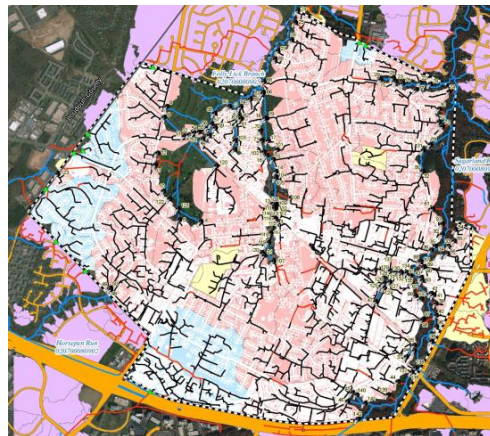


Town of Herndon, Virginia

Municipal Separate Storm Sewer System (MS4) Program Plan



**2023 MS4 General Permit Update
April 29, 2024**

Town of Herndon
Department of Public Works
777 Lynn Street
Herndon, Virginia 20170

Prepared with assistance by:
WSP USA Earth & Environment, Inc.
Herndon, Virginia

TOWN OF
Herndon
VIRGINIA



Prepared in Compliance with Municipal Separate Storm Sewer System
(MS4) Permit No. VAR040060

CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Town Manager

April 29 , 2024

Name

Title

Date

Town of Herndon, Virginia Municipal Separate Storm Sewer System (MS4) Program Plan

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Municipal Separate Storm Sewer System (MS4) Program Plan

A. Introduction

This MS4 Program Plan (plan) documents how the Town of Herndon will meet the requirements of the General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 permit). The Town was originally issued an MS4 permit effective July 8, 2003 (Permit No. VAR040060). The MS4 permit was re-issued in 2008, 2013, 2018, and 2023. This plan updates and supersedes previous plans and addresses the permit under which the City was issued coverage effective November 1, 2023. The permit expires on October 31, 2028.

Mandated by Congress under the Clean Water Act and implemented in Virginia by the Department of Environmental Quality (DEQ), the MS4 permit is designed to protect water quality from urban stormwater pollution. Stormwater runoff from urban areas may contain sediments, fertilizers, pesticides, bacteria, motor oil, salts, and other pollutants generated by various land uses and human activities. When left uncontrolled, this pollution can result in the impairment or destruction of aquatic habitats, a loss in aesthetic value, and threats to public safety and health.

To achieve these water quality goals, the MS4 permit requires the Town to control the discharge of pollutants to the maximum extent practicable (MEP) by addressing the following six minimum control measures (MCMs).

Six Minimum Control Measures	
1. Public Education and Outreach on Stormwater Impacts	4. Construction Site Stormwater Runoff Control
2. Public Involvement/Participation	5. Post-Construction Stormwater Management
3. Illicit Discharge Detection and Elimination	6. Pollution Prevention/Good Housekeeping for Municipal Operations

In addition to addressing the MCMs, the Town must develop and implement action plans to address pollutant loads allocated to Herndon in approved Total Maximum Daily Loads (TMDLs). A TMDL establishes the maximum amount of a pollutant that can enter a water body without

violating water quality standards. The Town has been allocated pollutant loads for the Chesapeake Bay TMDL (phosphorus, nitrogen, and sediment) and Sugarland Run (bacteria).

The Town has successfully implemented its MS4 permit requirements for the past three permit cycles. As part of this plan update process, the Town has engaged in an extensive review and assessment of existing stormwater management operations, ordinances, protocols, and programming against the MS4 permit compliance requirements. This MS4 plan builds on the Town's past success and meets the new MS4 permit requirements.

B. Community Profile

The Town of Herndon occupies 4.28 square miles on the western border of Fairfax County and is the third largest town in Virginia. The Town's growth has been closely tied to intense commercial and industrial development in the Dulles International Airport corridor. This growth spurred a housing boom in the Town, with the population growing from 4,301 in 1970 to 24,167 in 2022 as estimated by the U.S. Census Bureau. The Town is densely populated at approximately 5,646 people per square mile. Although the population has stabilized in recent years, the Town anticipates growth to increase significantly in the next few decades, with a projected population of 39,430 by 2040.¹



Since very little of the Town remains undeveloped, most future growth will be the result of redevelopment.

Redevelopment presents an opportunity to improve stormwater management. More stringent quality and quantity management standards were adopted by the Town in 2014 under the Virginia Stormwater Management Regulations.

The population of the Town is generally younger than surrounding Fairfax County, with a median age of 35.7 year. Approximately 38% of the Town's housing stock consists of single family detached homes. The remainder is split between town homes (30%) and apartments and condominiums (32%). This means that approximately 68% of residents are responsible for making decisions about landscaping and the use of pesticides and fertilizers.

The Town has one of the most diverse populations in Northern Virginia. Approximately 37% of the population is Hispanic or Latino, while 16% of the population is of Asian descent and 7% of

¹ Unless otherwise noted, all demographic figures are from the "Community Profile" compiled by the Herndon Department of Community Development and a memorandum entitled "Town of Herndon Housing and Population Estimates" provided to the Town Planning Commission dated June 12, 2023.

the population is of African American/Black descent. Most of the population is well educated with 49.7% of those over 25 years of age having received a Bachelor's Degree or higher and 19% having a graduate, doctorate, or professional degree. The median income in 2022 was \$133,403. Finally, Town residents are technology savvy, with 98.3% of households having a computer and 93.5% having a broadband subscription.

The Town spans two watersheds. The Horsepen Creek watershed (a tributary of Broad Run) covers 444.3 acres in the southwest area of the Town. The remainder of the Town drains to the Sugarland Run watershed, which includes Folly Lick Branch and its tributary Spring Branch. Areas draining to Sugarland Run cover a total of 2,291.3 acres.

The Town's land cover is highly impervious, with an MS4 average of 45%. Research by the Center for Watershed Protection indicates that in general, areas with 25% or more of impervious surface may have serious water quality problems without appropriate controls.

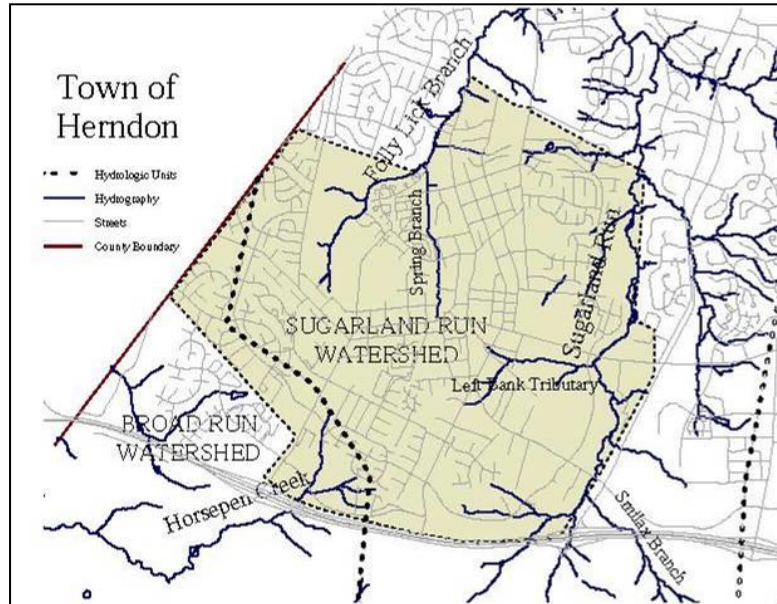


Figure 1: Herndon Watersheds

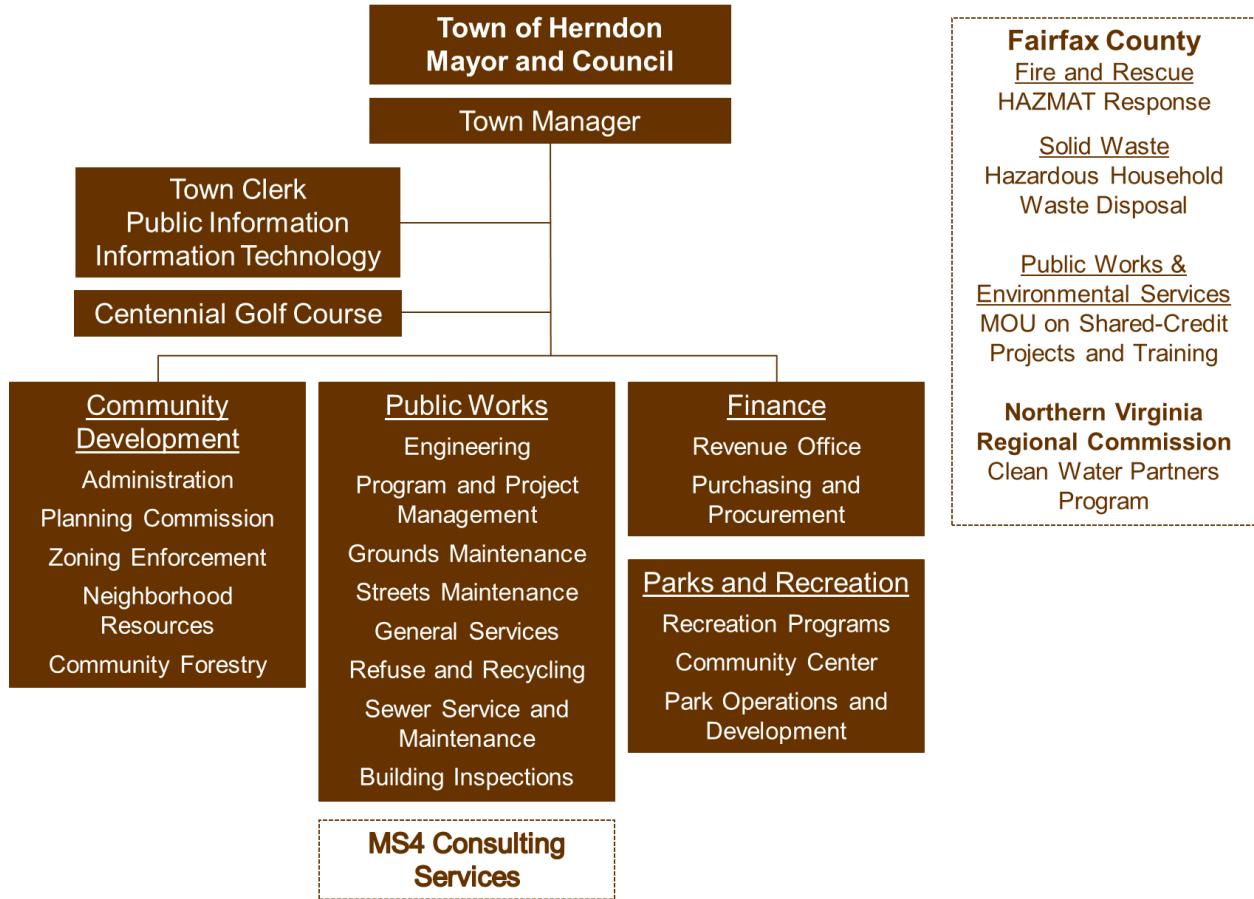
C. Herndon's Stormwater Management Program

The Town implements a comprehensive stormwater management program that addresses stormwater quality and quantity and protects aquatic habitats through positive action. The following describes the departments and divisions that perform stormwater related duties, define stormwater budgets, or make decisions that affect stormwater management activities. The Department of Public Works (DPW) is responsible for overall coordination of MS4 compliance.

Town Manager

The Town Manager provides general oversight over all Town functions, including stormwater management. The Town Manager is also responsible for reviewing departmental budgets and submitting budgets and funding requests to the Town Council.

Figure 2: Town Stormwater Management Organization Chart



Town Clerk

The Town Clerk ensures that public meetings are advertised and conducted according to local, state, and federal regulations. The Town Clerk also files private stormwater management facility operation and maintenance agreements and easements as appropriate.

Public Information Officer

The Public Information Officer (PIO) assures delivery of unified messages to the public that reflect the Town’s goals and objectives. Services performed include:

- Preparation of news releases
- Preparation of annual Town calendar for distribution to citizens
- Distribution of “What’s On in Herndon: News You Can Use” e-newsletter
- Management of Herndon Facebook page (5.4K followers as of April 2024)
- Management of Herndon X feed (2K followers as of April 2024)
- Preparation of a Town budget summary for distribution to citizens
- Maintenance of the Town’s website

Department of Community Development

The Department of Community Development (DCD) is responsible for zoning enforcement, comprehensive planning, and urban forest management. Major stormwater related responsibilities within this department include site plan review, floodplain administration, and administration of the Town's Chesapeake Bay Preservation Area Overlay (CBPAO) district. The Town Arborist works on a wide range of environmental projects, including stormwater. Examples include volunteer storm drain marking program coordination; herbicide/pesticide application certification training for Town staff; educational and outreach programs; and, coordination of community group stream and litter clean-ups.

Department of Public Works

The Department of Public Works (DPW) is responsible for overall stormwater related administration, operations, and maintenance activities. DPW responsibilities relating to stormwater are discussed below.

Engineering

Engineering is responsible for site plan review and the Town's stormwater management and erosion and sediment control (E&SC) programs including the Illicit Discharge Detection and Elimination (IDDE) program. Engineering also provides support to construction projects, capital improvement projects, major maintenance contracts, and Town planning activities. Drainage, flooding and stormwater complaints are usually received by Engineering or the Operations and Emergency Response Center.



Program and Project Management

In addition to project management, Program and Project Management coordinates the Town's GIS functions with support from private consultants.

Grounds Maintenance

Grounds Maintenance crews maintain grounds surrounding all Town-owned facilities, Town parks, athletic fields and rights-of-way within the Town corporate limits. The Grounds Maintenance crew supervisor and several other crew members are certified herbicide/pesticide applicators. Grounds Maintenance crews occasionally perform stormwater maintenance activities to supplement the Street Maintenance crews.

Street Maintenance

Street Maintenance is responsible for maintenance and repair of the Town's road system, walking trails, storm drainage system, special programs, and construction projects. While primarily concerned with street maintenance, staff in this area also perform annual catch basin cleaning, storm drain cleaning, and respond to citizen complaints. Street Maintenance

crews are responsible for maintaining the Town's stormwater management infrastructure including pipes, curb and gutter, and public stormwater management facilities and all together spend about five percent of their time on stormwater issues. Street sweeping is performed by both Town employees and a private contractor.

Refuse and Recycling

Refuse and Recycling oversees the collection of residential and limited business refuse, yard waste, brush, and recyclables. Household hazardous waste (HHW) is accepted at the Fairfax County I-66 Citizens' Recycling and Disposal Facility. Town policy requires the use of trash cans and prohibits use of bags to reduce breakage and leakage.



General Services

General Services is responsible for performing preventative maintenance on Town vehicles and equipment and for taking citizen requests and inquiries through the Operations and Emergency Response Center.

Sewer Service and Maintenance

Town sewage and wastewater is piped to the District of Columbia's Blue Plains Treatment Facility. Sewer Service Maintenance is responsible for preventing the Town's sanitary sewer from becoming a source of fecal coliform bacteria and nutrient pollution.

Building Inspections

Building Inspections enforces the Building Code, serves as the Town's liaison to the Fairfax County Fire and Rescue Department and Health Department, and also manages the cross-connection, pretreatment, and underground storage tank compliance programs to prevent groundwater pollution.

Department of Finance

The Department of Finance oversees the financial structure and mechanisms used by the Town of Herndon to deliver its programs and services. The primary funding mechanisms for service and program delivery in the Town are the Town's General Fund, largely made up of local tax revenue and fees.

Department of Parks and Recreation

The Department of Parks and Recreation (DPR) provides oversight of several Town parks. DPR provides a variety of community environmental outreach and educational activities and coordinates with local organizations such as Friends of Runnymede Park to sponsor events

such as a nature tent at the Herndon Farmer's Market that distributes educational brochures about proper HHW disposal and stormwater pollution prevention. DPR also advertises Town and non-profit volunteer opportunities.

Centennial Golf Course

Centennial Golf Course consists of 98 acres and is owned and operated by the Town. The course has implemented a nutrient management plan (NMP) and a stormwater pollution prevention plan (SWPPP) for its maintenance yard.

D. Special Conditions for Approved TMDLs

While the focus of the MS4 permit is on pollution prevention, the permit also contains special conditions that require the Town to develop action plans for impaired streams where a TMDL assigns a waste load allocation (WLA) to the Town that has been approved by the State Water Control Board (SWCB) prior to issuance of this permit. The Town has been assigned WLAs associated with the Chesapeake Bay TMDL (nitrogen, phosphorus, and sediment) and Sugarland Run TMDL (bacteria).

Based on the MS4 permit, the Town must achieve Chesapeake Bay TMDL pollutant reductions over three five-year permit cycles in accordance with the following: 5% by the end of the first permit cycle (2018); 40% by the end of the second permit cycle (2023); and, 100% by the end of the third permit cycle (2028). The Town submitted a draft Phase III Chesapeake Bay TMDL Action Plan to DEQ on September 14, 2023 demonstrating that it has exceeded 100% of pollutant reduction targets. A final Phase III action plan must be submitted to DEQ no later than November 1, 2024.

Sugarland Run has also been identified as impaired for *E. coli* by DEQ and a TMDL was approved by the State Water Control Board on April 4, 2014 that assigns a WLA to the Town. In accordance with the MS4 permit, the Town developed an action plan for Sugarland Run in 2020 to address anthropogenic sources of bacteria. The Town had previously identified bacteria as a high-priority pollutant and incorporated reduction efforts into Section G "Minimum Control Measures." The Sugarland Run bacteria TMDL action plan must be updated no later than 18 months after the permit effective date (May 1, 2025).

In addition to updating TMDL action plans, the Town must develop and maintain written inspection and maintenance procedures for ecosystem restoration projects that were implemented as part of TMDL compliance. This includes the Sugarland Run stream restoration. The procedures must be developed by November 1, 2026 and the projects inspected no later than November 1, 2028.

TMDL	Pollutants	TMDL Action Plan	Current Plan Date	Updated Plan Due Date
Chesapeake Bay TMDL	Nitrogen and phosphorus	Draft Phase III Chesapeake Bay TMDL Action Plan	9/14/2023	11/1/2024
“Bacteria TMDL Development for Tributaries of the Potomac River: Sugarland Run, Mine Run, and Pimmit Run”	E. coli bacteria	Bacteria TMDL Action Plan for Sugarland Run	12/11/2020	5/1/2025

E. Reliance on Other Government Entities

The MS4 permit requires that if the Town relies on other entities to implement portions of its MS4 program that the plan must include a description of each party’s roles and responsibilities. The plan must also include copies of written agreements.

The Town has entered into a Memorandum of Understanding (MOU) with Fairfax County and the Town of Vienna to share pollutant reductions from jointly implemented projects funded through the County’s Stormwater Service District Fee. These reductions are used to meet Chesapeake Bay TMDL requirements. The MOU is included as Appendix A.

The Town’s public education and outreach efforts are supplemented by the Northern Virginia Regional Commission’s Clean Water Partners program. The Memorandum of Agreement (MOA) is included in Appendix A.

F. Key Permit Milestones

The following table shows key stormwater program milestones and significant new actions that must be completed by the Town under the 2023 MS4 permit. The table does not show routine or ongoing compliance activities.

Program Requirement	Permit Reference	Requirement Date
Review Town sites to determine if there are any new high priority facilities that require a SWPPP.	Part I E 6 k	June 30 of each year
Annual report to DEQ.	Part I D 1	October 1 of each year

Program Requirement	Permit Reference	Requirement Date
Update the MS4 map and outfall information table to include new outfalls or TMDLs.	Part I E 3 a (5)	October 1 of each year
Electronic report of post-construction stormwater management facilities.	Part III B	October 1 of each year
Post most recent annual report to the stormwater web page.	Part I E 2 b (3)	November 1 of each year
Update stormwater webpage.	Part I E 2 b	February 1, 2024
Update existing TMDL action plans.	Part II B 2 a	May 1, 2025
Submit geodatabase or shapefiles containing required information about the MS4 to DEQ.	Part I E 3 a (3)	November 1, 2025
Update and implement procedures relating to the application of anti-icing and deicing agents.	Part I E 6 b (1) (a)	November 1, 2025
Develop and implement procedures relating to renovation and significant exterior maintenance activities.	Part I E 6 b (2)	November 1, 2026
Develop and maintain written inspection and maintenance procedures for ecosystem restoration projects implemented as part of TMDL compliance.	Part II C 1	November 1, 2026
Inspect ecosystem restoration projects	Part II C 2	November 1, 2028

G. Minimum Control Measures

This section outlines the specific BMPs and strategies for meeting the MCMs in Part I E of the MS4 permit. For each MCM, the following information is included:

- Each specific requirement as listed in Part I E for each MCM.
- A description of the BMPs or strategies that the permittee anticipates will be implemented to demonstrate compliance with the permit conditions.
- All standard operating procedures (SOPs) or policies necessary to implement the BMPs.
- The measurable goal by which each BMP or strategy will be evaluated.
- The persons, positions, or departments responsible for implementing each BMP or strategy.

A table at the end of each section summarizes the schedule for implementing the BMPs.

MCM #1: Public Education and Outreach on Stormwater Impacts

Permit Reference: Part I E 1

- a. The permittee shall implement a public education and outreach program designed to:
- (1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
 - (2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
 - (3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.
- b. The permittee shall identify no fewer than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, litter control, BMP maintenance, anti-icing and deicing agent application, planned green infrastructure redevelopment, planned ecosystem restoration projects, and illicit discharges from commercial sites.
- c. The high-priority public education and outreach program, as a whole, shall:
- (1) Clearly identify the high-priority stormwater issues;
 - (2) Explain the importance of the high-priority stormwater issues;
 - (3) Include measures or actions the public can take to minimize the impact of the high priority stormwater issues; and
 - (4) Provide a contact and telephone number, website, or location where the public can find out more information.
- d. The permittee shall use two or more of the strategies listed in Table 1 per year to communicate to the target audience the high-priority stormwater issues identified in accordance with Part I E 1 b including how to reduce stormwater pollution.

*Table 1
 Strategies for Public Education and Outreach*

<i>Strategies</i>	<i>Examples (provided as examples and are not meant to be all inclusive or limiting)</i>
<i>Traditional written materials</i>	<i>Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens</i>
<i>Alternative materials</i>	<i>Bumper stickers, refrigerator magnets, t-shirts, or drink koozies</i>
<i>Signage</i>	<i>Temporary or permanent signage in public places or facilities, vehicle signage, bill boards, or storm drain stenciling</i>
<i>Media materials</i>	<i>Information disseminated through electronic media, radio, television, movie theater, or newspaper</i>
<i>Speaking engagements</i>	<i>Presentations to school, church, industry, trade, special interest, or community groups</i>
<i>Curriculum materials</i>	<i>Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens, trade organizations, or industrial officials.</i>
<i>Training materials</i>	<i>Materials developed to disseminate during workshops offered to local citizens, trade organizations, or industrial officials.</i>

<i>Public education activities</i>	<i>Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable Standards of Learning or curriculum requirements, or watershed walks.</i>
<i>Public meetings</i>	<i>Public meetings on proposed community stormwater management retrofits, green infrastructure development, ecosystem restoration projects, TMDL development, climate change's effects on stormwater management, voluntary residential low impact development, or other stormwater issues.</i>

e. The permittee may coordinate its public education and outreach efforts with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of its state permit requirements.

f. The MS4 program plan shall include:

- (1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;*
- (2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;*
- (3) Identification of the target audience to receive each high-priority stormwater message;*
- ...*
- (5) Traditional permittees may identify staff and students as part of the target audience for education and outreach strategies; however, staff shall not be the majority of the audience;*
- (6) Staff training required in accordance with Part I E 6 d does not qualify as a strategy for public education and outreach;*
- (7) The strategies from Table 1 of Part I E 1 d to be used to communicate each high-priority stormwater message; and*
- (8) The anticipated time periods the messages will be communicated or made available to the public.*

g. The annual report shall include the following information:

- (1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program;*
- (2) A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate identified high-priority issues;*
- (3) A description of any changes in high-priority stormwater issues, including strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan. The permittee shall provide a rationale for any of these changes; and,*
- (4) A description of public education and outreach activities conducted that included education regarding climate change.*

Public Education and Outreach Program Overview

The Town's public education and outreach program is designed to provide general pollution prevention awareness and to target specific audiences to increase their knowledge about the steps that can be taken to reduce stormwater pollution and the hazards associated with illicit discharges and improper disposal of waste. In addition, the program specifically focuses on reducing impacts to impaired waters and other local water pollution concerns.

High-Priority Water Quality Issues: The MS4 permit requires the Town to identify a minimum of three high-priority water quality issues that contribute to stormwater pollution and provide a rationale for their selection. The program must then: (1) identify specific measures or actions the public can take to reduce pollution; (2) implement at least two strategies per year from Table 1 of the MS4 permit for each high-priority issue; and, (3) provide a way for the public to find out more information.

The Town has identified the following high-priority water quality issues for the focus of the public education program during the permit cycle:

1. Chesapeake Bay nutrients (phosphorus and nitrogen);
2. Bacteria from pet waste; and,
3. Illicit discharges and illegal dumping from commercial operations.

The basis for selecting these three high-priority issues is provided below. Additional information on each issue can be found on the Town's dedicated stormwater webpage.

1. *Chesapeake Bay Nutrients*

The U.S. EPA developed the Chesapeake Bay TMDL in December 2010 to address nutrient and sediment contributions from the agricultural, wastewater, and urban stormwater sectors. Excess nutrients cause algae blooms, and when the algae die, they consume oxygen in the water, creating dead spots where aquatic life cannot survive. Sediment deposited in stream beds can smother aquatic life and harm fish. In response, Virginia has adopted a Watershed Implementation Plan (WIP) that identifies specific strategies for reducing these pollutants. The MS4 permit requires the Town to meet specific nutrient reductions. This will be achieved largely through stormwater retrofits, stream restoration, and strong enforcement of stormwater management and erosion and sediment control regulations. However, public education can have a significant impact on nutrients by reducing the amount of fertilizers that are misapplied to urban lawns. The Town has identified the approximately 68% of households with the potential to have lawns (single family homes and town homes) as the target audience for nutrient-related public education.

2. *Bacteria from Pet Waste Pollution Prevention*

The Town has identified bacteria from pet waste as the second of the top three high-priority water quality issues to target for education and outreach activities. Sugarland Run has been designated as impaired for *E. coli* by DEQ. The urban bacteria load, which includes pet waste, represents 95.9% of the total bacteria load according to the Sugarland Run TMDL. Pet waste, and specifically dog waste, has been a focus of the Town's MS4 Program Plan since 2003. The Town has access to the list of individuals in the Town that have a Dog License from Fairfax County over 2,000 as of FY23). This list will serve as the Town's target audience for pet waste education.

3. *Illicit Discharges and Illegal Dumping from Commercial Operations*

The potential impacts of improper handling and disposal of waste materials from commercial operations (i.e., used cooking oils and waste grease, washwater, food waste and trash) will be the focus of the Town's efforts for the third of the top three identified high-priority water quality issue. This has been determined through previous outfall reconnaissance efforts by the Town and a hot-spot determination analyses conducted as part of the development of the Town's Illicit Discharge Detection and Elimination (IDDE) program. There are approximately 100 commercial operations that will be targeted within the Town.

High Priority Issue	Target Audiences	Permit Strategies (Table 1)
Nutrients	Single-family and townhome residences	Traditional written materials Media materials
Bacteria	Dog owners	Traditional written materials Media materials Signage
Illicit Discharges and Dumping	Commercial properties (focus on restaurants and service stations) Residents (on how to identify and report an illicit discharge)	Traditional written materials Media materials

Coordination with Regional Efforts: In addition to local efforts, the Town will continue to participate in regional public education efforts through the NVRC Clean Water Partners program. The program leverages the Town’s resources to reach a larger regional audience through a mix of media such as radio, TV, online, and print. The program includes an annual assessment component conducted through a web-based survey of Northern Virginia residents. The specific focus areas, messages, and survey results are reviewed each year by the Clean Water Partners, including the Town.

TMDL Action Plan: The Town has developed a TMDL action plan to address bacteria pollution for Sugarland Run. Public education and outreach action items from the plan have been incorporated into this MCM.

Referenced Documents:

- NVRC Clean Water Partners Program MOA (Appendix A).
- Stormwater Webpage:
- www.herndon-va.gov/departments/public-works/stormwater-management

BMP 1.A – Chesapeake Bay Nutrients

Objective: Nutrients from fertilizers is one of the Town’s three high-priority stormwater issues. The objective of this BMP is to provide education and outreach to inform property owners on ways to reduce the impact of nutrients through proper use and application of fertilizers.

Best Management Practices: The Town has identified residents living in single-family homes and townhomes as the target audience for nutrient-related education. For ease of implementation, many of the strategies adopted by the Town will reach all residents. The Town will conduct the following from Table 1 of the MS4 permit to support of this BMP:

- At least once annually, provide information on proper fertilizing techniques in one of the following: the “What’s On in Herndon: News You Can Use” newsletter; the Mayor’s quarterly newsletter; or, Herndon’s annual Water Quality Report.
- Include a message addressing proper fertilizing techniques in the annual Town Calendar and Events Guide.
- At least once annually, post on social media about proper fertilizing techniques.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will provide in each annual report: (1) relevant information from “What’s On in Herndon,” the Mayor’s quarterly newsletter, or the annual Water Quality Report; (2) a copy of the Town Calendar and Events Guide; and, (3) a snapshot of the social media post. The Town will also provide an estimate of the number of residents reached with a fertilizer-related education message.

Responsible Parties: The Department of Public Works will coordinate this BMP with appropriate agencies, including the Public Information Officer.

BMP 1.B – Bacteria from Pet Waste Pollution Prevention

Objective: Bacteria from pest waste is one of the Town’s three high-priority stormwater issues. The objective of this BMP is to reduce bacteria pollution by targeting pollution prevention materials to the Town’s dog owners and to make it convenient for dog owners to properly dispose of waste.

Best Management Practices: The Town’s dog owners, as determined by residents holding a Fairfax County Dog License, will be the target audience for bacteria related public information. The Town will conduct the following from Table 1 of the MS4 permit to support of this BMP:

- Continue to distribute “Scoop Your Poop” post cards through partnership with local veterinarian clinics (five as of April 2024).
- At least once during the permit cycle, send targeted pollution prevention information by mail to Town residents who hold a Fairfax County Dog License. This may be implemented over multiple years.
- The Town has established a network of parks in public spaces (trails and parks) where people are likely to walk their pets. In addition, the Town has worked with homeowners associations to install stations in private common areas. There are 17 public stations and 32 private stations in the Town. These stations have been mapped in the Town’s GIS. The Town will continue to assess and identify any potential gaps in coverage and install additional stations as necessary.
- At least once annually, post on social media about the importance of proper pet waste disposal.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will provide in each annual report: (1) the number of educational materials distributed at veterinary clinics; (2) a copy of any materials distributed to residents holding a Fairfax County Dog License; (3) information on any new pet waste stations and an updated map; and, (4) a snapshot of the social media post. The Town will provide an estimate of the number of residents reached with a proper pet waste disposal message.

Responsible Parties: The Department of Public Works will coordinate this BMP with the Department of Parks and Recreation and Fairfax County Animal Control.

BMP 1.C – Illicit Discharges and Illegal Dumping from Commercial Operations

Objective: Illicit discharges and illegal dumping from commercial operations is one of the Town’s three high-priority stormwater issues. The objective of this BMP is to educate commercial operators about proper handling and storage of materials and the legal ramifications of non-compliance with Town, state, and federal laws and regulations. The BMP also seeks to empower Town residents to recognize and report illicit discharges.

Best Management Practices: The Town’s approximately 100 commercial property owners will be the target audience. The Town will conduct the following from Table 1 of the MS4 permit to support of this BMP:

- At least once during the permit cycle, the Town will send a letter to targeted commercial operators explaining their legal responsibilities and provide them with a bi-lingual education poster.
- At least once annually, post on social media information on how residents and businesses can report a suspected illicit discharge or illegal dumping to the Town.
- At least once annually, provide information on how to report a suspected illicit discharge or illegal dumping in one of the following: the “What’s On in Herndon: News You Can Use” newsletter; the Mayor’s quarterly newsletter; or, Herndon’s annual Water Quality Report.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will provide in each annual report: (1) a copy of any information distributed to commercial operators; (2) a snapshot of the social media post; and, (3) relevant information from “What’s On in Herndon,” the Mayor’s quarterly newsletter, or the annual Water Quality Report. The Town will also provide an estimate of the number of residents reached with an illicit discharge-related education message.

Responsible Parties: The Department of Public Works will coordinate this BMP with the Fairfax County Health Department.

BMP 1.D – General Stormwater Education

Objective: The MS4 permit requires the continuation of an outreach program to address the viewpoints and concerns of a diverse range of audiences.

Best Management Practices: The following activities will be implemented to deliver a general pollution prevention message to Town residents, with a focus on the youth population:

- The Town will continue to participate in the NVRC Clean Water Partners program.
- The Town will install in FY25 and maintain throughout the permit cycle an interpretive sign at the Sugarland Run stream restoration to highlight the importance of protecting local water resources and the Town’s efforts to restore the Chesapeake Bay.
- Herndon Community Television (HCTV) will continue to broadcast the documentaries “Reining in the Storm” and “After the Storm.”
- The Town will distribute US EPA and DEQ stormwater education brochures and/or “Clean Water-Everybody’s Business” bookmarks at Town sponsored events.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will provide in each annual report a summary of activities, including the number of Herndon Community Television broadcasts, the number of educational materials distributed, and confirmation that the interpretive sign is being maintained. The Town will describe any outreach activities that also include education regarding climate change. In addition, the Town will provide a summary of Clean Water Partner activities, including the scope of the campaign and the results of the annual assessment survey. The goal is to document increasing awareness of water quality issues and changes in pollution-causing behavior over time.

Responsible Parties: The Department of Public Works will coordinate this BMP with the assistance of the Public Information Officer, the Department of Parks and Recreation, and the Town Arborist. DPR will maintain the Sugarland Run interpretive sign after it is installed. NVRC will lead the Clean Water Partners program.

MCM #1 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
1.A	Include nutrient message in one of the following annually: electronic newsletter; Mayor's newsletter; or, Water Quality Report.	▶	▶	▶	▶	▶	DPW, PIO
	Include nutrient message in the annual Town Calendar and Events Guide.	▶	▶	▶	▶	▶	DPW, PIO
	Post a nutrient message on social media.	▶	▶	▶	▶	▶	DPW, PIO
1.B	Distribute "Scoop Your Poop" post cards.	▶	▶	▶	▶	▶	DPW
	Distribute pet waste message to Dog License holders at least once during permit cycle.	▶	▶	▶	▶	▶	DPW, Fairfax County Animal Control
	Install additional pet waste stations as needed and update the location map accordingly.	▶	▶	▶	▶	▶	DPW, DPR
	Post a pet waste message on social media.	▶	▶	▶	▶	▶	DPW, PIO
1.C	Send illicit discharge and dumping letters, and bi-lingual poster to commercial owners at least once during permit cycle.	▶	▶	▶	▶	▶	DPW, Health Department

MCM #1 Implementation Schedule							
	Post a message on social media about how to report a suspected illicit discharge.	▶	▶	▶	▶	▶	DPW, PIO
	Include illicit discharge reporting message in one of the following annually: electronic newsletter; Mayor's newsletter; or, Water Quality Report.	▶	▶	▶	▶	▶	DPW, PIO
1.D	Participate in NVRC Clean Water Partners regional program.	▶	▶	▶	▶	▶	DPW, NVRC
	Install and maintain stream restoration interpretive sign.	■	▶	▶	▶	▶	DPW, DPR
	Broadcast "Reining in the Storm" and "After the Storm" on HCTV.	▶	▶	▶	▶	▶	DPW, PIO
	Distribute stormwater education brochures.	▶	▶	▶	▶	▶	DPW, DPR
	Describe outreach activities involving climate change education.	▶	▶	▶	▶	▶	DPW

MCM #2: Public Involvement and Participation

Permit Reference: Part I E 2

a. The permittee shall develop and implement procedures for the following:

- (1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;
- (2) The public to provide comments on the permittee's MS4 program plan;
- (3) Responding to public comments received on the MS4 program plan; and
- (4) Maintaining documentation of public comments received on the MS4 program and associated MS4 program plan and the permittee's response.

b. No later than three months after this permit's effective date, the existing permittee shall update and maintain the webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

- (1) The effective MS4 permit and coverage letter;
- (2) The most current MS4 program plan or location where the MS4 program plan can be obtained;
- (3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;
- (4) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the most current Chesapeake Bay TMDL action plan or location where the Chesapeake Bay TMDL action plan can be obtained;
- (5) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the Chesapeake Bay TMDL implementation annual status report for each year of the term covered by this permit no later than 30 days after submittal to the department;
- (6) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1);
- (7) Methods for how the public can provide comments on the permittee's MS4 program plan in accordance with Part I E 2 a (2) and if applicable, the Chesapeake Bay TMDL action plan in accordance with Part II A 13; and

...

c. Traditional permittees shall implement no less than four activities per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

...

<i>Table 2 Public Involvement Opportunities</i>	
<i>Public involvement opportunities</i>	<i>Examples (provided as examples and are not meant to be all inclusive or limiting)</i>
<i>Monitoring</i>	<i>Establish or support citizen monitoring group</i>
<i>Restoration</i>	<i>Stream, watershed, shoreline, beach, or park clean-up day, adopt-a-water way program, tree plantings, and riparian buffer plantings</i>
<i>Public education activities</i>	<i>Booth at community fair, demonstration of stormwater control projects, climate change's effects on stormwater management, presentation of stormwater materials to schools to meet applicable education Standards of</i>

	<i>Learning or curriculum requirements, or watershed walks</i>
<i>Public meetings</i>	<i>Public meetings on proposed community stormwater management retrofits, green infrastructure development, ecosystem restoration projects, TMDL development, voluntary residential low impact development, climate change's effects on stormwater management, and other stormwater issues</i>
<i>Disposal/collection events</i>	<i>Household hazardous chemicals collection, vehicle fluids collection</i>
<i>Pollution prevention</i>	<i>Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program</i>

e. The permittee may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

f. The permittee may include staff and students in public participation events; however, the activity cannot solely include or be limited to staff participants with stormwater, groundskeeping, and maintenance duties in order for an event to qualify as a public participation event.

g. Staff training required in accordance with Part I E 6 d does not qualify as a public participation event unless the training activity solicits participation from target audiences beyond staff or contractors with stormwater, groundskeeping, and maintenance duties.

h. The MS4 program plan shall include:

(1) The webpage address where mechanisms for the public to report (i) potential illicit discharges, improper disposal, or spills to the MS4, (ii) complaints regarding land disturbing activities, or (iii) other potential stormwater pollution concerns;

(2) The webpage address that contains the methods for how the public can provide input on the permittee's MS4 program; and

(3) A description of the public involvement activities to be implemented by the permittee, the anticipated time period the activities will occur, and a metric for each activity to determine if the activity is beneficial to water quality. An example of metrics may include the weight of trash collected from a stream cleanup or the number of participants in a hazardous waste collection event.

i. The annual report shall include the following information:

(1) A summary of any public comments on the MS4 program received and how the permittee responded;

(2) A summary of stormwater pollution complaints received under the procedures established in Part I E 2 a (1), excluding natural flooding complaints, and how the permittee responded;

(3) A webpage address to the permittee's MS4 program and stormwater website;

...

(5) A description of the public involvement activities implemented by the permittee, including any efforts to reach out and engage all economic and ethnic groups;

(6) A description of public education and outreach activities conducted that also included education regarding climate change;

(7) A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality; and

(8) The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.

Public Involvement and Participation Overview

The Town has a well-established public involvement and participation program. As required for this permit cycle, the Town has developed an SOP for receiving and responding to complaints and public input into the MS4 Program Plan. The Town's dedicated stormwater webpage includes all information required in Part I E 2 of the MS4 permit. In addition to calling or emailing the Department of Public Works, illicit discharges, illegal dumping, spills, complaints about land disturbing activities, can be reported using the "Report a Problem" function on the Town's homepage.

Public Involvement Opportunities: The Town implements at least four activities from Table 2 of the MS4 permit each year to provide an opportunity for public involvement in water quality and local restoration and clean-up projects. The Town has also developed guidelines for promoting additional volunteer events, which are found on the Town's stormwater webpage.

Referenced Documents:

- Public Involvement and Participation SOP (Appendix B).
- Stormwater Webpage:
- <https://www.herndon-va.gov/departments/public-works/stormwater-management>
- Report a Problem Function:
- https://seeclickfix.com/web_portal/BP67ADyLGzTh1L6HU6isTbFi/report/category
- Protocol for Sponsorship of Non-Governmental Volunteer Opportunities (Stormwater Webpage)

BMP 2.A – Stormwater Webpage

Objective: The objective of the stormwater webpage is to ensure that residents and businesses have readily available access to all MS4 program documents and reporting mechanisms.

Best Management Practices:

- Post the effective MS4 permit and coverage letter.
- Post the most current MS4 Program Plan within 30 days of an update.
- Post each annual report within 30 days of submittal to DEQ.
- Post the most current Chesapeake Bay TMDL action plan.
- Post the Chesapeake Bay TMDL implementation annual status report for each year of the permit cycle within 30 days of submittal to DEQ.
- Provide links to reporting functions from BMPs 2.B and 2.C.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a snapshot of the stormwater webpage documenting all required elements.

Responsible Parties: DPW will take the lead on this effort with the assistance of the PIO.

BMP 2.B – Public Reporting of Potential Illicit Discharges

Objective: The objective of this BMP is to promote the ability of the public to report illicit discharges, illegal dumping, spills, complaints about land disturbing activities, and other stormwater pollution concerns.

Best Management Practices:

- Provide information on how to report a potential illicit discharge or illegal dumping (including phone, email, and online forms) on the stormwater webpage.

Standard Operating Procedures and Policies: This BMP is supported by the Public Involvement and Participation SOP. Complaint investigation, response, and tracking is conducted in accordance with BMP 3.E.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a snapshot of the reporting functions on the stormwater webpage.

Responsible Parties: DPW will take the lead on this effort with the assistance of the PIO.

BMP 2.C – Public Comments

Objective: This objective of this BMP is to promote the ability of the public to provide comments on the MS4 program and associated MS4 Program Plan.

Best Management Practices:

- Provide information on how to provide comments on the stormwater webpage.
- Implement the Public Involvement and Participation SOP to document how the Town receives, tracks, responds to, and maintains documentation on comments.

Standard Operating Procedures and Policies: This BMP is supported by the Public Involvement and Participation SOP.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report: (1) a snapshot of the public input and complaint reporting function; and, (2) a summary of any public complaints or input on the MS4 Program Plan and the Town’s response to complaints or input.

Responsible Parties: DPW will take the lead on this effort.

BMP 2.D – Public Involvement Opportunities

Objective: The objective of this BMP is to increase the public’s awareness and participation in the Town’s water quality and pollution prevention efforts.

Best Management Practices:

- Implement no less than four public involvement activities per year from two or more categories in Table 2 of the MS4 permit. Planned activities include the following:

Description	Time Period	Metric	Permit Strategy
NatureFest at Runnymede	Annually in September	Number of Participants and Materials Distributed	Educational Events
Kid's Fishing Derby	Annually in March	Number of Participants and Materials Distributed	Educational Events
Stream and Park Clean-Up	Annually in April	Number of Volunteers; Amount of Trash Collected	Restoration
Storm Drain Marking Program	Ongoing	Number of Volunteers; Number Storm Drains Marked	Pollution Prevention
Big Truck Day	Annually in May	Number of Participants and Materials Distributed	Educational Events
Specific activities may vary by year.			

- Continue to include guidelines on the stormwater webpage for submitting a request for the Town to promote a volunteer activity.

Standard Operating Procedures and Policies: This BMP is also supported by the Town's Protocol for Sponsorship of Non-Governmental Volunteer Opportunities.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of the activities implemented and the metrics from the above table.

Responsible Parties: DPW and the Community Forester will take the lead on these efforts.

BMP 2.E – Town Council Updates

Objective and Expected Results: It is important for elected officials to have a thorough understanding of the MS4 Program Plan and to provide feedback on the effectiveness of the program.

Best Management Practices:

- In FY27 or FY28, the Department of Public Works will provide the Town Council with an update on stormwater management program activities, including the Chesapeake Bay and local TMDLs.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will include in the FY27 or FY28 annual report any meeting materials and a summary of significant feedback, if any.

Responsible Parties: The Department of Public Works is responsible for coordinating this BMP with the assistance of the Town Clerk.

MCM #2 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
2.A	Host the stormwater webpage with the required permit information.	▶	▶	▶	▶	▶	DPW, PIO
2.B	Provide information on how to report a potential illicit discharge on the stormwater webpage.	▶	▶	▶	▶	▶	DPW, PIO
2.C	Provide information on how to register public comments on the stormwater webpage.	▶	▶	▶	▶	▶	DPW, PIO
	Implement the Public Involvement and Participation SOP to document comment tracking and response.	▶	▶	▶	▶	▶	DPW, PIO
2.D	Promote or implement four local watershed activities annually.	▶	▶	▶	▶	▶	DPW, DPR, PIO
	Implement the Protocol for Sponsorship of Non-Governmental Volunteer Opportunities.	▶	▶	▶	▶	▶	DPW, PIO
2.E	Provide MS4 program update to Town Council.				■	■	DPW, Town Clerk

MCM #3: Illicit Discharge Detection and Elimination

Permit Reference: Part I E 3

a. *The permittee shall develop and maintain an accurate MS4 map and information table as follows:*

(1) An updated map of the MS4 owned or operated by the permittee within the MS4 regulated service area no later than 24 months after the permit effective date that includes, at a minimum:

(a) MS4 outfalls discharging to surface waters, except as follows:

....

(b) A unique identifier for each mapped item required in Part I E 3;

(c) The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;

(d) MS4 regulated service area; and

(e) Stormwater management facilities owned or operated by the permittee.

(2) The permittee shall maintain an outfall information table associated with the MS4 map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part I E 3 a (1) (a). The outfall information table may be maintained as a shapefile attribute table. The outfall information table shall contain the following:

(a) A unique identifier as specified on the MS4 map;

(b) The latitude and longitude of the outfall or point of discharge;

(c) The estimated regulated acreage draining to the outfall or point of discharge;

(d) The name of the receiving water;

(e) The 6th Order Hydrologic Unit Code of the receiving water;

(f) An indication as to whether the receiving water is listed as impaired in the Virginia 2022 305(b)/303(d) Water Quality Assessment Integrated Report; and

(g) The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.

(3) No later than 24 months after permit issuance, the permittee shall submit to DEQ a format file geodatabase or two shapefiles that contain at a minimum:

(a) A point feature class or shapefile for outfalls with an attribute table containing outfall data elements required in accordance with Part I E 3 a (2); and

(b) A polygon feature class or shapefile for the MS4 service area as required in accordance with Part I E 3 a (1) (d) with an attribute table containing the following information:

...

