax Environmental Educators Team (FEET) to establish a platform for educators within the county and externally to collaborate and learn from one another. Meetings are held on a monthly basis.</p>

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B.2.k.	Training	<p>Trainings are evaluated annually to ensure they are still relevant, that the appropriate staff are trained as required, and to amend content based on feedback from attendees.</p>	<p>Complete: Fairfax County's Site Code Academy provides training classes on a variety of topics, such as stormwater management, site inspections for BMPs and E&amp;S controls, and associated regulatory requirements for inspectors, plan reviewers and other technical staff. The intent is to provide contact hours that can be applied to certifications and professional licenses and to enhance the county's customer service efforts. Classes are developed based on the needs assessment and repeated throughout the year on an as-needed basis.</p> <p>Training assignments were developed in the County's online training platform and automated reminders implemented to ensure staff is held accountable.</p> <p>The county has voluntarily incorporated Northern Virginia Salt Management Strategy recommendations into trainings for Winter Operations staff and management.</p>

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B.2.l.	Water Quality Screening Programs	<p>The dry weather screening program SOP is assessed annually to confirm that outfall selection and screening procedures are effective in locating illicit discharges. The sampling staff also assess the coordination process with the IDID program to ensure illicit discharges are eliminated.</p> <p>The wet weather screening program SOP is evaluated annually for potential improvements to procedures and results are reviewed to identify and mitigate potential sources of pollution. The County began piloting changes to the wet weather screening program in October, 2020 with an updated, improved SOP.</p>	<p>The dry weather screening program continues to be successful in locating illicit discharges that are eliminated in coordination with the IDID program. The screening program is working with the infrastructure inspection team and evaluating potential process improvements to inform outfalls to improve track downs of illicit connections to the storm sewer.</p> <p>Complete – Starting in October 2020, Fairfax County began piloting an updated, improved wet weather screening SOP at two new sites, which modifies our selection protocol, adds new constituents, and begins using more actionable criteria for our inspectors. The County will monitor these new sites for five years to better quantify seasonal and interannual magnitudes and variability of pollutants entering the MS4. Samples were collected under both the old and updated SOP through June, 2021. The program fully transitioned to the updated wet weather screening SOP in July, 2021.</p>
B.2.m.	Infrastructure Coordination	The county evaluates coordination with VDOT during the annual meeting. A focus of the meeting is how the county and VDOT can work together more effectively.	The county is exploring partnership projects to meet TMDL requirements. These meetings are held on a regional level, which allows for multiple jurisdictions to coordinate and communicate.

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C.1	Biological Stream Monitoring	The county evaluates the program annually with a goal of assessing long term trends in the benthic macroinvertebrate community.	The county continues to gather data in compliance with the permit but does not yet have enough data to evaluate long-term trends at this time.
C.2.	In-Stream Monitoring	The county evaluates the program annually with a goal of assessing long term trends in stream water quality.	The county continues to gather data in compliance with the permit but does not have enough data to evaluate long-term trends at this time.
C.3.	Floatables Monitoring	The county evaluates the program annually with a goal of determining a loading rate of floatables from the MS4 to streams in the county.	The Floatables Monitoring Program SOP was updated to include a methodology to identify additional sites to be monitored, with the goal of improving the confidence in observations made at the compliance sites currently being monitored.
C.4.	Structural and Source Controls Compliance Monitoring and Tracking	The county will annually evaluate its process for updating the asset management system and make improvements as needed.	Complete The county has selected a new Asset Management System and is in the process of implementing the IT solution. Until the new system is fully tested and approve, the County will continue to use our existing work order management system.
D.1.	Chesapeake Bay Special Condition	The county implements and tracks projects to reduce nitrogen, phosphorus, and total suspended sediments. Pollutant reduction progress is evaluated against TMDL reduction goals.	Complete – the county has met the reduction goals in the Chesapeake Bay Special Condition. The county continues to implement and track projects to document progress towards meeting future Chesapeake Bay permit requirements and also complete project verification requirements.

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D.2.	TMDL Action Plans other than the Chesapeake Bay TMDL	Each of the Local TMDL Action Plans contains a section on assessment of effectiveness.	<p>Bacteria: The county conducts dog park assessments to evaluate effectiveness of controls – controls appeared to be effective in the reporting period. Public education effectiveness is assessed through the Clean Water Partners survey.</p> <p>Benthic: Progress towards meeting sediment reduction goals is tracked and reported in the annual report.</p> <p>PCB: Complete - Educational outreach materials appropriate for industrial and high-risk runoff facilities were developed in partnership with NVRC and distributed to facilities.</p> <p>The county has been actively participating and voluntarily implementing components of the Northern Virginia Salt Management Strategy. The county will develop a Chloride TMDL Action Plan in accordance revised/reissued permit language.</p>