(4) All file geodatabase feature classes or shapefiles shall be submitted in the following data format standards:

(a) Point data in NAD83 or WGS84 decimal degrees global positional system coordinates;

(b) Data projected in Virginia Lambert Conformal Conic format;

(c) Outfall location accuracy shall be presented in decimal degrees rounded to at least the fifth decimal place for latitude and longitude to ensure point location accuracy; and

(d) Metadata that shall provide a description of each feature class or shapefile dataset, units of measure as applicable, coordinate system, and projection.

(5) No later than October 1 of each year, the permittee shall update the MS4 map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

(6) The permittee shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The permittee shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized nonstormwater discharges into the MS4. Nonstormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

c. The permittee shall maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized nonstormwater discharges, including illegal dumping, to the MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

(1) A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities.

(2) Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:

(a) A prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections;

(b) If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;

(c) If the total number of MS4 outfalls is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The 50% criteria is not applicable if all outfalls have been screened in the previous three years;

(d) The permittee may adopt a risk-based approach to dry weather screening identifying observation points based upon illicit discharge risks upstream of an outfall. Observation points may include points of interconnection, manholes, points of discharge, conveyances, or inlets suspected to have a high likelihood of receiving illicit discharges;

(e) Each observation point screened may be counted as one outfall screening activity equivalent and counted toward the requirements of Part I E 3 c (2) (b) or (2) (c); however, at least 50% of the minimum annual screening events must include outfall screening;

(f) Illicit discharges reported by the public and subsequent investigations may not be counted as screening events; however, once the resolution of the investigation and the date the investigation was closed as been documented, and observation point may be established for future screening events;

(g) A checklist or mechanism to track the following information for dry weather screening events:

...

(3) A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized nonstormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

(4) Methodologies to determine the source of all illicit discharges. If the permittee is unable to

identify the source of an illicit discharge within six months of beginning the investigation then the permittee shall document that the source remains unidentified. If the observed discharge is intermittent, the permittee shall document that attempts to observe the discharge flowing were unsuccessful.

(5) Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that permittees expect to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);

(6) A mechanism to track all illicit discharge investigations to document the following:

- (a) The dates that the illicit discharge was initially observed, reported, or both;*
- (b) The results of the investigation, including the source, if identified;*
- (c) Any follow-up to the investigation;*
- (d) Resolution of the investigation; and*
- (e) The date that the investigation was closed.*

d. The MS4 program plan shall include:

(1) The MS4 map and information table required by Part I E 3 a. The map and information table may be incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request;

(2) Copies of written notifications of new physical interconnections given by the permittee to other MS4s; and

(3) The IDDE procedures described in Part I E 3 c.

e. The annual report shall include:

(1) A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year;

(2) The total number of outfalls screened during the reporting period as part of the dry weather screening program; and

(3) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:

- (a) The location and source of illicit discharge;*
- (b) The dates that the discharge was observed, reported, or both;*
- (c) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);*
- (d) How the investigation was resolved;*
- (e) A description of any follow-up activities; and*
- (f) The date the investigation was closed.*

Illicit Discharge Detection and Elimination Program Overview

The Town has developed a comprehensive program designed to maintain an accurate understanding of its storm sewer system and to identify and eliminate illicit discharges and illegal dumping.

Storm Sewer System Map: The Town engaged in a comprehensive update of its storm sewer system map and associated outfall table as part of the development of the draft Phase III Chesapeake Bay TMDL Action Plan. All information is maintained on a continuous basis. The

map and outfall table will be updated and submitted to DEQ as required in Part I E 3 a of the MS4 permit.

Description of Legal Authorities: In April 2014 the Town Council adopted a comprehensive update to Chapter 26 of the Herndon Town Code to incorporate new stormwater management requirements. As part of this update, a new Section 26-323 was included to strengthen the Town's prohibition against non-stormwater discharges and to provide appropriate enforcement and right-of-entry tools.

Illicit Discharge Detection and Elimination Plan: The Town has developed an Illicit Discharge Detection and Elimination Plan (IDDE plan) in accordance with the requirements of the permit.

Referenced Documents:

- Municipal Separate Storm Sewer System Map and Outfall Table (Appendix C).
- Herndon Town Code Section 26-323 "Prohibition; illicit discharges."
https://library.municode.com/va/herndon/codes/code_of_ordinances?nodeId=PTIICO_OR_CH26EN_ARTVIIIITMA_S26-323PRILDI
- Illicit Discharge Detection and Elimination Plan (Appendix D).

BMP 3.A – Storm Sewer System Map

Objective: An accurate storm sewer map ensures that the Town has a full understanding of the system so that the Town can quickly track and correct illicit discharges. The MS4 permit requires specific information to be included in the map product.

Best Management Practices:

- By October 1 of each year, update the storm sewer system map and outfall table to include any new outfalls and/or reflect any newly approved TMDLs.
- By November 1, 2025, update the MS4 map and submit to DEQ a geodatabase or shapefiles containing the information required in Part I E 3 a (3) of the MS4 permit.
- Each year, provide written notification to downstream MS4s of any new interconnection or newly discovered interconnection.

Standard Operating Procedures and Policies: All policies are reflected in the Storm Sewer System Map and Outfall Table.

Measurable Goals and Evaluation Criteria: The Town will provide DEQ with the geodatabase or shapefiles by November 1, 2025. The Town will include in each annual report: (1) documentation of updates to the storm sewer system map and outfall table; and, (2) copies of notifications to downstream MS4s, if any.

Responsible Party: The Department of Public Works is responsible for this BMP.

BMP 3.B – Prohibition on Illicit Discharges

Objective: The objective of this BMP is to ensure that the legal tools are in place to effectively prohibit illicit discharges to the storm sewer system and to conduct necessary enforcement in the case of an illicit discharge.

Best Management Practices:

- Continuously enforce the provisions of Herndon Town Code Section 26-323.

Standard Operating Procedures and Policies: This BMP is implemented through Herndon Town Code Section 26-323.

Measurable Goals and Evaluation Criteria: The Town will annually assess whether any changes are necessary to the Town Code. The Town will document any changes in the appropriate annual report.

Responsible Parties: The Town Attorney is responsible for this BMP with enforcement support provided by the Department of Public Works and the Police Department.

BMP 3.C – Written Procedures for Illicit Discharges and Illegal Dumping

Objective: The objective of this BMP is to ensure that written procedures are in place to detect, identify, and address unauthorized nonstormwater discharges and illegal dumping to the storm sewer system. These procedures provide an added level of consistency to effectively prohibit illicit discharges and illegal dumping to the storm sewer system, and to conduct enforcement actions as necessary.

Best Management Practices:

- Implement the IDDE Plan.
- Incorporate the IDDE Plan into field personnel training on recognizing and reporting illicit discharges in BMP 6.D.

Standard Operating Procedures and Policies: This BMP is implemented through the IDDE Plan.

Measurable Goals and Evaluation Criteria: The Town will document any changes to the written procedures during the reporting period in the associated annual reports.

Responsible Parties: The Department of Public Works is responsible for this BMP, with input from the Town Attorney.

BMP 3.D – Dry Weather Outfall Screening

Objective: The objective of this BMP is to identify and eliminate illicit discharges as soon as possible to minimize impacts to water quality. The Town's IDDE Plan includes a dry weather outfall inspection procedure, prioritization schedule, written inspection and investigation protocols, and remedies for discovered discharges.

Implementation Schedule:

- Perform dry weather outfall screening for at least 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The Town will consider implementation of a risk-based approach to outfall screening in accordance with Part I E 3 c (d) of the permit.

Standard Operating Procedures and Policies: This BMP is implemented through the IDDE Plan.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of all dry weather outfall monitoring activities including the total number of outfalls screened, whether a risk-based approach was utilized, the screening results, and detail of any follow up actions. Tracking will be reported as part of BMP 3.E.

Responsible Party: The Department of Public Works will coordinate this BMP.

BMP 3.E – Illicit Discharge Tracking

Objective: The MS4 permit requires that the Town track and process complaints about potential illicit discharges and to coordinate an appropriate response. Potential illicit discharges are identified through public reporting in BMP 2.B, the dry weather outfall screening program in BMP 3.D, and staff reporting in MCM #6.

Best Management Practices:

- Maintain a tracking database to record potential and actual illicit discharges.

Standard Operating Procedures and Policies: This BMP is implemented through the Illicit Discharge Detection and Elimination Program Manual.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of all potential and actual illicit discharges in the tracking database. For each case, the Town will provide: (1) the location and source of the illicit discharge; (2) the date the discharge was observed or reported; (3) the means of discovering the discharge; (4) how the investigation was resolved; (5) follow up activities; (6) closure date.

Responsible Parties: The Department of Public Works will coordinate this BMP.

BMP 3.F – Promote Household Hazardous Waste (HHW) Disposal Options

Objective: Household hazardous waste, including used oil, oil filters, and antifreeze, can be a potential source of illicit discharges to the storm sewer system. The objective of this BMP is to provide residents with an opportunity to properly dispose of hazardous household waste materials.

Best Management Practices: HHW is collected through Fairfax County. To promote this service, the Town will conduct the following activities:

- Promote Fairfax County’s HHW events on its website.
- At least once annually, publicize the availability of HHW disposal options through a message on the Town Calendar or another Town general distribution publication.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report documentation of the Town’s efforts to publicize the Fairfax County HHW disposal program.

Responsible Party: The Department of Public Works will coordinate this BMP.

MCM #3 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
3.A	Maintain map and outfall table annually, no later than October 1.	▶	▶	▶	▶	▶	DPW, GIS
	Update MS4 map and submit geodatabase or shapefiles to			▪			DPW, GIS

	DEQ.						
	Identify any new physical interconnections and notify the connected MS4.	▶	▶	▶	▶	▶	DPW
3.B	Continue to implement prohibition on illicit discharges, annually assessing the need for changes to the Town Code.	▶	▶	▶	▶	▶	DPW, Town Attorney, Police Department
3.C	Implement IDDE Plan and incorporate into training.	▶	▶	▶	▶	▶	DPW
3.D	Perform annual dry weather screening of 50 outfalls.	▶	▶	▶	▶	▶	DPW
3.F	Maintain illicit discharge tracking database.	▶	▶	▶	▶	▶	DPW
3.E	Document efforts to promote Fairfax County HHW program.	▶	▶	▶	▶	▶	DPW, PIO

MCM #4: Construction Site Stormwater Runoff Control

Permit Reference: Part I E 4

a. The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff. The permittee shall control construction site stormwater runoff as follows:

(1) If the traditional permittee is a city, county, or town that has adopted a Virginia Erosion and Sediment Control Program (VESCP), the permittee shall implement the VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840);

....

b. The permittee shall require implementation of appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections. The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by this state permit.

c. Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators shall obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;

d. The permittee's MS4 program plan shall include:

(1) If the permittee implements an erosion and sediment control program for construction site stormwater runoff in accordance with Part I E 4 a (1), the local ordinance citations for the VESCP program;

....

(4) A description of the legal authorities utilized to ensure compliance with Part I E 4 a for erosion and sediment control and construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;

(5) For traditional permittees, written inspection procedures to ensure VESCP requirements are maintained in accordance with 9VAC25-840-90 A and onsite erosion and sediment controls are properly implemented in accordance with 9VAC25-840-60 B;

....

(9) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing erosion and sediment control and construction site stormwater runoff control requirements in Part I E 4.

e. The annual report shall include the following:

(1) Total number of erosion and sediment control inspections conducted;

(2) Total number of each type of compliance action and enforcement action implemented; and

....

Construction Site Stormwater Runoff Control Overview

The Town seeks to ensure that construction activities minimize impacts to water quality and meet all applicable local, state, and federal requirements. The MS4 Program Plan must include the following in accordance with Part I E 4 of the MS4 permit.

Description of Legal Authorities: The Town’s construction site stormwater runoff control program includes Town Code Chapter 26, Article III “Erosion and Sediment Control” and Article VIII “Stormwater Management.” Article III implements the requirements of the Virginia Erosion and Sediment Control Law and attendant regulations while Article VIII implements the requirements of the Virginia Stormwater Management Act and attendant regulations. The Town was approved as a VSMP authority by DEQ on May 7, 2014.

In accordance with § 62.1-44.15:24 through § 62.1-44.15:50 of the Code of Virginia, the Town must consolidate erosion and sediment control and stormwater management requirements under the Virginia Erosion and Stormwater Management Act (VESMA) no later than July 1, 2024. The Town Council will update the Town Code accordingly.

Written Plan Review Procedures: The Department of Public Works is the Plan Approving Authority, and the Public Works Director maintains certification as a program administrator. The Town reviews erosion and sediment control plans and stormwater management plans for proposed land-disturbing activities for development projects that disturb 2,500 square feet or greater. Proposed land disturbing activities must receive plan approval or secure the appropriate agreement in lieu prior to the commencement of land-disturbing activities.

The following written plan review procedures and associated documents are contained in Appendix E:

- The Town utilizes the “Submittal and Review of Stormwater Management and Erosion and Sediment Control Plans” SOP to ensure plans meet the requirements adopted in the Town Code.
- The Town utilizes the “Site Plan Checklist” or “Subdivision Site Plan Checklist,” as appropriate, for overall plan review. Both checklists contain specific requirements related to construction site stormwater runoff control compliance.

Written Inspection and Enforcement Procedures: The Town’s inspectors maintain the required qualified personnel designation for erosion and sediment control. The inspector will complete the appropriate inspection report and note any applicable corrective actions, and changes to the SWPPP if necessary, along with a timetable for completing the corrective action. If there is a failure to comply with such measures within the time specified, the plan or revision may be revoked and the responsible party shall be deemed to be in violation and upon conviction shall be subject to the penalties provided in Town Code Section 26-334.

The following written inspection and enforcement documents are contained in Appendix E.

- Town inspection staff follows the written procedures contained in the Town’s “Stormwater Management Construction Inspection and Enforcement” SOP.
- The Town’s “Construction Inspection Report and Notice to Comply” checklist is utilized when conducting the required SWPPP inspections.

Certifications: All Town employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators are required to obtain the appropriate certifications required under the VESCP. The Town will include copies of applicable certifications with each annual report.

Roles and Responsibilities: Review of development plans for projects within the Town is handled by the DPW Engineering Division. Official approval of the plans is provided by the Director and/or Deputy Director of DPW. Other plans required under the VSMP are reviewed by the DPW Engineering Division as part of their construction oversight inspection process.

DPW Engineering monitors active construction projects for compliance with applicable requirements through periodic site inspections. The site inspections will ensure compliance with the approved, project-specific plans for which the Town has oversight. These include the erosion and sediment control plan, stormwater management plan, pollution prevention plan, and SWPPP. Enforcement will be handled by the Director and/or Deputy Director of DPW in coordination with the Town Attorney.

Reference Documents:

- Herndon Town Code Chapter 26, Article III “Erosion and Sediment Control.”
https://library.municode.com/va/herndon/codes/code_of_ordinances?nodeId=PTIICOOR_CH26EN_ARTIIIERSECO
- Submittal and Review of Stormwater Management and Erosion and Sediment Control Plans (Appendix E).
- Site Plan Checklist and Subdivision Site Plan Checklist (Appendix E).
- Stormwater Management Construction Inspection and Enforcement (Appendix E).
- Construction Inspection Report and Notice to Comply (Appendix E).

BMP 4.A – Maintain Local Program Consistency

Objective: The objective of this BMP is to ensure that the Town has in place all legal authority and processes and procedures necessary to address discharges from regulated construction site stormwater runoff.

Best Management Practices:

- Continue to implement a program consistent with the Virginia Erosion and Sediment Control Program, the Virginia Stormwater Management Program, and the Virginia Erosion and Stormwater Management Act.
- Train appropriate staff as required to implement the VESCP, VSMP, and the VESMA.

Standard Operating Procedures and Policies: This BMP is implemented through Town Code Chapter 26 and the following documents: Review and Submittal of Stormwater Management and Erosion and Sediment Control Plans; Site Plan Checklist; Subdivision Site Plan Checklist; Stormwater Management Construction Inspection and Enforcement Checklist; and, Construction Inspection Report and Notice to Comply.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of any changes in program consistency, if applicable, and copies of employee certifications. By July 1, 2024, update the Town Code in accordance with VESMA.

Responsible Party: The Department of Public Works is the Plan Approving Authority, and the Public Works Director maintains certification as a program administrator.

BMP 4.B – Land Disturbing Activities Tracking System

Objective: Tracking land-disturbing activities assists in the inspection of these activities, which is key in the process of ensuring that erosion and sediment control measures are properly installed and maintained. Land disturbing activities are tracked by the Department of Public Works through the plan review process.

Best Management Practices:

- Track and submit to DEQ all land disturbing activities in accordance with MS4 permit requirements.

Standard Operating Procedures and Policies: Excel spreadsheet or other means to track erosion and sediment control and land disturbing activities.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report: (1) the total number of inspections conducted; and, (2) the number and type of compliance actions and enforcement actions taken during the reporting period.

Responsible Party: The Department of Public Works will coordinate this BMP.

MCM #4 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
4.A	Continue implementing consistent construction site stormwater runoff control program.	▶	▶	▶	▶	▶	DPW
	Update the Town Code in accordance with VESMA.	▪					
	Ensure training and certification of appropriate staff.	▶	▶	▶	▶	▶	DPW, DCD
4.B	Track and report annually on land-disturbing activities.	▶	▶	▶	▶	▶	DPW

MCM #5: Post-Construction Stormwater Management

Permit Reference: Part I E 5

a. The permittee shall address post-construction stormwater runoff that enters the MS4 from the following land disturbing activities by implementing a post-construction stormwater runoff management program as follows:

(1) If the traditional permittee is a city, county, or town, with an approved Virginia Stormwater Management Program (VSMP), the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as maintain an inspection and maintenance program in accordance with Part I E 5 b and c;

...

b. The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee as follows:

(1) Within six months of the permit effective date, the permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities. The permittee may use inspection and maintenance specifications available from the Virginia Stormwater BMP Clearinghouse or inspection and maintenance plans developed in accordance with the department's Stormwater Local Assistance Fund (SLAF) guidelines;

(2) Employees and contractors implementing the stormwater program shall obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations;

(3) The permittee shall inspect stormwater management facilities owned or operated by the permittee no less frequently than once per year. The permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan. The alternative inspection frequency shall be no less often than once per five years; and

(4) If during the inspection of the stormwater management facility conducted in accordance with Part I E 5 b (2), it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part I E 5 b (1).

c. For traditional permittees described in Part I E 5 a (1), (2), or (3) the permittee shall:

(1) Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee (i.e., privately owned) that includes:

(a) An inspection frequency of no less often than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and

(b) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism;

(2) Utilize its legal authority for enforcement of the maintenance responsibilities in accordance with 9VAC25-870-112 if maintenance is neglected by the owner;

(3) The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan; and

(4) The permittee may utilize the inspection reports provided by the owner of a stormwater management facility as part of an inspection and enforcement program in accordance with

9VAC25-870-114 C.

d. The MS4 program plan shall include:

(1) If the permittee implements a VSMP in accordance with Part I E 5 a (1), (2), or (3):

(a) A copy of the VSMP approval letter issued by the department;

(b) Written inspection procedures and all associated documents utilized in the inspection of privately owned stormwater management facilities; and

(c) Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned stormwater management facilities.

....

(3) A description of the legal authorities utilized to ensure compliance with Part I E 5 a for post-construction stormwater runoff control such as ordinances (provide citation as appropriate), permits, orders, specific contract language, and interjurisdictional agreements;

(4) Written inspection and maintenance procedures and other associated template documents utilized during inspection and maintenance of stormwater management facilities owned or operated by the permittee; and

(5) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the post-construction stormwater runoff control program.

e. The annual report shall include the following information:

(1) If the traditional permittee implements a VSMP in accordance with Part I E 5 a (1), (2), or (3):

(a) The number of privately owned stormwater management facility inspections conducted; and

(b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;

(2) Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

(3) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;

(4) For traditional permittees as specified in Part I E 5 a (1), a confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part III B 1 f or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities;

(5) A confirmation statement that the permittee electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part III B 1 and 2; and

(6) A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part III B 5.

Post Construction Stormwater Management Overview

The Town seeks to ensure that post-construction controls minimize the long-term impacts to water quality caused by development and redevelopment and that the Town meets all applicable local, state, and federal requirements. The MS4 Program Plan must include the following in accordance with Part I E 5 of the MS4 permit.

Description of Legal Authorities: The Town’s post-construction stormwater management requirements are included in Town Code Chapter 26, Article VIII “Stormwater Management.” Article VIII implements the requirements of the Virginia Stormwater Management Act and attendant regulations. The Town was approved as a VSMP authority by DEQ on May 7, 2014.

In accordance with § 62.1-44.15:24 through § 62.1-44.15:50 of the Code of Virginia, the Town Council must consolidate erosion and sediment control and stormwater management requirements under the Virginia Erosion and Stormwater Management Act (VESMA) no later than July 1, 2024.

Written Stormwater Facility Design and Installation Procedures: Stormwater management facilities must be designed and installed properly to ensure that pollutant reduction requirements are met and that the facility provides long-term water quality benefits. The Town reviews project development plans to ensure the project is meeting the appropriate water quality and water quantity design criteria contained in the VSMP regulations, DEQ-approved annual standards and specifications, the Virginia BMP Clearinghouse and Virginia Stormwater Management Handbook, and the Fairfax Public Facilities Manual, as applicable. As built stormwater management plans must contain the signature and stamp of the licensed professional consultant and owner certification.

The following written stormwater facility design and installation procedures are available upon request:

- The Town utilizes the “Site Plan and Subdivision Site Plan” checklists from the Fairfax County Public Facilities Manual, and any supplemental review materials in the Virginia Stormwater Management BMP Handbook to review stormwater management plans.
- The Town utilizes the Virginia Stormwater BMP Clearinghouse or the Fairfax County Public Facilities Manual (PFM), whichever is more stringent, unless waived by the Director of Public Works in accordance with Town Code Section 26-329(a)(1), to review stormwater management facility design.

Written Inspection, Compliance, and Enforcement Procedures: Maintenance of both public and private BMPs is essential to ensuring that these investments continue to provide their intended water quality benefits. The Town inspects all private stormwater management facilities at least once every five years and all public stormwater management facilities at least annually unless an alternative inspection schedule has been adopted for the facility.

The following written inspection, compliance, and enforcement procedures are contained in Appendix F.

- The Town requires the execution of a “Stormwater Facility Maintenance Agreement” for all new private BMP facilities that must contain all components required in Section 26-330 of the Town Code. The executed agreement is recorded into the land records of Fairfax County for the associated property. The owner is responsible for facility maintenance.
- The “Stormwater Facility Maintenance and Inspection – Private” SOP governs private BMP inspections.

- The “Stormwater Facility Maintenance and Inspection – Public” SOP governs public BMP inspections. Inspections are conducted by staff on an annual basis.

Certifications: All Town employees and contractors implementing the stormwater program are required to obtain the appropriate certifications required under the VSMP. The Town will include copies of applicable certifications with each annual report.

Roles and Responsibilities: DPW is responsible for ensuring compliance with all post-construction stormwater management facility design, inspection, and maintenance requirements. The Town Attorney assists with enforcement protocols as necessary. The Department of Community Development and the Town Clerk are responsible for coordinating the entry of maintenance agreements into the land records.

Referenced Documents:

- Herndon Town Code Chapter 26, Article XIII “Stormwater Management.”
https://library.municode.com/va/herndon/codes/code_of_ordinances?nodeId=PTIICOOR_CH26EN_ARTVIIIITMA
- VSMP Approval Letter (Appendix F).
- Fairfax County Public Facilities Manual Site Plan and Subdivision Site Plan Checklists
<https://online.encodeplus.com/regs/fairfaxcounty-va-pfm/index.aspx>
- Virginia Stormwater BMP Clearinghouse
<https://www.swbmp.vwrrc.vt.edu/>
- Stormwater Facility Maintenance Agreement (Appendix F).
- Stormwater Facility Maintenance and Inspection – Private (Appendix F).
- Stormwater Facility Maintenance and Inspection – Public (Appendix F).

BMP 5.A – Maintain Local Program Consistency

Objective: The objective of this BMP is to ensure that the Town maintains consistency with all legal requirements and procedures to effectively address post-construction stormwater quality and quantity in accordance with the Virginia Stormwater Management Act, the Virginia Erosion and Stormwater Management Act, and their attendant regulations.

Best Management Practices:

- Continue to implement a program consistent with the VSMP and VESMA.
- Train appropriate staff as required to implement the VSMP and VESMA.

Standard Operating Procedures and Policies: This BMP is implemented through Town Code Chapter 26 and the following documents: Fairfax County Public Facilities Manual Site Plan and Subdivision Site Plan Checklists; Virginia Stormwater BMP Clearinghouse; Stormwater Facility Maintenance Agreement; Stormwater Facility Maintenance and Inspection; and, Public Stormwater Facility Maintenance and Inspection.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of any changes in program consistency, if applicable, and copies of employee certifications. By July 1, 2024 the Town will update the Town Code in accordance with the VESMA.

Responsible Party: The Department of Public Works and the Town Attorney are responsible for this BMP.

BMP 5.B – Long Term Operation and Maintenance of BMP Facilities

Objective: The objective of this BMP is to ensure that public and private stormwater management facilities continue to provide their intended water quality benefits.

Best Management Practices:

- Continue to require the execution of a “Stormwater Facility Maintenance Agreement” for all new private BMP facilities.
- Inspect all privately owned stormwater management facilities at least once every five years.
- Inspect all publicly owned facilities at least annually or in accordance with an alternative schedule adopted by the Town.
- Report facility inspections to the DEQ BMP Warehouse.

Standard Operating Procedures and Policies: This BMP is implemented through the following documents: Stormwater Facility Maintenance Agreement; Stormwater Facility Maintenance and Inspection; and, Public Stormwater Facility Maintenance and Inspection.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report: (1) the number of private facilities inspected each year; (2) the number and type of enforcement actions taken against private facilities, if applicable; (3) the number of public facilities inspected each year; (4) a description of significant maintenance, repair, or retrofit activities performed on public facilities; and, (5) confirmation that inspections of facilities were electronically reported to the DEQ BMP Warehouse.

Responsible Parties: The Department of Public Works coordinates this BMP. The Department of Community Development and the Town Clerk are responsible for ensuring that maintenance agreements are filed with the appropriate land records.

BMP 5.C – Stormwater Facility BMP Tracking and Reporting

Objective: The Town maintains a stormwater management facility tracking system to ensure that all public and private facilities are being properly maintained in accordance with permit requirements. The Town must also ensure that all stormwater management facilities are reported to DEQ through the appropriate mechanism.

Best Management Practices:

- Maintain the Town’s stormwater management facility tracking database.
- Use the DEQ Construction Stormwater Database to report any new facility installed to meet the requirements of a General VPDES Permit for Discharges of Stormwater from Construction Activities.
- By October 1 of each year, use the DEQ BMP Warehouse to report any new facility not reported using the DEQ Construction Stormwater Database, including facilities to meet the Chesapeake Bay TMDL and facilities where a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will confirm ongoing maintenance of the database and submit a list of all new facilities brought online during the reporting period with the appropriate annual report. The Town will confirm that new facilities were reported either through the DEQ Construction Stormwater Database or the DEQ BMP Warehouse.

Responsible Party: The Department of Public Works will coordinate this BMP.

MCM #5 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
5.A	Continue implementing consistent post-construction stormwater management program.	▶	▶	▶	▶	▶	DPW
	Update the Town Code in accordance with VESMA.	■					
	Ensure training and certification of appropriate staff.	▶	▶	▶	▶	▶	DPW, DCD
5.B	Require all private stormwater management facilities to execute a maintenance agreement.	▶	▶	▶	▶	▶	DPW, DCD, Town Clerk
	Inspect private stormwater management facilities at least once every five years.	▶	▶	▶	▶	▶	
	Inspect public stormwater management facilities annually or in accordance with an adopted alternative schedule.	▶	▶	▶	▶	▶	DPW
	Report facility inspections to the DEQ BMP Warehouse	▶	▶	▶	▶	▶	DPW
5.C	Maintain stormwater management facility database.	▶	▶	▶	▶	▶	DPW
	Use the DEQ Construction Stormwater Database to report new facilities requiring a construction general permit.	▶	▶	▶	▶	▶	
	Use the DEQ BMP Warehouse to report all other new facilities no later than October 1.	▶	▶	▶	▶	▶	DPW

MCM #6: Pollution Prevention / Good Housekeeping for Municipal Operations

Permit Reference: Part I E 6

a. The permittee shall maintain and implement written good housekeeping procedures for those activities listed in Part I E 6 b at facilities owned or operated by the permittee, designed to meeting the following objectives:

- (1) Prevent illicit discharges;*
- (2) Ensure the permittee staff or contractors properly dispose of waste materials, including landscape wastes, and prevent waste materials from entering the MS4;*
- (3) Prevent the discharge of wastewater wash water not authorized in accordance with 9VAC25-890-20 D 3 u, into the MS4 without authorization under a separate VPDES permit; and*
- (4) Minimize the pollutants in stormwater runoff;*

b. The permittee shall develop and implement written good housekeeping procedures that meet the objectives established in Part I E 6 a for the following activities:

- (1) Road, street, sidewalk, and parking lot maintenance and cleaning;*
 - (a) Within 24 months of permit issuance, permittees that apply anti-icing and deicing agents shall update and implement procedures in accordance with Part I E to include implementation of best practices for anti-icing and deicing agent application, transport, and storage;*
 - (b) Procedures developed in accordance with Part I E shall prohibit the application of any anti-icing or deicing agent containing urea or other forms of nitrogen or phosphorus;*
- (2) Renovation and significant exterior maintenance activities (e.g. painting, roof resealing, and HVAC coil cleaning) not covered under a separate VSMP construction general permit. The permittee shall develop and implement procedures no later than 36 months after permit issuance;*
- (3) Discharging water pumped from construction and maintenance activities not covered by another permit covering such activities;*
- (4) Temporary storage of landscaping materials;*
- (5) Maintenance of permittee owned or operated vehicles and equipment (i.e., prevent pollutant discharges from leaking permittee vehicles and equipment);*
- (6) Application of fertilizer shall not exceed maximum application rates established by applicable nutrient management plans. For areas not covered under nutrient management plans where fertilizer is applied, application rates shall not exceed manufacturer's recommendations*

c. The permittee shall require through the use of contract language, training, written procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities described in Part I E 6 b follow established good housekeeping procedures and use appropriate control measures to minimize the discharge of pollutants to the MS4.

d. The written procedures established in accordance with Part I E 6 a and b shall be utilized as part of the employee training program, and the permittee shall develop a written training plan for applicable field personnel that ensures the following:

- (1) Applicable field personnel shall receive training in the prevention, recognition, and elimination of illicit discharges no less often than once per 24 months*
- (2) Employees performing road, street, sidewalk, and parking lot maintenance shall receive training in good housekeeping procedures required under Part I E 6 b (1) no less often than once per 24 months;*
- (3) Employees working in and around facility maintenance, public works, or recreational facilities shall receive training in applicable Part I E 6 a and b good housekeeping procedures required no*

less often than once per 24 months;

(4) Employees working in and around high-priority facilities with a stormwater pollution prevention plan (SWPPP) shall receive training in applicable site specific SWPPP procedures no less often than once per 24 months;

(5) Employees whose duties include emergency spill control and response shall be trained in spill control and response. Emergency responders, such as firefighters and law-enforcement officers, trained on the handling of spill control and response as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan; and

(6) Employees and contractors hired by the permittee who apply pesticides and herbicides shall be trained and certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement. Contracts for the application of pesticide and herbicides executed after the effective date of this permit shall require contractor certification.

e. The permittee shall maintain documentation of each training activity conducted by the permittee to fulfill the requirements of Part I E 6 d for a minimum of three years after training activity completion. The documentation shall include the following information:

(1) The date when applicable employees have completed the training activity;

(2) The number of employees who have completed the training activity; and

(3) The training objectives and good housekeeping procedures required under Part I E 6 a covered by training activity. f. The permittee may fulfill the training requirements in Part I E 6 d, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

f. The permittee may fulfill the training requirements in Part I E 6 d, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

....

i. The permittee shall maintain and implement a site specific SWPPP for each high-priority facility identified as defined in 9VAC25-890-1 that does not have or require separate VPDES permit coverage, and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

(1) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;

(2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;

(3) Material handling equipment;

(4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);

(5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);

(6) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

(7) Waste material except waste in covered, nonleaking containers (e.g., dumpsters);

(8) Application or disposal of process wastewater (unless otherwise permitted); or

(9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

j. Each SWPPP as required in Part I E 6 g shall include the following:

- (1) A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;*
- (2) A description and checklist of the potential pollutants and pollutant sources;*
- (3) A description of all potential nonstormwater discharges;*
- (4) A description of all structural control measures, such as stormwater management facilities and other pollutant source controls, applicable to SWPPP implementation (e.g., permeable pavement or oil-water separators that discharge to sanitary sewer are not applicable to the SWPPP), such as oil-water separators, and inlet protection designed to address potential pollutants and pollutant sources at risk of being discharged to the MS4;*
- (5) A maintenance schedule for all stormwater management facilities and other pollutant source controls applicable to SWPPP implementation described in Part I E 6 h (4);*
- (6) Site specific written procedures designed to reduce and prevent pollutant discharge that incorporate by reference applicable good housekeeping procedures required under Part I E 6 a and b;*
- (7) A description of the applicable training as required in Part I E 6 d (4);*
- (8) An inspection frequency of no less often than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP;*
- (9) A log of each unauthorized discharge, release, or spill incident reported in accordance with Part IV G including the following information:
 - (a) Date of incident;*
 - (b) Material discharged, released, or spilled; and*
 - (c) Estimated quantity discharged, released or spilled.**
- (10) A log of modifications to the SWPPP made as the result of any unauthorized discharge, release, or spill in accordance with Part I E 6 j or changes in facility activities and operation requiring SWPPP modification; and*
- (11) The point of contact for SWPPP implementation.*

k. No later than June 30 of each year, the permittee shall annually review any high-priority facility owned or operated by the permittee for which a SWPPP has not been developed to determine if the facility meets any of the conditions described in Part I E 6 g. If the facility is determined to need a SWPPP, the permittee shall develop a SWPPP meeting the requirements of Part I E 6 h no later than December 31 of that same year. The permittee shall maintain a list of all high-priority facilities owned or operated by the permittee not required to maintain a SWPPP in accordance with Part I E 6 g and this list shall be available upon request.

l. The permittee shall review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill reported in accordance with Part IV G to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP shall be updated no later than 90 days after the unauthorized discharge.

m. The SWPPP shall be kept at the high-priority facility and utilized as part of employee SWPPP training required in Part I E 6 d (4). The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

n. If activities change at a facility such that the facility no longer meets the definition of a high-priority facility, the permittee may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.

o. If activities change at the facility such that the facility no longer meets the criteria requiring SWPPP

coverage as described in Part I E 6 g, the permittee may remove the facility from the list of high-priority facilities that require SWPPP coverage.

p. The permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations.

q. Within 12 months of permit coverage, the permittee shall identify contiguous areas greater than one acre located in expanded 2020 census urban areas with population of at least 50,000 and within the permittee's MS4 service area requiring turf and landscape nutrient management plans.

r. Within 36 months of permit coverage, the permittee shall implement turf and landscape nutrient management plans on contiguous areas greater than one acre located in expanded 2020 census urban areas with a population of least 50,000 and within the permittee's MS4 service area.

s. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations. For newly established turf where nutrients are applied to a contiguous area greater than one acre, the permittee shall implement a nutrient management plan no later than six months after the site achieves final stabilization.

t. Nutrient management plans developed in accordance with Part I E 6 n shall be submitted to the Department of Conservation and Recreation (DCR) for approval.

u. Nutrient management plans that are expired as of the effective date of this permit shall be submitted to DCR for renewal within six months after the effective date of this permit. Thereafter, all nutrient management plans shall be submitted to DCR at least 30 days prior to nutrient management plan expiration. Within 36 months of permit coverage, no nutrient management plans maintained by the permittee in accordance with Part I E 6 n shall be expired due to DCR documented noncompliance with 4VAC50-85-130 provided to the permittee.

v. Nutrient management plans may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

....

x. The MS4 program plan shall include:

(1) A list of written good housekeeping procedures for the operations and maintenance activities as required by Part I E 6 a and b;

(2) A list of all high-priority facilities owned or operated by the permittee required to maintain a SWPPP in accordance with Part I E 6 g that includes the facility name, facility location, and location of the SWPPP hardcopy or electronic document being maintained. The SWPPP for each high-priority facility shall be incorporated by reference;

(3) A list of locations for which turf and landscape nutrient management plans are required in accordance with Part I E 6 n and s, including the following information:

(a) The total acreage covered by each nutrient management plan;

(b) The DCR approval date and expiration date for each nutrient management plan; and

(c) The location of the nutrient management plan hardcopy or electronic document being maintained;

(4) A summary of mechanisms the permittee uses to ensure contractors working on behalf of the permittees implement the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate; and

(5) The written training plan as required in Part I E 6 d.

y. *The annual report shall include the following:*

- (1) A summary of any written procedures developed or modified in accordance with Part I E 6 a and b during the reporting period;*
- (2) A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period;*
- (3) A list of any new SWPPPs developed in accordance with Part I E 6 l during the reporting period;*
- (4) A summary of any SWPPPs modified in accordance with Part I E 6 j, 6 1, or 6 m;*
- (5) The rationale of any high-priority facilities delisted in accordance with Part I E 6 1 or m during the reporting period;*
- (6) The status of each nutrient management plan as of June 30 of the reporting year (e.g., approved, submitted and pending approval, and expired);*
- (7) A list of the training activities conducted in accordance with Part I E 6 d, including the following information:*
 - (a) The completion date for the training activity;*
 - (b) The number of employees who completed the training activity; and*
 - (c) The objectives and good housekeeping procedures covered by the training activity.*

Pollution Prevention and Good Housekeeping Overview

Operation and Maintenance Pollution Prevention SOPs: The Town has developed operation and maintenance pollution prevention SOPs in accordance with the requirements of Part I E 6 a and b of the MS4 permit. The SOPs include the following:

- Vehicle and Equipment Maintenance and Cleaning
- Pesticides, Herbicides, and Fertilizers
- Outdoor Material Storage
- Road, Street, Parking Lot, and Sidewalk Maintenance
- Snow and Deicing Operations
- Utility Construction and Maintenance

The Outdoor Material Storage SOP will be updated to address temporary storage of landscaping materials. The Utility Construction and Maintenance SOP will be updated to address water discharges from all construction and maintenance activities. A new SOP will be developed to cover renovation and significant exterior maintenance activities not covered by another permit.

Stormwater Pollution Prevention Plans: The permit requires the identification of locations designated as high-priority facilities due to the high potential for pollutant discharges, and the development and implementation of SWPPPs for these facilities. High-priority facilities may include composting, equipment storage and maintenance, recycling, solid waste handling and transfer, salt and materials storage, pesticide storage, public works yards, and vehicle storage and maintenance yards. The Town has identified two high-priority facilities, including the Public Works Complex and the Centennial Golf Course. The Public Works Complex SWPPP was initially developed in FY16 and updated in FY21. The Centennial Golf Course SWPPP was initially developed in FY17 and updated in FY22. There are no high-priority facilities owned or operated by the Town for which a SWPPP has not been established.

Facility Name	Facility Location	SWPPP Location
Public Works Complex	1479 Sterling Road Herndon, VA 20170	1479 Sterling Road Herndon, VA 20170
Centennial Golf Course	909 Ferndale Avenue Herndon, VA 20170	909 Ferndale Avenue Herndon, VA 20170

Nutrient Management Plans: The permit requires the development of nutrient management plans (NMPs) for Town properties where nutrients are applied to more than one contiguous acre. The Town developed a NMP for Centennial Golf Course, which consists of 98 acres. The current NMP became effective June 7, 2019 and expires June 7, 2024. The plan was prepared by a certified nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia. Two other properties, Bready Park and Haley M. Smith Park, were determined to apply nutrients to less than one contiguous acre.

Facility	Location	Total Acreage	Date Certified	Re-Certification Date
Centennial Golf Course	909 Ferndale Ave.	98	June 7, 2019	June 7, 2024

Prohibition on Urea Containing Deicers: The Town prohibits the use of urea-based deicers through its Snow and Deicing Operations SOP.

Contractors: Part I E 6 c requires the Town to ensure that all contractors providing services to the Town are in full compliance with applicable licensing and certification requirements as well as the Town’s pollution prevention SOPs. The Town includes the following language in all contracts to ensure that contractors abide by the Town’s pollution prevention SOPs and applicable local, state, and federal stormwater management requirements:

“All contractors, as a condition of performing work for the Town, shall employ appropriate control measures and procedures to prevent pollutants from entering the storm drain system and waters of the state through any actions of the contractor or the contractor’s representatives. At a minimum, this includes compliance with Town Code Chapter 26, Article III “Erosion and Sediment Control” and Article VIII “Stormwater Management” and the Virginia Erosion and Stormwater Management Act (§62.1-44.15:24 et seq. of the Code of Virginia) and its attendant regulations, as well as securing all necessary state and federal permits. Contractors shall review and implement Town stormwater pollution prevention standard operating procedures (SOPs) commensurate to the type of activities being performed on behalf of the Town. SOPs cover: vehicle and equipment maintenance and cleaning; outdoor material storage; application of pesticides, herbicides, and fertilizers; road, street, parking lot, and sidewalk maintenance; snow and deicing operations; and, utility construction and maintenance. Documentation that all requirements have been met will be provided to the Town on request.”

Training: The Town has developed a training program and schedule in accordance with the permit. The overall training program reflects TMDL action plans for nutrients, sediment, and bacteria. The training must include refresher training for emergency spill response personnel. Fire and Rescue personnel are employees of Fairfax County and are subject to the County’s training requirements. Town Police are provided initial training through the Fairfax County Criminal Justice Training Academy. Refresher training is provided in accordance with BMP 6.F.

Referenced Documents:

- Operation and Maintenance Pollution Prevention SOPs (Appendix G).
- Stormwater Pollution Prevention Plans (Appendix H).
- Centennial Golf Course Nutrient Management Plan (On-Site at Golf Course).

BMP 6.A – Operation and Maintenance Pollution Prevention SOPs

Objective: The objective of this BMP is to implement pollution prevention procedures for operation and maintenance activities as required in Part I E 6 a of the MS4 permit.

Best Management Practices:

- Implement the Operation and Maintenance Pollution Prevention SOPs.
- Continue to prohibit application of any deicing agent containing urea or other forms of nutrients in accordance with the Snow and Deicing Operations Pollution Prevention SOP.
- During FY25, update the Outdoor Material Storage SOP and Utility Construction and Maintenance SOP to incorporate new MS4 permit requirements.
- During FY25, review Snow and Deicing Operations SOP and amend, if necessary.
- During FY26, develop and implement a new SOP to cover renovation and significant exterior maintenance activities.
- Annually review, and if necessary, update the Operation and Maintenance Pollution Prevention SOPs based on new best practices or observed deficiencies.
- Incorporate the Operation and Maintenance Pollution Prevention SOPs into staff training in BMP 6.E.

Standard Operating Procedures and Policies: This BMP is supported by the Operation and Maintenance Pollution Prevention SOPs.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a confirmation that the SOPs have been reviewed and any necessary changes have been made. In FY25 and FY26, the Town will include updated and new SOPs in the annual reports.

Responsible Party: The Department of Public Works will provide overall coordination, with departments and divisions providing coordination for their respective personnel.

BMP 6.B – Stormwater Pollution Prevention Plans for High-Priority Facilities

Objective: The objective of this BMP is to reduce and prevent the discharge of pollutants from high-priority facilities through SWPPPs and other pollution prevention measures.

Best Management Practices:

- Implement the Town's SWPPPs.
- During FY25, review and update the Public Works Complex and Centennial Golf Course SWPPPs to address new MS4 permit requirements and any changes at the sites.
- By June 30 of each year, review Town properties to determine whether there are additional sites that meet the definition of high-priority, and if so, whether any site meets the criteria for being required to develop a SWPPP. By December 31 of the same year,

develop a SWPPP for any newly identified high priority site that meets the criteria for requiring a SWPPP.

- Review a SWPPP within 30 days of any unauthorized discharge, release, or spill reported in accordance with the MS4 permit. Update the SWPPP within 90 days if necessary to prevent future unauthorized discharge, release or spill.

Standard Operating Procedures and Policies: This BMP is implemented through SWPPPs at the Public Works Complex and Centennial Golf Course.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report: (1) confirmation that the SWPPPs are being implemented, including a sample completed site inspection checklist; (2) confirmation of the review of high-priority sites; and, (3) a description of any new SWPPPs or changes to SWPPPs. In FY25, the Town will include the updated SWPPPs in the annual report.

Responsible Party: The Department of Public Works will provide overall coordination, with personnel from the Centennial Golf Course providing support for their specific locations.

BMP 6.C – Turf and Landscape Nutrient Management Plans

Objective: The objective of this BMP is to reduce the potential for nutrients applied to turf and landscape areas to impact water quality through the implementation of NMPs.

Best Management Practices:

- Implement the Centennial Golf Course NMP.
- Update the Centennial Golf Course NMP and have it certified by DCR no later than June 7, 2024.
- Prepare NMPs for any additional properties where nutrients will be applied to greater than one contiguous acre.

Standard Operating Procedures and Policies: This BMP is implemented through the Centennial Golf Course NMP.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report confirmation that the NMP is being implemented and a summary of any changes. In FY24, the Town will include the updated NMP in the annual report.

Responsible Party: The Centennial Golf Course is responsible for implementing and updating the NMP.

BMP 6.D – Training Plan

Objectives: The purpose of this BMP is to implement a training plan in accordance with Part I E 6 d of the MS4 permit.

Best Management Practices: Training will be provided in accordance with the following schedule:

Category	Training	Agencies	Schedule
Field Personnel	Recognition and reporting of illicit discharges	<ul style="list-style-type: none"> ▪ DPW – Engineering ▪ DPW – Program and Project Management ▪ DPW – Grounds Maintenance ▪ DPW – Street Maintenance ▪ DPW – General Services ▪ DPW – Sewer Service and Maintenance ▪ DPW – Building Inspection ▪ Community Development – Inspectors ▪ Golf Course – Maintenance Personnel ▪ Parks – Field Personnel ▪ Chestnut Grove Cemetery – Equipment Operators 	FY25, FY27
SWPPPs	Purpose and contents of the SWPPPs	<ul style="list-style-type: none"> ▪ DWP – All Public Works Complex Personnel ▪ Golf Course – Maintenance Personnel 	FY24, FY26, FY28
Road, Street, and Parking Lot Maintenance Personnel	Pollution prevention and good housekeeping associated with work activities	<ul style="list-style-type: none"> ▪ DPW – Street Maintenance 	FY24, FY26, FY28
Maintenance and Public Works Personnel Recreational Facility Personnel	Pollution prevention and good housekeeping associated with work activities	<ul style="list-style-type: none"> ▪ DPW – Grounds Maintenance ▪ DPW – Street Maintenance ▪ DPW – General Services ▪ DPW – Sewer Service and Maintenance ▪ Golf Course – Maintenance Personnel ▪ Parks – Field Personnel ▪ Chestnut Grove Cemetery – Equipment Operators ▪ Community Center – Maintenance and Operations Personnel 	FY24, FY26, FY28
Pesticide and Herbicide Applicators	Proper storage, handling, and application of pesticides and herbicides in accordance with the Virginia Pest Control Act	<ul style="list-style-type: none"> ▪ DPW – Grounds Maintenance ▪ Golf Course – Pesticide and herbicide applicators 	Recertification as required by VDACS
Emergency Response Personnel	Spill response	<ul style="list-style-type: none"> ▪ Town Police – Patrols 	FY28

Standard Operating Procedures and Policies: This BMP will be implemented through the schedule provided above.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report: (1) the completion date of each training activity; (2) the number of employees completing each training activity; and, (3) the objective and good housekeeping procedures covered by each training activity.

Responsible Party: The Department of Public Works will provide overall coordination, with departments and divisions providing coordination for their respective personnel.

BMP 6.E –Contractor Oversight Procedures

Objective: The objective of this BMP is to ensure that contractors performing work on behalf of the Town use the appropriate procedures and control measures to protect water quality.

Best Management Practices:

- Include requirement for contractors to abide by applicable licensing and certification requirements as well as the Town’s pollution prevention SOPs in RFPs and contract language.

Standard Operating Procedures and Policies: This BMP is implemented through contract language adopted by the Town and provided at the beginning of MCM #6.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report verification that the Town is implementing the mechanism selected to ensure contractor adherence to local, state, and federal requirements and the Town’s SOPs.

Responsible Party: The Department of Public Works is responsible for this BMP.

BMP 6.F – Street Sweeping Program

Objective: The objective of this BMP is to prevent trash and particulates from entering the storm sewer system.

Best Management Practices:

- The Town will continue to operate a street sweeping program.

Standard Operating Procedures and Policies: No additional SOPs or policies are required to implement this BMP.

Measurable Goals and Evaluation Criteria: The Town will include in each annual report a summary of street sweeping activities, including an estimate of the total lane miles swept and/or an estimate of the amount of debris removed.

Responsible Party: The Department of Public Works is responsible for this BMP.

MCM #6 Implementation Schedule							
BMP	Task	Year(s) to Implement					Responsibility
		FY24	FY25	FY26	FY27	FY28	
6.A	Implement Operation and Maintenance Pollution Prevention SOPs.	▶	▶	▶	▶	▶	DPW, Parks, Golf Course, Others

MCM #6 Implementation Schedule							
	Prohibit the application of deicing agents containing urea or other forms of nutrients.	▶	▶	▶	▶	▶	DPW, Parks, Golf Course, Others
	Update Outdoor Material Storage and Utility Construction SOPs.		■				DPW
	Review and amend if necessary the Snow and Deicing SOP.		■				DPW
	Develop new SOP to cover renovation and significant exterior maintenance activities.			■			DWP
	Annually review SOPs and update if necessary.	▶	▶	▶	▶	▶	DPW, Parks, Golf Course, Others
	Incorporate SOPs into training in BMP 6.D.	▶	▶	▶	▶	▶	DPW, Parks, Golf Course, Others
6.B	Implement SWPPPs.	▶	▶	▶	▶	▶	DPW, Golf Course
	Review, and update as necessary, the Public Works Complex and Centennial Golf Course SWPPPs.		■				DPW, Golf Course
	Review Town sites and develop SWPPPs for any newly identified high-priority sites, if necessary.	▶	▶	▶	▶	▶	DPW
	Review high-priority sites after incidents and update SWPPPs, if necessary.	▶	▶	▶	▶	▶	DPW, Golf Course
6.C	Implement Golf Course NMP.	▶	▶	▶	▶	▶	Golf Course
	Update the Golf Course NMP.	■					Golf Course
	Prepare NMPs for other properties as required.	▶	▶	▶	▶	▶	DPW, Golf Course; DPR
6.D	Provide biennial IDDE training for field personnel.		■		■		DPW, Golf Course, CDC, DPR, Cemetery
	Provide biennial SWPPP training.	■		■		■	DPW, Golf Course,

MCM #6 Implementation Schedule							
	Provide biennial pollution prevention training to road, street, and parking lot maintenance personnel.	■		■		■	DPW
	Provide biennial pollution prevention training to maintenance, public works, and recreational facility personnel.	■		■		■	DPW, Golf Course, DPR, Cemetery, Community Center
	Maintain and report certifications for all employees handling fertilizer and pesticides.	▶	▶	▶	▶	▶	DPW, Golf Course
	Provide refresher training to emergency spill response personnel.					■	Police
6.E	Require through contract language that contractors will abide by all certifications and SOPs.	▶	▶	▶	▶	▶	DPW, Purchasing
6.F	Continue to operate a street sweeping program.	▶	▶	▶	▶	▶	DPW

H. Annual Report

The Town will submit annual reports to DEQ each year covering the period of July 1 through June 30. The reports will be submitted to DEQ no later than October 1 of each year. The information provided to DEQ will be in accordance with the provisions of Part I D of the MS4 permit, which includes the following:

- a) General information:
 - i) The permittee, system name, and permit number.
 - ii) The reporting period for which the annual report is being submitted.
 - iii) A signed certification as per Part III K.
 - iv) Each annual reporting item as specified in an MCM in Part I E.
 - v) An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program’s effectiveness and whether or not changes to the MS4 Program Plan are necessary.
- b) A status report on the implementation of the Chesapeake Bay TMDL Action Plan in accordance with Part II A of the permit, including any revisions to the plan.
- c) A status report on the implementation of any local TMDL action plans (i.e. the Goose Creek Benthic TMDL Action Plan) in accordance with Part II B of the permit, including any revisions to the plan

The following are the specific annual reporting items specified in Part I E for each MCM.

MCM #1	
✓	A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program.
✓	A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate the identified high- priority issues.
✓	A description of any changes in high-priority stormwater issues, including, strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan. The permittee shall provide a rationale for any of these changes.
✓	A description of public education and outreach activities conducted that included education regarding climate change.
MCM #2	
✓	A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded.
✓	A summary of stormwater pollution complaints received under the procedures established in Part I E 2 a (1), excluding natural flooding complaints, and how the permittee responded.
✓	A webpage address to the permittee's MS4 program and stormwater website.
✓	A description of the public involvement activities implemented by the permittee, including any efforts to reach out and engage all economic and ethnic groups.
✓	A description of public education and outreach activities conducted that also included education regarding climate change.
✓	A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality.
✓	The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.
MCM #3	
✓	A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year.
✓	The total number of outfalls and observation points screened during the reporting period as part of the dry weather screening program.

✓	<p>A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:</p> <p>(a) The location and source of illicit discharge;</p> <p>(b) The dates that the discharge was observed, reported, or both;</p> <p>(c) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);</p> <p>(d) How the investigation was resolved;</p> <p>(e) A description of any follow-up activities; and</p> <p>(f) The date the investigation was closed.</p>
MCM #4	
✓	Total number of erosion and sediment control inspections conducted.
✓	Total number of each type of compliance action and enforcement action.
MCM #5	
✓	<p>If the permittee implements a Virginia Stormwater Management Program in accordance with Part I E 5 a (1) and (2):</p> <p>(a) The number of privately owned stormwater management facility inspections conducted; and,</p> <p>(b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action.</p>
✓	Total number of inspections conducted on stormwater management facilities owned or operated by the permittee.
✓	A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection.
✓	A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part III B 1 or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880).
✓	A confirmation statement that the permittee electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part III B 1 and 2.

✓	A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part III B 5.
MCM #6	
✓	A summary of any written procedures developed or modified in accordance with Part I E 6 a and b during the reporting period.
✓	A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period.
✓	A list of any new SWPPPs developed in accordance Part I E 6 i during the reporting period.
✓	A summary of any SWPPPs modified in accordance with Part I E 6j, 6l, or 6m.
✓	The rationale of any high-priority facilities delisted in accordance with Part I E 6 l or m during the reporting period.
✓	The status of each nutrient management plan as of June 30 of the reporting year (e.g., approved, submitted and pending approval, and expired).
✓	<p>A list of the training activities conducted in accordance with Part I E 6 d, including the following information:</p> <ul style="list-style-type: none"> (a) The completion date for the training activity; (b) The number of employees who completed the training activity; and, (c) The objectives and good housekeeping procedures covered by the training activity.

Appendix A

Agreements with Other Governmental Entities

MEMORANDUM

To: William H. Ashton II, Town Manager

From: Lauri A. N. Sigler, Deputy Town Attorney *LANS*

Date: September 20, 2023

Subject: Memorandum of Agreement for the Clean Water Partners Program in conjunction with the Town's MS4 Permit renewal.

Please find 2 copies of a Memorandum of Agreement between the Town and Northern Virginia Regional Commission who runs regional tv advertisements and distributes regional educational material, for the Town and most other jurisdictions in northern Virginia, which gives the Town credits that are required as part of our MS4 permit in return for an annual fee paid by the Town and the program partners.

and date
Please sign *and date* both copies of the MOA.

After the agreements are executed, I ask that Judy scan and email a copy of the MOA back to me and send the signed original agreements to Richard Smith in DPW. Thank you.

**NORTHERN VIRGINIA
CLEAN WATER PARTNERS PROGRAM
MEMORANDUM OF AGREEMENT**

In order to establish an effectively coordinated stormwater education and outreach program, the parties whose authorized agents are signatories to the Memorandum of Agreement do hereby enter into the following Memorandum of Agreement.

SECTION I PURPOSE OF MEMORANDUM

The purpose of this Memorandum is to establish and maintain a coordinated stormwater education program in the Northern Virginia region, hereinafter referred to as the "Program". The signatories, hereinafter referred to as the "Northern Virginia Clean Water Partners," or "Partners," comprise a group of local governments, public school systems, institutions of higher education, drinking water and sanitation authorities, and businesses that choose to work together to inform individuals about the pollution potential of common activities, so that individuals can take direct action to reduce stormwater pollution. To meet this goal, the Partners work together to:

- Identify high priority water quality issues for the region;
- Identify the target audience(s) for outreach;
- Educate the region's residents on simple ways to reduce pollution around their homes;
- Monitor changes in behavior through surveys and other data collection techniques; and
- Pilot new cost-effective opportunities for public outreach and education.

By working together the Partners are able to leverage their funds and services to develop and place English and Spanish bilingual educational products with common messages and themes, thereby extending the campaign's reach.

SECTION II GENERAL DEFINITIONS

The term "Northern Virginia" refers, at a minimum, to the area comprising the Northern Virginia planning district, as specified in Section III.

The terms "Clean Water Partners," "Partners," "Participants," and "Partnership" refer to all entities which enter into this Agreement and abide by its terms.

"Contributing Partners" refers to those partners who contribute direct funds to the Program.

SECTION III AREA OF COVERAGE

Contribution and Participation in this Agreement and Program is available to any local government, public authority or institution of higher education within the confines of the Northern Virginia planning district, or adjacent planning districts.

SECTION IV OPERATIONAL ARRANGEMENTS

A. Staff Services

NVRC shall provide staff support for the Program, to the extent that funds are available. This may include procuring multi-media advertising services, procuring behavior change surveys, coordinating and hosting meetings, and maintaining website hosting and domain services. All contracts and administrative agreements approved by the Partnership shall be submitted to the NVRC Board for review and execution. The Executive Director of NVRC shall be the chief administrative agent of the Partnership and in this capacity shall be responsible to the Partnership for managing its staff support.

Upon the conclusion of each fiscal year NVRC shall prepare an annual report summarizing the status, progress and effectiveness, to the extent possible, of all significant outreach efforts during the previous fiscal year. This report shall include a preliminary work program for the upcoming fiscal year, and it shall be presented to the Partnership for approval. The report will be prepared so that it can be used to support individual permit requirements.

B. Meeting Space

NVRC shall provide adequate space and facilities for the meeting of the Program participants.

C. Budget

An annual budget for the Program shall be developed and funded through a special assessment of the Contributing Partners for inclusion in the annual NVRC budget. The annual operating budget shall be submitted by the NVRC staff to each Participant for its approval. Prior to the assessment of a participating local government, the allocation of program costs must be approved by its governing body.

The funding formula for the Program is as follows: \$ 0.05 per capita based on the most recent decennial census unless more current population estimates are available from the Weldon Cooper Center for Public Service of the University of Virginia.

SECTION V TERMS

This Memorandum shall exist subject to amendment or dissolution in accordance with the following provisions:

A. Amendments

This Agreement may be amended at any time by the concurrence of all Participants. Proposed amendments shall be presented in writing to the NVRC staff and must be approved unanimously by all Participants.

The acceptance of additional Parties to this Agreement shall not require an amendment to this Agreement, but shall require the consent of a simple majority of the Partner participants. Each new Participant shall be bound to the terms of this Agreement as evidenced by the signature of its authorized agent.

B. Severability

Each paragraph and provision of this Agreement is severable from the entire Agreement and if any provision is declared invalid or unenforceable the remaining provisions shall nevertheless remain in effect.

C. Dissolution

This Agreement may be dissolved at any time by majority agreement of all participant Partners.

If a single Partner unit wishes to withdraw from the Agreement, notice of intent to withdraw must be provided at least six months prior to the end of the fiscal year, in order to provide the remaining parties with an opportunity to make any necessary budget adjustments.

This Agreement shall take effect after appropriate action by ordinance, resolution or otherwise pursuant to the law of the governing body of each participating political subdivision.

IN WITNESS WHEREOF, the Town of Herndon and NVRC have caused this document to be executed as of the date of the last signature shown:

TOWN OF HERNDON, VIRGINIA

By: 
William H. Ashton II, Town Manager

Date: _____

Approved as to Form:

By: 
Lesa J. Yeatts, Town Attorney

Date: 9-20-23

NORTHERN VIRGINIA REGIONAL COMMISSION

By: 

Title: Executive Director

Date: 9/22/2023

**NORTHERN VIRGINIA
CLEAN WATER PARTNERS PROGRAM
MEMORANDUM OF AGREEMENT**

In order to establish an effectively coordinated stormwater education and outreach program, the parties whose authorized agents are signatories to the Memorandum of Agreement do hereby enter into the following Memorandum of Agreement.

SECTION I PURPOSE OF MEMORANDUM

The purpose of this Memorandum is to establish and maintain a coordinated stormwater education program in the Northern Virginia region, hereinafter referred to as the "Program". The signatories, hereinafter referred to as the "Northern Virginia Clean Water Partners," or "Partners," comprise a group of local governments, public school systems, institutions of higher education, drinking water and sanitation authorities, and businesses that choose to work together to inform individuals about the pollution potential of common activities, so that individuals can take direct action to reduce stormwater pollution. To meet this goal, the Partners work together to:

- Identify high priority water quality issues for the region;
- Identify the target audience(s) for outreach;
- Educate the region's residents on simple ways to reduce pollution around their homes;
- Monitor changes in behavior through surveys and other data collection techniques; and
- Pilot new cost-effective opportunities for public outreach and education.

By working together the Partners are able to leverage their funds and services to develop and place English and Spanish bilingual educational products with common messages and themes, thereby extending the campaign's reach.

SECTION II GENERAL DEFINITIONS

The term "Northern Virginia" refers, at a minimum, to the area comprising the Northern Virginia planning district, as specified in Section III.

The terms "Clean Water Partners," "Partners," "Participants," and "Partnership" refer to all entities which enter into this Agreement and abide by its terms.

"Contributing Partners" refers to those partners who contribute direct funds to the Program.

SECTION III AREA OF COVERAGE

Contribution and Participation in this Agreement and Program is available to any local government, public authority or institution of higher education within the confines of the Northern Virginia planning district, or adjacent planning districts.

SECTION IV OPERATIONAL ARRANGEMENTS

A. Staff Services

NVRC shall provide staff support for the Program, to the extent that funds are available. This may include procuring multi-media advertising services, procuring behavior change surveys, coordinating and hosting meetings, and maintaining website hosting and domain services. All contracts and administrative agreements approved by the Partnership shall be submitted to the NVRC Board for review and execution. The Executive Director of NVRC shall be the chief administrative agent of the Partnership and in this capacity shall be responsible to the Partnership for managing its staff support.

Upon the conclusion of each fiscal year NVRC shall prepare an annual report summarizing the status, progress and effectiveness, to the extent possible, of all significant outreach efforts during the previous fiscal year. This report shall include a preliminary work program for the upcoming fiscal year, and it shall be presented to the Partnership for approval. The report will be prepared so that it can be used to support individual permit requirements.

B. Meeting Space

NVRC shall provide adequate space and facilities for the meeting of the Program participants.

C. Budget

An annual budget for the Program shall be developed and funded through a special assessment of the Contributing Partners for inclusion in the annual NVRC budget. The annual operating budget shall be submitted by the NVRC staff to each Participant for its approval. Prior to the assessment of a participating local government, the allocation of program costs must be approved by its governing body.

The funding formula for the Program is as follows: \$ 0.05 per capita based on the most recent decennial census unless more current population estimates are available from the Weldon Cooper Center for Public Service of the University of Virginia.

SECTION V TERMS

This Memorandum shall exist subject to amendment or dissolution in accordance with the following provisions:

A. Amendments

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B. Severability

Each paragraph and provision of this Agreement is severable from the entire Agreement and if any provision is declared invalid or unenforceable the remaining provisions shall nevertheless remain in effect.

C. Dissolution

This Agreement may be dissolved at any time by majority agreement of all participant Partners.

If a single Partner unit wishes to withdraw from the Agreement, notice of intent to withdraw must be provided at least six months prior to the end of the fiscal year, in order to provide the remaining parties with an opportunity to make any necessary budget adjustments.

This Agreement shall take effect after appropriate action by ordinance, resolution or otherwise pursuant to the law of the governing body of each participating political subdivision.

IN WITNESS WHEREOF, the Town of Herndon and NVRC have caused this document to be executed as of the date of the last signature shown:

TOWN OF HERNDON, VIRGINIA

By: 
William H. Ashton II, Town Manager

Date: _____

Approved as to Form:

By: 
Lesa J. Yeatts, Town Attorney

Date: 9-20-23

NORTHERN VIRGINIA REGIONAL COMMISSION

By: 

Title: Executive Director

Date: 9/22/2023

COOPERATIVE AGREEMENT BETWEEN THE FAIRFAX COUNTY BOARD OF SUPERVISORS, THE TOWN OF VIENNA, and TOWN OF HERNDON TO SHARE CERTAIN STORMWATER SERVICE DISTRICT FEES AND RESPONSIBILITY FOR RELATED SERVICES

This Agreement (“Agreement”) is entered into on this 8th day of MARCH, 2017, by and between the BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA (“FAIRFAX”), the TOWN COUNCIL OF VIENNA, VIRGINIA (“VIENNA”), and the TOWN COUNCIL OF HERNDON, VIRGINIA (“HERNDON”) (referenced collectively as the “Parties” or “the Governing Bodies”, and individually as the “Party”).

WITNESSETH:

WHEREAS the Towns of Vienna and Herndon (also referenced herein as “the Towns”) are located within Fairfax County (also referenced herein as “the County”); and

WHEREAS Fairfax County, the Town of Vienna, and the Town of Herndon each maintain, operate, and improve stormwater systems that affect one another; and

WHEREAS Fairfax County and the Towns are each subject to a Municipal Separate Storm Sewer System (“MS4”) permit issued by the Virginia Department of Environmental Quality (“DEQ”); and

WHEREAS FAIRFAX has cooperated with VIENNA and HERNDON to maintain, operate, and improve their respective stormwater systems and wish to continue such cooperation in the future in the best interests of their residents; and

WHEREAS pursuant to Va. Code Ann. § 15.2-2400 (2012), FAIRFAX has established a Stormwater Service District (“Service District”), and is authorized, pursuant to Va. Code Ann. § 15.2403(6) (Supp. 2016) to levy and collect an annual fee upon any property located within such Service District (“the Service District Fee”); and

WHEREAS the Towns of Vienna and Herndon are located within Fairfax County's Service District; and

WHEREAS, pursuant to Va. Code Ann. § 15.2-2403(6), Fairfax County collects revenues from properties located within the Towns of Vienna and Herndon; and

WHEREAS, pursuant to Va. Code Ann. § 15.2-2403.3 (Supp. 2016), by virtue of the Towns' maintenance of separate MS4 permits and their location within the Service District, the Towns are entitled to the Service District Fee revenues collected by Fairfax County within their respective jurisdictions; and

WHEREAS, the actual amount of revenues collected from the Service District Fee will vary from year to year; and

WHEREAS, each MS4 permit, among other things, assigns jurisdiction-specific, pollutant load reduction requirements for nitrogen, phosphorus, and sediment to address the Chesapeake Bay Total Maximum Daily Load (referred to herein as "TMDL"), and requires each MS4-permit jurisdiction to develop a Chesapeake Bay TMDL Action Plan that identifies the practices, means, and methods that are to be implemented by the permittee to achieve the required pollutant reductions; and

WHEREAS, the Commonwealth's Chesapeake Bay TMDL Watershed Implementation Plan (referred to herein as "the WIP") establishes the total pollutant reduction loads required to achieve the Chesapeake Bay TMDL and the timeframe for MS4-permit jurisdictions to achieve their assigned pollutant reductions; and

WHEREAS, each MS4 permit also requires the development of action plans for other pollutants where a TMDL assigns a wasteload allocation ("WLA") to the permittee; and

WHEREAS, pursuant to their respective MS4 permits, the Towns submitted their initial Chesapeake Bay TMDL Action Plans to DEQ prior to the deadline of October 1, 2015 while the County's initial Chesapeake Bay TMDL Action Plan will be submitted to DEQ prior to the deadline of April 1, 2017. Action plans for other TMDLs are submitted in accordance with the schedule contained in each MS4 permit; and

WHEREAS, while each MS4-permit jurisdiction is ultimately responsible for compliance with its MS4 permit, MS4 permits allow and encourage cooperation and coordination among permit holders, and such cooperation and coordination can mutually benefit MS4-permit jurisdictions through more effective and cost-efficient protection of water resources in each jurisdiction; and

WHEREAS, the purpose this Agreement, in part, is for the Parties to work cooperatively to satisfy the pollutant load reduction requirements of their current and future MS4 permits by implementing stormwater management practices within the Parties' jurisdiction that reduce the discharge of pollutants; and

WHEREAS, FAIRFAX, VIENNA, or HERNDON may terminate this Agreement as set forth by the terms herein if, pursuant to applicable law, either locality chooses not to participate under this Agreement or chooses not to share the Stormwater Service District Fees; and

WHEREAS FAIRFAX, VIENNA, and HERNDON have determined and agreed that the best interests of each locality's residents are fulfilled if FAIRFAX utilizes a portion of the Service District Fees collected by FAIRFAX from properties within the Towns to assist the Towns in maintaining, operating, and improving their respective stormwater systems to achieve the goals of effective regional water quality improvement and local initiatives in these localities and to satisfy certain MS4 permit requirements;

NOW, THEREFORE, in consideration of the mutual obligations set forth herein and other good and valuable consideration, so long as FAIRFAX continues to administer the Service District in FAIRFAX that encompasses VIENNA and HERNDON, and so long as VIENNA and HERNDON qualify to receive the Service District Fees collected by FAIRFAX from properties within the Towns, FAIRFAX, VIENNA, and HERNDON agree as follows:

1. FAIRFAX will continue to engage in a coordinated approach with VIENNA, and HERNDON to maintain and operate their respective stormwater systems throughout the incorporated and unincorporated parts of FAIRFAX. Moreover, FAIRFAX, VIENNA, and HERNDON will engage in a coordinated approach for future improvements to their respective stormwater systems.

2. This Agreement's duration shall be for one fiscal year and shall renew at the beginning of each fiscal year thereafter unless terminated pursuant to the terms set forth herein below. For the purposes of this Agreement, "fiscal year" shall mean Fairfax County's fiscal year, which, at the time of the execution of this agreement, ends on June 30.

3. This Agreement's purpose is to set forth how the Parties shall share revenues to be collected pursuant to the Service District Fee, including revenues collected from properties within VIENNA and HERNDON, and the respective obligations of the Parties with respect to the stormwater management services described herein.

STORMWATER FEE REVENUE SHARING

4. FAIRFAX shall collect all revenues to be collected pursuant to the Service District Fee, including revenues collected from properties within the Towns.

5. Revenues actually collected throughout the Service District are referred to herein as "STORMWATER FEE REVENUES."

6. At the end of each fiscal year, FAIRFAX shall calculate separately the total amount of stormwater fee revenues that were actually collected from properties within VIENNA and HERNDON from the amount of stormwater fee revenues collected elsewhere in FAIRFAX (the "VIENNA STORMWATER FEE" and "HERNDON STORMWATER FEE").

7. On or before October 30th of each fiscal year, FAIRFAX shall estimate the anticipated VIENNA STORMWATER FEE and HERNDON STORMWATER FEE for that year, and shall pay to VIENNA and HERNDON an amount equal to twenty-five percent (25%) of the estimated VIENNA STORMWATER FEE and HERNDON STORMWATER FEE, respectively, for that fiscal year, rounded to the nearest penny (the "PAID VIENNA REVENUES" and "PAID HERNDON REVENUES").

8. The Parties acknowledge and agree that PAID VIENNA REVENUES and/or PAID HERNDON REVENUES may be more or less than the amount that is actually due and owing to either or both of the Towns, and which amount is calculated at the end of each fiscal year.

9. If the PAID VIENNA REVENUES for a particular fiscal year are determined to have been less than 25% of the actual VIENNA STORMWATER FEE actually collected for that fiscal year, then FAIRFAX shall pay VIENNA the difference between the PAID VIENNA REVENUES and 25% of the VIENNA STORMWATER FEE actually collected for that fiscal year. FAIRFAX shall pay this difference at the same time as it pays the next fiscal year's PAID VIENNA REVENUES.

10. If the PAID HERNDON REVENUES for a particular fiscal year are determined to have been less than 25% of the actual stormwater fee actually collected for that fiscal year in HERNDON, then FAIRFAX shall pay HERNDON the difference between the PAID

HERNDON REVENUES and 25% of the HERNDON STORMWATER FEE actually collected for that fiscal year in HERNDON. FAIRFAX shall pay this difference at the same time as it pays the next fiscal year's PAID HERNDON REVENUES.

11. If the PAID VIENNA REVENUES for a particular fiscal year are determined to have been more than 25% of the actual VIENNA STORMWATER FEE actually collected for that fiscal year, then FAIRFAX shall deduct the difference between the PAID VIENNA REVENUES and 25% of the VIENNA STORMWATER FEE actually collected for that fiscal year from the amount that FAIRFAX pays for the next fiscal year's PAID VIENNA REVENUES.

12. If the PAID HERNDON REVENUES for a particular fiscal year are determined to have been more than 25% of the actual HERNDON STORMWATER FEE actually collected for that fiscal year, then FAIRFAX shall deduct the difference between the PAID HERNDON REVENUES and 25% of the HERNDON STORMWATER FEE actually collected for that fiscal year from the amount that FAIRFAX pays for the next fiscal year's PAID HERNDON REVENUES.

13. Once FAIRFAX has determined the amount of the actual VIENNA STORMWATER FEE and HERNDON STORMWATER FEE, which shall occur within 90 days of the fiscal year end, FAIRFAX shall forward the respective amounts to the Towns' Mayors in writing ("FINAL ACCOUNTING"). If VIENNA and/or HERNDON disputes the amount of the FINAL ACCOUNTING, then within 30 days of the Mayors' receipt of this FINAL ACCOUNTING, VIENNA and/or HERNDON, shall state the complete factual basis for any such dispute in writing to the Fairfax County Executive, and the Parties shall endeavor in good faith to resolve any such dispute. Upon the resolution of any such dispute, or if VIENNA and/or

HERNDON fails to dispute the amount of the FINAL ACCOUNTING within 30 days of either Mayor's receipt thereof, then VIENNA and/or HERNDON shall be deemed to have accepted payment of the respective fiscal year's PAID VIENNA REVENUES or PAID HERNDON REVENUES, which shall result in the waiver of any right to request from FAIRFAX any additional amount of the collected STORMWATER FEE REVENUES. VIENNA's and/or HERNDON's waiver of any such balance, however, is conditioned upon FAIRFAX's obligations to VIENNA and/or HERNDON pursuant to this Agreement.

14. Pursuant to Va. Code Ann. § 15.2-2403.3 VIENNA and HERNDON shall expend the PAID VIENNA REVENUES and PAID HERNDON REVENUES, respectively, only for costs directly related to the Towns' stormwater systems and not for non-stormwater-system costs, such as public safety, schools, or road maintenance.

15. Under this Agreement, neither VIENNA nor HERNDON is required to expend any of the paid revenues within any specific amount of time. This Agreement does not affect any other authority that VIENNA or HERNDON might have to carry over revenues from year-to-year or to expend revenues in one fiscal year when the revenues were collected in a previous fiscal year.

16. If, at any time in the future, either VIENNA or HERNDON becomes unincorporated or ceases to qualify to receive paid revenues for any reason or terminates its stormwater program or ceases to maintain its stormwater systems, none of the previously paid revenues shall be expended for anything other than the maintenance, operation, and improvement of such Town's stormwater systems. If any such amounts are returned to FAIRFAX they may be used for other qualified uses in the Service District as FAIRFAX, or its designee, in its or his sole discretion, deems appropriate.

TMDL COMPLIANCE AND THE TMDL ADVISORY COMMITTEE

17. Fairfax, Vienna, and Herndon agree that Fairfax will implement stormwater management practices throughout the County and in the Towns sufficient to achieve the TMDL pollutant load reduction requirements that are incorporated into each Party's respective current and future MS4 permit.

18. A TMDL Compliance Advisory Committee (hereinafter referred to as the "Advisory Committee") shall be established and shall be comprised of one or more representatives from each governing body.

19. Regardless of the number of representatives appointed by each governing body, each locality will have one vote on the Advisory Committee.

20. The Advisory Committee shall:

- a. establish, pursuant to each Party's respective MS4 permit, the nitrogen, phosphorus, and sediment (referred to as "pollutants of concern" or "POCs") load reductions necessary for each individual Party to achieve full compliance with the Chesapeake Bay TMDL and the WIP (referred to herein as "the Chesapeake Bay TMDL Endpoint").
- b. establish the "TOTAL POLLUTANT REDUCTION," which is the total amount of each POC that the Parties must reduce in order to reach the Chesapeake Bay TMDL Endpoint.
- c. establish the percentage of the TOTAL POLLUTANT REDUCTION for which each locality is responsible. That percentage assigned to each Party shall hereinafter be referred to, respectively, as the "FAIRFAX PERCENTAGE," "VIENNA PERCENTAGE," and "HERNDON PERCENTAGE."

- d. as determined by the Advisory Committee, the FAIRFAX PERCENTAGE, VIENNA PERCENTAGE, and the HERNDON PERCENTAGE may be established for each POC, an average of POCs, or by another mutually agreed upon methodology that will allocate pollutant reduction credits for projects completed under this Agreement as provided for in paragraph 27 below, in a manner necessary to meet the Chesapeake Bay TMDL Endpoint.
- e. establish a watershed-specific FAIRFAX PERCENTAGE, VIENNA PERCENTAGE, and HERNDON PERCENTAGE to allocate pollutant reduction credits for projects implemented within a watershed to meet a non-Chesapeake Bay TMDL Endpoint.

21. VIENNA and HERNDON may at any time provide FAIRFAX with a list of stormwater management projects to be considered for implementation. Before submitting any such project, the submitting Town must thoroughly investigate and analyze each project to ensure that any such project is feasible. Any project submitted before June 30 of each year will be considered by FAIRFAX for implementation during the following fiscal year. If a project is not implemented, it will continue to be considered for implementation in subsequent fiscal years until such time that the project is determined to be infeasible. Selection of projects for implementation and determination of final feasibility are at the sole discretion of the Director of the Fairfax County Department of Public Works and Environmental Services ("Director").

22. By April 1 of each year, the Director will send to the Towns of VIENNA and HERNDON and/or their designees a proposed list of projects within their jurisdiction.

23. Within 30 days after each Mayors' receipt of this list, the Towns shall provide comments and suggestions regarding each project, its timing, and its costs for implementation,

lifetime maintenance, and replacement. If the Towns provide any comments or suggestions, the Director shall fully consider any such comments, and may, but shall not be obligated to implement or adhere to them. In the event that a dispute exists regarding implementation of any project on the list sent by the Director, the Director and the disputing Town shall endeavor in good faith to resolve any such dispute, but final authority for the implementation of any such projects rests solely with Fairfax County and the Director.

24. FAIRFAX will pay for the development of the updated Chesapeake Bay TMDL Action Plan for each Town that is due at the beginning of each new MS4 permit cycle. Each Town will be responsible for routine annual updates as required in the MS4 permits. FAIRFAX will also pay for the initial development of other TMDL action plans necessary for compliance with each Town's MS4 permit and any substantial updates to these action plans required in future permit cycles. The action plans will include all information necessary to demonstrate compliance with MS4 permit requirements. Changes or additions to projects identified in the action plans will be reported to each Town annually in accordance with paragraph 31.

25. FAIRFAX shall be solely responsible for implementing projects under this Agreement, excluding the acquisition of any permanent or temporary land rights necessary to construct and maintain a project located within a Town. The Parties may, as necessary, have agreements that are separate from this Agreement that address the Parties' responsibilities over specific projects, facilities, and other funding.

26. A project is subject to this Agreement if it is funded in whole or in part by the Service District Fee and substantially completed on or after July 1, 2009.

27. For each project substantially completed under this Agreement on or after July 1, 2009, whether the project or facility is located within VIENNA, HERNDON, or elsewhere

within Fairfax County, the Parties will receive a pollutant reduction credit for each POC. The reduction credit is determined by applying the VIENNA PERCENTAGE and the HERNDON PERCENTAGE to the estimated total POC load reductions for each project that is substantially completed pursuant to this Agreement (the "VIENNA CREDIT," "HERNDON CREDIT," "FAIRFAX CREDIT," and collectively "REDUCTION CREDITS"). For completed projects and facilities, the REDUCTION CREDITS shall survive any termination of this Agreement unless otherwise agreed to by the Parties or in the event that a constructed facility or improvement is not maintained in accordance with paragraph 28 of this Agreement.

28. The Party in whose jurisdiction any stormwater management facility or improvement is constructed under this Agreement shall ensure that the long-term maintenance of such facility or improvement is performed as necessary to maintain the functionality and performance thereof. Each party shall ensure long-term maintenance in accordance with Va. Code Ann. § 62.1-44.15:27(E)(2) and 9 Va. Admin. Code §§ 25-870-58 and 112. In the event that a Party's failure to maintain a project completed under this Agreement results in a decrease in the amount of POCs removed therefrom, as determined by DEQ, then that Party shall, at its sole cost, maintain or improve the facility to restore the facility to its original functionality.

29. In the event that a Party is unable to meet its load reduction requirement for a specific reporting period, and another Party has exceeded its load reduction requirement, the Director may, with written notification to the Parties, transfer credit from shared credit projects among Parties in a manner to ensure that each Party is able to meet its load reduction requirement. Any such transfer shall be temporary and last only as long as it is needed to address the immediate shortfall. Further, no transfer will occur or stay in force that would result in a donating Party being in non-compliance with an MS4 permit condition.

30. Any Party that completes a stormwater management project from funds not generated by or transferred through Fairfax County shall be entitled to claim all resulting load reduction credits for purposes of satisfying its MS4 permit requirements.

31. FAIRFAX will prepare an annual report that details the activities performed under this Agreement. The report will provide sufficient detail so that each locality may use it to meet their respective MS4 permit reporting obligations to DEQ. Fairfax will provide the report annually no later than one month before the date the annual report is due to DEQ.

STAFF TRAINING

32. Without any additional invitation or payment, VIENNA's and/or HERNDON's staff may attend MS4 permit-related training programs that are conducted or hosted by FAIRFAX. FAIRFAX will provide VIENNA and HERNDON with at least one-month's advance notice of such training opportunities.

TERMINATION

33. Any Party may terminate this Agreement by resolution of that Party's governing body. Any such resolution shall be at a public meeting with notice in writing to the non-terminating Parties. Notice shall be made at least three weeks in advance of any such meeting to the Mayor(s) or, as applicable, the County Executive, of Fairfax County. After adoption of any such resolution, the terminating Party shall notify the remaining Parties. The termination shall be effective no earlier than the end of the fiscal year in which the governing body's vote for the resolution for the termination occurs.

34. If this Agreement is terminated by any party other than FAIRFAX, the Agreement shall remain in force as to the remaining parties. The terminating Town shall have responsibility to maintain and replace, as necessary, any facility constructed under this Agreement that is

located within its boundaries and shall assume all liability for such facility. Unless otherwise agreed to by the Parties, neither Town shall have any liability or responsibility for any facility that is located outside of its jurisdictional boundaries and was developed and implemented under this Agreement.

ADDITIONAL PROVISIONS

35. This Agreement is integrated and contains all provisions of the Agreement between the Parties.

36. In the event of a conflict between any term(s) of this Agreement and either of the Parties' MS4 permits or other permit requirements, either Party's respective permit provision(s), shall control.

37. Any provision or term of this Agreement may be modified only by a writing that is approved by resolution at a public meeting of each of the localities' respective governing bodies.

38. This Agreement shall be binding on the Parties' respective agencies, employees, agents, and successors-in-interests.

39. This Agreement shall not be assigned by either of the Parties unless both of the Parties agree to such an assignment in writing.

40. Nothing in this Agreement otherwise limits the respective regulatory and police powers of the Parties.

41. The Parties agree that nothing in this Agreement creates a third-party beneficiary. The Parties also agree that this Agreement does not confer any standing or right to sue or to enforce any provision of this Agreement or any other right or benefit to any person who is not a

party to this Agreement, including but not limited to a citizen, resident, private entity, or local, state, or federal governmental or public body.

42. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one in the same Agreement.

43. This Agreement shall be governed by Virginia law, and any litigation relating to this Agreement shall be brought and/or maintained only in the Circuit Court of Fairfax County, Virginia.

IN WITNESS WHEREOF, the Parties have executed this Agreement, as verified by their signatures below.

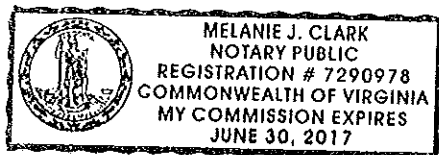
[Signatures appear on the following pages.]

TOWN OF VIENNA

By: Laurie A. DiRocco
Laurie A. DiRocco
Mayor
Town of Vienna, VA

STATE OF VIRGINIA :
: to-wit
COUNTY OF FAIRFAX :

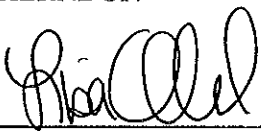
The foregoing Agreement was acknowledged before me by Laurie A. DiRocco
of the Town of VIENNA, this 21st day of February 2018 on behalf of the Town of
VIENNA.



Melanie J. Clark
Notary Public

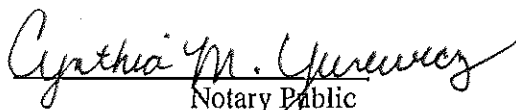
My commission expires: June 30, 2017
Notary Registration Number: 7290978

TOWN OF HERNDON

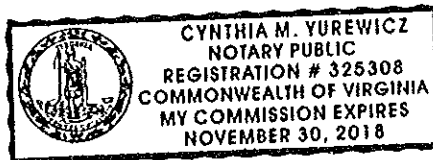
By: 
(Name and Title)
Lisa C. Merkel
Mayor

STATE OF VIRGINIA :
: to-wit
COUNTY OF FAIRFAX :

The foregoing Agreement was acknowledged before me by Lisa C. Merkel
of the Town of HERNDON, this 2nd day of March 2017 on behalf of the Town
of HERNDON.


Notary Public

My commission expires: 11/30/2018
Notary Registration Number: 325308



APPROVED AS TO FORM:

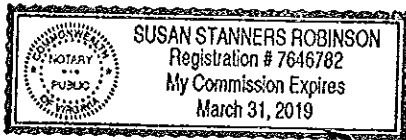

Lesa J. Yeatts
Town Attorney

BOARD OF SUPERVISORS OF
FAIRFAX COUNTY, VIRGINIA

By: Edward L. Long Jr.
Edward L. Long Jr.
County Executive
Fairfax County, Virginia

STATE OF VIRGINIA :
: to-wit
COUNTY OF FAIRFAX :

The foregoing Agreement was acknowledged before me by Edward L. Long Jr., of the
County Executive, on behalf of the Board of Supervisors of Fairfax County, Virginia this
9th day of March 2016
2017



Susan Stanners Robinson
Notary Public

My commission expires: March 31, 2019
Notary Registration Number: 7642019

Approved as to form: _____
Office of the County Attorney
Fairfax, Virginia

Appendix B

Public Involvement and Participation SOP



Public Involvement and Participation Standard Operating Procedure (SOP)

Public Input and Comments	
Date:	March 25, 2019
Purpose of SOP:	<p>To implement procedures for the following:</p> <ul style="list-style-type: none"> • The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns; • The public to provide input on the Town’s MS4 Program Plan; • Receiving public input or complaints; • Responding to public input received on the MS4 Program Plan or complaints; and, • Maintaining documentation of public input received on the MS4 program and associated MS4 Program Plan and the Town’s response
MS4 Permit Reference	Part I E 2 a.
Responsible Parties	<p>John Irish, Deputy Director, Public Works</p> <p>Richard Smith Senior Civil Engineer</p>

The purpose of this SOP is to foster public input and comment on the Town’s MS4 program and to provide a means for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns.

1. Responsible Parties

The Department of Public Works (DPW) is responsible for implementing this SOP.

2. Reporting Stormwater Pollution Concerns

The following mechanisms will be maintained for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns:

- Emergency: 911
- Non-Emergency:

- Phone: DPW at (703) 435-6853 (business hours)
- Phone: Town Police at (703) 435-6846 (non-business hours)
- Email: DPW at publicworks@herndon-va.gov
- Web: “Report a Problem” function

The phone, email, and “Report a Problem” function will be prominently displayed on the DPW stormwater webpage.

The Department of Public Works will receive, track, and respond to reports in accordance with MCM #3 of the MS4 Program Plan and the Town’s Illicit Discharge Detection and Elimination (IDDE) Plan.

3. Public Input on the MS4 Program Plan and Complaints

Mechanisms for Input

The Town will provide on its stormwater webpage instructions for how to provide public input on the MS4 Program Plan and/or to register stormwater program-related complaints. This will include the DPW phone number and email, as well as the DPW’s mailing address at 777 Lynn Street, Herndon, Virginia 20170.

Public Notice

The Town will notify the public any time that substantive changes are proposed to the MS4 Program Plan through a social media post. The social media post will include a link to the plan and the directions for providing input. To the extent practical, notification will be provided 30 days before the Town finalizes changes.

Receiving, Tracking, and Responding to Complaints

The Department of Public Works will receive, track, and respond to comments and complaints. Comments and complaints made by Town residents will be answered in writing within 30 days of receipt where the Town has an email or address.

The Department of Public Works will track in an Excel spreadsheet, or similar mechanism, the following for each comment/complaint:

- Details of the complaint (verbatim if by writing or summary if by phone)
- Individual making the comment/complaint
- Date of the comment/complaint
- Date of the Town’s response
- Town response
- Changes to the MS4 Program Plan as a result of the comment/complaint, if any

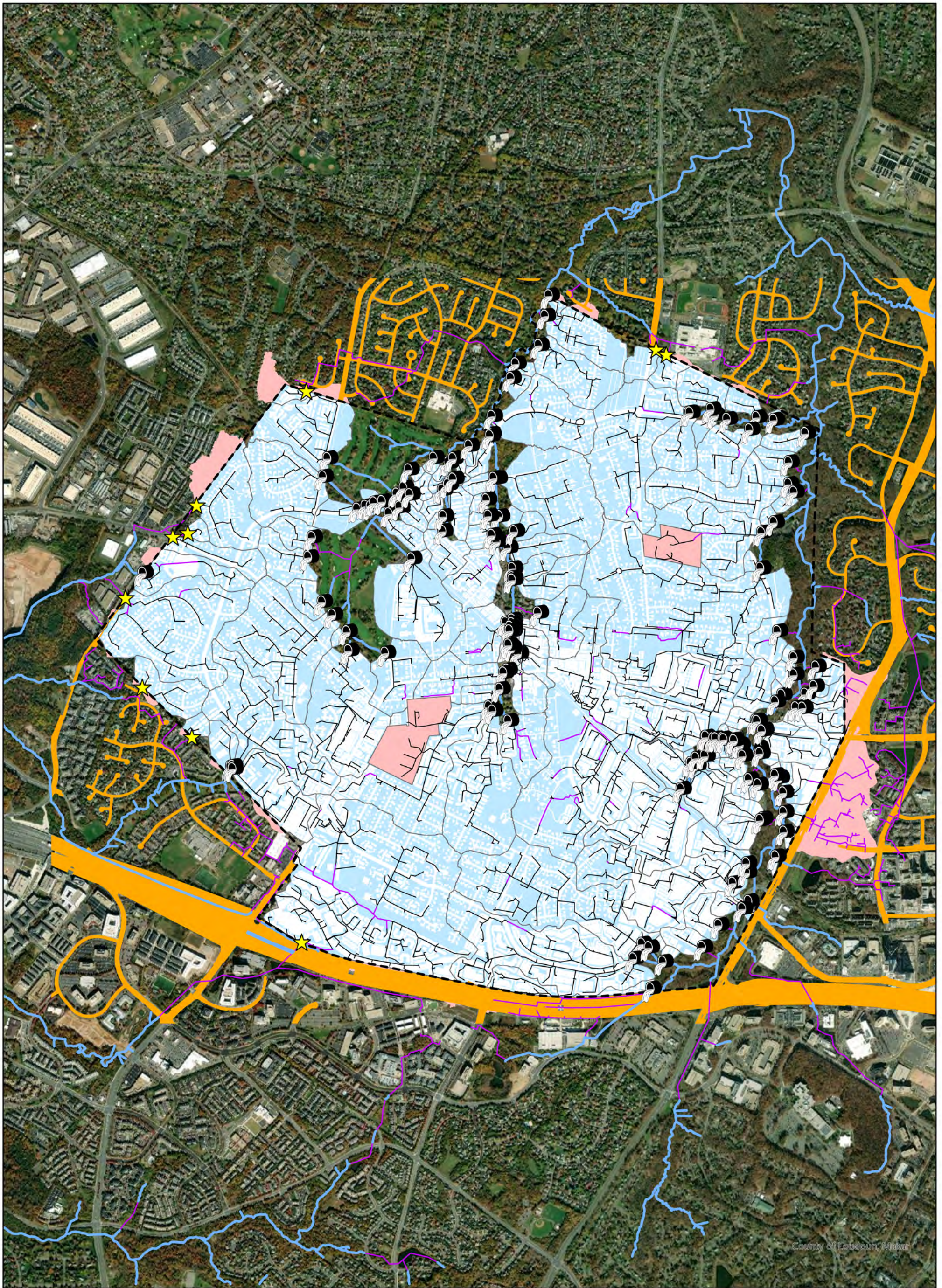
Documentation

Letters, emails, or other documents associated with tracking complaints and comments will be maintained by the Town for a minimum of three years.











The Town's annual report to the Department of Environmental Quality will include a summary of any public input on the MS4 program received (including stormwater complaints) and how the Town responded.

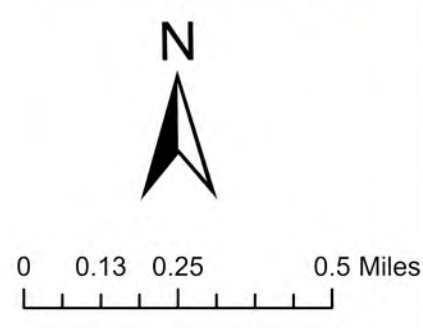
Appendix C

Storm Sewer System Map and Outfall Table



County of Loudoun, Mass

-  MS4 outfall
-  MS4 Interconnection
-  Town boundary
-  Streams
-  Storm sewer lines
-  Hydrologic connections
-  Impervious
-  Town MS4
-  Fairfax County MS4 responsibility
-  VDOT MS4



Herndon MS4 Service Area and Storm Sewer Map

OBJECTID	OUTFALLID	Latitude	Longitude	GPS_Unit	MS4_Outfal	Stream	Amec_OF	UniqueID	NHD_CODE	WQ_CATEGOR	IMP_CAUSE	TMDL	Acres
1	Sufi001.OF30	38.98017	-77.39049	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0006.OF02	0207000800059(3A)		Not Assessed	Not Assessed	1.541322396
2	Sufi001.OF31	38.97874	-77.39106	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0006.OF07	0207000800059(3A)		Not Assessed	Not Assessed	3.378582075
3	Sufi001.OF32	38.97679	-77.39093	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0006.OF09	0207000800059(3A)		Not Assessed	Not Assessed	11.4772275
4	Sufi001.OF86	38.97048	-77.38622	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF26	0207000800369(3A)		Not Assessed	Not Assessed	5.184084038
5	Sufi005.OF0	38.97058	-77.39479	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF08	0207000800059(3A)		Not Assessed	Not Assessed	23.39052898
6	Sufi005.OF1	38.97073	-77.39716	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF10	0207000800059(3A)		Not Assessed	Not Assessed	58.36805938
7	Sufi005.OF12	38.9776	-77.39451	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF02	0207000800059(3A)		Not Assessed	Not Assessed	6.126826968
8	Sufi005.OF13	38.97793	-77.39373	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF01	0207000800059(3A)		Not Assessed	Not Assessed	3.600064744
9	Sufi005.OF16	38.98044	-77.39838	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0006.OF15	0207000800361(3A)		Not Assessed	Not Assessed	38.01329465
10	Sufi005.OF17	38.97951	-77.39868	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF16	0207000800059(3A)		Not Assessed	Not Assessed	40.14095089
11	Sufi005.OF3	38.9732	-77.39884	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF06	0207000800059(3A)		Not Assessed	Not Assessed	8.229324353
12	Sufi005.OF5	38.97546	-77.39971	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF05	0207000800059(3A)		Not Assessed	Not Assessed	15.01271752
13	Sufi005.OF7	38.97645	-77.39943	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0007.OF04	0207000800059(3A)		Not Assessed	Not Assessed	8.807673058
14	Sufi006.OF33	38.97226	-77.38668	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF17	0207000800369(3A)		Not Assessed	Not Assessed	18.97200052
15	Sufi006.OF36	38.97476	-77.38652	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF12	0207000800369(3A)		Not Assessed	Not Assessed	5.729615676
16	Sufi006.OF37	38.97582	-77.38678	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF11	0207000800369(3A)		Not Assessed	Not Assessed	12.35280793
17	Sufi006.OF39	38.97624	-77.38753	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF10	0207000800369(3A)		Not Assessed	Not Assessed	19.562818
18	Sufi006.OF40	38.97742	-77.38746	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF07	0207000800369(3A)		Not Assessed	Not Assessed	2.596629053
19	Sufi006.OF42	38.97939	-77.38734	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF04	0207000800369(3A)		Not Assessed	Not Assessed	52.57785877
20	Sufi006.OF43	38.97929	-77.38782	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0008.OF03	0207000800369(3A)		Not Assessed	Not Assessed	3.844601477
21	Sufi006.OF90	38.96781	-77.38814	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0009.OF02	0207000800369(3A)		Not Assessed	Not Assessed	58.60463748
22	Sufi006.OF91	38.9676	-77.38791	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0009.OF03	0207000800369(3A)		Not Assessed	Not Assessed	59.9794752
23	Susu018.OF59	38.98197	-77.37105	Garmin 60CSx	Y	Sugarland Run	No	Susu0034.OF02	0207000800362(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	5.942672085
24	Susu018.OF60	38.98245	-77.37331	Garmin 60CSx	Y	Sugarland Run	No	Susu0034.OF05	0207000800362(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.119812696
25	Sufi001.OF18	38.98856	-77.38388	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0004.OF01	0207000800059(3A)		Not Assessed	Not Assessed	1.890031165
26	Sufi001.OF19	38.9875	-77.3842	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0004.OF02	0207000800059(3A)		Not Assessed	Not Assessed	22.67361778
27	Sufi001.OF21	38.986	-77.38465	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0004.OF03	0207000800059(3A)		Not Assessed	Not Assessed	26.48571178
28	Sufi001.OF23	38.9844	-77.38699	Garmin 60CSx	Y	Folly Lick Branch	No	Sufi0004.OF04	0207000800059(3A)		Not Assessed	Not Assessed	1.920653955
29	Susu018.OF62	38.98268	-77.37364	Garmin 60CSx	Y	Sugarland Run	No	Susu0034.OF06	0207000800362(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	12.94334209
30	Susu018.OF63	38.98259	-77.375	Garmin 60CSx	Y	Sugarland Run	No	Susu0034.OF08	0207000800362(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	69.42496208
31	Susu023.OF64	38.9797	-77.368	Garmin 60CSx	Y	Sugarland Run	No	Susu0038.OF01	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	5.250187548
32	Susu023.OF65	38.97644	-77.3704	Garmin 60CSx	Y	Sugarland Run	No	Susu0039.OF02	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	36.04552889
33	Susu023.OF66	38.97469	-77.37044	Garmin 60CSx	Y	Sugarland Run	No	Susu0039.OF04	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	155.3000358
34	Susu023.OF67	38.96828	-77.36771	Garmin 60CSx	Y	Sugarland Run	No	Susu0040.OF06	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	5.69223971
35	Susu023.OF68	38.96768	-77.36782	Garmin 60CSx	Y	Sugarland Run	No	Susu0040.OF08	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.059801596
36	Susu023.OF69	38.96812	-77.36913	Garmin 60CSx	Y	Sugarland Run	No	Susu0040.OF09	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.737633817
37	Susu023.OF70	38.97	-77.38	Garmin 60CSx	Y	Sugarland Run	No	Susu0040.OF10	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	11.7014155
38	Susu025.OF49	38.95881	-77.37253	Garmin 60CSx	Y	Sugarland Run	No	Susu0043.OF02	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	56.81273111
39	Susu025.OF51	38.96019	-77.36975	Garmin 60CSx	Y	Sugarland Run	No	Susu0044.OF01	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.64206778
40	Susu025.OF52A	38.96343	-77.36868	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF22	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	8.898369067
41	Susu025.OF52B	38.96232	-77.36893	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF25	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.976322061
42	Susu025.OF53	38.96394	-77.36948	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF21	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.158368687
43	Susu025.OF54	38.96414	-77.3697	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF20	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.097886897
44	Susu025.OF55	38.96555	-77.37084	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF15	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.45390411
45	Susu025.OF56	38.9567	-77.37355	Garmin 60CSx	Y	Sugarland Run	No	Susu0043.OF07	0207000800027(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	9.157010717
46	Susu025.OF57	38.95578	-77.37849	Garmin 60CSx	Y	Sugarland Run	No	Susu0043.OF11	0207000800377(3A)		Not Assessed	Not Assessed	87.45015518
47	Susu025.OF58	38.95503	-77.37907	Garmin 60CSx	Y	Sugarland Run	No	Susu0043.OF13	0207000800377(3A)		Not Assessed	Not Assessed	83.68310664
48	Susu026.OF96	38.96362	-77.37582	Garmin 60CSx	Y	Sugarland Run	No	Susu0041.OF14	0207000800372(5A)		Benthic-Macroinvertebrate Bioassessm	In Development for 2024	42.99223197
49	HCHC.OF125	38.96494	-77.40488		Y	Horsepen Run	No	HCHC0020.OF01	0207000800067(3A)		Not Assessed	Not Assessed	8.40792518
50	HCHC.OF126	38.96498	-77.40475		Y	Horsepen Run	No	HCHC0020.OF03	0207000800067(3A)		Not Assessed	Not Assessed	63.22114484
51	HCHC.OF127	38.96485	-77.40474		Y	Horsepen Run	No	HCHC0020.OF02	0207000800067(3A)		Not Assessed	Not Assessed	28.9341946
52		38.97787	-77.39650		Y	Folly Lick Branch	Yes	Sufi0007.OF15	0207000800059(3A)		Not Assessed	Not Assessed	0.060222804
53		38.97801	-77.39597		Y	Folly Lick Branch	Yes	Sufi0007.OF14	0207000800059(3A)		Not Assessed	Not Assessed	0.255005003
54		38.97798	-77.39563		Y	Folly Lick Branch	Yes	Sufi0007.OF13	0207000800059(3A)		Not Assessed	Not Assessed	10.12092587
55		38.97818	-77.39542		Y	Folly Lick Branch	Yes	Sufi0007.OF12	0207000800059(3A)		Not Assessed	Not Assessed	1.822792387
56		38.97824	-77.39489		Y	Folly Lick Branch	Yes	Sufi0007.OF11	0207000800059(3A)		Not Assessed	Not Assessed	0.458609183
57		38.97861	-77.39394		Y	Folly Lick Branch	Yes	Sufi0006.OF14	0207000800059(3A)		Not Assessed	Not Assessed	0.346280102
58		38.97890	-77.39349		Y	Folly Lick Branch	Yes	Sufi0006.OF12	0207000800059(3A)		Not Assessed	Not Assessed	3.321182148
59		38.97982	-77.39315		Y	Folly Lick Branch	Yes	Sufi0006.OF11	0207000800059(3A)		Not Assessed	Not Assessed	1.167753999
60		38.97857	-77.39309		Y	Folly Lick Branch	Yes	Sufi0006.OF13	0207000800059(3A)		Not Assessed	Not Assessed	1.133643414
61		38.98039	-77.39152		Y	Folly Lick Branch	Yes	Sufi0006.OF10	0207000800059(3A)		Not Assessed	Not Assessed	1.40735028
62		38.97904	-77.39063		Y	Folly Lick Branch	Yes	Sufi0006.OF06	0207000800059(3A)		Not Assessed	Not Assessed	7.759541138
63		38.97934	-77.39025		Y	Folly Lick Branch	Yes	Sufi0006.OF04	0207000800059(3A)		Not Assessed	Not Assessed	0.932156331
64		38.97933	-77.39029		Y	Folly Lick Branch	Yes	Sufi0006.OF05	0207000800059(3A)		Not Assessed	Not Assessed	1.764451729
65		38.98035	-77.39028		Y	Folly Lick Branch	Yes	Sufi0006.OF03	0207000800059(3A)		Not Assessed	Not Assessed	1.332895734
66		38.98098	-77.38924		Y	Folly Lick Branch	Yes	Sufi0006.OF01	0207000800059(3A)		Not Assessed	Not Assessed	1.750572279
67		38.98157	-77.38782		Y	Folly Lick Branch	Yes	Sufi0008.OF01	0207000800369(3A)		Not Assessed	Not Assessed	0.309816954
68		38.98148	-77.38787		Y	Folly Lick Branch	Yes	Sufi0008.OF02	0207000800369(3A)		Not Assessed	Not Assessed	4.37060832
69		38.98247	-77.38772		Y	Folly Lick Branch	Yes	Sufi0004.OF06	0207000800059(3A)		Not Assessed	Not Assessed	39.67034419
70		38.98437	-77.38648		Y	Folly Lick Branch	Yes	Sufi0004.OF05	0207000800059(3A)		Not Assessed	Not Assessed	2.873276222

71	38.97826	-77.38816	Y	Folly Lick Branch	Yes	Suff0008.OF05	0207000800369:3A	Not Assessed	Not Assessed	2.482300009
72	38.97744	-77.38804	Y	Folly Lick Branch	Yes	Suff0008.OF06	0207000800369:3A	Not Assessed	Not Assessed	1.856902376
73	38.97886	-77.36864	Y	Sugarland Run	Yes	Susu0038.OF02	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	37.33189537
74	38.97845	-77.36829	Y	Sugarland Run	Yes	Susu0038.OF03	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.791059062
75	38.98141	-77.36751	Y	Sugarland Run	Yes	Susu0033.OF01	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	6.031671312
76	38.98251	-77.37495	Y	Sugarland Run	Yes	Susu0034.OF07	0207000800362:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	14.07279797
77	38.98217	-77.37255	Y	Sugarland Run	Yes	Susu0034.OF04	0207000800362:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.386506688
78	38.98163	-77.37111	Y	Sugarland Run	Yes	Susu0034.OF03	0207000800362:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	20.639062
79	38.98210	-77.36954	Y	Sugarland Run	Yes	Susu0034.OF01	0207000800362:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.103256466
80	38.97694	-77.36961	Y	Sugarland Run	Yes	Susu0039.OF01	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.06038966
81	38.97464	-77.37051	Y	Sugarland Run	Yes	Susu0039.OF03	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.137196376
82	38.97144	-77.36946	Y	Sugarland Run	Yes	Susu0040.OF01	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	10.36558027
83	38.96924	-77.36844	Y	Sugarland Run	Yes	Susu0040.OF04	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.537489634
84	38.97011	-77.36843	Y	Sugarland Run	Yes	Susu0040.OF02	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.838670998
85	38.96963	-77.36701	Y	Sugarland Run	Yes	Susu0040.OF03	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	4.643190794
86	38.96865	-77.36715	Y	Sugarland Run	Yes	Susu0040.OF05	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.408761872
87	38.96756	-77.36790	Y	Sugarland Run	Yes	Susu0040.OF07	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	10.14878961
88	38.96695	-77.37097	Y	Sugarland Run	Yes	Susu0040.OF12	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.951872919
89	38.96692	-77.37086	Y	Sugarland Run	Yes	Susu0040.OF11	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.339413458
90	38.96648	-77.37045	Y	Sugarland Run	Yes	Susu0040.OF13	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	14.49106025
91	38.96644	-77.37055	Y	Sugarland Run	Yes	Susu0040.OF14	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.110329869
92	38.96574	-77.37199	Y	Sugarland Run	Yes	Susu0041.OF01	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.760427906
93	38.96518	-77.37182	Y	Sugarland Run	Yes	Susu0041.OF16	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.464092818
94	38.96530	-77.37070	Y	Sugarland Run	Yes	Susu0041.OF17	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.514033965
95	38.95930	-77.37166	Y	Sugarland Run	Yes	Susu0043.OF03	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.604720028
96	38.95977	-77.37166	Y	Sugarland Run	Yes	Susu0043.OF01	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	14.51893966
97	38.96132	-77.36921	Y	Sugarland Run	Yes	Susu0041.OF26	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.216856546
98	38.96201	-77.37059	Y	Sugarland Run	Yes	Susu0041.OF23	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	6.296201841
99	38.96193	-77.37074	Y	Sugarland Run	Yes	Susu0041.OF24	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	8.610420786
100	38.96400	-77.37143	Y	Sugarland Run	Yes	Susu0041.OF18	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	2.600746046
101	38.96373	-77.37084	Y	Sugarland Run	Yes	Susu0041.OF19	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.584254298
102	38.97664	-77.38638	Y	Folly Lick Branch	Yes	Suff0008.OF09	0207000800369:3A	Not Assessed	Not Assessed	5.207725842
103	38.97647	-77.38783	Y	Folly Lick Branch	Yes	Suff0008.OF08	0207000800369:3A	Not Assessed	Not Assessed	4.520576865
104	38.97744	-77.39095	Y	Folly Lick Branch	Yes	Suff0006.OF08	0207000800059:3A	Not Assessed	Not Assessed	1.57519721
105	38.97432	-77.38654	Y	Folly Lick Branch	Yes	Suff0008.OF13	0207000800369:3A	Not Assessed	Not Assessed	0.042814459
106	38.97420	-77.38655	Y	Folly Lick Branch	Yes	Suff0008.OF14	0207000800369:3A	Not Assessed	Not Assessed	13.61348342
107	38.97252	-77.38491	Y	Folly Lick Branch	Yes	Suff0008.OF15	0207000800369:3A	Not Assessed	Not Assessed	19.7850064
108	38.96709	-77.38691	Y	Folly Lick Branch	Yes	Suff0009.OF04	0207000800369:3A	Not Assessed	Not Assessed	19.16807741
109	38.97219	-77.38657	Y	Folly Lick Branch	Yes	Suff0008.OF16	0207000800369:3A	Not Assessed	Not Assessed	1.138936364
110	38.97200	-77.38660	Y	Folly Lick Branch	Yes	Suff0008.OF18	0207000800369:3A	Not Assessed	Not Assessed	5.950745574
111	38.97181	-77.38661	Y	Folly Lick Branch	Yes	Suff0008.OF20	0207000800369:3A	Not Assessed	Not Assessed	0.157849095
112	38.97183	-77.38673	Y	Folly Lick Branch	Yes	Suff0008.OF19	0207000800369:3A	Not Assessed	Not Assessed	0.452963191
113	38.97166	-77.38663	Y	Folly Lick Branch	Yes	Suff0008.OF21	0207000800369:3A	Not Assessed	Not Assessed	0.625397514
114	38.97162	-77.38663	Y	Folly Lick Branch	Yes	Suff0008.OF23	0207000800369:3A	Not Assessed	Not Assessed	0.012350313
115	38.97164	-77.38676	Y	Folly Lick Branch	Yes	Suff0008.OF22	0207000800369:3A	Not Assessed	Not Assessed	0.013761871
116	38.97077	-77.38664	Y	Folly Lick Branch	Yes	Suff0008.OF25	0207000800369:3A	Not Assessed	Not Assessed	0.508363376
117	38.97092	-77.38684	Y	Folly Lick Branch	Yes	Suff0008.OF24	0207000800369:3A	Not Assessed	Not Assessed	1.281377111
118	38.96966	-77.38696	Y	Folly Lick Branch	Yes	Suff0008.OF27	0207000800369:3A	Not Assessed	Not Assessed	10.31182634
119	38.96952	-77.38718	Y	Folly Lick Branch	Yes	Suff0008.OF28	0207000800369:3A	Not Assessed	Not Assessed	19.39350624
120	38.96870	-77.38743	Y	Folly Lick Branch	Yes	Suff0009.OF01	0207000800369:3A	Not Assessed	Not Assessed	5.107158805
121	38.97533	-77.39304	Y	Folly Lick Branch	Yes	Suff0007.OF03	0207000800059:3A	Not Assessed	Not Assessed	49.96264542
122	38.97169	-77.39726	Y	Folly Lick Branch	Yes	Suff0007.OF09	0207000800059:3A	Not Assessed	Not Assessed	1.665178671
123	38.97255	-77.39818	Y	Folly Lick Branch	Yes	Suff0007.OF07	0207000800059:3A	Not Assessed	Not Assessed	67.64444781
124 HCHC.OF128	38.97477	-77.41039	Y	Horsepen Run	Yes	HCHC0017.OF01	0207000800374:3A	Not Assessed	Not Assessed	21.07223442
125	38.96474	-77.37484	Y	Sugarland Run	Yes	Susu0041.OF13	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	12.85223199
126	38.96485	-77.37517	Y	Sugarland Run	Yes	Susu0041.OF12	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	12.34645643
127	38.96511	-77.37484	Y	Sugarland Run	Yes	Susu0041.OF11	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.231269858
128	38.96520	-77.37425	Y	Sugarland Run	Yes	Susu0041.OF10	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	3.020775103
129	38.96615	-77.37422	Y	Sugarland Run	Yes	Susu0041.OF08	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	166.7768468
130	38.96616	-77.37418	Y	Sugarland Run	Yes	Susu0041.OF09	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	35.24727746
131	38.96607	-77.37371	Y	Sugarland Run	Yes	Susu0041.OF07	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.550354614
132	38.96607	-77.37354	Y	Sugarland Run	Yes	Susu0041.OF06	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.889576978
133	38.96607	-77.37310	Y	Sugarland Run	Yes	Susu0041.OF05	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.206922019
134	38.96603	-77.37302	Y	Sugarland Run	Yes	Susu0041.OF04	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.921218156
135	38.96601	-77.37237	Y	Sugarland Run	Yes	Susu0041.OF02	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	1.002965001
136	38.96597	-77.37236	Y	Sugarland Run	Yes	Susu0041.OF03	0207000800372:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.518361348
137	38.95785	-77.37155	Y	Sugarland Run	Yes	Susu0043.OF04	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.764897567
138	38.95749	-77.37200	Y	Sugarland Run	Yes	Susu0043.OF05	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	4.173120482
139	38.95748	-77.37195	Y	Sugarland Run	Yes	Susu0043.OF06	0207000800027:5A	Benthic-Macroinvertebrate Bioassessm	In Development for 2024	0.724183991
140	38.95557	-77.37458	Y	Sugarland Run	Yes	Susu0043.OF08	0207000800027:3A	Not Assessed	Not Assessed	7.46513277
141	38.95558	-77.37800	Y	Sugarland Run	Yes	Susu0043.OF10	0207000800377:3A	Not Assessed	Not Assessed	1.341129191

142	38.95485	-77.37713	Y	Sugarland Run	Yes	Susu0043.OF09	020700080037713A	Not Assessed	Not Assessed	1.782918145
143	38.95351	-77.37793	Y	Sugarland Run	Yes	Susu0043.OF12	020700080005913A	Not Assessed	Not Assessed	13.24254855

Appendix D

Illicit Discharge Detection and Elimination Program Manual

TOWN OF **Herndon** VIRGINIA

Illicit Discharge Detection and Elimination (IDDE) Plan

September 24, 2014
Updated March 27, 2019

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1. Overview

An illicit discharge is generally any discharge to the municipal separate storm sewer system (MS4) that is not composed entirely of stormwater (other than exceptions discussed in this plan). The Virginia Department of Environmental Quality (DEQ) currently regulates discharges of stormwater through the authority delegated from the United States Environmental Protection Agency (U.S. EPA) under the National Pollutant Discharge Elimination System (NDPES) section of the Federal Clean Water Act. DEQ regulates the discharge of stormwater from the MS4 to state surface waters through the issuance of Virginia Pollutant Discharge Elimination System (VPDES) MS4 permits.

1.1 Work Completed

The Town of Herndon was initially issued a General VPDES Permit for Discharges of Stormwater from Small MS4s effective July 8, 2003. This MS4 permit required the Town to develop an illicit discharge detection and elimination (IDDE) program. The U.S. EPA recommended that localities use the guidance entitled *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* (EPA X-82907801-0, October 2004, Center for Watershed Protection and Robert Pitt) to assist with the development the IDDE program. The plan addresses the following eight basic program components that a community should consider in developing a program:

- 1) Audit of existing resources and programs
- 2) Establish responsibility, authority and tracking
- 3) Complete a desktop assessment of illicit discharge potential
- 4) Develop program goals and implementation strategies
- 5) Search for illicit discharge problems in the field
- 6) Isolate and fix individual illicit discharges
- 7) Prevent illicit discharges
- 8) Evaluate the program

During the 2003 MS4 permit cycle, the Town systematically focused on these eight components to develop an IDDE program to satisfy the general permit. A 2007 audit of existing resources and programs identified program needs and helped to develop program goals and implementation strategies, which also established responsibility, authority, and tracking. A completed desktop assessment of illicit discharge potential was conducted based on Center for Watershed Protection (CWP) protocols prior to the search for illicit discharges problems in the field. Consistent with the CWP guidance, dry weather outfall screening was conducted as part of the search for illicit discharge problems. The Town took steps to isolate and fix individual obvious illicit discharges noted during the screening. The desktop assessment and the field work led to the creation of the IDDE program. Overall program effectiveness was evaluated and documented in annual reports to DEQ.

The Town's MS4 permit was reissued in 2008 and again in 2013. The IDDE program was updated to include new requirements for the Town to address the following: screening methodologies; a prioritized schedule for field screening; methodologies to collect information on sampling activities; timeframes and procedures for conducting investigations; mechanisms to

eliminate sources of illicit discharges including descriptions of legal authority and enforcement policies and procedures; and, discharge elimination verification. The Town also increased outfall screening from 10% of total outfalls annually to an MS4 permit-mandated minimum of 50 outfalls annually.

1.2 New Requirements

The most recent MS4 permit, effective November 1, 2018, includes new requirements for the Town to: (1) describe the legal authorities available to eliminate ongoing discharges, including enforcement authorities, and (2) include a unique outfall identifier in dry weather screening data tracking. The MS4 permit also qualifies the minimum of 50 outfalls to be screened annually so that no more than 50% are screened in the previous 12-month period except if all outfalls have been screened in the previous three years. This revised plan is compliant with the Town's current MS4 permit.

1.3 Drainage System

The Town of Herndon is located in Fairfax County, Virginia and shares a border with Loudoun County to the west. The primary land use in the Town is residential with a downtown business core and several business corridors (consisting primarily of shopping centers and office parks).

The total land area of the Town is 4.2 square miles. The Town drains to two major streams: Sugarland Run and Horsepen Creek. The Town's stormwater conveyance system consists of 67.5 miles of pipes and 143 outfalls as of March 2019. The system is digitally mapped in the Town's Geographic Information System (GIS).

2. Program Goals

The ultimate goal of the IDDE program is to find, eliminate, and prevent illicit discharges to the Town stormwater drain system. An illicit discharge is defined as any discharge to the storm drain system that is not composed entirely of stormwater, except for discharges allowed under a separate VPDES permit or otherwise authorized by DEQ.

Illicit discharges have a measurable flow during dry weather and contain pollutants and/or pathogens. A storm drain with measurable flow but containing no pollutants is simply considered a discharge; as many storm drains with dry weather flow are, in fact, free of contaminants. Flow in these drains may be derived from springs, groundwater seepage, piped streams, or leaks from water distribution pipes. Consequently, field testing and/or water quality sampling are often needed following storm system and onsite investigations to confirm whether pollutants are actually present in dry weather flow, in order to classify them as an illicit discharge.

Non-stormwater discharges to the storm drain system occur most often through illegal connections to the storm drain system or through illegal dumping activities. Because of these discharges, contaminated stormwater enters into storm drains or directly into local waters without receiving treatment from a wastewater treatment plant. Illicit connections may be intentional or may be unknown to the property owner, as is often the case with floor drain connections.

3. Municipal Storm Sewer System Mapping

3.1 Current Status

A major component required for an effective IDDE program is the development of a storm sewer map. The Town currently has the following stormwater-related information in their GIS:

- Outfalls or applicable points of discharge, with unique identifier
- Receiving waters
- Catch basins and manholes
- Pipes, ditches, and other conduits
- Public stormwater quality management facilities
- Private stormwater quality management facilities

When used in reference to an MS4, an outfall is defined as “a point source at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters.” In cases where the outfall is located outside of the MS4 operator’s legal responsibility, the operator may elect to map the known point of discharge location closest to the actual outfall.

The Town engaged in a comprehensive update of its storm sewer system map and associated outfall information table during the 2013-2018 permit cycle. All information is currently maintained on a continuous basis.

3.2 Outfall Information Table

The MS4 permit requires an information table to be maintained with details on each stormwater outfall. The 2018 MS4 permit requires the following components:

- Unique identifier
- Lat/long coordinates
- Estimated MS4 acreage served
- HUC6 Code of the receiving water
- Name of the receiving surface water and indication of impairment per the 2016 303(d)/305(b) Water Quality Assessment and Integrated Report
- Predominant land use for each outfall discharging to an impaired water
- Name of applicable TMDL(s)

New components include the lat/long of each outfall, the HUC6 Code of the receiving water, whether the receiving water is on the 2016 impaired waters list (as opposed to the 2010 list), and the predominant land use. The Town must update the outfall table to include these items by July 1, 2019.

4. Ordinance

Article VIII, Chapter 26 of the Town Code entitled “Stormwater Management” prohibits illicit discharges to the storm sewer system. The following allowable exceptions found in state regulations (9VAC25-890-20) may not be considered an illicit discharge unless the Town identifies such discharges as sources of pollutants:

1. Water line flushing, managed in a manner to avoid an instream impact;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising groundwater;
5. Uncontaminated groundwater infiltration, as defined at 40 CFR 35.2005(20);
6. Uncontaminated pumped groundwater;
7. Discharges from potable water sources;
8. Foundation drains;
9. Air conditioning condensation;
10. Irrigation water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Lawn watering;
15. Individual residential car washing;
16. Flows from riparian habitats and wetlands;
17. Dechlorinated swimming pool discharges;
18. Street wash water;
19. Discharges or flows from firefighting activities;
20. Discharges from noncommercial fundraising car washes if the washing uses only biodegradable, phosphate-free, water-based cleaners; or
21. Other activities generating discharges identified by the department as not requiring VPDES authorization.

Penalties for violations are in the Town Code and include escalation procedures for noncompliance. Responsible parties must provide for testing, containment, and cleanup through direct expenditure, or if deemed more practical, through reimbursement of costs for Town services associated with addressing the illicit material.

5. Illicit Discharge Detection and Elimination Program

5.1 Program Resources

Staff from the Department of Public Works (DPW) performs or coordinates most of the duties associated with the IDDE program. This includes storm sewer system mapping, dry weather outfall screening for illicit discharges, outreach and education, stormwater system operation and maintenance, sanitary sewer operation and maintenance, and development review. Fairfax County performs spill response (Fairfax County Fire and Rescue) and household hazardous waste (HHW) services for the Town.

5.2 Response to Report of Suspected Illicit Discharges

The Town's program for the public to report suspected illicit discharges consists of telephone and web-based reporting. The Town's Customer Relationship Manager (CRM) reporting system is the web-based reporting system that can be accessed by residents 24 hours a day to report a suspected illicit discharge and to check on the status of a complaint. The public can log into the CRM and track the progress of the investigation. The DPW main telephone number can be used by residents during business hours to report a potential illicit discharge, while the Town Police non-emergency line can be used after business hours.

The following are promoted by the Town to report suspected illicit discharges:

- Emergency: 911
- Non-Emergency:
 - Phone: DPW at (703) 435-6853 (business hours)
 - Phone: Town Police at (703) 435-6846 (non-business hours)
 - Email: DPW at publicworks@herndon-va.gov
 - Web: Customer Relationship Manager "Report a Problem" function

Problems reported through the CRM are routed directly to DPW staff for investigation, while DPW staff answers the main telephone number. Upon receipt of complaint, staff will visit the location of the complaint, if appropriate, and documents follow up activities (see Section 5.4 "Illicit Discharge Investigations.") For those instances where the source is apparent and a responsible party is identified, staff will follow the procedures outlined in Section 74 of Town Code to eliminate the discharge and recoup costs of addressing the discharge, if applicable. If discharge is observed at an outfall, staff will utilize the Outfall Screening Field Sheet found in Attachment B during the site investigation to gather observed field data. This information, along with further investigation, will aid in determining the nature of the material being discharged. If the substance is suspected to be hazardous, Fairfax County HAZMAT will be notified immediately by dialing 911. Town staff will remain onsite at a safe distance to receive the HAZMAT team and transfer site operations.

5.3 Dry Weather Outfall Screening

The MS4 general permit requires the Town to perform dry weather screening on a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period except if all outfalls have been screened in the previous three years. Outfall inspections conducted during dry weather are used to identify potential illicit discharges when flow is observed or when visual, olfactory, or other indicators are observed. Dry weather conditions mean at least 48 hours following the last runoff producing rainfall or snowmelt event.

5.3.1 Prioritization Schedule

The permit requires the Town to develop a prioritization schedule based on criteria such as age of infrastructure, land use, historical illegal discharges, dumping, or cross connections. The Town's stormwater conveyance system has 143 regulated outfall points as of April 2019. This means that each outfall can be inspected at least once every three years.

Outfalls will be prioritized for inspection in the upcoming year if they were identified the previous year with a confirmed illicit discharge or a suspected illicit discharge where the source was not identified.

5.3.2 General Field Assessment Procedures

The following general recommendations apply to the dry weather field inspection and water sampling work (Center for Watershed Protection & Pitt, 2004):

- Notify the public in the vicinity
- Perform field work in teams
- Conduct safety meetings prior to deployment
- Perform biennial training for field staff in identifying and reporting potential illicit discharges
- Develop safety protocols and conduct periodic training for field staff
- Utilize GIS and hard copy mapping information
- Fill out Outfall Screening Field Sheet (Appendix B)
- Perform QA/QC of field data and ensure promptly entered into database

5.3.3 Information Collection for Dry Weather Screening

Field observations and general information shall be collected for routine dry weather screening using the Outfall Screening Field Sheet. General information collected on the Outfall Screening Field Sheet includes:

- Facility ID (unique identifier for the outfall)
- Outfall location
- HUC
- Local Watershed
- Date/time of screening
- Person performing the screening
- Weather conditions
- Time since last precipitation
- Quantity of last precipitation
- Local land use
- Outfall description (material, shape, number of pipes, diameter)
- Visual field observations
 - Observed dry weather flow (Yes or No)
 - Physical indicators for flowing outfalls: odor, color, turbidity, water surface/floatables
 - Physical indicators for both flowing and non-flowing outfalls: structural condition/outfall damage, deposits or stains, and pipe benthic growth
- Flow description (qualitative observation: trickle, moderate or substantial)
- Estimated discharge rate (if flow observed during field screening)

5.3.4 Field Observations for Flowing Outfalls

Source determination and ultimate elimination of illicit discharges is the overall goal of the program. If screening reveals dry weather flow, the discharge from the outfall and the area around the outfall must be inspected visually for color, turbidity, sheen, floating or submerged solids, adverse effects on plants or animal in proximity to the outfall, and odor. The flow will also be field tested for common parameters that may indicate potential pollution sources. These will typically include pH, chlorine, and detergents.

Staff should then perform source investigation measures in the outfall drainage area to identify and eliminate the source. Field observations are recorded during the initial screening process and used in the investigation to determine and eliminate the source of the dry weather flow. These recorded field observations should be taken in consideration and will assist in focusing on possible sources during the investigative techniques described in Section 5.4.

5.3.4.1 Estimated Discharge Rate

The estimated discharge rate, or flow rate, of the observed dry weather flow, can be discerned through a simple field method by measuring and recording field measurements of the flow on the Outfall Screening Field Sheet, and performing a simple calculation. Upon identifying a possible source for the illicit discharge, this measurement can be compared to the estimated discharge rate for the source.

- Measure and record the approximate width of the water surface.
- Measure and record the approximate average depth of the discharge.
- Multiply the width of the water surface times the approximate average depth to get the flow area.
- Measure flow velocity by recording the travel time for an object floating near the surface over a known length. If the observed does not contain any observable floating object, then a leaf or other organic detritus may be introduced.
- Multiply the computed flow area by the flow velocity and record the flow rate. See Attachment A for more details on filling out this portion of the Outfall Screening Field Sheet.

Additionally, if the duration of the observed illicit discharge is known, then an estimated volume of discharge can be computed (flow rate x duration). The estimated volume of discharge may also comprise a portion of the reporting requirements pursuant to MS4 permit Part III G “Reports of unauthorized discharges.”

5.3.4.2 Physical Indicators

The Outfall Screening Field Sheet requires the field crew to list physical indicators for flowing and non-flowing outfalls and rank the relative sensitivity index for each. At flowing outfalls this includes flow, odor, color, turbidity and floatables. The information that is observed and documented related to these physical characteristics are helpful in determining the possible source, but cannot be fully relied upon by themselves.

Odor

An odor can be helpful in identifying the source of the flow or narrowing the area of focus, but not every illicit flow will have a smell. Since smell can be somewhat subjective, given the variability of sensitivities among individuals, the field crew should reach a consensus about the presence and severity. An investigator’s ability to detect odors may change during the time of exposure, so odors should be noted when first approaching an outfall or storm drain opening during the screening, since investigators can become de-sensitized to a particular odor within minutes of exposure. For investigations involving checking manholes, presence and severity of odor should be assessed immediately upon opening the manhole before de-sensitized, and before the odor is able to dissipate and become more diffuse with the manhole cover removed.

Documenting the severity score is also a group effort. A severity score of one means the odor is faint or the crew cannot agree on its presence or origin. A score of two indicates a moderate odor

within the pipe. A score of three is assigned if the odor is so strong that the crew smells it a considerable distance from the outfall. Table 1 shows a list of odors that may be associated with dry weather discharges and their possible sources. This table should be used in conjunction with other field observations and activities (i.e., physical characteristics, investigations and indicator monitoring) in identifying the source of the discharge.

Table 1: Odors and Their Possible Sources

Odor	Possible Sources
Musty	Raw or partially treated sewage, pet waste, or algal growth
Rotten egg / hydrogen sulfide	Raw sewage, sulfuric acid, anaerobic water conditions
Sewage/fecal	Raw sewage
Chlorine	Broken potable water line, sprinkler/irrigation runoff, swimming pool, wastewater treatment plant discharge, industrial process water (including cooling tower discharge)
Sharp, pungent	Chemicals or pesticides
Gasoline, spent petroleum	Industrial discharge, illegal dumping of wastes or waste water, fuel spill/leak

Color

The color is a visual assessment that is a measure of the tint or intensity of color observed in the discharge. The color can be clear, slightly tinted, or intense. To measure color, a sample of the discharge is collected in a clear bottle and held up to the light. Field crews should also look for downstream plumes that may be associated with the observed discharge. Color is influenced by the presence or absence of substances in the water. However, the presence of color in the water may not necessarily be an indicator of a water quality problem or illicit discharge and not every illicit discharge will have a color. The color severity should also be documented as faint, clearly visible, or clearly visible in outfall flow. Table 2 provides common discharge colors and their possible sources. This is a helpful guide in determining whether the discharge is potentially illicit, and from what source it may originate.

Table 2: Discharge Colors and Possible Sources

Color	Possible Sources
Tan to brown	Construction or soil erosion
Blue green/brown green	Plankton bloom, sewage, fertilizer (irrigation) runoff, vehicular wash water
Milky white	Paint, grease, milk, lime, excavation dewatering (clayey soils)
Milky or dirty dishwater gray	Gray water or wastewater (coupled with musty odor)
Black	Septic wastewater or a turnover of oxygen depleted water (organics)
Orange-red	Leachate from iron deposits or iron bacteria (oily sheen that breaks into clumps may be present)
Bright yellow green	Anti-freeze, tire cleaner, tracing dye or algal bloom

Turbidity

Next is a visual estimate of the turbidity, which is a measure of the cloudiness of the discharge or how easily light can pass through the water. Like color, turbidity is best observed by collecting the sample in a clear bottle and holding it up to the light. Turbidity should also be looked for in the plunge pool below the outfall, and crews should also note turbidity plumes below the outfall that may be associated with the discharge.

Field Tests for Water Quality

Inspection teams will characterize the samples for pH, chlorine, and detergents, recording these values on the Outfall Screening Field Sheet. Concentration of hydrogen ions (pH) is an indicator of wash water or industrial or commercial liquid waste. Chlorine is an indicator of pool water discharge or industrial or commercial liquid waste. Detergents are an indicator of sewage, wash water, or industrial or commercial liquid waste.

5.3.4.3 Documentation and Next Steps

All observations made in the field during screening are documented on the Outfall Screening Field Sheet. Pictures should be taken, whether it is during routine dry weather screening or during an investigation in response to a complaint. Further investigation for determining source with the intent of eliminating the investigation must be conducted if the results deem that the observed dry weather flow to be potential, suspect, or obvious. Table 3 summarizes the results that will necessitate a follow up investigation. A full illicit discharge investigation must be performed to determine and eliminate the source.

Table 3: Further Investigation Triggers

Measure	Unlikely	Potential	Suspect	Obvious
Physical Indicators	Non-flowing outfalls with no physical indicators of an illicit discharge	Flowing or non-flowing outfalls with presence of two or more physical indicators	Flowing or non-flowing outfalls with any severity rating of 2 or greater	Outfalls where there is an illicit discharge that doesn't even require sample collection for confirmation
Measure	Unlikely	Trigger for Follow-Up Investigation		
pH	<6.5 and >7.2 s.u.	<6.0 or >9.0 s.u. ¹		
Chlorine	Non-detected	>0.02 mg/L		
Detergents	<0.25 mg/L	>0.25 mg/L ²		

5.4 Illicit Discharge Investigations

Once an illicit discharge is detected through field observations, recorded on the Outfall Screening Field Sheet and pictures taken, the Town will perform investigations to identify and eliminate the source. Some sources will be easily identified through field investigation techniques discussed

¹ Industrial Stormwater Monitoring and Sampling Guide, USEPA, 2009. Table 3 "Parameter Benchmark Values"

² Illicit Discharge Detection and Elimination – A Guidance Manual for Program Development and Technical Assessment, Center for Watershed Protection, 2004

below. Other sources may require a combination of field investigations and indicator sampling data for identification.

5.4.1 Prioritization for Follow Up

Illicit discharges suspected of being sanitary sewage or significantly contaminated will be prioritized and investigated first, while those suspected of being less hazardous to human health and safety may be delayed until the former has been resolved.

Timeframes for initiating an investigation after identifying an actual or suspected illicit discharge are established as follows:

- Observed Flow – Immediately.
- Obvious – Begin inspection within two business days of report or identification.
- Suspected – Begin inspection within one week of report or identification.
- Potential – Begin inspection within two weeks of report or identification.

5.4.2 Investigation Techniques

Based on land uses in the Town and the experience of Town staff, sources of illicit discharges are primarily: transient discharges; restaurant grease; and, dumpster leakage. Other sources identified in previous inspections are transitory discharges such as paint, grout, and used motor oil dumped into storm sewer inlets. Table 4 highlights some of the non-stormwater discharges that may be encountered during dry weather screening. Refer to Section 4 for allowable stormwater discharges.

Table 4: Illicit Discharges and Allowable Non-Stormwater Discharges

Typical Illicit Discharge
Sanitary wastewater (cross connection or dumping of hauled waste)
Automobile washing (except individual residential washing or commercial activities covered under VPDES permit)
Washing animal enclosures (unless under VPDES permit)
Laundry wastes (except under VPDES permit)
Washing paint brushes
Washing of construction equipment
Washing restaurant equipment outside
Fuel spills
Leaking dumpsters (uncovered)
Dumping of automotive fluids
Spills of used cooking grease or leaking containers

The following investigatory techniques should be considered when a possible illicit discharge is detected either during dry weather screening or during the investigation performed in response to a complaint. Four investigation techniques are recommended:

- Drainage area investigations
- Storm drain network investigations
- On-site investigations
- Indicator monitoring

5.4.2.1 Drainage Area Investigations

The Town will employ its mapping and land use data to identify potential dischargers in the drainage area based on the characteristics of the illicit discharge detected. This type of investigation is most appropriate when the drainage area is large or complex and will help to allocate resources for further investigation. This involves a parcel by parcel analysis of potential generating sites within the drainage area of the problem outfall. Physical indicators observed in the field should be closely considered alongside land uses and types of possible generating sites in the drainage area.

The drainage area investigation may be done in the field using hard copy maps, but is most effectively done in the office. This may also be accomplished by contacting staff in the office to do a review in conjunction with review of mapping documents in the field. Office staff and field staff are then able to confer on the best approach to take in identifying the source.

Once the probable dischargers have been identified, resources can hone in on specific storm drain networks to investigate, or perform on-site investigations rule out possibilities and verify the source.

5.4.2.2 Storm Drain Network Investigations

The Town can also perform an investigation of the storm drain network to identify the source of the illicit discharge. At outfalls with a simple drainage network it is recommended that inspectors move upstream from the outfall and test manholes along the way to locate the source of the discharge. However, much of the Town's storm drain network is complex or located in traffic areas. In these cases the Town will split the upstream network into equal segments and test manholes at strategic junctions in the storm drain system. The method for splitting the storm drain network is outlined in the Center for Watershed Protection IDDE manual and is summarized below:

1. Review the system map leading to the suspect outfall.
2. Identify smaller pipes (or branches) that are major contributors to the trunk line.
3. Identify the manhole immediately upstream from the outfall and manholes at the farthest downstream node of each contributing smaller pipe branch.
4. Working up the network, investigate manholes on each contributing branch and the trunk, until the source is narrowed to a specific section of the trunk or contributing branch.
5. If discharge is narrowed to a specific section of the trunk, select the appropriate onsite investigation method(s) to determine the source.

6. If discharge is narrowed to a contributing branch, move up or split the branch until a specific pipe segment is isolated, and commence the appropriate investigation to determine the source.

Manhole Inspections

Manhole inspections can consist of visual observations and/or indicator sampling. Safety precautions should be taken during manhole inspections to ensure the safety of the field crew. Safety factors to consider in manhole inspections are: diversion of road and foot traffic, proper lifting of the manhole covers and testing to determine whether any toxic or flammable fumes exist within the manhole. Manholes may only be entered by properly trained and equipped personnel following all Occupational Safety and Health Administration (OSHA) requirements. In most circumstances, it is not necessary for the field crew to enter the manhole.

5.4.2.3 Onsite Investigations

Once the location of the illicit discharge has been isolated, yet the source remains undetermined, there are three techniques that are useful in identification of the exact source or connection that is producing the illicit discharge.

1. Dye testing
2. Video testing
3. Smoke testing

The most commonsense approach for the Town will likely be to rely upon visual inspections of the drainage area and the storm drain network. Additional follow-up investigations must be performed for undetermined sources.

5.4.2.4 Indicator Monitoring

Indicator monitoring in addition to those in Section 5.3.3.2 may be warranted when other field tests are inconclusive about the potential presence or source of stormwater pollutants. The exact parameters to be tested will depend on other physical indicators. Common parameters include:

- Ammonia
- Boron
- Conductivity
- Bacteria
- Fluorescence
- Fluoride
- Hardness
- Petroleum hydrocarbons
- Potassium
- Turbidity

In these cases, a sample may be collected and tested at a certified laboratory to confirm the presence of contaminants. The Town will utilize the IDDE Flow Chart from the Center for Watershed Protection (Brown et al, 2004) when considering results from field and laboratory analytical tests.

5.4.3 Additional Follow-Up for Undetermined Sources

If, after performing an investigation, the source of the discharge has not been identified and the discharge has not been detected again after six months, efforts will be documented and the discharge identified as “non-recurring/source not found.” At least one additional dry weather screening must occur during the six month period.

If, after performing an investigation, the source of the illicit discharge has not been identified and the discharge occurs on an intermittent basis, efforts will be documented and the discharged identified as “non-recurring/source not found.” At least three additional dry weather screenings must occur during the six month period in an attempt to observe the discharge when it is flowing.

Any outfall with a discharge documented as “non-recurring/source not found” will be added to the list of outfalls for dry weather screening during the next year.

5.5 Eliminating Illicit Discharges

As stated in Section 4, the Town has the legal authority to require property owners to correct illicit discharges. Once an illicit discharge has been identified, the Town will determine the responsible party for removing the source of the discharge. Property owners are generally responsible for correcting internal plumbing connections, problems with service laterals, and transitory discharges. The Town will be responsible for correcting illicit discharges associated with infrastructure failure of the sanitary or storm sewers.

If it is determined that the property owner is responsible for correction of the illicit discharge, the Town will notify the owner in writing and direct them to eliminate the illicit connection/discharge within a specified time frame. The notification will require the owner to inform the Town when the connection has been eliminated.

The time frame for eliminating the connection/discharge will depend on the type of illicit connection/discharge and how difficult elimination will be. The CWP manual recommends that discharges be stopped within seven days of notification and that illicit connections be repaired within 30 days of notification.

The method for correcting the illicit discharge will be determined by the responsible party. Internal plumbing corrections can usually be performed using standard plumbing supplies for relatively little cost. For corrections that occur outside of buildings (service laterals and infrastructure), costs are usually significantly more due to specialized equipment needs.

The Town will follow up with the owner to ensure that the connection/discharge has been eliminated. Corrections in the internal plumbing and lateral connections can be confirmed using dye testing. If the connection has not been eliminated, the Town will enforce its ordinance to obtain compliance by performing the correction and charging the property owner for the cost.

Following the successful elimination of an illicit discharge, the Town will perform follow up procedures to ensure that illicit discharges have been eliminated and verify that the discharge does not reoccur. Field staff will visit the location of the illicit discharge during the next outfall screening and document their observations using an Outfall Screening Field Sheet, if flow is observed, or note the site conditions if the illicit discharge did not involve observed dry weather flow from an outfall.

6. Reporting and Recordkeeping

An important and required part of the IDDE program is a tracking and reporting system. The Town uses a database to track dry weather screening and investigations of suspected illicit discharges. Completed forms will be kept on file for the permit cycle and no less than three years.

6.1 Dry Weather Outfall Screening

The MS4 permit requires the following minimum information to be tracked for each outfall screened in Section 5.3. Additional information is collected on the Outfall Inspection Report Form.

- The unique outfall identifier
- Time since last precipitation event
- Estimated quantity of last precipitation event
- Site description (conveyance type and dominant watershed land uses)
- If a discharge was observed:
 - Estimated discharge rate (width and depth of discharge flow rate)
 - Visual characteristics of the discharge (odor, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology)

6.2 Illicit Discharge Investigation Tracking

The MS4 permit requires the Town to track all illicit discharge investigations and document the following:

- The dates that the illicit discharge was initially observed, reported, or both
- The results of the investigation, including the source, if identified.
- Any follow up to the investigation.
- Resolution of the investigation.
- The date that the investigation was closed.

6.3 Annual Reporting

The MS4 permit requires the Town to provide in its annual report to DEQ the following:

- Confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year.
- Total number of outfalls screened during the reporting period as part of the dry weather screening program.
- A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:
 - The source of the illicit discharge.
 - The dates that the discharge was observed, reported, or both.
 - Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method.
 - How the investigation was resolved.
 - A description of follow-up activities.
 - The date the investigation was closed.

6.4 Reports of Unauthorized Discharges

In accordance with Part III G of the MS4 permit, the Town must notify DEQ immediately upon discovery, but in no case later than within 24 hours, any discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia that occurs during a 24-hour period into or upon surface waters or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters.

A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

- A description of the nature and location of the discharge;
- The cause of the discharge;
- The date on which the discharge occurred;
- The length of time that the discharge continued;
- The volume of the discharge;

7. Staff Training

Town employees whose normal responsibilities require a considerable amount of time in the field are an important part of the Town's efforts to identify and correct potential illicit discharges. Field personnel receive training in the recognition and reporting of illicit discharges no less than once per 24 months. The schedule for delivering training is located in the Town's MS4 Program Plan.

8. Contacts

The following is a list of contacts for the IDDE program:

John Irish, Deputy Director of Public Works

Phone: 703-435-6800 x 2074

Email: john.irish@herndon-va.gov

Richard Smith, Senior Civil Engineer

Phone: 703-435-6800 x 2063

Email: richard.smith@herndon-va.gov

John Jay Sergent, Engineer

Phone: 703-435-6800 x2072

Email: john.jay.sergent@herndon-va.gov

References

The following references were used to prepare this plan and contain supplemental information that may be helpful to Town staff in implementing the program.

IDDE Program Manuals:

Center for Watershed Protection and Robert Pitt. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. October 2004. U.S Environmental Protection Agency. Washington, D.C.

Website for download:

https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

New England Interstate Water Pollution Control Commission. Illicit Discharge Detection and Elimination: A Handbook for Municipalities. January 2003. Lowell, Massachusetts

Website for download: www.neiwppcc.org

Attachment A: Field Equipment Checklist

Town of Herndon IDDE Field Equipment Checklist

Field crews should work in no smaller a group than two for safety reasons. The field equipment listed below is used to conduct dry weather outfall screening.

Dry Weather Screening (No Sample Collection)

- Clipboard, pens, pencils
- Outfall Screening Field Form or Pocket PC
- Hardcopy MS4 maps or Pocket PC
- Cell phone
- Digital camera
- Field notebook
- Tape measure
 - verify outfall diameter
 - measure width of flow
 - measure travel distance (in determining flow velocity)
- Field Boots
- Rubber boots or waders (optional)
- pH strips or other pH monitor
- Chlorine strips or other chlorine monitor
- Detergent monitor
- For flowing outfalls
 - Folding scale for measuring stream depth
 - Watch with second hand (or stopwatch)
 - Protective eyeglasses or goggles

Additional Equipment for Sample Collection and Field Measurements

- Latex gloves
- Cooler and ice
- Paper towels
- Tape for securing cooler
- Sample bottles with preservatives
- Polypropylene bucket with rope, or sampling rod to collect samples from larger bodies of water
- Single Analyte Meter for measuring detergents
- Multi-parameter probe to measure temperature, electrical conductivity, and pH
- Extra batteries for all meters
- Flow measurement equipment (required equipment will depend on method used)
- De-ionized or ultra pure water in squeeze bottles for rinsing, dilutions, etc. (depending on methods used)
- Waste disposal bottles

Attachment B: Outfall Screening Field Sheet

Town of Herndon Outfall Screening Field Sheet

Outfall ID:		Site Visit Date:		Time of Visit:	
Inspector's Name:				Rainfall Last 48 Hours:	
Nearest Address or Street Intersection:				Temperature:	
Outfall Description:		Watershed:		Current Weather Conditions:	
Land Use Area:	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space	<input type="checkbox"/> High Residential	<input type="checkbox"/> Low Residential

Outfall Physical Indicators						
Outfall Information	Diameter/# of Pipes:	<input type="checkbox"/> Circular	<input type="checkbox"/> Elliptical	<input type="checkbox"/> Box	<input type="checkbox"/> Other:	
	Pipe Condition:	<input type="checkbox"/> Good	<input type="checkbox"/> Average	<input type="checkbox"/> Poor	<input type="checkbox"/> Non-Functional	
	Pipe End Composition:	<input type="checkbox"/> End Section	<input type="checkbox"/> End Wall	<input type="checkbox"/> Projecting Pipe		
	Pipe End Material:	<input type="checkbox"/> RCP	<input type="checkbox"/> PVC	<input type="checkbox"/> CMP	<input type="checkbox"/> HDPE	<input type="checkbox"/> Steel
Downstream Receiving Channel	<input type="checkbox"/> Concrete	<input type="checkbox"/> Rip-Rap	<input type="checkbox"/> Grass	<input type="checkbox"/> Bed/Bank	<input type="checkbox"/> V-Ditch	
	<input type="checkbox"/> Trapezoid	<input type="checkbox"/> Parabolic	<input type="checkbox"/> Other:			
	Notes:					

Illicit Discharge Indicators for Flowing and Non-Flowing Outfalls				Relative Severity Index
Deposits/Stains: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Flow Line	<input type="checkbox"/> Paint	<input type="checkbox"/> Sediment	<input type="checkbox"/> 1 - Faint/old <input type="checkbox"/> 2 - Easily detected/old <input type="checkbox"/> 3 - Easily detected/recent
	<input type="checkbox"/> Oily	<input type="checkbox"/> Rust	<input type="checkbox"/> Other:	
Vegetation: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Normal	<input type="checkbox"/> Inhibited	<input type="checkbox"/> Other:	<input type="checkbox"/> 1 - Possible inhibited growth <input type="checkbox"/> 2 - Clearly inhibited <input type="checkbox"/> 3 - Clearly inhibited by other indicator
	<input type="checkbox"/> Suds	<input type="checkbox"/> Excessive Algae	<input type="checkbox"/> Floatables	
Poor Pool Quality <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Oil Sheen	<input type="checkbox"/> Color	<input type="checkbox"/> Other:	<input type="checkbox"/> 1 - Faint <input type="checkbox"/> 2 - Easily Detected <input type="checkbox"/> 3 - Noticeable from a distance
	<input type="checkbox"/> Sewage	<input type="checkbox"/> Rancid/Sour	<input type="checkbox"/> Sulfur/Rotten Eggs	
Odor Present: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Petroleum/Gas	<input type="checkbox"/> Laundry/Wash	<input type="checkbox"/> Other:	<input type="checkbox"/> 1 - Faint <input type="checkbox"/> 2 - Easily detected <input type="checkbox"/> 3 - Noticeable from a distance
	<input type="checkbox"/> Brown	<input type="checkbox"/> Orange	<input type="checkbox"/> Green	
Pipe Benthic Growth: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Other:			<input type="checkbox"/> 1 - Faint <input type="checkbox"/> 2 - Easily detected <input type="checkbox"/> 3 - Noticeable from a distance

Illicit Discharge Indicators for Flowing Outfalls (Complete if Flow Present)				
Is Flow Present? <input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> Trickle/Light	<input type="checkbox"/> Moderate	<input type="checkbox"/> Heavy	
Estimated Discharge Rate:	A. Width of Water:	B. Approx. Avg. Depth:	A x B = C Flow:	C x D = E Est. Flow Rate:
Color: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Brown	<input type="checkbox"/> Gray	<input type="checkbox"/> Yellow	<input type="checkbox"/> Green
	<input type="checkbox"/> Orange	<input type="checkbox"/> Red	<input type="checkbox"/> Other:	
Turbidity: <input type="checkbox"/> Yes <input type="checkbox"/> No	See Severity			<input type="checkbox"/> 1 - Slight Cloudiness <input type="checkbox"/> 2 - Cloudy <input type="checkbox"/> 3 - Opaque
Floatables: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Suds	<input type="checkbox"/> Sewage (toilet paper, etc.)	<input type="checkbox"/> Petroleum (oil sheen)	<input type="checkbox"/> Dead Fish
	<input type="checkbox"/> Trash	<input type="checkbox"/> Other:		
Field Test Results:	pH:	Chlorine:	Detergents:	Other:
Further investigation required if:				
<ul style="list-style-type: none"> pH <6.0 or >9.0 s.u. Chlorine >0.02 mg/L Detergents >0.25 mg/L 				

Overall Outfall Illicit Discharge Characterization			
<input type="checkbox"/> Unlikely	<input type="checkbox"/> Potential (presence of two or more indicators)	<input type="checkbox"/> Suspect (one or more indicators with a severity rating of 2 or higher)	<input type="checkbox"/> Obvious
Notes and Site Observations:			
Follow-up Actions Required:			
Signature of Inspector:		Date:	

Attachment C: Reports of Unauthorized Discharges Form

Town of Herndon Reporting Form for Unauthorized Discharge to the MS4

Reference: MS4 General Permit Section III G. Reports of Unauthorized Discharges

1.	Name of the person making the report:			
2.	Title of the person making the report:			
3.	Phone and email contact:			
4.	Today's date:			
5.	Current weather conditions:			
6.	Date and time staff became aware of the discharge:			
7.	Description and nature of the discharge:			
8.	Location of the discharge:			
9.	Cause of the discharge:			
10.	Estimated date/time discharge started:		Estimated date/time discharge ended:	
11.	Estimated volume (gallons):			
12.	If the discharge is continuing, how long is it expected to continue?			
13.	If the discharge is continuing, what is the expected total volume?			
14.	Did the discharge enter the storm system (MS4)?		Did the discharge enter surface water?	
15.	Corrective action taken, or to be taken, to reduce, eliminate, or prevent a recurrence:			
16.	Other information:			

Appendix E

Construction Site Stormwater Runoff Control Written Procedures

Town of Herndon
**Submittal and Review of Stormwater Management and Erosion and
Sediment Control Plans**

STANDARD OPERATING PROCEDURES

January 12, 2014

The following are submitted to the Town of Herndon Department of Community Development (DCD) by an applicant for any proposed land disturbing activity regulated under Town Code Chapter 26 “Environment:”

1. An Application for Approval of a Site Plan, Revision, or Single Lot Development Plan.
2. An erosion and sediment control plan that meets the requirements of Chapter 26, Article III “Erosion and Sediment Control.”
3. A stormwater management plan that meets the requirements of Chapter 26, Article VIII, “Stormwater Management.”

The Department of Community Development utilizes the Site Plan checklist or Subdivision Site Plan checklist, as appropriate, for overall plan review. Both checklists contain specific requirements related to the erosion and sediment control plan and the stormwater management plan.

The Department of Community Development distributes the application, the erosion and sediment control plan, and the stormwater management plan to the Department of Public Works for review. The Town Engineer leads the review effort.

The Department of Public Works reviews the stormwater management plan in accordance with the provisions of Chapter 26, Section 26-327 and the erosion and sediment control plan in accordance with the provisions of Chapter 26, Section 26-50.

Stormwater Management Plan	Erosion and Sediment Control Plan
15 days for the Town to determine plan completeness and notify the applicant in writing.	45 days for the Town to review and approve the plan if it is adequate.
60 days from the time of notification of completeness for the Town to review the plan and notify the applicant in writing.	45 days for the Town to review and provide written notice with an explanation for the plan if it is inadequate.
45 days from the date of any resubmission for the Town to review and respond in writing to a previously disapproved plan.	45 days for the Town to review and respond in writing to a plan that was previously disapproved.
60 days for the Town to review and respond in writing to modifications to the approved plan.	If no action is taken within the time frames specified above, the plan is deemed approved.

The Department of Public Works utilizes the Town of Herndon Site Plan and Subdivision Site Plan checklists, checklists from the Fairfax County Public Facilities Manual, and any supplemental review materials in Appendix 3 of the Virginia Stormwater Management Handbook to review the stormwater management plan to verify that minimum standards are met and required elements of the plan have been provided in accordance with Article VIII “Stormwater Management” of Chapter 26.

The Department of Public Works utilizes the Virginia Stormwater BMP Clearinghouse or the Fairfax County Public Facilities Manual, whichever is more stringent unless waived by the Director of Public Works in accordance with Town Code Section 26-329(a)(1), to review stormwater management facility design.

The Department of Public Works utilizes Chapter 6 and Chapter 7 of the Virginia Erosion and Sediment Control Handbook to verify that minimum standards are met and required elements of the plan have been provided in accordance with Article III “Erosion and Sediment Control” of Chapter 26.

The Department of Public Works provides comments to the Department of Community Development for communication to the applicant. Revisions and re-submittals are made in accordance with the Town Code until satisfactorily addressed.

The Department of Public Works approves the stormwater management plan and erosion and sediment control plan contingent on the following:

1. The applicant demonstrates that all land clearing, grading, excavating, transporting, and filling of land will be done in conformance with Town Code Chapter 26.
2. The applicant submits fees pursuant to Town Code Section 26-335.
3. The applicant submits performance bonds required in Town Code Section 26-335.
4. The Town approves the stormwater management facility maintenance agreement as required in Town Code Section 26-330.

On approval of the stormwater management plan and erosion and sediment control plan by the Department of Public Works, the applicant submits a Registration Statement for a General Permit for Discharges from Construction Activities in accordance with 9VAC25-880.

On obtaining and presenting evidence of General Permit coverage to the Town, the Town finalizes and approves the Application for Approval of a Site Plan, Revision, or Single Lot Development Plan.



HERNDON, VIRGINIA
MINIMUM SUBMISSION REQUIREMENTS

SUBDIVISION SITE PLAN

PROJECT NAME & PLAN NUMBER _____

PROJECT ADDRESS/TAX MAP NUMBER _____

APPLICANT NAME & ADDRESS _____

SUBMITTING FIRM _____

REVIEW DATE _____ REVIEWER/ENGINEER _____

CODE SECTION	REQUIREMENT	PAGE #	OK	N/A	NOT OK	LINE
COVER SHEET AND ADMINISTRATIVE GUIDELINES						
Town Code (TC) 78-201.3	Current Town of Herndon Cover Sheet including performance bond, sheet index, owner/developer address, telephone number, vicinity map, benchmarks, etc				*	1
TC 78-201.2	Conservation cash escrow calculation, including E&S control, tree protection and replacement, new landscaping, and damage to existing public utilities					2
TC 78-201.2	Plan review fee calculated in fee schedule					3
TC 78-201.3	North arrow and reference to State Grid or True North datum					4
TC 78-201.3	Sheet size not to exceed 24"x36" and plan scale minimum 1"=30'					5
TC 78-201.3	Professional seal completed with signature and date all pages				*	6
TC 78-201.3	Certificate by surveyor/engineer setting forth source of title of the owner and place of record of the last instrument in chain of title					7
TC 78-201.3	Boundary survey with error of closure within 1/10,000, showing boundary evidence					8
TC 78-201.3	If plan spans more than one sheet, match lines provided					9
Office Policy	Submit Fire Marshal comments no later than second submission					10
PLANNING AND ZONING						
TC 78-201.3	Current zoning, density and proposed use of the site					11
TC 78-201.3	Owner, zoning and present use of adjoining property					12
TC 78-201.3	Waivers, variances, or proffers shown on plans and conditions complied with				*	13
TC 78-201.3	BZA approval letter or Special Exception plan included and statement of compliance				*	14
TC 78-201.3	Information shown in tabular form, indicating (a) zoning provision for the minimum or maximum permitted, and (b) proposed					15
TC 78-201.3	Compliance with Chesapeake Bay Preservation Area regulations				*	16
TC 78-304.4	Delineation of RPA, annotated "to be retained as an undisturbed and vegetated 100 foot wide buffer area" and as may be required otherwise in Section 78-304.4				*	17
TC 78-201.3	Lot area and total site area. Lot area as percentage of total area					18
TC 78-201.3	Lot width, corner (or end) and interior					19
TC 78-201.3	Building restriction lines and yards for each building					20
TC 78-201.3	Building coverage (area of building footprint as share of total site)					21
TC 78-201.3	Number of lots with each lot numbered, number of floors, and height of buildings					22
TC 78-201.3	Lot size on each lot. Size and type of dwelling units					23
TC 78-201.3	Number of parking, handicap and loading spaces, parking ratio					24
TC 78-201.3	Amount of impervious surface					25
TC 78-201.3	Open space as percentage of total site or lot area					26
TC 78-201.3	Grave burial ground statement					27

CODE SECTION	REQUIREMENT	PAGE #	OK	N/A	NOT OK	LINE
EXISTING CONDITIONS						
TC 78-201.3	Existing conditions shown separately from proposed improvements					28
TC 78-201.3	Within 10' of the site, features on adjoining properties including departing property lines, drip line of trees, easements, etc					29
TC 78-201.3	Structures to be saved or demolished					30
TC 78-201.3	Name of public and private streets abutting or through the site					31
TC 78-201.3	Right-of-way lines, width, street category, pavement edge, slope					32
TC 78-201.3	Street centerlines with stations and points of curvature and radii					33
TC 78-201.3	For existing watermains and fire hydrants, sanitary and storm sewer facilities, show flow direction, types, grades and where tie is made to the utility system					34
TC 78-201.3	Existing topography with a maximum of 2' contour interval extending 25' beyond site boundary. Where existing ground is on a slope less than 2%, either 1' contours or spot elevations not more than 50' apart all directions					35
TC 78-201.3	Existing easements of record shown with deed book and page					36
TC 78-201.3	Existing water, sanitary and storm sewer pipe sizes					37
TC 78-201.3	Existing above and below ground utilities					38
TC 78-201.3	Watercourses and their names					39
PROPOSED CONDITIONS						
TC 78-201.3	Area of dedicated right-of-way					40
TC 78-201.3	Lot lines dimensioned					41
TC 78-201.3	Building footprints and dimensions					42
TC 78-201.3	Finished floor elevations					43
TC 78-201.3	Proposed finished grading by contours supplemented by spot elevations at building corners and other locations as necessary					44
TC 78-201.3	Proposed easements shown and identified					45
TC 78-201.3	Proposed water, sanitary and storm sewer pipe sizes					46
TC 78-201.3	For proposed water, sanitary and storm sewer, show flow direction, types and grades and connection to the town system					47
PFM 10-0102.5.C	Sanitary sewer setback 15' from all buildings					48
TC 78-201.3	Visual and acoustical screening of mechanical equipment					49
TC 78-516	Solid refuse container in screened enclosure					50
TC 78-201.3	Location of signs					51
EROSION AND SEDIMENT CONTROL						
VESCH Chap. III	E&S controls shall comply with state minimum standards and specifications					52
TC 78-201.3	Limits of clearing shown, and shall not include excessive clearing					53
PFM 2-0212.12	Clearing limits match between grading, E&S, and GDP sheets					54
VESCH Chap. VI	E&S Narrative including construction sequence, existing conditions, critical areas, calculations, permanent stabilization, drainage, and maintenance					55
DEM letter 30-88	2 phase E&S controls identified and computations shown					56
Office Policy	Construction entrances with washracks at all access points					57
TC 78-201.3	Soils map and characteristics. Overlay soil boundaries on Phase I E&S plan					58
PFM 4-0201	Plan note that a soil report is required if building is proposed in type "A" soil					59
DRAINAGE						
TC 78-201.3	Design drainage in accordance with the adopted standards of Herndon, indicating pipe sizes and slopes, ditches, inlets, connections, etc					60
PFM 6-0202.5	No concentrated surface water discharged offsite without easements					61
PFM 6-0202.13	Overland relief provided for sump conditions and to clear building					62
PFM 6-0203.1.B	Provide cross-sections of channel showing channel type, depth, velocity, water surface elevation, computations for adequacy and erosion control				*	63

CODE SECTION	REQUIREMENT	PAGE #	OK	N/A	NOT OK	LINE
TC 78-201.3	Overlot grading and drainage, with stormwater narrative relating how stormwater will outfall without adverse affect on other properties or to the public drainage system				*	64
TC 78-201.3	Natural features, including drainage divides and 100 year flood plain					65
PFM 6-1405.1	Flood plain easement provided referencing flood plain study					66
PFM 6-0203.3.	If tying into existing storm system, analyze capacity and proposed flow					67
PFM 6-0905	Design computations provided for closed and open systems (include HGL if needed)					68
PFM 6-0905	On and off site drainage areas to each drainage structure with area and 'c' factor					69
Office Policy	Inlet structures designed with 7.27 inches/hour intensity					70
PFM 6-1305	Include SWM facility, structure details showing access, hydraulic outlet geometric data and coefficients, stage/storage and stage/discharge tables and graphs, 2 and 10 year in/out hydrographs, Spillway Design Flood hydrograph, freeboard analysis				*	71
TC 78-304.4 and TC 26-326	Stormwater management plan contents				*	72
TC 78-304.4 and TC 26-329	Stormwater management technical standards					73
Office Policy	Allowable release calculation: $Q_{post} = Q_{pre} + \text{offsite controlled} - \text{on site uncontrolled}$					74
PFM 6-1604	Riser/Outlet structure flotation analysis with 1.3 factor of safety					75
VA Stormwater Mgmt Handbook	Pond profiles and sections showing top and bottom elevations, BMP and 2, 10 and 100 year elevations, riser and outfall pipe, dam embankment, side slopes, etc					76
PFM 6-1600	Spillway outfall pipe RCP class III 18" minimum, ASTM C361 watertight joints					77
VSMH MS 3.01	Foundation cut off trench at centerline (4' minimum width x 4' deep, 1:1 side slopes)					78
VSMH MS 3.02	Show anti-seep collar(s) (detail required) around outfall pipe through dam					79
VSMH MS 3.02	Concrete cradle required on outfall pipe through dam					80
VSMH MS 3.07	Orifices and riser tops to have state standard trash racks and anti-vortex devices					81
TC 78-201.3 and TC 26-330	SWM/BMP narrative, inspection/maintenance and responsible party					82
TC 78-304.4 and TC 26-330	Add note: A Stormwater Management/BMP Facility Maintenance Agreement will be completed and recorded in Fairfax County Land Records prior to plan approval					83
PFM 6-1306	SWM/BMP facilities access with 12' wide all weather surface and access easement					84
Office Policy	Permanent security fences required for SWM/BMP ponds in residential areas					85
Office Policy	Infiltration facilities shall be designed in accordance with Fairfax County's TESTING GUIDELINES FOR INFILTRATION FACILITIES, dated March 2007					86
WATERLINES						
TC 1-16	Design in accordance with current Herndon Watermain Design & Construction St'ds				*	87
HWDCS	Plan and profile of watermains and hydrants, including pipe material classification, sizes, stationing, tie-ins to existing, and utility crossings				*	88
PFM 9-0102.6H	Test pit results for crossings with less than 1' vertical clearance				*	89
HWDCS	Show water meter locations (outside only) and sizes				*	90
VEHICLE AND PEDESTRIAN CIRCULATION						
TC 78-201.3	Location, type and size of pedestrian and vehicular facilities, including entrances, surface material, inter-parcel access					91
TC 78-201.3	Hike and bike trail system per Town Comprehensive plan and as shown on GDP					92
PFM 8-0202.4A	Profiles shown for all trails to be constructed					93
TC 78-201.3	Right-of-way lines, width, street category, pavement edge, slope					94
TC 78-201.3	Street centerlines with stations and points of curvature and radii					95
PFM 7-0405.2	Sight distance shown in plan and profile					96
Office Policy	Typical sections for public and private streets and parking lots					97
PFM 7-0404.6	Street profiles, VPD count, top of curb elevations, design speed, category					98
PFM 7-0107	Stop signs, street signs and handicap ramps at intersections					99
Office Policy	Pavement markings layout					100

TC 78-201.3	Ingress/egress easement noted and shown for all private streets					101
PFM 2-103.6	Private street maintenance note on plan and plat (agency)					102
PFM 23-7 PS-3	Pipestem driveway pavement design shown					103
CODE SECTION	REQUIREMENT	PAGE #	OK	N/A	NOT OK	LINE
EXISTING TREES AND LANDSCAPING						
TC 78-201.3	Survey of existing trees and canopy prepared by ISA Certified Arborist					104
TC 78-503.3	Groups and individual trees to remain shall be shown on tree survey and on plan					105
TC 78-201.3	Show standard tree protection devices, tree wells and tree walls					106
TC 78-201.3	Show existing trees having a caliper of 8" or greater when measured 4.5' above ground, or a tree stand delineation as approved by Community Forester					107
TC 78-201.3	Survey ornamental trees such as Dogwood (Cornus), American Holly (Ilex opaca), Shadblow (Amelanchier species), Eastern Redbud (Cercis canadensis) and Fringe Tree (Chionanthus virginicus) having a caliper of 2-4" measured 6" above ground or having a caliper of greater than 4" measured 12" above ground					108
Deed requirem'ts	No trees allowed in utility easements or on dam embankments					109
TC 78-201.3	Description of location and type of alien invasive plant species to be removed from the site in accordance with Section 78-503.9					110
TC 78-201.3	Trees to be saved shown according to the canopy spread at the drip line					111
TC 78-201.3	Protect off-site trees with drip lines extending into the site					112
TC 78-201.3	Note on plan prohibiting disturbance inside tree protection areas, including grading, clearing, storage of materials, and parking or transporting of vehicles and equipment					113
TC 78-503.3	Landscape Plan and planting details on a separate sheet					114
TC 78-503.3	Schedule showing size, quantity, common and botanical names					115
STREET AND SITE LIGHTING						
TC 78-201.3	Illumination in foot-candles (fc) measured 3' high, max 15' grid covering entire site				*	116
TC 78-515.9	Illumination at property line shall not exceed 0.5 fc for residential (2.5 fc allowed at edge of right-of-way) and 2.5 fc for commercial uses				*	117
TC 78-201.3	Description of luminaires and poles including distribution pattern, product cut sheets and model numbers, shields, detail drawings				*	118
TC 78-515.9	Note on plan 1) Sodium vapor luminaires shall not be used for site lighting; 2) All direct light rays from site lights shall be confined entirely within the site				*	119

Comments

Town of Herndon Stormwater Management Construction Inspection and Enforcement

STANDARD OPERATING PROCEDURES

January 12, 2014

The Department of Community Development provides the approved stormwater management plan and the approved erosion and sediment control plan to the Department of Public Works.

PRIOR TO COMMENCEMENT OF PROJECT WORK, the Department of Public Works sets a meeting with the contractor on the construction site to:

- Verify that a Stormwater Pollution Prevention Plan is in place and on-site.
- Review erosion and sediment control elements.
- Review the stormwater management plan.
- Review the requirements of the Pollution Prevention Plan.
- Review the design specifications for stormwater management controls.
- Identify significant stormwater control installation points where the contractor **MUST** contact the Town for inspection either during or immediately after installation to ensure the practice is installed properly. A **CRITICAL STORMWATER CONTROLS INSTALLATION AND CONSTRUCTION ELEMENTS** form will be completed by the Town and the contractor. At least 48 hours notice will be provided by the contractor to allow adequate time for planning by the Department.

The Department of Public Works will monitor active construction projects in accordance with Town Code Chapter 26, the minimum standards of the Virginia Stormwater Management Handbook, and the minimum standards of the Virginia Erosion and Sediment Control Handbook. The Department will also inspect stormwater control installation points as agreed upon with the contractor at the initial on-site visit. Inspections will include:

- Compliance with the approved erosion and sediment control plan
- Compliance with the approved stormwater management plan
- Development, updating, and implementation of the pollution prevention plan
- Development and implementation of any additional control measures necessary to address a TMDL

Inspections will be recorded by the Town using the **CONSTRUCTION INSPECTION REPORT AND NOTICE TO COMPLY FORM**. If listed violation(s) constitute non-compliance and the corrective actions are not completed by the deadline, a notice to comply, stop work order, or other enforcement action may be issued by the Town for the project. A stop work order will be

lifted upon compliance. If there is a failure to comply with such measures within the time specified, the Application for Approval of a Site Plan, Revision, or a Single Lot Development Plan may be revoked and the responsible party shall be deemed to be in violation and upon conviction shall be subject to the penalties provided in Town Code Section 26-334.

The stormwater management performance bond will be released upon all stormwater management facilities in the stormwater management plan passing final construction inspection by the Director of Public Works or his designee. A construction record drawing for permanent stormwater management facilities must be submitted to the Director prior to bond release in accordance with Town Code Section 26-326(d).

**Town of Herndon Stormwater Management Construction
Inspection and Enforcement**

**CRITICAL STORMWATER CONTROL INSTALLATION AND
CONSTRUCTION ELEMENTS**

January 12, 2013

Project Name _____

Site Address _____

Contact Name _____ Phone Number _____

**THE CONTRACTOR MUST CONTACT THE TOWN OF HERNDON DEPARTMENT OF
PUBLIC WORKS AT LEAST 48 HOURS PRIOR TO INSTALLATION OF THE FOLLOWING
STORMWATER CONTROL COMPONENTS. FAILURE TO COMPLY MAY RESULT IN
WORK HAVING TO BE RE-DONE AND/OR ENFORCEMENT ACTION.**

Department of Public Works – (703) 435-6853

Component: _____

Component: _____

Component: _____

Component: _____

Component: _____

Signed and Agreed by Contractor **Date**



TOWN OF HERNDON CONSTRUCTION INSPECTION REPORT AND NOTICE TO COMPLY

Project Name: _____ Site Plan No: _____

Inspection Date: _____ Time: _____ Inspector: _____
MM/DD/YY Print Name Signature

CONSTRUCTION PHASE

Pre-Construction Conference *Roads/Utilities/Buildings* *Demolition*
Clearing & Grubbing *Finish Grading* *Bond Release*
Rough Grading *Final Stabilization* *Other* _____

Reason for Inspection: Qualifying Rainfall Event Regular Inspection Other
 Stormwater Control Installation _____

<p><u>Enforcement or Follow-up Action / Inspection Result:</u></p> <p><input type="checkbox"/> Notice to Comply <input type="checkbox"/> Stop Work Order <input type="checkbox"/> Re-inspection Date _____</p> <p><input type="checkbox"/> No Violations Found</p>

Erosion and Sediment Control Measures						
Ref. No.	BMP Installed & Operating Properly?			Type of BMP / Activity	Location and Corrective Action Needed	Date to complete corrective action
	Yes	No	N/A			
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temporarily or permanently stabilization of exposed areas		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stabilization of stockpiles		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate stabilization from vegetative cover		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation and maintenance of perimeter sediment control		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stabilization of earthen structures		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation of sediment basins and or sediment traps		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stabilization of slopes		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation of proper controls on new disturbed areas		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate catch basin inlet protection		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Channel lining/outlet protection for storm water conveyance channels		
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measures used to minimize impact for in-stream construction		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-erodible material for temporary stream crossings		
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Re-stabilization of in-stream construction		
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Underground utilities being installed in accordance with applicable standards		
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction entrance/exit and prevention of offsite tracking		
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dust control to prevent sediment from leaving the site		
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other		

Pollution Prevention Measures

Ref. No.	BMP Implemented and Maintained?			Type of BMP / Activity	Corrective Action Needed	Date to complete corrective action
	Yes	No	N/A			
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vehicle and equipment fueling, cleaning, storage, and maintenance areas free of spills, leaks, or any other deleterious material		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Covered dumpster for trash and litter		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Concrete washout clearly marked and being used		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sensitive areas (e.g., RPA, streams, mature trees) protected with barriers, flags, or similar		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional control measures to address a TMDL		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Materials with potential to impact stormwater stored under cover		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other		

Stormwater Management Facility								
Ref. No.	SWM Facility Under Construction?			Is Construction Complete?			Type of SWM Facility	Type of work being performed
	Yes	No	N/A	Yes	No	N/A		
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Stormwater Pollution Prevention Plan (SWPPP)			
Yes	No	N/A	SWPPP Check
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the SWPPP onsite?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the SWPPP need to be modified?

Appendix F

VSMP Approval Letter and Post-Construction Stormwater Management Written Procedures



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax: 804-698-4019 - TDD (804) 698-4021

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

May 7, 2014

The Honorable Arthur A. Anselene
Town Manager
Town of Herndon
P. O. Box 427
Herndon, VA 20172-0427

Dear Mr. Anselene:

In accordance with §62.1-44.15:27 G of the Virginia Stormwater Management Act (Act), the Department of Environmental Quality (DEQ) has completed the review of Town of Herndon's final Virginia Stormwater Management Program (VSMP) application package submitted to DEQ on January 15, 2014. Based on this review, DEQ has determined that the Town of Herndon's VSMP is consistent with the Act, the VSMP regulation and the General VPDES Permit for Discharges of Stormwater from Construction Activities.

In light of this determination, DEQ approves Herndon's VSMP, and the Town is authorized to operate a VSMP beginning on July 1, 2014. Please note that this approval is based on the content of the application package. Any changes made to the documents in the package after the approval date, including changes to the adopted ordinance, may necessitate DEQ evaluation as part of its compliance review of your approved VSMP.

Thank you for your cooperation in developing a VSMP. We look forward to continuing to assist the Town of Herndon with the implementation of its VSMP.

Sincerely,

A handwritten signature in black ink, appearing to read "David K. Paylor".

David K. Paylor

cc: Melanie Davenport, Director, Water Division
Frederick Cunningham, Director, Office of Water Permits
Joan Salvati, Manager, Local Government Stormwater Programs

This responsibility includes maintenance of all pipes and channels built to convey storm water to the facilities, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the storm water. Adequate maintenance means maintenance in good working condition so that these facilities are performing their design functions.

3. Landowner must submit a Stormwater Management/BMP Facility Inspection and Maintenance Report to Town on a frequency determined by the Town, but no less than once every five years. The Town may, at its discretion, require the inspection report to be signed and sealed by a qualified professional engineer or surveyor.
4. Landowner shall not alter the facility without prior written approval by Town.
5. Landowner grants permission to the Town, its authorized agents, officers, and employees, to enter upon the Property and to inspect the storm water management/BMP facilities whenever Town deems necessary, using recognized standards. Whenever possible, Town shall notify Landowner prior to entering the Property. Town shall provide Landowner copies of the inspection findings and a directive to make repairs, if necessary.
6. If Landowner fails to maintain the storm water management/BMP facilities as shown on the Plan in good working condition acceptable to the Town, the Town may enter the Property and take whatever steps Town deems necessary to maintain the storm water management/BMP facilities. This provision shall not be construed to allow the Town to erect any structure of a permanent nature on the property. Town is under no obligation to maintain or repair the facilities.
7. If Town, pursuant to this agreement performs work of any nature, or expends any funds in performance of work for labor, use of equipment, supplies, materials, and the like, Landowner shall reimburse the town upon demand, within ten days of receipt of the demand for all costs incurred by the Town.
8. It is the intent of this Agreement to insure the proper maintenance of on-site storm water management/BMP facilities by the Landowner; provided, however, that this agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by storm water drainage.
9. Landowner, its executors, administrators, assigns, and, other successors in interest, shall indemnify and hold harmless the Town and its agents and employees for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the Town from the construction, presence, existence or maintenance of the storm water management/BMP facilities by the Landowner or the Town. This paragraph shall not apply for damage arising out of bodily injury to persons or damage to property resulting solely from the negligence or intentional act of Town or its agents or employees. In the event a claim is asserted against Town, its agents or employees, Town shall promptly notify Landowner and Landowner shall defend at his own expense any suit based on such claim. If any judgment or claims against the Town, its agents, officers, or employees shall be

allowed, the Landowner shall pay on demand the judgment and all related Town costs and expenses.

- 10. This Agreement shall be recorded among the Land Records of Fairfax County, Virginia, and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interest

Landowner
By: _____
Signature

Landowner
By: _____
Signature

Title

Title

Address: (Print) _____

State of _____:

County of _____:

The foregoing instrument was acknowledged before me this _____ day of _____
20____, by _____
(Print name of landowner and title, if applicable)

State of _____:

County of _____:

The foregoing instrument was acknowledged before me this _____ day of _____
20____, by _____
(Print name of landowner and title, if applicable)

Notary Public
Registration Number: _____
My Commission Expires: _____
Town of Herndon, Virginia

By: _____

Mayor

COMMONWEALTH OF VIRGINIA:

COUNTY OF FAIRFAX:

The foregoing instrument was acknowledged before me this _____ day of _____
20__, by _____,
the Mayor of the Town of Herndon, Virginia,
a municipal corporation, on its behalf.

Notary Public

Registration Number: _____

My Commission Expires: _____

Approved as to Form: _____

Town Attorney

Town of Herndon Stormwater Facility Maintenance and Inspection

STANDARD OPERATING PROCEDURES

January 12, 2014

Private Facilities

A Stormwater Management/BMP Facility Maintenance Agreement (maintenance agreement) must be submitted to the Department of Public Works in a format acceptable to the Town Attorney and approved prior to approval of the stormwater management plan and the Application for Approval of a Site Plan, Revision, or Single Lot Development Plan.

The maintenance agreement must include all components required by the Town Code Section 26-330.

The maintenance agreement must include a statement that the owner will provide the Town with a maintenance and inspection report on a frequency determined by the Town but no less than once every five years. The reporting frequency and the qualifications of the inspector for each type of stormwater management facility will be established by the Director of Public Works based on the Virginia Stormwater BMP Clearinghouse and manufacturer's guidelines. In addition, the Director of Public Works may increase or decrease the reporting frequency or require specific inspector qualifications for a specific stormwater management facility based on site-specific considerations as determined by the Director of Public Works or the results of inspections conducted by the property owner or the Town.

The developer or landowner who installs the stormwater facility is responsible for facility maintenance until the time of conveyance to the ultimate property owner and shall provide the successor landowner and the Town with maintenance schedules and maintenance procedures.

The approved maintenance agreement must be recorded in the Fairfax County land records prior to termination of the General Permit, or earlier if required by the Director of Public Works.

The Department of Public Works enters each individual stormwater management facility into an inventory database. The database is utilized to track all facilities and to document maintenance and inspections.

The Town will conduct stormwater management facility inspections on the frequency required in the Town's municipal separate storm sewer system (MS4) permit and MS4 Program Plan. However, the Town will conduct facility inspections no less than once every five years.

The Town will use the following protocol for the maintenance report that must be submitted by the owner to the Town in accordance with Town Code Section 26-330(d)(4):

- Six months prior to the deadline for submitting the inspection and maintenance report to the Town, the Department of Public Works will send a letter notifying the owner of the requirement.
- 30 days after due date if no inspection and maintenance report is received, a second letter will be sent via certified mail providing an additional 60 days to comply or face penalties.
- If after 60 days an inspection and maintenance report is not received, the Town will perform the inspection at the land-owners expense and will charge the property owner the full amount of the inspection. The Town may engage in enforcement action in accordance with Town Code Section 26-334.

Town of Herndon Stormwater Facility Maintenance and Inspection

STANDARD OPERATING PROCEDURES

January 12, 2014

Public Facilities

Town-owned and operated stormwater management facility BMPs are entered into the Town's database during the review process. The Department of Public Works enters each individual stormwater management facility into an inventory database. The database is utilized to track all facilities and to document maintenance and inspections. Once a facility is brought online, the inspection process may commence according to the schedule below.

The Town performs maintenance and inspection on an annual basis. However, the Director of Public Works may increase or decrease the inspection and reporting frequency for a specific stormwater management facility based on site-specific considerations as determined by the Director of Public Works, or the results of inspections conducted by Town staff. The qualifications of the inspector are established by completion of the Virginia Department of Environmental Quality (DEQ) Stormwater Inspector training program (at a minimum) and successful designation as a qualified person upon entering the program and successful completion within one year of initial registration in the program. The Director of Public Works will ensure staff receives designation through the DEQ training program and maintain proof of certification on file.

The Town is responsible for facility maintenance to ensure proper functioning per the approved plans. If during the inspection the qualified person determines that maintenance of the facility is required, the Town will either perform the maintenance or contract the maintenance to an able firm. Inspection and maintenance activities for Town-owned facilities will be documented in the Town's database.

Appendix G

Operation and Maintenance Pollution Prevention SOPs



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Vehicle and Equipment Maintenance and Cleaning	
Date:	July 31, 2015; Updated September 6, 2017; Updated March 27, 2019
Purpose of SOP:	To establish standard, consistent stormwater pollution prevention procedures for vehicle and equipment maintenance and washing activities to prevent the discharge of pollutants related to these activities.
MS4 Permit Reference	Part I E 6 a
Responsible Parties	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer Gene Flemming, Director of Golf

Vehicles and equipment can become sources of pollution as a result of leaks and spills during operation and maintenance if proper measures are not implemented. Further, vehicle and equipment wash water is prohibited from being discharged into the MS4 without adequate treatment or authorization under a separate VPDES permit.

Pollutants may include, but are not limited to, petroleum products, antifreeze, solvents, battery acid, detergents, and heavy metals. This SOP has been designed to minimize or prevent pollutant discharges from these activities.

1) Responsible Parties

- a) Public Works Staff. Vehicle and equipment maintenance is performed by the General Services Activity Center of the Department of Public Works. Minor repair and response to spills also affects Grounds Maintenance and Street Maintenance.
- b) Golf Course Staff. Golf course vehicles (primarily golf carts) and equipment are maintained by Centennial Golf Course personnel at the Maintenance Facility.
- c) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with vehicle and equipment maintenance and cleaning. The requirements of this SOP will be discussed with contractors in project contract discussions or other appropriate venues to ensure a complete understanding of the details of this SOP.

2) Equipment and Vehicle Maintenance

- a) Cover from Precipitation. To the extent possible, all maintenance activities should be conducted indoors or under cover.
- b) Designated Waiting Area. A designated area will be established for equipment awaiting maintenance.
 - i. The designated area should be located away from storm drain inlets or other stormwater conveyances.
 - ii. Drip pans or other secondary containment should be placed under leaking, or leak-prone equipment.
 - iii. Additional drip pans should be located in an area that is easily accessible to the designated waiting area.
 - iv. Periodic, and preferably daily, visual inspections of the designated area should be conducted to identify any issues that could affect surface waters.
- c) Fluid Storage. Fluids such as fuel, antifreeze, hydraulic fluid, motor oils, solvents, and similar materials will be properly managed to prevent discharge to surface waters.
 - i. Fluids should be stored under cover and within a secondary containment structure, such as a concrete secondary containment structure, spill pad, or similar structure.
 - ii. Keep waste oil, antifreeze, and other fluids properly covered and contained in tight fitting containers with proper labeling.
 - iii. Keep fluids as far away as possible from bay doors or other places where a leak or spill could reach an outside area.
- d) Spills and Leaks. Spills and leaks will be cleaned up immediately.
 - i. Spill kits with absorbent materials, drain covers or plugs (if applicable), and instructions must be located within 50 feet of designated maintenance areas.
 - ii. Dry clean-up methods shall be used to clean up spilled material. This includes the use of absorbent pads, granular absorbent, booms, and similar measures.
 - iii. Waste sorbent material shall be drained of free flowing material and disposed of as solid waste in accordance with local regulations.
 - iv. Water should never be used to clean up spilled material.
 - v. Wash down of pavement should not occur until all spills and leaks have been cleaned up. If a buildup of waste materials is present on the pavement, the resulting wash water must be contained and disposed of in a sanitary sewer.
- e) Work Space.
 - i. Sweep the maintenance area as needed to prevent a buildup of pollutants.
 - ii. A trash receptacle must be provided in/near the maintenance area.
 - iii. Areas shall be maintained in an orderly manner to minimize the chance for spills and leaks.
- f) Inspections. Inspect equipment for damaged hoses and leaky gaskets routinely and repair or replace immediately.
- g) Parts Washing.

- i. Only wash parts in a designated area (e.g., parts washer) and verify that no wash water is discharged during the process.
- ii. Dispose of parts wash water in an approved manner.

3) Washing Activities

- a) Washing Generally. Washing of vehicles and equipment will only be conducted inside the Town Shop facility in the bay designed for that purpose. Wash water from that facility enters the sanitary sewer system.
- b) Washing at the Golf Course Maintenance Facility. Washing grass clippings from mowers and similar equipment may be conducted at the Maintenance Facility provided that the wash water is directed toward the StormFilter system and that quarterly monitoring confirms that the system is effective at preventing the discharge of clippings and other materials into the storm sewer system.
- c) Exceptions. If access to the designated wash area is not an option, the following alternatives must be used:
 - i. Use a commercial washing contractor that provides mobile washing services. All wash water must be contained and removed by the washing contractor. Town staff must oversee the activities to ensure proper containment and removal of the wash water.
 - ii. Use a commercial washing facility.
 - iii. If the washing is limited to removal of vegetative matter or soil particles, and can be done without the use of detergents, it can be conducted on a flat, grassy area away from storm drains, stormwater conveyances, or natural water ways. This practice will not be used to clean vehicles or equipment for salt, fuels, oil, fertilizers, chemicals, etc.

4) Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve vehicle and equipment maintenance and cleaning. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Pesticides, Herbicides, and Fertilizers	
Date:	July 31, 2015; Updated September 6, 2017; Updated March 27, 2019
Purpose of SOP:	To establish standard, consistent stormwater pollution prevention procedures for the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers to prevent the discharge of pollutants related to these activities.
MS4 Permit Reference	Part I E 6 a
Responsible Parties	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer Gene Flemming, Director of Golf

Pesticides, herbicides, and fertilizers can become sources of pollution if improperly applied, stored, transported, or disposed. Fertilizers contribute to nutrient pollution. The Town of Herndon is subject to the Chesapeake Bay Total Maximum Daily Load (TMDL), which means that the Town must achieve specific nutrient reductions in accordance with its municipal separate storm sewer system (MS4) permit. Pesticides and herbicides can be toxic to aquatic life in local streams and waterways. This SOP has been designed to minimize or prevent pollutant discharges from these activities.

1) Responsible Parties

- a) Public Works Staff. Grounds Maintenance within the Department of Public Works is responsible for most activities involving pesticides, herbicides, and fertilizers on Town property.
- b) Golf Course Staff. Centennial Golf Course staff are responsible for activities involving pesticides, herbicides, and fertilizers on golf course property.
- c) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with pesticide, herbicide, and fertilizer application, storage, transport, or disposal. The requirements of this SOP will be discussed with contractors in project contract discussions or other appropriate venues to ensure a complete understanding of the details of this SOP.

2) Pesticides and Herbicides

- a) Application and Training. All staff who apply pesticides or herbicides to Town-owned property will receive proper training/certification in accordance with the Virginia Pest Control Act (§3.2-3900 *et seq* of the Code of Virginia). Training/certification will be documented at least annually in the Town's MS4 Program Plan annual report to the Virginia Department of Environmental Quality (DEQ).
- b) Contractors. All contract applicators who apply pesticides or herbicides to Town-owned property will likewise agree through contract language or otherwise provide written certification that proper training and certification in accordance with the Virginia Pest Control Act has been obtained. Contractors will provide documentation on request.
- c) Safety Data Sheets: Safety Data Sheets (SDSs) will be maintained for all relevant materials stored or used on-site. SDSs will be readily available for all personnel on-site to review.
- d) Use Minimization and Targeting.
 - i. Use manual and/or mechanical methods for weed and pest control or vegetation removal wherever possible rather than chemical methods.
 - ii. When chemicals are required, use the least toxic method to control animal or plant pests. This may include, but is not limited to, pheromone-based traps and sticky paper.
 - iii. When chemicals are used, use the most biodegradable product that will accomplish the desired goal.
 - iv. When possible, limit the application to the problem area and spot spray on infested areas only.
 - v. Designate a no-spray zone, preferably 50 feet or more, around water features.
 - vi. Contact the Fairfax County office of the Virginia Cooperative Extension for more information on Integrated Pest Management at <http://offices.ext.vt.edu/fairfax/> or (703) 324-5369.

3) Fertilizers

- a) Application and Training. Fertilizers at Centennial Golf Course will only be applied in accordance with the approved nutrient management plan (NMP). This applies to golf course staff and all contractors. If the Town determines that nutrients are applied to a contiguous area of one acre or greater, a NMP must be developed for the site.

4) General Practices

- a) Manufacturer's Recommendations. Follow all manufacturer's recommendations for mixing, applying, and handling pesticides, herbicides, and fertilizers.
- b) Storage. All materials, whether liquid or dry, should be properly stored under cover when not in use.
 - i. Materials should be stored in an adequately ventilated and secured building to prevent unauthorized use or access.

- ii. Materials must be stored under cover and, where possible, within a secondary containment structure, such as a concrete secondary containment structure, spill pad, or similar structure.
 - iii. Keep materials properly covered and contained in tight fitting containers.
 - iv. Properly label all materials.
 - v. Keep materials as far away as possible from bay doors or other places where a spill could reach an area outside area.
- b) Mixing.
- i. Provide adequate containment when mixing materials. This includes an area with impervious surface and adequate perimeter control to prevent the discharge of pollutants in the event of a spill.
 - ii. All mixed material containers shall be labeled with the specific contents.
 - iii. Mix the minimum amount of material needed for the immediate job.
- c) Application.
- i. Time the application of materials to coincide with the manufacturer's recommendation for best results.
 - ii. Do not apply pesticides or herbicides during precipitation or if precipitation is expected. Do not apply before an irrigation cycle.
 - iii. Do not apply fertilizers when heavy rain that could cause significant runoff is anticipated.
 - iv. Do not apply when wind conditions could result in spray drift to waterbodies or areas not targeted for application.
 - v. If possible, limit the application of pesticides or herbicides to a specific problem area.
 - vi. Avoid applying materials in or near any drainage ditch, creek, pond, or seasonal streambed.
- d) Spills and Leaks. Spills and leaks should be cleaned up immediately.
- i. Dry clean-up methods should be used to clean up spilled material. This includes the use of absorbent pads, granular absorbent, booms, and similar measures.
 - ii. Waste sorbent material must be disposed of properly.
 - iii. Water should never be used to clean up spilled material.
 - iv. Wash down of pavement should not occur until all spills and leaks have been cleaned up.
- e) Clean-Up.
- i. Sweep pavement and sidewalks where fertilizers or other solid chemicals have fallen, sweep them onto grassy areas or collect and dispose of properly.
 - ii. Make sure all containers are properly labeled.
 - iii. Dispose of excess or left over chemicals according to instructions on the label and local waste regulations.
 - iv. Triple rinse all pesticide and herbicide containers prior to disposal.

- v. Never rinse pesticides in an area where it has the potential to enter the storm drain or be washed into a local water body.
- vi. Application equipment must be washed in a fully contained area that drains to a holding tank or a sanitary sewer.

5) Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve the application, storage, transport, or disposal of pesticides, herbicides, and fertilizers. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Outdoor Material Storage	
Date:	July 31, 2015; Updated September 6, 2017; Updated March 27, 2019
Purpose of SOP:	To minimize or prevent pollutant discharge from the outdoor storage of materials.
MS4 Permit Reference	Part I E 6 a
Responsible Parties	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer Gene Flemming, Director of Golf

Outdoor storage of material can become a source of pollution as a result of leaks, spills, or accidents, or through the corrosion or leaching of materials into stormwater. Bulk materials such as sand, dirt, gravel, and mulch can also wash into the storm drain system when left exposed to precipitation. This SOP is designed to minimize the potential for outdoor storage of material to negatively affect stormwater quality.

1. Responsible Parties

- a) Public Works Staff. Public Works engages in multiple activities that involve the outdoor storage of materials.
- b) Golf Course Staff. The Centennial Golf Course has a materials storage facility where sand, mulch, and organic compost are stored in concrete bays.
- c) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with outdoor storage of materials. This includes, but is not limited to liquid bulk storage as well as dry storage such as sand, gravel, mulch, and dirt.
- d) Other SOPs and Documents. In addition to this SOP, the following documents are incorporated by reference and must be consulted:
 - i. The Snow and Deicing Operations SOP for storage of salt and deicing materials.
 - ii. Spill Prevention, Control, and Countermeasure (SPCC) Plans for the Town Shop and Centennial Golf Course.

- iii. Stormwater Pollution Prevention Plans (SWPPPs) for the Town Shop and Centennial Golf Course.

2. Outdoor Storage Areas

- a) Indoor Storage. All chemical and material containers should be stored indoors whenever possible. If they must be stored outdoors, place them under a roof or secured tarp.
- b) Secondary Containment.
 - i. All containers and dry materials should have secondary containment.
 - ii. Place all containers and dry materials on a plastic pallet or other device that elevates them off the ground or pavement and provides containment.
 - iii. Never release accumulated stormwater from a secondary containment structure unless it has been verified that there is no contamination present. If contamination is present, it must be properly mitigated prior to discharge, discharged to a sanitary sewer, or otherwise handled in accordance with the contaminate present.
- c) Placement. Place containers on paved or impervious surfaces and as far from (or at a lower elevation than) storm drain inlets and drainage ditches as possible.
- d) Traffic Control. Materials should be stored away from vehicle and equipment traffic. Bollards should be placed around materials where vehicles and equipment may come into close proximity.
- e) Spill Response.
 - i. Provide a spill kit near all storage areas.
 - ii. Clean up any spills, leaks, or discharges promptly.
 - iii. If a container is found to be leaking, either empty the contents into a leak-tight container or place the entire container inside of a larger leak-tight container.
- f) Inspections. Inspect all containers stored outdoors regularly.

3. Sand, Dirt, or Gravel Stockpiles

- a) Stockpiles should be stored inside a storage building or under a roof whenever possible.
- b) If a permanent overhead structure is not available, cover stockpiles with a properly secured tarp.
- c) Contain stormwater run-off from stockpiles by using barriers or berms.
- d) Sweep areas surrounding the stockpile frequently to prevent materials from mingling with stormwater.
- e) Whenever possible, order only the amount of the material to be stockpiled that is needed for the specific job and schedule delivery to minimize the amount of outdoor storage time.

- f) Locate stockpiles away from storm drain inlets. Provide protection for the inlet if necessary to prevent the discharge of materials.

4. Bulk Liquid Materials Storage

- a) Ensure that the content of a bulk liquid storage vessel is clearly marked in plain language.
- b) Provide impervious secondary containment for all above ground storage tanks (ASTs).
- c) To the extent possible, provide adequate containment for all material loading/unloading areas.
- d) Refer to the SPCC Plans for the Town Shop and Centennial Golf Course and the SWPPPs for the Town Shop and Centennial Golf Course for facility-specific requirements and best practices.
- e) Where provided, keep drain valves in secondary containment locked in the closed position at all times.
- f) Never release accumulated stormwater in a secondary containment structure unless it has been verified that there is no contamination present. If contamination is present, it must be properly cleaned prior to discharge.
- g) Provide locks for all access points to bulk liquid storage tanks.
- h) Make sure that an adequate spill kit with sufficient equipment and supplies is located near storage areas where spills are possible. Clean up any spills, leaks, or discharges immediately.

5. Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve the outdoor storage of materials. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Road, Street, Parking Lot, and Sidewalk Maintenance	
Date:	July 31, 2015; Updated March 27, 2019
Purpose of SOP:	To minimize or prevent pollutant discharge from daily operations associated with road, street, parking lot, and sidewalk maintenance.
MS4 Permit Reference	Part I E 6 a
Responsible Party	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer

Roads, streets, parking lots, and sidewalks can become a source of pollution during maintenance and construction activities if proper pollution prevention measures are not implemented. This SOP has been designed to minimize or prevent pollutant discharges from these activities.

1. Responsible Parties

- a) Town Staff. The Street Maintenance and Construction Activity Center of the Department of Public Works is responsible for the maintenance and repair of approximately 128 lane miles of the road system within the Town. Work is completed in accordance with Virginia Department of Transportation (VDOT) and Town of Herndon standards. Street Maintenance and Construction is also responsible for filling potholes and fixing damaged asphalt, sidewalks, or curbs.
- b) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with road, street, parking lot, and sidewalk maintenance and construction. The requirements of this SOP will be discussed with contractors in project contract discussions, pre-construction meetings, or other appropriate venues to ensure a complete understanding of the details of this SOP.

2. General Procedures

- a) Spill Response. Ensure spill response material/equipment is readily available when work activity requires the use of paints, chemicals, or other materials that could harm human health or the environment and any time that equipment is used that involves hydraulic fluids or other fluids that may leak.

- b) Storm Inlet Protection. Provide for storm drain inlet protection when working in close proximity and there is a potential for a discharge as the result of a spill or a precipitation event.
- c) Safety Data Sheets. Ensure that safety data sheets (SDSs) are available for all materials used during surface repair and maintenance activities. SDS should be readily available and accessible to all Town and contractor personnel handling chemicals or other potentially harmful materials.
- d) Weather Conditions. To the extent possible, construction and maintenance activities should only be scheduled and conducted during dry weather. All possible precautions should be used to avoid conducting potential pollution generating construction and maintenance activities immediately before or during times when precipitation is likely to occur.
- e) Routine Inspections. During periods of construction and/or maintenance, the work area should be routinely inspected for signs of spills, leaks, trash accumulation, illicit discharges from the site, buildup of sediment, or other conditions that may result in the discharge of pollutants from the site to the storm drainage system.
- f) Clean Surfaces. To the extent possible, broom sweep or vacuum all surfaces periodically to keep the work area clean and free from pollutants. Hosing down surfaces should be avoided unless the area is completely contained so that all drainage is directed to the sanitary sewer. Water may also be directed to grass surfaces where it can infiltration into the ground.

3. Asphalt Surface Repair and Maintenance

- a) Store mixed asphalt under cover and protected from precipitation and extreme temperatures.
- b) Reduce the amount of asphalt materials stored onsite. When possible, purchase only the amount of materials necessary to complete a project.
- c) If bulk material storage is necessary, locate storage area outside of the drainage conveyances and away from storm drain inlets. Ensure a tarp is available in case the materials need to be protected from precipitation.
- d) Minimize the amount of water used when conducting asphalt cutting, grinding, or milling. Water should only be used in amounts necessary to control dust and provide lubrication, and should never be used in amounts that would result in a flow that could discharge to the drainage system.
- e) All sediment and debris resulting from cutting, grinding, milling, or other repair and maintenance shall be contained, swept up, and disposed of properly.
- f) The use of tar-based products is strongly discouraged since they contain higher levels of polycyclic aromatic hydrocarbons (PAHs) that harm fish and other aquatic organisms.

- g) Apply sealants or other liquid surface treatments with care, avoiding misapplication to a storm drain or other non-asphalt surface. When conditions require application adjacent to a storm drain inlet, consider the use of an impervious inlet cover to prevent unintended spray into the storm drain.

4. Surface Painting/Striping

- a) When removing old paint, contain the removed paint to the extent possible and dispose of as appropriate. If there is a potential to encounter lead-based paint, additional precautions not outlined in this SOP may be required.
- b) When using high pressure water to remove old paint, protect nearby inlets to prevent the discharge of waste paint, sediment, or other pollutants into the storm drainage system. Use perimeter control around the work area to collect removed paint and dispose of as appropriate.
- c) When surface grinding or sand blasting to remove paint, sweep up the paint debris immediately. If water is used for grinding, minimize the amount of water used and provide proper containment to prevent any discharge to the drainage system.
- d) When possible, use thermoplastic markings instead of paint for all surface striping.
- e) All paint should be stored inside and protected from precipitation.
- f) To the extent practical, handle paint in a contained area, under cover from precipitation. If secondary containment is not available, use temporary structural best management practices to protect storm drain inlets and prevent the discharge of paints in the event of a spill.
- g) Apply paint at an appropriate rate to prevent excess paint from running off the site.
- h) In the event of a spill, containment materials should be deployed to contain the spill and prevent paint from entering the storm drain.
- i) Dispose of all waste material in an appropriate manner.
 - i. Excess latex and water based paint that is not able to be used elsewhere can be allowed to dry, under cover from precipitation, and disposed of as solid waste. Refer to product information for specific requirements for disposal.
 - ii. Leftover oil based paints and solvents must be disposed of as household hazardous waste according to federal and state environmental regulations.
- j) Paint equipment should be washed after use in a designated wash area that is plumbed to a sanitary sewer, or approved containment structure.

5. Concrete Surface Repair and Maintenance

- a) Store dry concrete material inside, under cover from precipitation.
- b) Minimize the amount of concrete material stored onsite. If possible purchase only the amount of concrete material needed for a particular job.
- c) Locate storm drain inlets in the vicinity of the work site. Storm drain inlets should be protected with a barrier if the work is in close proximity to the inlets and there is a reasonable chance for material to discharge to the inlet as the result of a spill or precipitation event.
- d) To control dust, “wet” cutting methods should be used when practicable. Minimize the amount of water used when conducting cutting to prevent a discharge to the storm drain system. Saw cut slurry shall be contained and properly disposed. Using a vacuum to contain slurry in the saw cutting process is an effective way to ensure that pollutants are not allowed to enter storm drains or other stormwater infrastructure.
- e) Remove demolished concrete or related debris and dispose of at a solid waste facility that accepts construction and demolition debris. Dry clean-up methods (broom and shovel) should be used to manage concrete debris to the extent practicable.
- f) A concrete washout shall be clearly established and identified at any location where concrete is to be mixed or poured. The concrete washout shall be constructed with an impervious material and in a manner that would prevent washout material from discharging to the storm system. Guidance can be found at www.epa.gov/npdes/pubs/concretewashout.pdf.
- g) Excess material that cannot be used at another location or project can be discharged into the designated concrete washout facility, if adequate capacity exists, where it should be allowed to dry and then be disposed as construction waste.

6. Porous Concrete, Porous Pavers, and Similar Structures

- a) Prior to conducting any construction or maintenance work, locate and identify any stormwater management facilities within the project area, including but not limited to pervious or porous pavement, rain gardens, etc.
- b) Clearly delineate porous pavement, pervious pavers, and similar structures that are not easily distinguishable from traditional surfaces, to increase awareness of their existence.
- c) Surface vacuuming should be performed on a routine basis and in the event of a spill of any material that may clog pore spaces. Sweeping is not the preferred method since it can lead to clogging of pores with sediment and other granular material.
- d) Do not locate staging areas, equipment or material storage areas on top of porous pavement.

7. Vegetation Management

- a) During routine mowing operations, minimize the amount of clippings with the potential to enter the storm drain by directing clippings away from impervious surfaces whenever possible.
- b) Do not purposefully sweep, blow, or dump clippings or any vegetated waste into storm inlets. Either blow clippings into grassy areas or collect the clippings or vegetated waste for composting.

8. Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve road, street, parking lot, and sidewalk maintenance. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Snow and Deicing Operations	
Date:	July 31, 2015; Updated March 27, 2019
Purpose of SOP:	To minimize or prevent pollutant discharge from operations associated with snow removal and deicing.
MS4 Permit Reference	Part I E 6 a
Responsible Party	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer

This SOP is designed to minimize, to the extent practical, the impacts of snow removal and deicing operations on local water quality while still ensuring public safety. This includes the storage and application of sand, salt, and other deicing chemicals.

1. Responsible Parties

- a) Town Staff. The Street Maintenance and Construction Activity Center of the Department of Public Works is responsible for snow removal and deicing operations in the Town's road right-of-way and on Town property. Other staff members may engage in minor treatment of sidewalks and building entrances using bagged or boxed deicing materials.
- b) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with snow removal or deicing operations within the Town's road right-of-way or on Town property.

2. Use of Deicing Agents Containing Urea or Other Nutrients

The Town, including contractors, will not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, sidewalks, or other paved surfaces.

3. Salt and Deicer Storage

- a) Cover from Precipitation. Salt and other chemical deicers will be stored in a covered structure or container at all times, unless active loading or spreading is occurring. Containment structures should be permanent in their construction and made of materials that are not subject to salt corrosion. Temporary storage of salt and other chemical deicers is not recommended; however, if materials must be stored outside of a

permanent structure, the storage must be on a temporary basis only. Temporary storage piles must be covered with a tarp and adequately secured at all times when not being actively worked.

- b) Impervious Bottom. Salt and other chemical deicers will only be stored on an impervious surface such as a concrete slab or an asphalt parking lot. The use of a tarp or other material as an impervious bottom is not adequate, unless specifically designed and certified by a professional engineer.
- c) Management of Run-on and Run-off. Salt, sand, and other deicer materials must be stored away from storm drain inlets and other conveyance structures. Storage structures must provide adequate barriers to prevent run-on into the storage pile, and minimize erosion from the pile. All run-off from salt and other chemical deicer piles must be eliminated at all times. Any run-off containing salt material must be captured and either returned to the storage pile, managed as salt brine, or discharged to a sanitary sewer system.

4. Sand and Deicer Use

- a) Deicing Material. Prior to each winter season, the Town will assess deicing materials, and to the extent practical, will select the materials and mix that has the least impact on water quality while still effectively meeting the Town's public safety needs.
- b) Anti-icing. Liquid anti-icing materials may be applied prior to storm events to prevent the bond between winter precipitation and the road surface. This can effectively reduce the amount of deicing material necessary for a storm event. Anti-icing applications should be conducted per manufacturer's recommendations.
- c) Equipment Calibration. All equipment will be calibrated in accordance with the manufacturer's instructions and the specified applications rates for the material being applied. Calibration will include plowing speed and applicable spreader settings. The manufacturer's instructions will be kept at the Town Shop and referenced prior to each winter storm event.
- d) Application Rate. The Town will use the lowest application rate that will effectively treat surfaces to meet safety needs.
- e) Loading. When loading salt, sand, or other deicers, care will be taken to not overfill the truck or tank.

5. Sand and Deicer Clean Up

- a) Clean-Up. Loading areas will be swept frequently to prevent salt or sand build-up and run-off. At a minimum, loading areas should be inspected and swept following each storm event or other period when handling occurs.
- b) Street Sweeping. The Town conducts routine street sweeping beginning in spring to clean up debris and other materials that collect during winter months, including salt, sand, and other deicers.

- c) Small Applications. To the extent practical, small amounts of salt, sand, and deicing materials applied to sidewalks or building entrances by Town staff will be swept up and disposed of properly when weather conditions allow.
- d) Vehicle Washing. Spreading and other equipment used during deicing operations will only be washed inside the Town Shop facility in the bay designed for that purpose. Wash water from that facility enters the sanitary sewer system.

6. Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve snow and deicing operations. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.



Stormwater Pollution Prevention Standard Operating Procedure (SOP)

Utility Construction and Maintenance	
Date:	July 31, 2015; Updated March 27, 2019
Purpose of SOP:	To establish standard, consistent stormwater pollution prevention procedures for utility construction and maintenance activities to prevent the discharge of pollutants related to these activities.
MS4 Permit Reference	Part I E 6 a
Responsible Party	John Irish, Deputy Director of Public Works Richard Smith, Senior Civil Engineer

Utility construction and maintenance activities may become sources of pollution if proper measures are not implemented. This SOP has been designed to minimize or prevent pollutant discharges from these activities.

1) Responsible Parties

- a) Town Staff. Routine construction and maintenance of utilities is conducted by Street Maintenance and Water and Sewer personnel in the Department of Public Works.
- b) Contractors. This SOP must be adopted by reference or otherwise incorporated into all contracting agreements dealing with utility construction and maintenance. The requirements of this SOP will be discussed with contractors in project contract discussions, pre-construction meetings, or other appropriate venues to ensure a complete understanding of the details of this SOP.

2) Utility Construction and Maintenance Controls

- a) Project Planning.
 - i. To the extent possible, all maintenance and construction activities should be conducted during periods of dry weather.
 - ii. The extent of areas excavated at one time should be minimized where possible to limit the active construction area.
- b) Excavation and Material Management. Installing new, or uncovering existing underground utilities must be done with care to avoid the discharge of pollutants to the drainage system.
 - i. Locate storm drain inlets prior to any excavation, and provide controls for inlets in close proximity to the work area.

- ii. Existing vegetation in and around areas being excavated should be preserved to provide natural erosion control.
 - iii. The extent of the excavation should be minimized to the extent practicable.
 - iv. Material excavated during trenching activities should be neatly stockpiled. In the event that the stockpiles must remain overnight, proper covering (secured tarps) and perimeter controls (sediment logs, straw bales, etc.) must be used.
 - v. Materials temporarily stockpiled in a roadway or other impervious surface that conveys directly to the MS4 should be removed by the end of the work day or prior to any precipitation, whichever comes first.
 - vi. If excavated material will not be used as backfill, the material should be removed from the site as soon as possible.
 - vii. If trench or pipe dewatering is necessary, provide appropriate sediment controls, such as dewatering bags or other sediment traps at the point of discharge. Additional permitting or authorization may be required to discharge to the drainage system.
 - viii. Dispose of all waste materials generated in the construction and maintenance process accordingly.
- c) Fluid Storage and Handling.
- i. Fluids should be stored in a general secondary containment structure (storage bin, truck bed, etc.) when not being actively used.
 - ii. All materials should be kept in tight fitting containers that are compatible with the material, and with proper labeling provided.
 - iii. To the extent possible, fluids should be added to equipment in a location that is adequate distance from a storm drain inlet. This is typically 25 feet or more.
- d) Spills and Leaks.
- i. Spill kits with absorbent materials should be onsite during all construction and maintenance activities.
 - ii. Dry clean-up methods shall be used to clean up spilled material. This includes the use of absorbent pads, granular absorbent, booms, and similar measures.
 - iii. Waste sorbent material shall be drained of free flowing material and disposed of as solid waste in accordance with local regulations.
 - iv. Water should never be used to clean up spilled material.
 - v. Wash down of pavement should not occur until all spills and leaks have been cleaned up. If a buildup of waste materials is present on the pavement, the resulting wash water should be contained and disposed of in a sanitary sewer.
- e) Other Town SOPs.
- i. Refer to the Road, Street, Parking Lot, and Sidewalk Maintenance SOP for additional procedures for maintenance activities that involve asphalt and concrete surface repair and maintenance.
 - ii. Refer to the Outdoor Material Storage SOP for additional procedures for material storage.

3) Training

This SOP will be incorporated into annual training for applicable employees in accordance with the Town's MS4 Program Plan that involve utility construction and maintenance. Documentation of the training, including sign-in sheets and materials used, will be included in the Town's MS4 annual reports.

Appendix H

Completed SWPPPs

Town of Herndon, Virginia

Public Works Complex Stormwater Pollution Prevention Plan Final – November 13, 2020



Town of Herndon
Department of Public Works
777 Lynn Street
Herndon, Virginia 20170

TOWN OF
Herndon
VIRGINIA

Prepared with assistance by:
Wood Environment & Infrastructure Solutions
Chantilly, Virginia

wood.

Prepared in Compliance with Municipal Separate Storm Sewer System (MS4)
Permit No. VAR040060

Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name	Title	Date
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Previous Versions

August 2004	December 15, 2016	

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1. Introduction

1.1 Pollution Prevention Team and Responsibilities

This Public Works Complex Stormwater Pollution Prevention Plan (SWPPP) has been prepared to comply with the Town of Herndon’s General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). The MS4 permit requires that the Town develop and implement SWPPPs for high priority facilities. Part I E 6 c of the permit defines high priority facilities as:

- (1) areas where residuals from using, storing, or cleaning machinery or equipment remain and are exposed to stormwater;
- (2) materials or residuals on the ground or in stormwater inlets from spills and leaks;
- (3) material handling equipment;
- (4) materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
- (5) materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- (6) materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated, or leaking storage drums, barrels, tanks, or similar containers;
- (7) waste materials except waste in covered, non-leaking containers (e.g., dumpsters);
- (8) application or disposal of process wastewater (unless otherwise permitted); or,
- (9) particulate matter or visible deposits of residuals from roof stacks, vents, or both, not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

Based on this definition, the Public Works Complex (site or facility) is required to develop a SWPPP. Table 1A presents the SWPPP organization and how it meets the specific requirements of Part I E 6 d of the MS4 permit.

Table 1A – SWPPP Organization and Permit Compliance

SWPPP Requirement	Location
A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies.	Section 2; Figures 2A-B
A description and checklist of potential pollutants and pollutant sources.	Section 3
A description of all potential non-stormwater discharges.	Section 3; Table 3A

SWPPP Requirement	Location
Written procedures designed to reduce and prevent pollutant discharges.	Section 4
A description of applicable training as required in Part I E 6 m of the MS4 permit.	Section 5
Procedures to conduct an annual comprehensive site compliance evaluation.	Section 5; Appendix E
An inspection frequency of no less than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP.	Section 5; Appendix E
A log of each unauthorized discharge, release, or spill incident reported in accordance with Part III G, including the following information: date of incident; material discharged, released, or spilled; and, estimated quantity discharged, released, or spilled.	Section 5: Appendix F

To assess stormwater pollution potential and to identify control measures to reduce pollutant loadings, Wood Environment & Infrastructure, Inc. (Wood) conducted a facility inspection with Town staff on September 17, 2020. Specific findings and recommendations are incorporated into this SWPPP. A copy of this SWPPP must be kept at the Public Works Complex and updated as necessary to reflect any changes in activities or the physical layout of the site that could affect stormwater pollution.

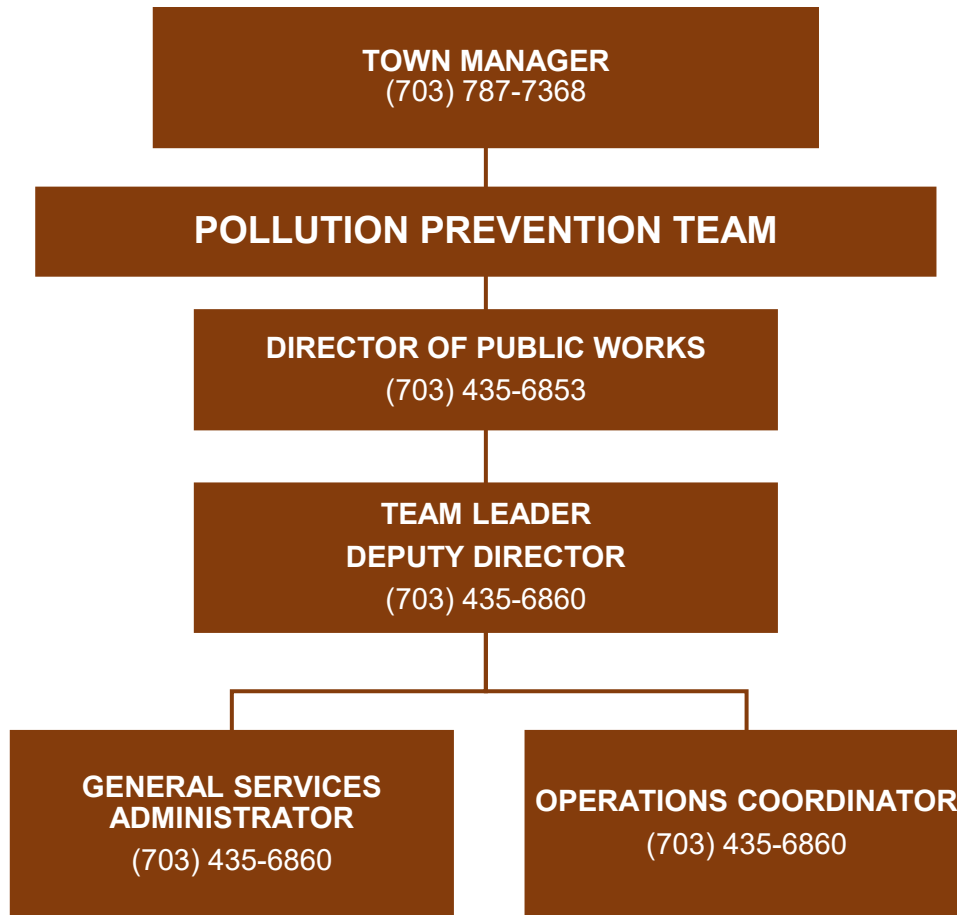
1.2 Pollution Prevention Team and Responsibilities

A key step in developing and implementing a SWPPP is to establish an organizational hierarchy familiar with pollution prevention plans and operational activities. The SWPPT consists of facility supervisors and other personnel that the Town of Herndon chooses to appoint.

The SWPPT will meet at least once annually to evaluate the effectiveness of the SWPPP and to determine if additional control measures are required. A series of forms are provided in this plan to assist the SWPPT. The SWPPT is required to make revisions to the plan when changes to the facility occur. These revisions can take the form of brief narratives inserted as amendments to the SWPPP.

The organizational arrangement of the SWPPT is presented in Table 1B. Most of the information provided in this plan requires effort by the SWPPT and on-site employees. The on-site team members or their designees will assist the SWPPT Leader with those areas under their specific management control.

Table 1B – Stormwater Pollution Prevention Team Members



The responsibilities of the Town Manager are to:

- Review and certify the SWPPP;
- Review and approve revisions and new control measures identified by the SWPPT; and,
- Ensure that adequate resources are allocated to implement the SWPPP.

The responsibilities of the Director of Public Works are to:

- Appoint the SWPPT Leader; and,
- Ensure that the SWPPP is implemented.

The responsibilities of the SWPPT Leader are to:

- Ensure that SWPPT members are trained and familiar with SWPPP requirements;
- Ensure implementation of required evaluations and inspections; and,
- Schedule and conduct SWPPT meetings.

The responsibilities of the SWPPT members are to:

- Attend SWPPT meetings;
- Implement procedures and control measures;
- Perform record keeping and documentation as required by the SWPPP; and,
- Evaluate the adequacy of the SWPPP and recommend modifications as necessary.

1.3 Supporting Plans and Policies

This SWPPP is designed to work with other plans and policies adopted by the Town to reduce and eliminate sources of stormwater pollution. Table 1C shows these plans and policies and their relationship to this SWPPP.

Table 1C – Supporting Plans and Policies

Document and Hyperlink	Description
MS4 Program Plan	<p>Documents the Town’s comprehensive pollution prevention strategy in accordance with the MS4 permit. The plan identifies best management practices to meet six minimum control measures:</p> <ul style="list-style-type: none"> • Public Education and Outreach • Public Involvement and Participation • Illicit Discharge Detection and Elimination • Construction Site Stormwater Runoff Control • Post-Construction Stormwater Management • Pollution Prevention/Good Housekeeping for Municipal Operations
Chesapeake Bay TMDL Action Plan	<p>Establishes the Town’s strategy for meeting the Chesapeake Bay Total Maximum Daily Load (TMDL). The TMDL established the maximum amount of a pollutant that can enter a water body without violating water quality standards. Pollutants of concern addressed in the plan include nitrogen, phosphorus, and sediment.</p>
<p>Pollution Prevention Standard Operating Procedures (Appendix C)</p>	<p>Establishes Town standard operating procedures (SOPs) to reduce stormwater pollution associated with municipal operations. SOPs cover the following categories:</p> <ul style="list-style-type: none"> • Vehicle and Equipment Maintenance and Cleaning • Pesticides, Herbicides, and Fertilizers • Outdoor Material Storage • Road, Street, Parking Lot, and Sidewalk Maintenance • Snow and Deicing Operations • Utility Construction and Maintenance

Document and Hyperlink	Description
Illicit Discharge Detection and Elimination (IDDE) Plan (Appendix D of the MS4 Program Plan)	Establishes the Town's procedures for detecting, identifying, and addressing unauthorized non-stormwater discharges, including illegal dumping, to the Town's storm drain system. The plan includes staff training and dry weather screening of the Town's storm drain outfalls.

Future plans and policies adopted by the Town will be evaluated by the SWPPT and incorporated into the SWPPP during the annual review as appropriate.

2. Facility Description

2.1 Facility Description

The Public Works Complex is located at 1479 Sterling Road, Herndon, Virginia. The immediate area is a mix of commercial and residential development. The Site Location Map (Figure 2A) shows the general location of the Public Works Complex. The Site Map (Appendix A) identifies building locations, stormwater drainage systems, direction of stormwater flow, potential pollution sources, and stormwater discharge outfalls.

Activities performed at the facility include maintenance and repair of vehicles and equipment, refueling, vehicle and equipment washing, fueling operations, pesticide, fertilizer, and chemical storage and handling, material stockpiles, waste handling, and anti-icing/deicing operations.

The main building at the site consists of two parts – (1) office and related space to support site administration and (2) the garage where most maintenance of vehicles and equipment is conducted. Maintenance activities include: fluid changes; mechanical repairs; parts cleaning; storage of vehicles and equipment waiting for repair or maintenance; and, storage of the related materials and waste materials such as oil, fuel, solvents, batteries, tires, and filters.

The main building also houses a wash bay that is used for cleaning vehicles and equipment. The wash bay is plumbed to the sanitary sewer system.

A fueling station is located immediately south of the main building. The station is protected from precipitation by a structural canopy. Fuel is stored in underground tanks and does not meet the threshold under 40 CFR 112 (Oil Pollution Prevention) for a separate Spill Prevention, Control, and Countermeasures (SPCC) plan.

Several open-front storage buildings are located in the southwestern portion of the property. These buildings are used to store mowers/field equipment, small tractors, sweepers, salt spreaders, leaf vacuums/shredders, asphalt rollers, replacement trash receptacles (for residential use), and other materials and equipment.

The storage building at the southern corner of the site is fully enclosed and is used to store fertilizers, pesticides, various chemicals, and flammable/combustible materials.

The area surrounded by the storage buildings is used for storage of various equipment and materials associated with public works operations. This includes metals (poles, signs, fire hydrants, etc.), traffic/crowd control devices, landscaping supplies (bricks, pavers, etc.), temporary storage of vegetative waste, etc.

Material stockpiles are located in the southeastern portion of the site. Salt and sand/salt mix is stored under cover in open-front storage buildings. Other materials, including dirt, gravel, sand, and millings are stored in open three-sided concrete bins. Two 5,000-gallon above ground storage tanks (ASTs) containing liquid deicers (located within a concrete secondary containment area) and a trash compaction unit are also located in this vicinity.

The area to the east of the main building is used for parking Town-owned vehicles and equipment such as vehicles awaiting auction, solid waste trucks, loaders, vac-trucks, dump trucks, equipment trailers, and similar items.

The northern and eastern periphery of the site is used to store additional items, including but not limited to snow plow blades, scrap metal, cable, empty dumpsters, used tires, and white goods.

Figure 2A – Site Location Map



2.2 Facility Drainage and Receiving Waters

The facility is located within the Horsepen Creek watershed (HUC PL18). Horsepen Creek drains into Broad Run in Loudoun County, which drains to the Potomac River and then the Chesapeake Bay. The Town, including the Public Works Complex, is subject to the nutrient and sediment pollution reduction requirements of the Chesapeake Bay TMDL. The Town’s strategy for meeting these reductions is contained in its Chesapeake Bay TMDL Action Plan.

The topography of the site is varied but generally slopes to the west. Drainage from the site is within one drainage area, which has been designated as DA-001. There is significant drainage to the site via storm drain pipes from adjacent residential areas to the east. Internal drainage within the facility is managed by a network of underground stormwater infrastructure (see Appendix A). All drainage from the site is discharged to a stormwater detention pond located at the southwestern corner of the facility.

The drainage characteristics of the site are identified in Table 2A.

Table 2A – On-Site Drainage Area Description

DA-001 Characteristics	
Outfall Type	30" Pipe
Latitude	38.975195
Longitude	-77.409375
On-site Drainage Area	9.7 acres
Percent Impervious	61%
Off-site Drainage	Yes

3. Potential Pollutant Sources

This section provides a discussion of each significant potential pollutant generating area of the site (Figure 3A) and associated potential non-stormwater discharges.

Figure 3A – Location of Potential Pollutant Sources



3.1 Allowable Discharges

In accordance with the Town's MS4 permit and 9VAC25-890-20, and unless found to be a significant contributor of pollutants by the Town or DEQ, the only non-stormwater discharges or flows that may be discharged from the Town's storm drain system are the following:

- Water line flushing, managed in a manner to avoid an instream impact;
- Landscape irrigation;
- Diverted stream flows;
- Rising groundwaters;
- Uncontaminated groundwater infiltration, as defined at 40 CFR 35.2005(20);
- Uncontaminated pumped groundwater;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensation;
- Irrigation water;

- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Street wash water;
- Discharges or flows from firefighting activities;
- Discharges from noncommercial fundraising car washes if the washing only uses biodegradable, phosphate-free, water-based cleaners; or,
- Other activities generating discharges identified by DEQ as not requiring VPDES authorization.

3.2 Vehicle and Equipment Maintenance

Vehicle and equipment maintenance activities are conducted in the maintenance bays. A separate room in the northwest side of the building has been established for the bulk storage of fluids. This includes a 500-gallon motor oil AST, 500-gallon hydraulic fluid AST, and a 275-gallon antifreeze single-walled AST. The room is designed with concrete secondary containment. A system of pumps and distribution lines runs from the storage room to overhead hose reels within the maintenance bays. This allows personnel to efficiently disperse lubricant in an orderly fashion. Spill absorbent material and other spill response equipment is located in the maintenance building.

Used oil and used oil filters drain from inside the maintenance bay to a 500-gallon used oil underground storage tank (UST) located to the west of the building. Used oil and other waste material such as antifreeze are routinely serviced by a waste hauling contractor.

Trench drains located along the inside of the maintenance bays discharge through an oil-water separator (OWS) located northwest of the building and then to the sanitary sewer system. Personnel wash the bay floors with a floor cleaning machine. This wash water is discharged to the OWS.

Emergency power to the site is provided by a natural gas generator on the eastern side of the main building.

Pollutants within this area may include a variety of heavy metals from vehicle parts (lead, iron, aluminum, zinc, copper, cadmium, chromium, and nickel) as well as petroleum hydrocarbons from a variety of lubricants, fuels, and chemicals. The Town has adopted an SOP for Vehicle Equipment Maintenance and Cleaning to minimize the potential for these activities to affect stormwater quality. The SOP is contained in Appendix C.

3.3 Vehicle and Equipment Wash

The vehicle and equipment wash is located in the main building. All personnel are required to use the wash facility and are prohibited from conducting outdoor vehicle or equipment washing. A review of the facility site plan confirms that the wash water is discharged to the sanitary sewer system.

If not properly contained in the wash area, potential pollutants that could discharge include a variety of heavy metals from vehicle parts (lead, iron, aluminum, zinc, copper, cadmium, chromium, and nickel), as well as petroleum hydrocarbons. Sediment and other solids (leaf debris, trash, etc.) are also potential pollutants. The Town has adopted an SOP for Vehicle Equipment Maintenance and Cleaning to minimize the potential for these activities to affect stormwater quality. The SOP is provided in Appendix C.

3.4 Fueling Station

A fueling station is located to the immediate south of the main building and is provided with a covered canopy. The fueling station consists of a 10,000-gallon gasoline UST and a 10,000-gallon diesel UST. A spill kit is located at the station to address spills or leaks. The station has an emergency shut-off and emergency contact information is prominently displayed. Potential pollutants from this area include petroleum products.

3.5 Pesticide, Fertilizer, and Chemical Storage

Chemicals and other materials (including pesticides, fertilizers, and flammable/combustible materials) are stored in the storage building at the southern edge of the facility. Chemical storage is also conducted in various parts of the facility to support vehicle maintenance, street maintenance, water and sewer, and general maintenance operations. These are always stored under cover and away from precipitation. A summary of all significant chemicals stored onsite is provided in Appendix B.

The Town has adopted an SOP for Outdoor Materials Storage to minimize the potential for chemical storage to result in a discharge to the storm drain system or to otherwise affect stormwater quality. The SOP is provided in Appendix C.

3.6 Salt and Liquid Deicer Storage

Storage of road salt and liquid deicer material for treating roads during winter storms is located onsite. Salt and salt/sand mix is contained in two, three-sided concrete structures. Both structures are provided cover from precipitation (one with a metal roof and one with a raised canopy). Also in this area are one 5,000-gallon calcium chloride AST and one 5,000-gallon salt brine AST. Both ASTs are within a concrete secondary containment structure equipped with a lockable release valve.

Potential pollutants from these activities include salt and calcium chloride. The Town has adopted an SOP for Snow and Deicing Operations to minimize the potential for salt and deicers to result in a discharge to the storm drain system or to otherwise affect stormwater quality. The SOP is provided in Appendix C.

3.7 Waste Management

Several solid waste containers are located onsite, including large open dumpsters for aggregate, used tires, and scrap metal. The Town also has a dumpster for municipal solid waste. The Town replaced the previous solid waste dumpster with a self-contained trash compactor that is protected from precipitation.

Potential pollutants originating from these activities could vary widely and may include trash/debris, sediment, organic material, liquid wastes, metals, and other pollutants typical to residential and industrial waste.

3.8 Material Stockpiles

Outdoor storage of material is conducted in the southeastern portion of the facility. Stockpiled material includes sand, gravel, mulch, woody materials, street sweeping spoils, and soil. The volume of these piles will fluctuate based on maintenance activity levels. Most of the materials are located within open, three-sided concrete structures. However, some materials may be temporarily stored outside of the structures.

Potential pollutants from these areas include sediment and organic matter. The Town has adopted an SOP for Outdoor Material Storage to minimize the potential for these activities to affect stormwater quality. The SOP is provided in Appendix C.

3.9 Vehicle and Equipment Parking

The area to the west of the main building is utilized for personnel vehicles while the area to the east of the main building is used to park or store Town vehicles and equipment. These include, but are not limited to, waste hauling vehicles, dump trucks, street sweepers, vactor trucks, and other equipment (backhoes, leaf vacuums, trailers, etc.). Vehicles awaiting maintenance are also typically stored in this area.

Potential pollutants associated with this area include petroleum hydrocarbons, metals, and sediment.

3.10 Equipment and Material Storage

A variety of equipment and material is stored throughout the facility. Some equipment and materials are stored in the three-sided equipment storage sheds located on the south and southwestern edge of the facility. The remainder of the equipment and material is stored outdoors. Equipment and material stored in these areas include, but are not limited to:

- Traffic control posts, signs, cones, and related material;
- Snow plows and salt spreaders;
- Water/sewer metal pipes, valves, fire hydrants, and related material;
- Used wooden pallets;
- Cable and cable spools;
- Plant materials for Town-maintained landscaping;
- Used tires;

- White goods (refrigerators, freezers, washer/dryers) for recycling;
- Waste and recycling totes;
- Dumpsters (metal, waste, brush); and,
- Other related material that may need to be stored outside for a period of time.

Potential pollutants originating from this material include metals, organic matter, petroleum hydrocarbons, and suspended solids. The Town has adopted an SOP for Outdoor Materials Storage to minimize the potential for these materials to affect water quality. The SOP is provided in Appendix C.

3.11 Checklist of Potential Non-Stormwater Discharges

Table 3A provides a summary checklist of potential pollutants, pollutant sources, and non-stormwater discharges. All non-stormwater discharges would eventually flow to the extended detention wet pond.

Table 3A – Checklist of Potential Non-Stormwater Discharges

Activity Area	Potential Pollutant	Potential Non-Stormwater Discharge
Vehicle and Equipment Maintenance	Heavy Metals Petroleum/Oil/Lubricants (POLs) Used Oil and Antifreeze Various Chemicals (Appendix B)	The potential for discharges from this area is significantly reduced since activities are conducted indoors. A discharge could occur if maintenance is conducted outdoors or if materials are stored in close proximity to bay doors where a leak or spill could circumvent the trench drain.
Vehicle and Equipment Wash	Heavy Metals POLs Detergents Sediment Organic Materials Trash	A discharge could occur if wash water is allowed to flow out of the bay or if washing occurs outdoors.
Fueling Station	Gasoline Diesel	A discharge could occur as a result of overflowing during filling of the tanks or spillage while filling vehicles or equipment.
Pesticide, Fertilizer, and Chemical Storage	Pesticides Fertilizer Various Chemicals (Appendix B)	A discharge could occur as a result of leaks, spills, or accidents during loading/unloading operations; or if containers are left outdoors and damaged or exposed to precipitation.

Activity Area	Potential Pollutant	Potential Non-Stormwater Discharge
Salt and Liquid Deicer Storage	Sodium Chloride Calcium Chloride	A discharge could occur if materials are spilled during loading/unloading and allowed to remain on the paved area where it could then mingle with stormwater run-on. A discharge could also occur as a result of the release of contaminated stormwater from the liquid deicer secondary containment structure.
Waste Management	Trash/Debris Sediment Organic Materials Liquid Waste Metals Other Residential and Industrial Waste	A discharge could occur if waste container lids are left open during a storm event, allowing the precipitation to comeingle with the waste and leak through the bottom of the container. In addition, if waste containers are allowed to overflow or have rusted out bottoms, litter and floatables could be discharged into the storm drain system.
Material Stockpiles	Sediment Organic Matter	A non-stormwater discharge could occur if the materials are not protected from precipitation through erosion or leaching of materials into the storm drain system.
Vehicle and Equipment Parking	POLs Heavy Metals Sediment Contents of Vehicles (e.g., Garbage Trucks)	A discharge could occur if leaked or spilled materials from equipment and vehicles are not properly contained and cleaned up.
Equipment and Material Storage	POLs Heavy Metals Sediment Organic Matter	A discharge could occur if leaked or spilled materials from equipment is not properly contained and cleaned up. A discharge may also occur as a result of leaching or deterioration of materials, such as metals, plastics, or rubber.

4. Procedures and Control Measures

This section identifies the written procedures and control measures designed to reduce and prevent pollutant discharges from the sources identified in Section 3.

4.1 Baseline Measures

Baseline measures are procedures and control measures that are generic and should be applied at most high priority facilities. This section discusses baseline measures that will be implemented at the Public Works Complex.

4.1.1 Good Housekeeping Program

Good housekeeping is the preservation of a clean and orderly work environment that contributes to overall pollution control efforts. The facility will implement the practices in Table 4A to minimize the potential for stormwater pollution. General walk-throughs of the site will be conducted by the SWPPT Leader, or designated personnel, as part of the daily routine to ensure that measures are being implemented.

Table 4A – Good Housekeeping Practices

Subject	Practice	Frequency
Clean Work Environment	Interior floors will be swept, with residue placed in designated waste disposal containers.	At least weekly.
Clean Work Environment	Brooms, dust pans, and mops will be kept on hand for easy access and use.	Continuous.
Trash and Litter	Exterior areas will be patrolled for trash and litter. Trash and litter will be disposed of properly.	Bi-weekly or more frequently if required.
Trash and Litter	Litter and trash will be removed from catch basins and other inlets to the storm drainage system.	Bi-weekly or more frequently if required.
Trash and Litter	Dumpster and recycling bin lids will be kept closed to prevent exposure to precipitation.	Continuous.
Scrap Parts and Empty Drums	Scrap parts and empty drums will be removed from the facility promptly.	Continuous.
Spill and Leak Prevention	Maintenance activities will be conducted indoors whenever possible.	Continuous.

Subject	Practice	Frequency
Spill and Leak Prevention	Chemicals, when not otherwise stored in appropriate tanks or containers, must be stored indoors and away from entrances where spills and leaks could escape the building envelope.	Continuous.
Spill and Leak Prevention	All equipment will be visually inspected for leaks and other conditions that could lead to a discharge of a pollutant.	During use or at least monthly.
Spill and Leak Prevention	Hazardous substances will be stored in approved containers. Containers will be stored in an area not exposed to stormwater where practical.	Continuous.
Spill and Leak Prevention	Containers will be located away from direct vehicular traffic. Bollards will be used when necessary to protect containers from vehicles and equipment.	Continuous.
Spill and Leak Prevention	Containers of liquid hazardous substances will be placed on spill containment pallets, racks, or otherwise be provided with containment and corrosion prevention. The containers will be stored in an area not exposed to precipitation where practical.	Continuous.
Labeling	Containers will be labeled for their contents in plain language. A Safety Data Sheet (SDS) will be provided in areas accessible to personnel for each chemical.	Continuous.
Labeling	Drums and tanks containing used oil and used antifreeze must be labeled "USED OIL" and "USED ANTIFREEZE" accordingly.	Continuous.
Spill and Leak Response	Spills, drips, and leaks will be cleaned promptly.	Immediately after occurrence of a spill, drip, or leak.
Parking Areas	Parking areas will be swept periodically to prevent the buildup of sediment and other loose materials.	As needed.
Parking Areas	Pressure washing will be conducted on sections of the parking area where oil and grease buildup is obvious. Water generated in the process must be collected and discharged to the sanitary sewer system or other appropriate disposal method.	As needed.

Subject	Practice	Frequency
Training	Formal pollution prevention training will be provided to all affected personnel.	Formal training every 24 months, plus informal training on a continuous basis.
Documentation	Complete the good housekeeping checklist (Form 2 in Appendix E) during site inspections.	Semi-annually.

4.1.2 Preventative Maintenance Program

Public Works Complex personnel will regularly inspect and test facility equipment and operational systems whose failure has a potential to release pollutants into the stormwater drainage system. These include items such as nozzles, pumps, dispensing lines, electrical components, gauges, valves, and gaskets. Inspections will uncover conditions such as cracks or slow leaks that could cause breakdowns or failures. The program will reduce breakdowns and failures by making proper adjustments, repair, or replacement of equipment or parts.

Inspections will occur during two specific preventive maintenance periods. Run-time preventive maintenance occurs on days when the equipment is in use under normal operation of the equipment and machinery. Routine preventive maintenance occurs at regularly scheduled intervals and involves inspections, cleaning, and minor repair of equipment and components. Routine preventive maintenance will be conducted in accordance with manufacturer’s recommendations, but no less than semi-annually as part of the good housekeeping checklist (Form 2 in Appendix E).

4.1.3 Spill Prevention and Response

Spill prevention procedures are intended to provide actionable information that can be used to reduce the potential for spills to occur in the first place and to ensure that staff are properly trained in the event of a spill so that it does not enter surface waters.

Outdoor Liquid Transfer

Outdoor liquid transfer may occur as a result of the delivery of fuel or other substances from a tanker truck to a tank or when fuel or other materials are dispensed by staff into fleet vehicles or equipment. The following will be observed when fuel is dispensed by Town staff or contractors:

- Operators will ensure that all hoses are secure and that proper absorbent materials (e.g. pads, booms, and socks) are available.
- Operators must remain with the vehicle at all times.
- Operators must be instructed to never “top off” a vehicle or other container.
- Outdoor liquid transfer will be avoided when at all possible during precipitation events unless adequate precautions are taken to ensure that the material does not co-mingle with stormwater. The fuel station canopy is generally considered adequate protection unless weather conditions indicate otherwise.

Employee Awareness

Employee awareness is the key to an effective spill prevention and response program. Spill prevention training will be a component of the general employee training program. New personnel will be taught spill prevention practices. Maintenance personnel will gain a sufficient understanding of the objectives of the spill prevention program. Spill prevention training will highlight previous spill events, equipment failures, remedies taken, and newly developed prevention measures.

Secondary Containment

Secondary containment should be provided for any AST, non-empty 55-gallon drum, or any area where smaller amounts of paints, solvents, POLs, pesticides, herbicides, or other liquid hazardous substances are stored. Containers up to 55-gallons (e.g. buckets, jerricans, drums) have several secondary containment options:

- Store containers on a spill pallet.
- Store containers inside a prefabricated metal HAZMAT storage structure with integral secondary containment.
- Use the existing building and provide a trench, built-up berm, or spill blocker at the doorway or bay threshold.
- Build a depressed concrete slab with curbing and a shed roof.
- Store small containers within a self-contained flammables cabinet.

For larger ASTs, the volume of secondary containment should equal the volume of the largest AST within the containment area plus sufficient freeboard for a specified storm event. Options include poured concrete secondary containment, prefabricated tanks with integral secondary containment, and double-walled tanks.

Spill Kits

A complete and adequate spill kit should be positioned in an easily accessible location anywhere there is the potential for a spill or a leak. This includes vehicle and equipment storage areas, chemical storage areas, and anywhere that bulk material is stored (including 55-gallon drums). Facility personnel should have knowledge of the location of all spill kits. Spill kits should have sufficient absorbent to contain a spill from the largest container within the hazardous substance storage location. The facility should also have at least one large drum or similar container for holding contaminated materials (e.g. soil, booms, absorbent pads) prior to disposal.

Spill Response

In case of a spill that has entered or is likely to enter the storm drain system or surface waters, or where personnel do not believe that they can address the spill safely, the facility will request aid from Fairfax County Fire and Rescue using 911. The Town Department of Public Works and the Virginia Department of Environmental Quality, Northern Regional Office, will also be notified. Reporting and documentation requirements specific to the Town's MS4 permit are discussed in Section 5. Warning signs placed at fuel stations, bulk storage tanks, or other refueling areas should contain emergency telephone numbers to aid in quick response.

Minor spills can be absorbed with dry granular absorbents, pads, booms, or socks. Personnel should be trained to ensure that used materials are swept up and disposed of properly in a timely manner (and before any precipitation event). In general, there are four basic steps that are to be taken to control pollution that can result from a spill:

1. Stop the spill at the source.
2. Contain the spill.
3. Collect the spilled material.
4. Dispose of the spilled material and subsequent contaminated material properly and legally.

If containment methods are required for which the responder is not trained, or personal protective equipment is not available, immediately evacuate the contaminated area and prevent unauthorized personnel from entering. Steps 3 and 4 should only be undertaken by personnel that are properly trained in spill response and cleanup.

4.1.4 Vehicle and Equipment Parking and Storage

Vehicle and equipment parking areas should be monitored routinely for spills and leaks. A specific area should be designated for vehicles and equipment waiting for maintenance. The area should be located away from storm drain inlets and have easy access to drip pans. The area should be subject to more frequent monitoring for leaks and spills.

Any observed leaks must be cleaned up immediately using absorbent material. The material must be disposed of properly. Water should never be used to clean up spilled material. Wash down of pavement should not occur until all spills and leaks have been cleaned up. If buildup of waste materials is present on the pavement, the resulting wash water must be contained and disposed of in the sanitary sewer or by another appropriate method.

4.1.5 Waste Containers and General Solid Waste Controls

Multiple waste containers are located at the facility to manage waste generated onsite and to occasionally manage waste generated at community events and festivals. Controls related to these containers are as follows:

- Lids are to remain closed at all times when not actively loading the containers.
- Trash should only be stored inside the containers. Piling excess trash on the outside of the container is not permitted.
- Dumpsters should be located away from storm drain inlets.
- Periodic inspections of the dumpsters should be conducted to detect signs of deterioration or leakage.

4.1.6 Material Stockpiles

Stockpiles that present a risk of transport of materials (through erosion or leaching) to the storm drain system or surface waters should be stored inside a storage building or under a roof whenever possible. If a permanent overhead structure is not available, steps should be taken to

prevent erosion and leaching of materials to the extent practicable. This may include covering stockpiles with a properly secured tarp, use of silt fencing, temporary vegetative cover, or other effective means of preventing stormwater pollution. The following will be observed:

- Prevent stormwater run-off from mingling with stockpiles by using barriers or berms.
- Sweep areas surrounding the stockpile frequently.
- Whenever possible, order only the amount of the material needed for the specific job and schedule delivery to minimize the amount of outdoor storage time.
- Locate stockpiles away from the storm drain inlets. Provide protection for the inlet if necessary to prevent the discharge of materials.

This SWPPP does not require that inert construction material such as wood posts, steel girders, aggregate, or pipe be placed under cover.

4.1.7 Scrap Material Storage and Salvage

Some items present a pollutant risk while they are stored on site. Rusting tanks, barrels, machinery, and other related equipment can introduce leached metals into stormwater runoff. The facility will minimize the potential for these materials to become a source of stormwater pollution. Measures may include, but are not limited to, the following:

- Remove scrap materials from the site promptly.
- Divert stormwater away from scrap storage areas.
- Divert stormwater from scrap storage areas through a buffer strip, onto a level grassy area, or into a grass berm.
- Ensure that scrap materials are free from lubricants and loose paint to the extent practical and ensure that fuel tanks are empty.

Small scrap items such as automotive batteries will be stored indoors or under cover until removed from the facility.

4.1.8 Illicit Discharge Detection and Elimination

Illicit discharges include direct pipe or other conveyance tie-ins to the stormwater drainage system. Improper discharges include the dumping of non-permitted, non-stormwater materials into the storm drainage system. Personnel must be instructed not to pour non-stormwater materials into catch basins, drop inlets, ditches, and other portions of the stormwater drainage system. The Town's Illicit Discharge Detection and Elimination (IDDE) plan establishes procedures for detecting, identifying, and addressing unauthorized non-stormwater discharges. The plan includes staff training and dry weather screening of the Town's storm drain outfalls.

Floor drains or hand sinks that discharge to the ground or the stormwater drainage system are illicit connections. If an illicit connection is discovered, it must be plugged or re-routed to the sanitary sewer system.

4.1.9 Erosion and Sediment Control

Areas where bare soil is exposed to water, wind, or ice can erode and cause sediment pollution. The facility should promptly stabilize any bare area that could become a source of pollution. If an area is persistently bare and causing erosion, the Town can employ one or more of the following:

- Prevent runoff from flowing across the exposed areas by diverting the flow to vegetated areas.
- Slow down the runoff flowing across the area by using level spreaders or terraces.
- Provide check dams in drainage ways to decrease flow velocities.
- Use grassed swales rather than paved channels.
- Remove sediment from stormwater runoff before it leaves the site by allowing it to sheet flow through vegetative buffers.

The Town will ensure that all grading and site-disturbing activities that occur at the facility comply with the requirements of Town Code Chapter 26, Article III “Erosion and Sediment Control.”

4.1.10 Stormwater Management

Stormwater management includes (1) practices that reduce the amount of impervious surface cover and maximize the amount of pervious area where stormwater can naturally infiltrate into the soil and (2) practices that capture and treat pollutants once they are already in the stormwater. The Town operates an extended detention wet pond in the southwestern corner of the site. This facility is discussed further in Section 4.2.

The need for additional structure controls will be based on an assessment of the nature of the specific pollutants to be controlled and site specific conditions such as soil and topography. In addition, the facility will be assessed in the context of overall Town stormwater management targets, including but not limited to those in the Town’s Chesapeake Bay TMDL Action Plan. Finally, the Town will ensure that all grading and site-disturbing activities that occur at the facility comply with the requirements of Town Code Chapter 26, Article VIII “Stormwater Management.”

4.1.11 On-Site Contractor Responsibilities

The Town has developed standard contract language to inform all contractors that they are responsible for implementing the Town’s SOPs and abiding by all local, state, and federal stormwater regulations and requirements, including this SWPPP.

4.1.12 Security

An effective security system may prevent an accidental or intentional release of materials to the stormwater drainage system as a result of vandalism, theft, sabotage, or other improper uses of the property. Routine patrol, personnel training, lighting, signage, and access control are possible measures to include in the facility’s security system.

4.2 Site-Specific Measures

This section discusses measures that are specific to the Public Works Complex. These measures are in addition to the general controls identified in Section 4.1. Because they are site-specific, these measures should be frequently evaluated to ensure that they are effective at reducing potential non-stormwater discharges and sources of pollutants.

4.2.1 Vehicle and Equipment Maintenance

The facility has implemented a number of measures designed to prevent pollution from vehicle and equipment maintenance operations. The measures include:

- Trench drains at the entrance to the maintenance bays capture any leaks spills within the bays. The drains convey material to the OWS, which then discharges to the sanitary sewer system.
- Used oil and antifreeze are stored inside the facility in a secondary containment structure.
- Bulk lubricants (55-gallon drums) are stored in a designated area with secondary containment provided via a concrete lined trench below the drums.
- Overhead service reels are provided for each maintenance bay. This allows personnel to dispense lubricants in a controlled manner that limits spills.
- Granular sorbent material is located within the maintenance facility to soak up any spilled/leaked material.
- Flame resistant cabinets are provided in the maintenance bays to store fuel and other flammables.

4.2.2 Vehicle and Equipment Wash

A dedicated vehicle wash is provided at the facility to handle all vehicle and equipment washing activities. The wash drains to an OWS and then to the sanitary sewer. All washing activities must be conducted within the vehicle wash to prevent the discharge of pollutants from outside vehicle washing activities.

4.2.3 Fueling Station

The fueling station has a number of structural controls to prevent the discharge of pollutants from fueling activities. They include the following:

- An overhead covering is provided to prevent precipitation from coming in contact with pollutants generated from the fueling operations.
- A spill kit is located at the fueling area to allow personnel to quickly address any spills/leaks that may occur. The spill kit is clearly labeled so that personnel can quickly identify it in the event of a spill.
- An emergency shutoff switch is located at the fueling station to allow for the pumps to be shut off in the event of a spill.
- Emergency contact information is located in case of a major spill or other emergency.
- Bollards are located at the fueling station to prevent vehicular impact that could damage the fuel tanks.

- Fire extinguishers are located at the fuel tank to allow personnel to address fires as needed.

4.2.4 *Salt Storage*

All salt and salt/rock dust mixture is located under structural cover. The following are implemented by the facility to prevent runoff of salt and other materials:

- Stormwater is diverted away from the storage area.
- All salt handling activities occur on an impervious surface that can be swept at the end of the handling activity.
- Care is taken to reduce spillage of salt when loaded onto trucks in non-covered areas.
- Residue is swept at the end of each precipitation event or significant loading operation.
- At the end of each winter season, salt storage areas are inspected to determine whether additional sweeping and material covering is required.

4.2.5 *Liquid Deicer Secondary Containment*

Poured concrete secondary containment is provided for the two 5,000-gallon ASTs containing salt brine and calcium chloride. Accumulated rainwater should only be released from the structure once it has been visually confirmed that there is no contamination (such as sheen). Such releases will be documented on the form included in Appendix D. If contamination is evident, then the contamination will be removed prior to the release. The outlet structure should remain locked when not in use.

4.2.6 *Extended Detention Wet Pond*

An extended detention wet pond stormwater management facility is located on the southwestern portion of the property. The pond provides primary treatment of the stormwater by settling suspended solids and filtering out trash and other debris. Routine inspections and maintenance of the pond are conducted in accordance with the Town's MS4 Program Plan and the VSMP regulations.

4.2.7 *Inlet Protection*

Witch hat-style inlet protection has been installed at all grate inlets at the facility. These are designed to capture sediment, particulates, and trash. To be effective and prevent clogging, these measures must be maintained and periodically replaced. Inspections should occur during routine site walk-throughs and be documented semi-annually as part of the good housekeeping checklist (Form 2 in Appendix E).

4.3 Recommended Actions

The actions in Table 4B are based on recommendations in Section 4 and a review of site inspections conducted during the past three years. Additional actions may be added based on further review or identification of potential pollutants and/or non-stormwater discharges.

Table 4B – Procedures and Control Measures Action Plan

Location	Sec. Ref.	Recommended Actions	Target Date
Vehicle Equipment Parking and Storage	4.1.4	Highlight during training the need to be observant for leaks from vehicles and equipment and to clean them up as soon as they are observed.	Next scheduled SWPPP training.
Good Housekeeping Program	4.1.1	Highlight during training the need to bring chemicals and other substances (paints, lubricants, sealants, gasoline, etc.) under cover immediately after use.	Next scheduled SWPPP training.
Fueling Station	4.2.3	Highlight during training the requirement to clean up and properly dispose of any spills at the fueling station.	Next scheduled SWPPP training.
Fueling Station	4.2.3	Locate a metal bin at the fueling station to store used absorbent.	12/31/2020
Material Stockpiles	4.1.6	Ensure material stockpiles are swept frequently to prevent runoff with stormwater.	Ongoing.
Salt Storage	4.2.4	Ensure salt/rock dust residue is swept into the building even during non-winter months.	Ongoing.
Scrap Material Storage and Salvage	4.1.7	Ensure scrap materials that are no longer needed are routinely identified and removed.	Ongoing.
Maintenance Bays	4.2.1	Move drums and other containers away from trench drains to ensure that any spills or leaks do not flow outside.	Ongoing.
Waste Containers	4.1.5	Develop and implement a plan to reduce or eliminate leakage observed from the self-contained trash compactor. The leakage appears to come from the connection point between the hopper and the larger compaction unit.	6/30/2020

5. TRAINING, INSPECTIONS, AND RECORDKEEPING

5.1 Training

Personnel training is essential to the effective performance of the SWPPP. Personnel at all levels of responsibility will be trained on the components and goals of the SWPPP, including employees who work in areas where high risk materials or activities are exposed to stormwater and employees responsible for implementing activities identified in the SWPPP.

In accordance with Part I E 6 d (5) of the MS4 permit and BMP 6.D of the MS4 Program Plan, training specific to the SWPPP will occur on a biennial basis. During off years, personnel from the facility will also be trained on other topics as required by the permit in the schedule presented with BMP 6.D. A blank Training Documentation Sheet (Form 1) is provided in Appendix E and will be used to document SWPPP training.

5.2 Semi-Annual Site Inspections

In accordance with Part I E 6 d (7) of the MS4 permit, routine site inspections will be conducted on at least a semi-annual basis by a qualified individual. If inspections reveal systemic issues, the SWPPT Leader will implement more frequent site inspections. A member of the SWPPT should either conduct or participate in the inspection. Inspections should be completed during a time of normal facility operations.

A Semi-Annual Inspection Checklist (Form 2) is provided in Appendix E. The facility manager is responsible for verifying the scope and adequacy of these inspection reports, which are to be filed with this SWPPP and retained for three years past the expiration date of the facilities coverage under the MS4 permit.

5.3 Annual Comprehensive Site Inspection

In accordance with Part I E 6 d (6) of the MS4 permit, a comprehensive site compliance evaluation will be conducted annually. The evaluation may take place at the same time as one of the semi-annual inspections in Section 5.2.

The evaluation will determine if the pollution prevention measures have been implemented and will assess their effectiveness. The evaluation will include an assessment of: the accuracy of the site map; the accuracy of the SWPPP and related records; the accuracy of potential pollutant sources, the effectiveness of stormwater pollution prevention procedures, and the overall effectiveness of the SWPPP. The site will be reviewed for changes in operations and potential non-stormwater discharges. Records and files will be reviewed for completeness. The SWPPP will be updated to reflect changes in operations that have the potential to affect stormwater quality and any new procedures necessary to reduce and prevent pollution discharges. Updates may take the form of short narratives attached at the end of the SWPPP.

A Comprehensive Site Evaluation (Form 3) form can be found in Appendix D. The completed form will be kept with the SWPPP as a record to the evaluation.

5.4 Spill Contacts, Reporting, and Documentation

In accordance with Part I E 6 d (8) of the MS4 permit, the SWPPP must include a log of each unauthorized discharge, release, or spill incident in accordance with Part III G. A Spill Incident Report (Form 4) can be found in Appendix E. Completed forms must be included in Appendix F of this SWPPP.

Part III G of the MS4 permit requires each facility to report any unauthorized discharges into state waters or discharges that may reasonably be expected to enter state waters. The facility must also report non-compliance that endangers human health or the environment. Both situations require the SWPPT Leader or Town Manager to notify DEQ. For an unauthorized discharge, the Town must notify DEQ immediately upon discovery, but in no case later than 24 hours. For non-compliance, the Town must notify DEQ within 24 hours from the time the Town becomes aware of the circumstances.

Table 5A – Emergency Spill Contacts

Contact	Number
Fairfax County Fire and Rescue	911 – Active spill event (703) 246-4386 – Not active spill event, no immediate hazard, work hours (703) 691-2131 – Not active spill event, no immediate hazard, after hours
Department of Environmental Quality, Northern Regional Office	(703) 583-3800
Town of Herndon Public Works	(703) 435-6853

Table 5B – 24-Hour Reporting Requirements

Regular Business Hours and Online Reporting	
DEQ, Northern Regional Office	(703) 583-3800 https://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/PollutionReportingForm.aspx
Nights, Holidays, and Weekends	
Virginia Department of Emergency Management	1 (800) 468-8892

A written report must be submitted to DEQ within five days to 13901 Crown Court, Woodbridge, Virginia 22193. The written report must contain the information in Table 5C.

Table 5C – Written Report Requirements

Contact	Number
<ol style="list-style-type: none"> 1. A description of the nature and location of the discharge; 2. The cause of the discharge; 3. The date on which the discharge occurred; 4. The length of time that the discharge continued; 5. The volume of the discharge; 6. If the discharge is continuing, how long it is expected to continue; 7. If the discharge is continuing, what the expected total volume of the discharge will be; and, 8. Any steps planned or taken to reduce, eliminate, and prevent a recurrence of the present discharge or any future discharges not authorized by a permit. 	<ol style="list-style-type: none"> 1. A description of the noncompliance and its causes; 2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time said non-compliance is expected to continue; and, 3. Steps taken or planned to reduce, eliminate, and prevent

5.5 Stormwater Quality Management Structure Inspections

The extended detention wet pond must be inspected annually in accordance with the MS4 permit. The Town Department of Public Works is responsible for documenting inspections, which are reported to DEQ in the MS4 annual report.

5.6 Release of Stormwater from Secondary Containment

Secondary containment has been installed for the liquid deicer storage tanks. Accumulated rainwater should only be released from the containment area after it has been visually confirmed that there is no contamination (such as sheen). Such releases will be documented using the Secondary Containment Release Form in Appendix D. If contamination is evident, then the contamination will be removed prior to release.

5.7 Documentation

All completed forms and other documentation will be included with this SWPPP as Appendix F.

APPENDIX A

SITE MAP

APPENDIX B

CHEMICAL INVENTORY

Chemical	Purpose	Quantity	Size	Location
15w-40 Motor Oil	Vehicle Maint.	Bulk	500 gal. tank	Compressor Room
5W-30 Motor Oil	Vehicle Maint.	2	55 gal. drum	Wash Bay 2
Diesel Exhaust Fluid	Vehicle Maint.	1	55 gal. drum	Wash Bay 2
75w-90 Gear Oil	Vehicle Maint.	1	55 gal. drum	Compressor Room
Antifreeze	Vehicle Maint.	Bulk	275 gal. tank	Compressor Room
Hydraulic Fluid	Vehicle Maint.	Bulk	500 gal. tank	Compressor Room
Waste Antifreeze	Vehicle Maint.	4	55 gal. drum	Shop
Neutro Wash	Vehicle Maint.	1	55 gal. drum	Shop/Wash Bay
Degreaser	Vehicle Maint.	1	55 gal. drum	Shop/Wash Bay
Waste Oil	Vehicle Maint.	Bulk	500 gal. tank	Shop/In Ground
Diesel Fuel	Vehicle Maint.	Bulk	10,000 gal. tank	Fuel Station/In Ground
Gasoline	Vehicle Maint.	Bulk	10,000 gal. tank	Fuel Station/In Ground
Salt Brine	Snow and Ice Management	Bulk	5,000 gal. tank	Salt Storage Area
Calcium Chloride	Snow and Ice Management	Bulk	5,000 gal. tank	Salt Storage Area
Neutro Wash t	Salt Remover	1	55 gal. drum	Shop/Wash Bay
Rhoma-Sol	Asphalt Remover	1	55 gal. drum	Shop
Shimmer-n-Shine	Truck Cleaner	2	5 gal. buckets	Shop
Grease-B-Gone	Grease Remover	2	22 gal. drums	Shop
Orange Degreaser	Degreaser	1	5 gal. bucket	Shop

Note: Due to the nature of the facility operations, this inventory is subject to change at any time and should not be considered a complete representation of the chemicals stored and handled onsite at any given time.

APPENDIX C

STANDARD OPERATING PROCEDURES

APPENDIX D
SECONDARY CONTAINMENT RELEASE FORM

RELEASE OF RAINWATER FROM SECONDARY CONTAINMENT STRUCTURE

Complete this form each time that accumulated rainwater is to be released from an exposed secondary containment structure.

Date:	Time	
Location	Public Works Complex	
Containment Structure	Liquid Deicer Tanks	
SWPPT Member		

Visual Observation of Accumulated Rainwater

Check yes or no, and provide details under comments.

ITEM	YES	NO	COMMENTS
COLOR			
FOAM			
CLOUDY			
OUTFALL STAINING			
OIL SHEEN			
OTHER			

If accumulated rainwater appears contaminated, list actions taken to remove contaminants:

After the release of the accumulated rainwater, was the secondary containment drain valve properly closed?

YES

NO

Comments:

APPENDIX E

INSPECTION CHECKLISTS AND FORMS

TRAINING DOCUMENTATION SHEET	FORM 1
SEMI-ANNUAL INSPECTION CHECKLIST.....	FORM 2
COMPREHENSIVE SITE COMPLIANCE EVALUATION.....	FORM 3
SPILL INCIDENT REPORT	FORM 4

FORM 1



Semi-Annual Inspection Checklist

Date:	Public Works Complex	Inspector:
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1. Good Housekeeping Procedures	Yes	No	N/A	Observations/Required Actions
Are work areas and floors clean and dry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are brooms, dust pans, and mops on hand for easy access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are dumpsters closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the site free of litter and debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the witch hat grate inlet protectors functioning and in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Materials Handling and Storage	Yes	No	N/A	Observations/Required Actions
Is there adequate aisle space and organization in all storage areas so that any corrosion or leaks can be detected early?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have proper security measures been taken for storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all containers labeled with contents on the appropriate label?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Safety Data Sheets available for all chemical substances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all containers that are not in use closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are containers stored indoors and away from entrances whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are maintenance activities conducted indoors whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If outdoors, are containers protected from precipitation and runoff whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FORM 2

Are containers protected from vehicular traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all containers been inspected and are they generally in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do all containers have secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have material stockpile areas been swept to prevent runoff of materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Spill Prevention and Response	Yes	No	N/A	Observations/Required Actions
Is emergency/contingency equipment accessible in close proximity to storage areas (spill kits, drip pans, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all areas been inspected for visible leaks or potential discharges of significant materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all spills been properly cleaned up and disposed of properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Pump Inspection	Yes	No	N/A	Observations/Required Actions
Have outdoor fuel/oil pumps been inspected for signs of leakage or deterioration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has mobile equipment been inspected for potential leaking fluids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Structural Control Devices	Yes	No	N/A	Observations/Required Actions
Is the pond generally free of issues that would prevent operation as designed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have the oil water separators been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the vehicle wash catch basin been inspected for sediment build-up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Scrap Metal Storage	Yes	No	N/A	Observations/Required Actions
Have scrap parts and empty drums no longer in use been removed from the property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Erosion and Sediment Controls	Yes	No	N/A	Observations/Required Actions

FORM 2

Is the facility free of bare areas that could result in soil erosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Salt Storage Controls	Yes	No	N/A	Observations/Required Actions
Is the salt storage area protected from run-on of stormwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area around the salt storage area swept after each use and free of material that could mingle with stormwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the liquid deicer secondary containment area in good condition with the valve closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Fueling Operations	Yes	No	N/A	Observations/Required Actions
Is the spill kit fully stocked at the fuel station and accessible for use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is all signage in good, readable condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have fire extinguishers been tested and are they accessible for use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the shut-off valve been tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Vehicles and Equipment Maintenance and Washing	Yes	No	N/A	Observations/Required Actions
Are vehicles and equipment checked for leaking fluids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are drip pans and spill kits located within easy access of vehicle and equipment storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are maintenance activities performed indoors when practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are washing activities confined to the wash bay?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicle and equipment parking and storage areas free of built up pollutants (grease, dirt, etc.). If not, what is the plan for removing these materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Other Indicators of Illicit Discharges	Yes	No	N/A	Observations/Required Actions

FORM 2

Is the facility clear of any signs of potential illicit discharges such as odors, staining, sheen, residue, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Personnel Training and Record Keeping	Yes	No	N/A	Observations/Required Actions
Is a program in place to train employees on pollution prevention and the Town's good housekeeping SOPs at least annually?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are employees trained on proper spill prevention and response for the materials that they handle?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

COMPREHENSIVE SITE COMPLIANCE EVALUATION

Site Name:	
Evaluator:	

1. Accuracy of Site Map

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Identification and location of outfalls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watershed boundaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direction of runoff flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buildings and impervious areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposed material storage areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

2. Accuracy of SWPPP and Related Records

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Pollution prevention team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfall characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed employee training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed semi-annual inspection checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed secondary containment release forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed spill records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

COMPREHENSIVE SITE COMPLIANCE EVALUATION (Continued)

3. Accuracy of Potential Pollutant Sources

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Vehicle and equipment maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and equipment wash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pesticide, fertilizer, and chemical storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salt and liquid deicer storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material stockpiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and equipment parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment and material storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

4. Effectiveness of Procedures and Control Measures

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Good housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preventive maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill prevention and response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and equipment parking and storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material stockpiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scrap material storage and stockpile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illicit discharge detection and elimination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erosion and sediment control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stormwater management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Onsite contractor responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMPREHENSIVE SITE COMPLIANCE EVALUATION (Continued)

4. Effectiveness of Procedures and Control Measures (Continued)

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Vehicle and equipment maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and equipment washing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liquid deicer secondary containment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extended detention wet pond	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

5. Overall Effectiveness of the SWPPP

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
Overall effectiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

Signature:		Date:	
Title:			

FORM 3

FORM 4

SPILL INCIDENT REPORT

Part 1. Facility (Division) Originating Report								
Name				Phone			Fax	
Address	1479 Sterling Road	City	Herndon	State	VA	Zip	20170	
Part 2. Incident Description								
Date/Time Started (24 hr clock):				Date/Time Ended (24 hr clock):				
Cloud Cover				Precipitation Conditions				
Temperature (°F)				Wind Direction & Speed				
Incident Location								
Type Material Spilled/Released								
Damages or Injuries?	NO <input type="checkbox"/> YES <input type="checkbox"/> (if yes, describe):							
Release/Spill To (check applicable box(es)):			Containment <input type="checkbox"/>	Ground <input type="checkbox"/>	Sewer <input type="checkbox"/>			
<i>Amount released to each area checked:</i>								
<i>Amount recovered from each area checked:</i>								
<i>Product/material source container(s):</i>								
<i>Total capacity of spill source container(s):</i>								
If spill entered storm sewer inlet, was spill contained within the system?				YES <input type="checkbox"/>	NO <input type="checkbox"/>			
Did spill impact adjacent properties?	NO <input type="checkbox"/> YES <input type="checkbox"/> (if yes, describe):							
Description of Cause (check all that apply):	<input type="checkbox"/> INADEQUATE PROCEDURES <input type="checkbox"/> PERSONNEL ERROR <input type="checkbox"/> LACK OF TRAINING <input type="checkbox"/> EQUIPMENT/COMPONENT FAILURE <input type="checkbox"/> OTHER (describe):							
Comments:								
Long-Term Corrective Action(s) Taken:								
Part 3. Notifications								
Agency & Telephone #	Contact Name			Date	Time			
<i>Local Emergency: 911</i>					am/pm			
<i>Virginia DEQ: (703) 583-3800</i>					am/pm			
<i>NRC: (800) 424-8802</i>					am/pm			
<i>Other:</i>					am/pm			
Instructions Given By Agencies								
Part 4. Review and Approval								
Preparer of Spill Report (Print Name)	Signature			Date				

FORM 4

APPENDIX F

COMPLETED FORMS



Town of Herndon Centennial Golf Course

Stormwater Pollution Prevention Plan

Developed for compliance with the Town of Herndon Municipal Separate Storm Sewer System (MS4) General Permit No. VAR040060

March 28, 2022

Prepared by Wood Environment & Infrastructure, Inc. for the
Town of Herndon Centennial Golf Course

wood.

Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name	Title	Date
------	-------	------

Record of Plan Amendments

September 6, 2017	Original SWPPP.
March 28, 2022	Comprehensive five-year review in accordance with the Town of Herndon MS4 Program Plan; updates to address the 2018 MS4 permit.

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1. Introduction

This Herndon Centennial Golf Course Stormwater Pollution Prevention Plan (SWPPP) has been prepared to comply with the Town of Herndon’s General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). Part I E 6 c of the MS4 permit requires that the Town develop and implement SWPPPs for high priority facilities, which are defined as:

- (1) Areas where residuals from using, storing, or cleaning machinery or equipment remain and are exposed to stormwater;
- (2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- (3) Material handling equipment;
- (4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
- (5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- (6) Materials or products that would be expected to be mobilized in stormwater contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- (7) Waste material except waste in covered, nonleaking containers (e.g., dumpsters);
- (8) Application or disposal of process wastewater (unless otherwise permitted); or,
- (9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in stormwater runoff.

The Herndon Centennial Golf Course (golf course) has three major activity areas: a maintenance facility; a materials storage facility; and, an equipment washing pad. As a result, this SWPPP has been developed for implementation at the golf course. Table 1A presents the SWPPP organization and how it meets the specific requirements of Part I E 6 d of the MS4 permit.

Table 1A – SWPPP Organization and Permit Compliance

SWPPP Requirement	Location
A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies.	Section 2 Figures 2A-C
A description and checklist of the potential pollutants and pollutant sources.	Section 3 Table 3A
A description of all potential non-stormwater discharges.	Section 3 Table 3A
Written procedures designed to reduce and prevent pollutant discharge.	Section 4
A description of the applicable training as required in Part I E 6 m.	Section 5 Appendix F, Form 1

SWPPP Requirement	Location
Procedures to conduct an annual comprehensive site compliance evaluation.	Section 5 Appendix F, Form 3
An inspection frequency of no less than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP.	Section 5 Appendix F, Form 2
A log of each unauthorized discharge, release, or spill incident reported in accordance with Part III G including the following information: date of incident; material discharges, released, or spilled; and, estimated quantity discharged, released or spilled.	Section 5 Appendix E

To confirm site drainage, assess potential stormwater pollutants, and identify control measures to reduce pollutant loadings, Wood Environment & Infrastructure, Inc. (Wood) conducted a facility inspection with golf course staff on March 22, 2022. Specific findings and recommendations are incorporated into this SWPPP. A copy of this SWPPP must be kept at the golf course and updated as necessary to reflect any changes in activities or the physical layout of the site that could affect stormwater pollution.

1.1 Pollution Prevention Team and Responsibilities

A key step in developing and implementing a SWPPP is to establish an organizational hierarchy familiar with pollution prevention plans and operational activities. The Stormwater Pollution Prevention Team (SWPPT) consists of facility supervisors and other personnel that the Town of Herndon chooses to appoint.

The SWPPT will meet at least annually to evaluate the effectiveness of the SWPPP and to determine if additional control measures are required. A series of forms are provided in this plan to assist the SWPPT. The SWPPT is required to revise the plan when changes to the facility occur. These revisions may take the form of brief narratives inserted as amendments to the SWPPP.

The organizational arrangement of the SWPPT is presented in Table 1B. The chart shows the chain of command for ensuring compliance with applicable requirements. Most of the information provided in this plan requires effort by the SWPPT and on-site employees. The on-site team members or their designees will assist the SWPPT Leader with those areas under their specific management control.

Table 1B – Stormwater Pollution Prevention Team Members



The responsibilities of the Director of Golf are to:

- Review and certify the SWPPP;
- Ensure there are adequate resources available to implement the SWPPP;
- Appoint the SWPPT Leader;
- Ensure that the SWPPP is implemented; and,
- Review and approve revisions and new control measures identified by the SWPPT.

The responsibilities of the SWPPT Leader are to:

- Ensure that SWPPT members are trained and familiar with SWPPP requirements;
- Schedule and conduct SWPPT meetings;
- Perform record keeping and documentation as required by the SWPPP; and,
- Ensure that the SWPPT carries out duties listed below.

The responsibilities of the SWPPT members are to:

- Attend SWPPT meetings;
- Conduct routine site inspections, as required;
- Implement the control measures;
- Evaluate the adequacy of the SWPPP and report deficiencies to the SWPPT Leader; and,
- Assist with updating of the SWPPP as necessary.

1.2 Other Plans Supporting the SWPPP

This SWPPP is designed to work in conjunction with other plans and policies adopted by the Town to protect water quality and the environment. Table 1C provides an overview of these documents and their relationship to the SWPPP.

Table 1C – Supporting Plans and Policies

Document and Hyperlink	Description
MS4 Program Plan	<p>Documents Herndon’s overall pollution prevention strategy in compliance with the MS4 permit. The plan identifies six minimum control measures:</p> <ul style="list-style-type: none"> • Public Education and Outreach • Public Involvement and Participation • Construction Site Stormwater Runoff Control • Post-Construction Stormwater Management • Pollution Prevention/Good Housekeeping for Municipal Operations
Chesapeake Bay TMDL Action Plan	<p>Documents the Town’s strategy for meeting the Chesapeake Bay Total Maximum Daily Load (TMDL). The TMDL establishes the maximum amount of a pollutant that can enter a water body without violating water quality standards. Pollutants of concern (POCs) include nitrogen, phosphorus, and sediment.</p>
Sugarland Run Bacteria TMDL Action Plan	<p>Documents the Town’s strategy for meeting the local bacteria TMDL established for Sugarland Run. Sugarland Run is impaired for bacteria pollution and has been assigned a specific reduction target. The plan includes continued implementation of the golf course wildlife management program, including control of Canada Geese to reduce bacteria pollution.</p>
<p>Pollution Prevention Standard Operating Procedures (Appendix B)</p>	<p>Establishes Town SOPs designed to reduce pollution associated with the following municipal operations:</p> <ul style="list-style-type: none"> • Vehicle and Equipment Maintenance and Cleaning • Pesticides • Outdoor Material Storage • Road, Street, Parking Lot, and Sidewalk Maintenance • Snow and Deicing Operations • Utility Construction and Maintenance
<p>Illicit Discharge Detection and Elimination (IDDE) Plan (Appendix G of the MS4 Program Plan)</p>	<p>Establishes the Town’s procedures for detecting, identifying, and addressing unauthorized non-stormwater discharges, including illegal dumping, to the Town’s storm drain system. The plan includes annual screening of the Town’s storm drain outfalls.</p>

Document and Hyperlink	Description
<p>Spill Prevention, Control, and Countermeasures (SPCC) Plan</p>	<p>40 CFR 112 (Oil Pollution Prevention) requires facilities to develop and certify an SPCC plan when the following criteria are met: (1) there is a reasonable potential for discharging oil from fixed facilities into waters of the United States; or, (2) the oil capacity on-site in containers with capacities equal to or greater than 55 gallons exceeds 1,320 gallons of above ground storage. An SPCC plan has been developed for the golf course. The plan originally certified on June 19, 2015 and must be reviewed and re-certified every five years.</p>
<p>Certified Audubon Cooperative Sanctuary</p>	<p>Certification program designed to reduce and minimize the potentially harmful impacts of golf course operations on the environment. Certified since May 4, 2009.</p>
<p>Environmental Best Practices for Virginia's Golf Courses</p>	<p>Best practices implemented by the golf course in accordance with Environmental Best Practices for Virginia's Golf Courses, Second Edition published by the Virginia Golf Course Superintendents Association (June 2020).</p>
<p>Nutrient Management Plan (NMP)</p>	<p>Establishes processes and procedures to properly manage the application of fertilizers. The most recent NMP became effective June 7, 2019 and expires June 7, 2024.</p>

2. Facility Description

2.1 Facility Description

The main entrance to the Herndon Centennial Golf Course is located at 909 Ferndale Avenue, Herndon, Virginia. The course covers 143 acres and is divided by Herndon Parkway. A portion of the Washington and Old Dominion (W&OD) trail also passes through a central stretch of the course. This SWPPP focuses on three main activity areas: the Maintenance Facility located at 1201 Old Heights Road; the Materials Storage Facility located near the intersection of Benicia Lane and Crestview Drive; and, the Equipment Washing Pad located near the Hole #4 green in the northern half of the course. The Site Location Map (Figure 2A) shows the general location of the golf course and the three activity areas. The Site Map (Figures 2B and 2C) identifies building locations, stormwater drainage systems, potential pollution sources, and stormwater discharge outfalls. The Site Map is located under the Figures section of this SWPPP.

Activities performed at the facility include maintenance and repair of course-related vehicles and equipment, refueling, equipment washing, bulk fuel storage, chemical storage and handling, raw material stockpiles, and fertilizer storage. The types of industrial activity at each activity area are described in the following sections.

Maintenance Facility

Vehicle and Equipment Maintenance

Maintenance of golf course vehicles (primarily golf carts) and equipment (mowers, aerators, chippers, etc.) occurs under cover in the service bays of the Maintenance Building. Minor maintenance is conducted outdoors if indoor maintenance is not practical. Activities include the storage, use, and transfer of fuel and lubricants, blade grinding, and spray painting. The area has a 280-gallon tank containing used oil and a 55-gallon tank containing lubricant. Both tanks have secondary containment (integrated and spill pallet, respectively).

Vehicle, Equipment, and Material Storage

A variety of vehicles, equipment, and materials are stored at the Maintenance Facility. Covered storage is provided by the Maintenance Building and the Equipment Storage Building. A tractor, lawn mower, trencher, and blower are stored outdoors next to the trash dumpster and under a tarp. A limited amount of equipment and material is stored permanently or temporarily outdoors in a mulched area near the facility entrance and near the Equipment Storage Building. These items include, but are not limited to:

- PVC pipe
- Plastic drainage pipe
- Snowblades
- Roller
- Spiker
- Tractor
- Chipper
- Air compressor

Equipment Washing

Washing of equipment occurs on the concrete pad located centrally to the Maintenance Facility. Wash water is intercepted by a trench drain, which flows to a StormFilter stormwater treatment device before discharging to the Town's MS4. No detergents are used during washing.

Vehicle Parking

Employee and visitor vehicles are parked at the Maintenance Facility. No vehicle maintenance (other than golf carts and similar vehicles) occurs on-site.

Equipment Fueling

Fueling of carts, mowers, and other equipment occurs outdoors at the Maintenance Facility. Only golf course personnel have access to the fueling station. The fueling station consists of a 2,000-gallon AST with gasoline and a 1,000-gallon AST with diesel, both of which are double-walled.

Turf Management Product Storage

Fertilizers (including urea), seed, and other turf maintenance products (such as gypsum) are stored at the Maintenance Facility in the Maintenance Building under cover. Fertilizers are ordered as-needed to reduce the total amount stored on-site at any one time.

Fungicide, Herbicide, and Insecticide Storage

Fungicides, herbicides, and insecticides are stored in the Chemical Storage Building at the Maintenance Facility. Appendix A provides a list of chemicals stored at the facility. The building has built-in secondary containment in the floor. A spill kit is also located at the building. Mixing occurs in the concrete area outside of the building.

Waste and Recycling Management

The Maintenance Facility has two dumpsters – one for trash and one for recycling. The trash dumpster is contained within a fenced area. Pick-up occurs once a week.

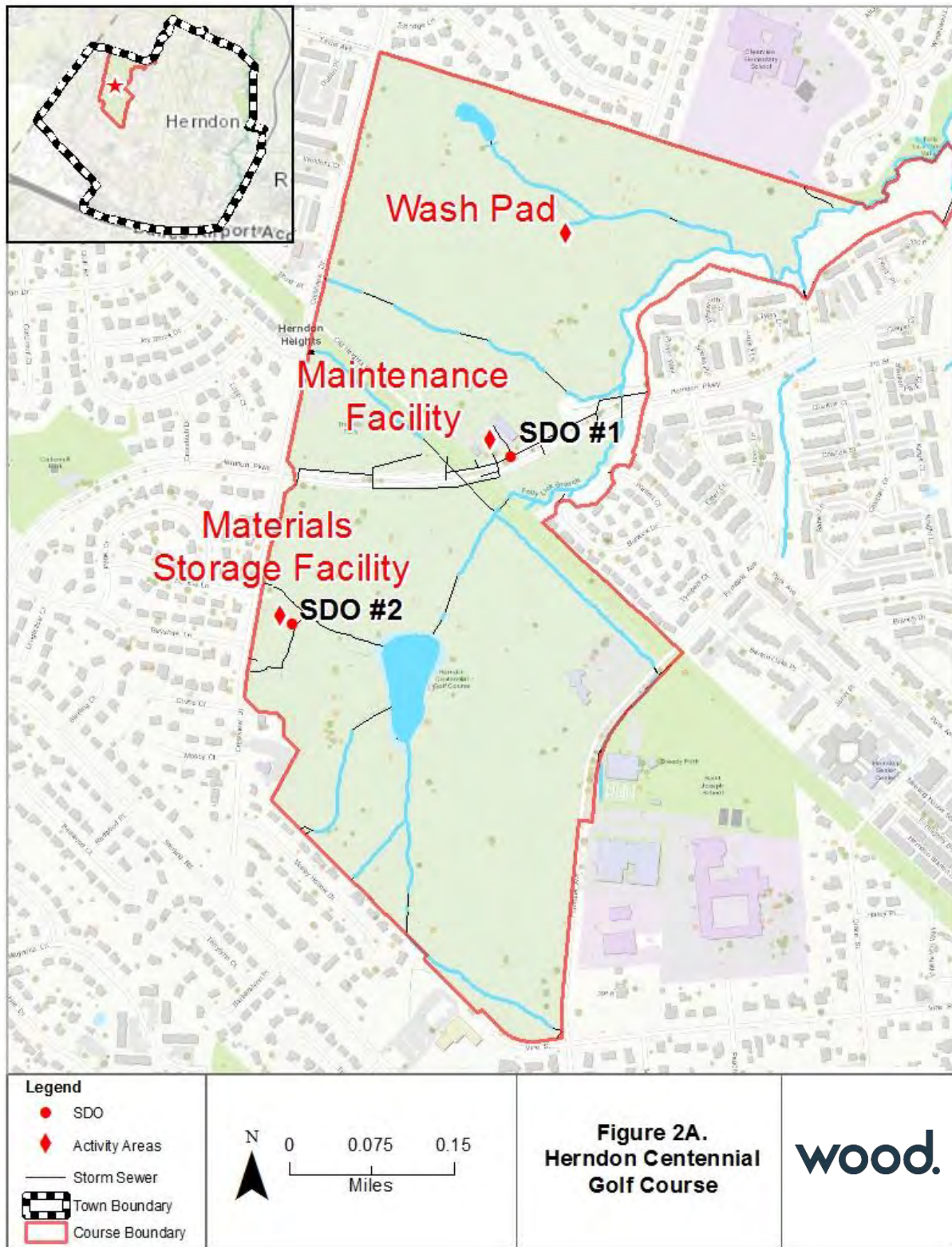
Materials Storage Facility

The Maintenance Storage Facility consists of four concrete bays for material storage. Materials typically stored in the bays include sand and wood chips. Materials are covered by tarps when not in use. Plastic piping and small amounts of asphalt millings are stored at the site. Brush is stored at the site while waiting to be chipped. The bays were designed to support a metal roof structure; however, the structure was not built.

Equipment Washing Pad

The Equipment Washing Pad is a small gravel area equipped with a hose used to wash grass clippings from mowing and other equipment. The pad is located near the Hole #4 green.

Figure 2A – Site Location Map



2.2 Facility Drainage and Receiving Waters

The golf course is located within the Folly Lick Branch subwatershed. Folly Lick Branch drains to Sugarland Run (HUC PL21), which drains to the Potomac River. The topography of the site generally slopes east by northeast. The following provides a more in-depth description of drainage characteristics by activity area. These are summarized in Table 2A.

Maintenance Facility

Stormwater runoff at the Maintenance Facility generally drains from northwest to southeast. The area is drained by two grate inlets: one adjacent to the Superintendent's office and one adjacent to the StormFilter. The storm pipe starts at the grate inlet adjacent to the Superintendent's office and flows southeast to the grate inlet next to the StormFilter. There is also a trench drain where equipment washing and other activities occur. The trench drain connects to the main storm pipe at the manhole in front of the Maintenance Building's middle service bay.

All stormwater at the Maintenance Facility is treated by the StormFilter before connecting to the Town's MS4 at Herndon Parkway. For the purposes of this SWPPP, the manhole where the facility drainage intersects with the pipe along Herndon Parkway is designated as Storm Drain Outfall (SDO) #1. The respective drainage area is designated as Drainage Area (DA) #1.

Materials Storage Facility

Runoff from the Materials Storage Facility generally flows from the northwest to southeast. Drainage is captured in a small ponding area to the southeast of the facility, where it then drains through pipes and swales to a large pond feature. The pond is in-line with Folly Lick Branch. For the purposes of this SWPPP, the swale leading to the inlet grate within the pond is designated as SDO #2. The respective drainage area is designated as DA #2.

Equipment Washing Pad

Runoff from the Equipment Washing Pad flows a short distance to a small wetland. The wetland flows to a small stream that enters Folly Lick Branch in the northeastern portion of the golf course.

Offsite Drainage

Offsite drainage enters onto the golf course property from Crestview Drive and Ferndale Avenue, and may contribute litter and pollutants associated with automobile wear. The volume and velocity of the stormwater runoff may also contribute to erosion. No offsite drainage affects the Maintenance Facility or the Equipment Washing Pad. Runoff from Crestview Drive has the potential to affect the loading and unloading area of the Materials Storage Facility.

Table 2A – Drainage Area Description

DA-001 Characteristics (Maintenance Facility)	
Outfall Type	Reinforced Concrete Pipe
Latitude	38.978317
Longitude	-77.395725
On-site Drainage Area	~1.82 acres
Percent Impervious	24%
Off-site Drainage	No

DA-002 Characteristics (Materials Storage Facility)	
Outfall Type	Grass Swale
Latitude	38.976044
Longitude	-77.399373
On-site Drainage Area	0.85 acres
Percent Impervious	80%
Off-site Drainage	Yes

3. Potential Pollutants and Non-Stormwater Discharges

This section provides a discussion of each significant potential pollutant generating activity (Figures 3A and 3B) and associated potential non-stormwater discharges.

Figure 3A – Maintenance Facility Potential Pollutant Sources



Figure 3B – Materials Storage Facility Potential Pollutant Sources



3.1 Allowable Discharges

In accordance with the Town's MS4 permit and 9VAC25-890-20, and unless found to be a significant contributor of pollutants by the Town or DEQ, the only non-stormwater discharges or flows that may be discharged from the Town's storm drain system are the following:

- Water line flushing, managed in a manner to avoid an instream impact;
- Landscape irrigation;
- Diverted stream flows;
- Rising groundwaters;
- Uncontaminated groundwater infiltration, as defined at 40 CFR 35.2005(20);
- Uncontaminated pumped groundwater;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensation;

- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Street wash water;
- Discharges or flows from firefighting activities’
- Discharges from noncommercial fundraising car washes if the washing uses only biodegradable, phosphate-free, water-based cleaners; or,
- Other activities generating discharges identified by DEQ as not requiring VPDES authorization.

3.2 Vehicle and Equipment Maintenance

Vehicle and equipment maintenance occurs at the Maintenance Facility, primarily in the Maintenance Building. Pollutants associated with vehicle and equipment maintenance may include metals from wear of vehicle and equipment parts and grinding (lead, iron, aluminum, zinc, copper, cadmium, chromium, and nickel) as well as petroleum hydrocarbons from a variety of lubricants, fuels, and chemicals.

The potential for non-stormwater discharges from this area is significantly reduced since activities are generally conducted indoors. A separate chemical storage room has been established in the Maintenance Building and a system of pumps and distribution lines runs from the storage room to overhead hose reels within the maintenance bays. This allows personnel to efficiently disperse lubricant in an orderly fashion. Any spill occurring in the Maintenance Building would be intercepted by the trench drain along the bay doors. The trench drain leads to an oil/water separator (OWS) that discharges to the sanitary sewer system. In addition, personnel wash the bay floors with a floor cleaning machine. This wash water is also discharged to the OWS.

A discharge could occur during outdoor maintenance or if materials are stored in close proximity to bay doors where a leak or spill could circumvent the trench drain. Any such spill would be intercepted by the StormFilter, which discharges to SDO #1.

The Town has adopted a SOP for Vehicle Equipment Maintenance and Cleaning to minimize the potential for these activities to affect stormwater quality. The SOP is contained in Appendix B.

3.3 Vehicle, Equipment, and Material Storage

Vehicle, equipment, and material storage occurs at the Maintenance Facility, primarily in the Maintenance Building and the Equipment Storage Building. Potential pollutants from stored vehicles, equipment, and materials include metals, organic matter, petroleum hydrocarbons, and suspended solids. Any discharge of these pollutants would be intercepted by the StormFilter prior to being discharged through SDO #1.

The Town has adopted an SOP for Outdoor Material Storage to minimize the potential for these materials to affect water quality. The SOP is provided in Appendix B.

3.4 Vehicle Parking

Vehicle parking occurs at the Maintenance Facility. The most likely pollutants as a result of vehicle parking are petroleum hydrocarbons from leaking oil cases or hydraulic systems. Potential non-stormwater discharges could occur if leaked materials are not properly contained and cleaned up. Any discharge of these pollutants would be intercepted by the StormFilter prior to being discharged through SDO #1.

3.5 Storage and Handling of Turf Management Products

Turf management products, including fertilizers, are stored under cover at the Maintenance Facility. The Town is subject to the Chesapeake Bay Total Maximum Daily Load (TMDL), which includes pollutant load reduction requirements for nutrients. Turf management practices can become a source of nutrient pollution if the materials are spilled during transfer or mixing, or if misapplied to impervious surface areas. Any discharge of these pollutants at the Maintenance Facility would be intercepted by the StormFilter prior to being discharged through SDO #1. Misapplication to impervious surface areas could potentially flow to the nearest storm drain or swale and eventually to Folly Lick Branch.

The golf course has implemented a number of practices to reduce the potential for these materials to become a source of pollution. These include implementing the adopted NMP, maintaining Certified Audubon Cooperative Sanctuary status, and implementing practices in accordance with Environmental Best Practices for Virginia's Golf Courses published by the Virginia Golf Course Superintendents Association. Further, the Town has adopted a SOP for Pesticides, Herbicides, and Fertilizers to minimize the potential for these activities to affect stormwater quality. The SOP is contained in Appendix B.

3.6 Storage and Handling of Fungicides, Herbicides, and Insecticides

Fungicides, herbicides, and insecticides are stored and mixed under cover in the Chemical Storage Building at the Maintenance Facility. As a result, the highest potential for a discharge would be during the loading/unloading process, which takes place on the concrete pad outside of the storage facility. Spillage would go to the trench drain and then the StormFilter. A summary of chemicals stored and handled at the facility is provided in Appendix A.

State certification is required for all employees handling and applying these materials. Likewise, all contractors are required to obtain certification as a condition of working for the Town. The golf course has implemented a number of practices to reduce the potential for these materials to become a source of pollution. These include maintaining Certified Audubon Cooperative Sanctuary status and implementing practices in accordance with Environmental Best Practices for Virginia's Golf Courses published by the Virginia Golf Course Superintendents Association. Further, the Town has adopted a SOP for Pesticides, Herbicides, and Fertilizers to minimize the potential for these activities to affect stormwater quality. The SOP is contained in Appendix B.

3.7 Equipment Washing

Equipment is washed at two areas of the golf course – the Maintenance Facility and the Equipment Wash Pad. Potential pollutants that could discharge include a variety of metals from wear of vehicle parts (lead, iron, aluminum, zinc, copper, cadmium, chromium, and nickel), as well as petroleum hydrocarbons. Sediment, organic solids (grass clippings, leaf debris, etc.), and residual chemicals from sprayers and spreaders are potential pollutants as well. Note that sprayers and spreaders are washed inside of the Maintenance Building, where any residual chemicals would go to the sanitary sewer system.

Wash water at the Maintenance Facility is intercepted by a trench drain, which flows to a StormFilter stormwater treatment facility before discharging to the Town's MS4 at SDO #1. No detergents are used during washing. The StormFilter is equipped with 14 ZPG (zeolite, perlite, and granular activated carbon) cartridges. As advertised, ZPG cartridges are designed to treat TSS, organics, and petroleum hydrocarbons associated with washing, in addition to other common stormwater pollutants. The StormFilter is inspected annually and maintained as necessary to ensure proper functioning.

Wash water at the Equipment Wash Pad flows untreated a short distance to a small wetland, which is hydrologically connected to Folly Lick Branch.

The Town has adopted a SOP for Vehicle Equipment Maintenance and Cleaning to minimize the potential for these activities to affect stormwater quality. The SOP is provided in Appendix B.

3.8 Fueling and Outdoor Liquid Transfer

A fueling station is located centrally to the Maintenance Facility on a concrete pad. The fueling station consists of a 2,000-gallon gasoline AST and a 1,000-gallon diesel AST. The area is protected from vehicle traffic by a series of bollards. Potential pollutants from this area include gasoline and diesel.

A non-stormwater discharge could occur as a result of overtopping of the tanks during filling or spillage while filling vehicles or equipment. Any overtopping or spillage would go to the grate inlet at the southeastern part of the Maintenance Facility and be intercepted by the StormFilter device. The StormFilter device is equipped with ZPG cartridges. As advertised, ZPG cartridges are designed to treat oil and grease, soluble metals, and other common stormwater pollutants.

Two spill kits are located in the fueling station area – one next to the 1,000-gallon diesel AST and one inside the Chemical Storage Building. The golf course also has a SPCC plan, which establishes procedures, methods and equipment, and other requirements to prevent the discharge of oil and hazardous substances from the facility. The fuel pumps have locks that are secured after hours.

3.9 Solid Waste Containers

Two solid waste containers are located at the Maintenance Facility. Potential pollutants may include trash/debris, sediment, organic material, liquid wastes, metals, and other pollutants typical to residential and industrial waste. A non-stormwater discharge could occur if waste container

lids are left open during a storm event, therefore allowing the precipitation to co-mingle with the waste and leak through the bottom of the container. In addition, if waste containers are allowed to overflow or have rusted-out bottoms, litter and floatables could be discharged into the storm drain system.

3.10 Material Stockpiles

Outdoor storage of material is located at the Material Storage Facility. Stockpiled material includes sand, mulch, and organic compost. The volume of these piles fluctuates based on maintenance activity levels. However, materials are generally applied within a 24 hour period after delivery.

Potential pollutants from these areas include sediment and organic matter, both of which contain nutrients. A non-stormwater discharge could occur if the materials are not protected from precipitation through erosion or leaching of materials into the storm drain system. The Town has adopted a SOP for Outdoor Material Storage to minimize the potential for these activities to affect stormwater quality. The SOP is provided in Appendix B.

3.11 Canada Geese and Other Waterfowl

Waterfowl are often attracted to golf courses, including Herndon Centennial Golf Course. Canada Geese are a particular problem for the Northern Virginia region. Concentrations of waterfowl can lead to elevated bacteria in water. Sugarland Run is listed as impaired on the Virginia 303(d) TMDL Priority List and Reports because of violations of the state’s water quality standards for *E. coli* and fecal coliform bacteria. Wildlife, including waterfowl, are cited as sources of the bacteria impairment. The Town has adopted an Audubon International Certified waterfowl management program for the golf course.

3.12 Checklist of Potential Pollutants and Non-Stormwater Discharges

Table 3A provides a description and checklist of potential pollutants, pollutant sources, and non-stormwater discharges.

Table 3A – Checklist of Potential Pollutants and Non-Stormwater Discharges

Activity Area	Potential Pollutants	Potential Non-Stormwater Discharges
Vehicle and Equipment Maintenance	Metals Petroleum, Oil, and Lubricants (POLs) Used Antifreeze Various Chemicals	A non-stormwater discharge could occur if maintenance is conducted outdoors or if materials are stored near doors where a spill could circumvent the trench drain system.
Vehicle, Equipment, and Material Storage	Metals POLs Organic Matter Sediment	A non-storage discharge could occur as a result of pollutants washing off the stored materials or through leaching of metals into stormwater.

Activity Area	Potential Pollutants	Potential Non-Stormwater Discharges
Vehicle Parking	POLs	A non-stormwater discharge could occur if leaked or spilled POLs are not properly contained and cleaned up.
Turf Management Products	Nutrients	A non-stormwater discharge could occur if materials are not stored under cover, are spilled during transfer or mixing, or are misapplied to impervious surfaces.
Fungicides, Herbicides, and Pesticides	Various Chemicals	A non-stormwater discharge could occur if materials are spilled during loading/unloading or mixing or if materials are sprayed too closely to a water body.
Equipment Washing	Metals POLs Organic Materials Sediment Various Chemicals	A non-stormwater discharge could occur if wash water is allowed to enter a water body or the storm drain system untreated.
Fueling Operations	POLs	A non-stormwater discharge could occur as a result of overtopping of tanks during filling or spillage while filling vehicles or equipment.
Solid Waste Containers	Trash/Debris Metals Organic Materials Liquid Wastes	A non-stormwater discharge could occur if waste container lids are left open during a storm event, therefore allowing precipitation to co-mingle with materials and leak through the bottom of the container. If containers are allowed to overflow or have rusted out bottoms, materials could be discharged into the storm drain system.
Material Stockpiles	Organic Materials Sediment	A non-stormwater discharge could occur if materials are not protected from precipitation and migrate from the site to a water body or the storm drain system.
Canada Geese and Other Waterfowl	Bacteria	A non-stormwater discharge could occur if large concentrations of waterfowl are allowed to congregate on impervious surfaces or near water bodies on the site.

4. Procedures and Control Measures

This section identifies the written procedures and control measures designed to reduce and prevent pollutant discharges from the sources identified in Section 3.

4.1 Baseline Measures

Baseline measures are procedures and control measures that should generally be applied at most high priority facilities. This section discusses baseline measures that will be implemented at the golf course.

Minimize Risk of Exposure

Golf course employees will take reasonable measures to minimize the exposure of potential pollutant generating activities to precipitation and stormwater. These measures include:

- Conduct potential pollutant generating activities indoors or under cover.
- Store materials and parts indoors or under cover to the extent practicable.
- Divert stormwater away from activity areas with berms, ditches, curbing, and buffer strips.
- Divert stormwater from activity areas to appropriate runoff management facilities.

Good Housekeeping Program

Good housekeeping is the preservation of a clean and orderly work environment that contributes to overall pollution control efforts. Adherence to the practices in Table 4A will minimize the potential for stormwater pollution. General walk-throughs of the site will be conducted by the SWPPT Leader, or designated personnel, during normal daily duties to ensure that measures are being implemented.

Table 4A – Good Housekeeping Practices

Subject	Good Housekeeping Practice	Frequency
Clean Work Environment	Interior floors will be swept, with residue placed in designated waste disposal containers.	At least weekly.
Clean Work Environment	Brooms, dust pans, and mops will be kept on hand for easy access and use.	Continuous.
Trash and Litter	Exterior areas will be patrolled for trash and litter. Trash and litter will be disposed of properly.	Twice-weekly or more frequently if required.
Trash and Litter	Litter and trash will be removed from catch basins and other inlets to the storm drainage system.	Twice-weekly or more frequently if required.
Trash and Litter	Dumpster and recycling bin lids will be kept closed to prevent exposure to precipitation.	Continuous.

Subject	Good Housekeeping Practice	Frequency
Scrap Parts and Empty Drums	Scrap parts and empty drums will be removed from the facility promptly.	Continuous.
Spill and Leak Prevention	Maintenance activities will be conducted indoors whenever possible.	Continuous.
Spill and Leak Prevention	Chemicals must be stored and mixed indoors and away from entrances where spills and leaks could escape the building envelope.	Continuous.
Spill and Leak Prevention	All equipment will be visually inspected for leaks and other conditions that could lead to a discharge of a pollutant.	Continuous.
Spill and Leak Prevention	Hazardous substances will be stored in approved containers. Containers will be stored in an area not exposed to stormwater where practical.	Continuous.
Spill and Leak Prevention	Containers will be located away from direct vehicular traffic. Bollards will be used when appropriate to protect containers from vehicles and equipment.	Continuous.
Spill and Leak Prevention	Containers will be placed on containment pallets, racks, or otherwise be provided with containment and corrosion prevention.	Continuous.
Spill and Leak Response	Spills, drips, and leaks will be cleaned promptly.	Immediately after occurrence of a spill, drip, or leak.
Labeling	All containers will be properly labeled with the contents in plain language.	Continuous.
Labeling	Safety Data Sheet (SDS) will be maintained electronically (CDMS.net) and in a manner accessible to personnel for each chemical.	Continuous.
Parking Areas	Parking areas will be swept periodically to prevent the buildup of sediment and other loose materials.	As needed.
Parking Areas	Pressure washing will be conducted on sections of the parking area where oil and grease buildup is obvious. Water generated in the process must be	As needed.

Subject	Good Housekeeping Practice	Frequency
	collected and discharged to the sanitary sewer system or other appropriate disposal method.	
Training	Formal pollution prevention training will be provided to all affected personnel.	Formal SWPPP training biennially plus other training provided by the Town on off-years.
Documentation	Complete the good housekeeping checklist (Form 2 in Appendix F) during site inspections.	At least semi-annually.

Preventative Maintenance Program

Golf course personnel will regularly inspect and test facility equipment and operational systems whose failure has a potential to release pollutants into the stormwater drainage system. Equipment and operational systems include items such as nozzles, pumps, electronic components, gauges, valves, and gaskets. Regular inspections will uncover conditions such as cracks or slow leaks that could cause breakdowns or failures. Inspections will also detect noises and vibrations that may indicate wear of components and possible failure. The program will reduce breakdowns and failures by making proper adjustments, repair, or replacement of equipment or parts.

Inspections will occur during two specific preventive maintenance periods:

- Run-time preventative maintenance occurs daily during working hours as normal operation of the equipment and machinery.
- Preventative maintenance at regularly scheduled intervals involves inspections, cleaning, and minor repairs.

The SPCC plan, discussed in Section 4.2, will be used as the primary document governing preventive maintenance of equipment and operational systems associated with tanks and drums at the golf course.

Spill Prevention and Response

The purpose of a spill prevention and response program is to reduce the potential for spills to occur in the first place and to ensure that personnel are trained to properly handle a spill so that it does not enter surface waters. This section includes general spill prevention and response procedures that will be implemented by the golf course. The SPCC plan discussed in Section 4.2 will be used as the primary document for governing spill prevention and response associated with tanks and drums.

Outdoor Liquid Transfer

Outdoor liquid transfer occurs at the site during fueling of vehicles and equipment and filling of ASTs. The following will be observed when fuel or other liquid substances are transferred or dispensed by golf course staff or contractors:

- Personnel will ensure that all hoses/connections are secure and that proper absorbent materials (e.g., pads, booms and socks) are available.
- Personnel will remain with the vehicle or equipment at all times.
- Personnel will be instructed to never “top off” a vehicle, equipment, or containers.
- OLT will be avoided when at all possible during precipitation events unless adequate precautions are taken to ensure that the material does not co-mingle with stormwater.

Employee Awareness

Employee awareness is the key to an effective spill prevention and response program. Spill prevention training will be a component of the general employee training program. New personnel will be taught spill prevention practices. Spill prevention training will highlight previous spill events, equipment failures, remedies taken, and newly developed prevention measures.

Secondary Containment

Secondary containment should be provided for any AST, non-empty 55-gallon drum, or any area where smaller amounts of paints, solvents, POLs, pesticides, herbicides, or other liquid hazardous substances are stored. Containers up to 55-gallons (e.g., buckets, jerricans, drums) have several secondary containment options:

- Store containers on a spill pallet.
- Store containers inside a prefabricated metal HAZMAT storage building with integral secondary containment.
- Use the existing building and provide a trench, built-up berm, or spill blocker at the doorway or bay threshold.
- Build a depressed concrete slab with curbing and a shed roof.
- Store small containers within a self-contained flammables cabinet.

For larger ASTs, the volume of secondary containment should equal the volume of the largest AST within the containment area plus sufficient freeboard for a specified storm event. Options include poured concrete secondary containment, prefabricated tanks with integral secondary containment, and double-walled tanks.

Spill Kits

A complete and adequate spill kit should be positioned in an easily accessible location anywhere there is the potential for a spill or a leak. This includes vehicle and equipment storage areas, chemical storage areas, and anywhere that bulk material is stored (including 55-gallon drums). Golf course personnel should have knowledge of the location of all spill kits. Spill kits should have sufficient absorbent to contain a spill from the largest container within the hazardous substance storage location.

Spill Response

In case of a spill that has entered or is likely to enter the storm drain system or surface waters, or where personnel do not believe they can address the spill safely, the golf course will request aid from Fairfax County Fire and Rescue using 911. The Town Department of Public Works and the Virginia Department of Environmental Quality, Northern Regional Office, will also be notified. Reporting and documentation requirements specific to the Town's MS4 permit are discussed in Section 5. Warning signs placed at key locations should contain emergency telephone numbers to aid in quick response.

Minor spills can be absorbed with dry granular absorbents, pads, booms, or socks. Personnel should be trained to ensure that used materials are swept up and disposed of properly on a timely basis (and before any precipitation event). In general, there are four basic steps that are to be taken to control pollution that can result from a spill:

1. Stop the spill at the source.
2. Contain the spill.
3. Collect the spilled material.
4. Dispose of the spilled material and subsequent contaminated material properly and legally.

If containment methods are required for which the responder is not trained, or personal protective equipment is not available, immediately evacuate the contaminated area and prevent unauthorized personnel from entering. Steps 3 and 4 should only be undertaken by personnel that are properly trained in spill response and cleanup.

Vehicle and Equipment Parking and Storage

Vehicle and equipment parking areas should be monitored routinely for spills and leaks. When possible, vehicles and equipment areas should be located away from storm drain inlets and have easy access to drip pans. The area should also be subject to more frequent monitoring for spills and leaks.

Any observed leaks should be cleaned up immediately using absorbent material. The material should be disposed of properly. Water should never be used to clean up spilled material. Wash down of pavement should not occur until all spills and leaks have been cleaned up. If a buildup of waste materials is present on the pavement, the resulting wash water must be contained and disposed of in a sanitary sewer or by another appropriate method.

Waste/Recycling Containers

The site will observe the following to minimize the potential for waste and recycling containers to become sources of pollutants:

- Lids are to remain closed at all times when not actively loading the containers.
- Trash should only be stored inside the containers. Piling excess trash on the outside of the container is not permitted.
- Dumpsters should be located away from storm drain inlets.

- Periodic inspections of the dumpsters should be conducted to observe for signs of deterioration or leakage.

Material Stockpiles

Stockpiles that present a risk of transport of materials (through erosion or leaching) to the storm drain system or surface waters should be stored inside a storage building or under a roof whenever possible. If a permanent overhead structure is not available, steps should be taken to prevent erosion and leaching of materials to the extent practicable. This may include covering stockpiles with a properly secured tarp, use of silt fencing, temporary vegetative cover, or other effective means of preventing stormwater pollution. The following will be observed:

- Contain stormwater run-off from stockpiles by using barriers or berms.
- Sweep areas surrounding the stockpile frequently to prevent materials from mingling with stormwater.
- Whenever possible, order only the amount of the material to be stockpiled that is needed for the specific job and schedule delivery to minimize the amount of outdoor storage time.
- Locate stockpiles away from storm drain inlets. Provide protection for the inlet if necessary to prevent the discharge of materials.

Illicit Connections and Improper Discharge Elimination

Illicit connections include direct pipe or other conveyance tie-ins to the stormwater drainage system. Improper discharges include the dumping of non-permitted non-stormwater materials into the stormwater drainage system.

Floor drains that connect to the stormwater drainage system are illicit connections that provide an avenue for an improper discharge. Floor drains connected to the stormwater drainage system must be plugged. Personnel must be instructed not to pour non-stormwater materials into catch basins, drop inlets, ditches, and other portions of the stormwater drainage system.

Hand sinks that discharge to the ground or stormwater drainage system are illicit connections. These hand sinks must be re-routed to the sanitary sewer system. Label hand sinks with instructions prohibiting the entry of hazardous substances.

Sediment and Erosion Control

Areas where bare soil or gravel is exposed to water, wind, or ice can erode and cause sediment pollution. The golf course will promptly stabilize any bare area that could become a source of pollution. If an area is persistently bare and causing erosion, the golf course can employ one or more of the following:

- Prevent runoff from flowing across the exposed areas by diverting the flow to vegetated areas.
- Slow down the runoff flowing across the area by using level spreaders or terraces.
- Provide check dams in drainage ways to decrease flow velocities.
- Use grassed swales rather than paved channels.

- Remove sediment from stormwater runoff before it leaves the site by allowing it to sheet flow through vegetative buffers.

The golf course will also ensure that all grading and site-disturbing activities that occur at the facility comply with the requirements of Town Code Chapter 26, Article III “Erosion and Sediment Control” and Article VIII “Stormwater Management.”

Management of Stormwater Runoff

Management of stormwater runoff includes (1) practices that reduce the amount of impervious surface cover and maximize the amount of pervious area where stormwater can naturally infiltrate into the soil and (2) practices that capture and treat pollutants once they are already in the stormwater. The latter includes the StormFilter at the Maintenance Facility. The need for additional structure controls will be based on an assessment of the nature of the specific pollutants to be controlled, site specific conditions such as soil and topography, and the reductions required by the Town’s performance criteria. In addition, the facility will be assessed in the context of overall Town stormwater management targets, including but not limited to those in the Town’s Chesapeake Bay TMDL Action Plan.

On-Site Contractor Responsibilities

The Town has developed standard contract language to inform all contractors that they are responsible for implementing the Town’s SOPs and abiding by all local, state, and federal stormwater regulations and requirements, including this SWPPP.

4.2 Site-Specific Measures

This section discusses measures that are specific to the pollutant sources and potential non-stormwater discharges identified in Section 3. These measures are implemented in addition to the baseline measures identified in Section 4.1.

Spill Prevention, Control and Countermeasures Plan

An SPCC plan has been developed for the site in accordance with 40 CFR 112 (Oil Pollution Prevention). The plan includes a description of the facility and ASTs subject to the plan, spill response and disposal procedures, post-spill actions, and training, inspection, and record keeping requirements. The plan must be reviewed on a five-year basis.

In accordance with the SPCC, spill prevention and response briefings must be made to operating personnel at least once a year. Inspections of ASTs and their components must occur monthly. Reportable spills must be recording using the required forms. All activities must be documented using the forms in the SPCC plan.

Security Fencing

The Maintenance Facility is completely enclosed with a security fence to prevent unauthorized personnel from entering the facility during non-work hours.

Trench Drains

Trench drains have been installed at the entrance to the maintenance bays to capture any leaks or spills within the bays. The drains convey material to the OWS, which then discharges to the sanitary sewer system. Separation of the OWS from the storm sewer system was confirmed through consulting the facility design plan. The trench drains and the OWS will be inspected based on manufacturer's recommendations and pumped as needed based on inspection results.

Spill Kits

Spill kits are maintained in all areas where spills or leaks may occur. This includes the fueling station, Maintenance Building, and Chemical Storage Building. Each spill kit should include absorbent booms/socks, granular absorbent, gloves, shovel/dustpan, and broom/brush. A drum or similar container should be provided in each area to hold contaminated materials while waiting for disposal. The Herndon Department of Public Works is responsible for collecting and properly disposing of used materials.

Fueling Operations

The fueling area has a number of structural and non-structural controls to prevent the discharge of pollutants from fueling activities. They include the following:

- An emergency shutoff switch is located within Maintenance Building to allow for the pumps to be shut off in the event of a spill.
- Bollards are located at the fueling station to prevent vehicular impact that could damage the fuel tanks.
- Fire extinguishers are located at the fuel tank to allow personnel to address fires as needed.
- Fuel tanks are equipped with locking mechanisms and are locked during non-work hours to prevent tampering by unauthorized personnel.

Chemical Transfer

Absorbent booms are deployed during the transfer of chemicals to and from the Chemical Storage Building to intercept any spillage.

Equipment Washing

Sprayers and spreaders that have been used for chemicals and/or fertilizers are washed exclusively within the Maintenance Building. Outside washing of these items is not permitted.

Vehicles and equipment may be hosed down to remove grass clippings and other organic materials only at approved locations. The use of detergents for washing is prohibited. Approved washing locations include the concrete wash pad at the Maintenance Facility and the Equipment Washing Pad. The concrete wash pad leads to the StormFilter, which captures and treats the stormwater runoff. When practical, the concrete wash pad is the preferred location for washing activities.

Wash water at the Equipment Washing Pad is intercepted by absorbent booms. The booms must be inspected at least weekly during turf growing season, and more frequently if warranted. Clippings and other materials are removed from behind the booms to prevent downstream migration.

Secondary Containment

The fueling station ASTs are double-walled. The Chemical Storage Building is equipped with built-in secondary containment at the base of the building.

StormFilter

The StormFilter located at the Maintenance Building will be inspected at least annually and pumped as needed based on inspection results. Maintenance instructions are located in Appendix C.

Fungicide, Herbicide, and Insecticide Application Licenses

The golf course maintains all appropriate certifications to apply fungicides, herbicides, and insecticides. These certifications are displayed at the Superintendent's office and are reported to the Virginia Department of Environmental Quality on an annual basis.

Audubon Society Certification

The golf course is a Certified Audubon Cooperative Sanctuary by Audubon International. The program covers the areas of Environmental Planning, Wildlife and Habitat Management, Chemical Use Reduction and Safety, Water Conservation, Water Quality Management, and Outreach and Education.

Environmental BMPs for Virginia Golf Courses

Published by the Virginia Golf Course Superintendents Association, the golf course utilizes the publication Environmental BMPs for Virginia Golf Courses as a resource minimizing their impact on adjacent water resources. The document contains a chapter on maintenance operations, which includes the following BMPs:

- BMP #1 – Store and handle all chemicals appropriately using secondary containment as required.
- BMP #2 – Store fertilizers and pesticides separately and away from other chemicals.
- BMP #3 – Store pesticide and fertilizer application equipment in covered areas to protect from rainfall.
- BMP #4 – Remove grass from grass-covered equipment before washing.
- BMP #5 – Dispose of or recycle wash water appropriately and never discharge to surface waters or septic systems.
- BMP #6 – Store wastes separately and dispose of according to legal requirements.

Practices applicable to stormwater pollution prevention have been incorporated into the procedures and control measures contained in this SWPPP.

Canada Geese and Other Waterfowl Management

The golf course actively manages Canada Geese and other waterfowl to reduce the introduction of bacteria pollution. The program, which is Audubon International Certified, includes the following components:

- December to March – Train staff on how to identify potential nesting sites and monitor designated areas, especially around ponds.
- February to March – Train Staff how to addle eggs. Addle is coating the egg with vegetable or corn oil, which deprives the embryo of oxygen.
- Late March and April – Locate nests and addle and/or remove eggs.
- Mid-May to mid-Summer – Harass geese so that they leave the property. This may include bird bangers, flashing lights, and remote control boats.
- Fall – resume harassment as necessary.

4.3 Recommended Actions

The actions in Table 4B are based on a review of the site conducted on March 22, 2022. Additional actions should be added based on semi-annual inspections and annual compliance evaluations.

Table 4B – Procedures and Control Measures Action Plan

Location	Subject	Procedure/Control Measure	Completion Date
Maintenance Facility	Signage	Place signage at the fuel area alerting staff to emergency contact numbers and the location of the emergency shut off valve.	___/___/___
Maintenance Facility	Spill Kits	Provide a spill kit at each area where spills may occur. At a minimum, this includes the fueling station, Maintenance Building, and Chemical Storage Building. Each spill kit should include absorbent booms/socks, granular absorbent, gloves, shovel/dustpan, and broom/brush.	___/___/___
Maintenance Facility	Spill Kits	Provide a drum or similar container at the fueling station and the Maintenance Building to hold contaminated materials (e.g., soil, booms, absorbent pads, granular	___/___/___

Location	Subject	Procedure/Control Measure	Completion Date
		materials) while waiting for proper disposal.	
Materials Storage Facility	Material Stockpiles – Roof Structure	Continue to investigate the feasibility of installing a roof structure to protect material stockpiles from precipitation as originally anticipated in the design of the Materials Storage Facility.	___/___/___
Equipment Washing Pad	Equipment Wash Water	Monitor the effectiveness of efforts to reduce the transport of clippings from the Equipment Washing Pad. Consider alternatives if current practices are not sufficient.	___/___/___
Equipment Washing Pad	Equipment Wash Water	Regrade and sod the swale downstream of the Equipment Washing Pad to provide additional filtering prior to discharge.	___/___/___

5. Training, Inspections, and Recordkeeping

5.1 Training

Personnel training is essential for the effective implementation of the SWPPP. Personnel at all levels of responsibility at the golf course will be trained on the components and goals of the SWPPP. In accordance with the Part I E 6 d (5) of the MS4 permit and BMP 6.3 of the Town's MS4 Program Plan, training specific to the SWPPP will occur on a biennial basis. During off years, personnel from the course will also be trained on other specific topics as required by the permit in the schedule presented with BMP 6.3. A blank Training Documentation Sheet (Form 1) is provided in Appendix F and will be used to document SWPPP training.

5.2 Semi-Annual Site Inspections

In accordance with Part I E 6 d (7) of the MS4 permit, inspections of all areas of the golf course where high risk activities take place will be conducted on a semi-annual basis. Inspections will be completed by a qualified individual with detailed knowledge of the site and SWPPP. A member of the SWPPT should either conduct or participate in the inspection. Inspections should be completed during a time of normal facility operations.

A blank Semi-Annual Inspection Checklist (Form 2) is provided in Appendix F. The completed form should be filed with this SWPPP and retained for three years past the expiration date of the course's coverage under the MS4 permit.

5.3 Annual Comprehensive Site Evaluation

In accordance with Part I E 6 d (6) of the MS4 permit, a comprehensive site evaluation will be conducted annually. The evaluation may take place at the same time one of the semi-annual inspections in Section 5.2.

The evaluation will determine if the pollution prevention measures have been implemented and will assess their effectiveness. Incidents of non-stormwater discharges must be assessed for potential changes to the SWPPP, and any records and files should be reviewed for completeness. The evaluation will also determine if site operations have changed since development of this SWPPP. If operational changes have been made, the SWPPT leader will determine if those changes impact stormwater quality and will develop new strategies and control measures to address the change. All operational changes and new procedures and control measures will be recorded in the SWPPP.

A blank copy of the Comprehensive Site Evaluation (Form 3) form can be found in Appendix F. The completed form shall be kept with the SWPPP as a record to the evaluation.

5.4 Stormwater Quality Management Structure Inspections

The StormFilter located at the Maintenance Building will be inspected at least annually and maintained as needed based on inspection results.

5.5 Spill Records

In accordance with Part I E 6 d (8) of the MS4 permit, the SWPPP must include a log of each unauthorized discharge, release, or spill incident in accordance with Part III G. The site should use the Spill Documentation Form in Appendix E.

Smaller spills not subject to Part III G should be logged using the Small Spill Log in Appendix E. This information is used by the SWPPT Leader to reinforce good housekeeping practices and to identify potential issue areas.

Part III G of the MS4 permit requires each facility to report any unauthorized discharges into state waters or discharges that may reasonably be expected to enter state waters. The golf course must also report non-compliance that endangers human health or the environment. Both situations require the SWPPT Leader or Town Manager to notify DEQ. For an unauthorized discharge, the Town must notify DEQ immediately upon discovery, but in no case later than 24 hours. For non-compliance, the Town must notify DEQ within 24 hours from the time the Town becomes aware of the circumstances.

Table 5A – Emergency Spill Contacts

Contact	Contact Number
Fairfax County Fire and Rescue	911 – Active spill event (703) 246-4386 – Not active spill event, no immediate hazard – work hours (703) 691-2131 – Not active spill event, no immediate hazard – after hours number
Department of Environmental Quality, Northern Regional Office	(703) 583-3800
Town of Herndon Department of Public Works	(703) 435-6853
Emergency Response/Spill Clean Up Contractor	HEPACO, LLC (800) 888-7689 – 24-hour emergency (804) 400-1057 – Fredericksburg office

Table 5B – 24-Hour Reporting Requirements

Regular Business Hours and Online Reporting	
DEQ, Northern Regional Office	(703) 583-3800
	DEQ Reporting Form: https://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/PollutionReportingForm.aspx
Nights, Holidays, and Weekends	
Virginia Department of Emergency Management	1 (800) 468-8892

A written report must be submitted to DEQ within five days to 13901 Crown Court, Woodbridge, Virginia 22193. The written report must contain the information in Table 5C.

Table 5C – Written Report Requirements

Unauthorized Discharges	Non-Compliance
<ol style="list-style-type: none"> 1. A description of the nature and location of the discharge; 2. The cause of the discharge; 3. The date on which the discharge occurred; 4. The length of time that the discharge continued; 5. The volume of the discharge; 6. If the discharge is continuing, how long it is expected to continue; 7. If the discharge is continuing, what the expected total volume of the discharge will be; and, 8. Any steps planned or taken to reduce, eliminate, and prevent a recurrence of the present discharge or any future discharges not authorized by a permit. 	<ol style="list-style-type: none"> 1. A description of the noncompliance and its causes; 2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time said non-compliance is expected to continue; and, 3. Steps taken or planned to reduce, eliminate, and prevent

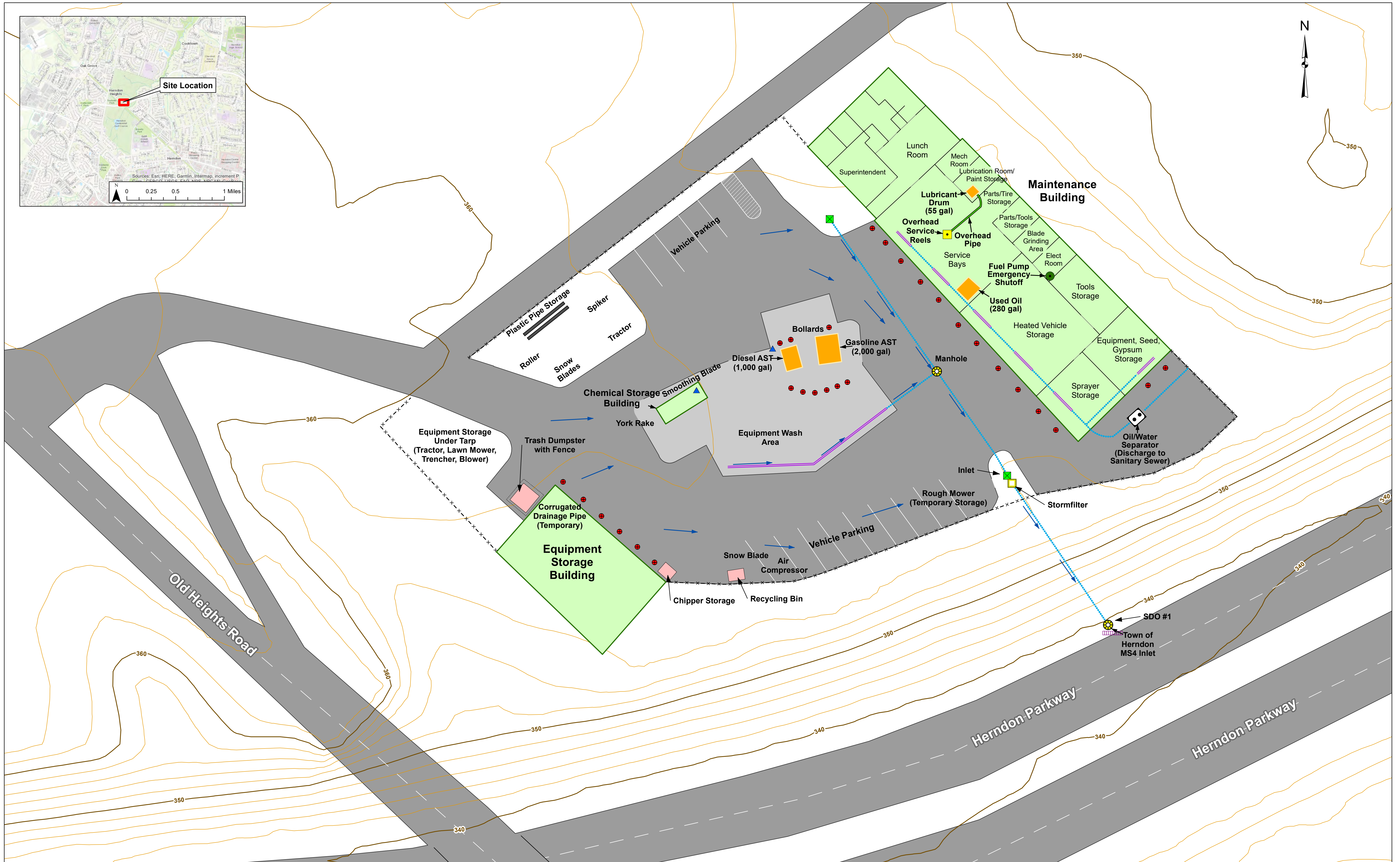
5.6 Release of Stormwater from Secondary Containment

Should the site implement outdoor secondary containment, accumulated rainwater should only be released once it has been visually confirmed that there is no contamination (such as sheen). Such releases will use Secondary Containment Release Form in Appendix D. If contamination is evident, then the contamination will be removed prior to the release.

5.7 Documentation

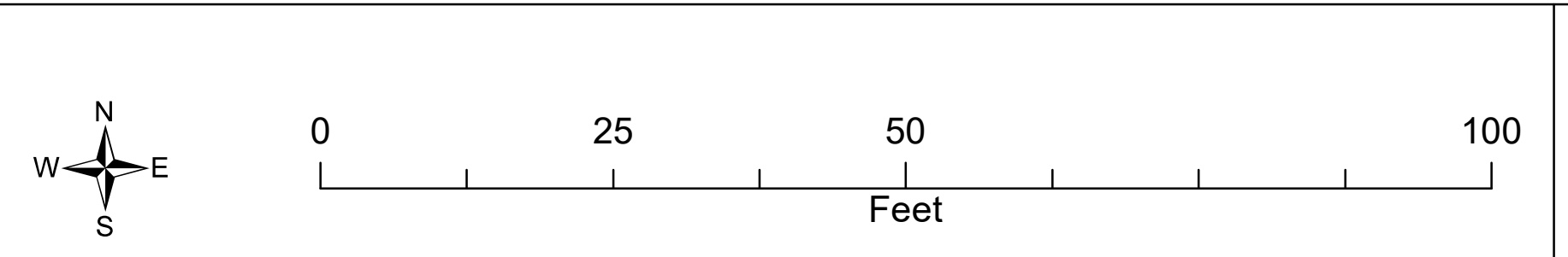
All completed forms and other documentation will be included with this SWPPP as Appendix G.

FIGURES

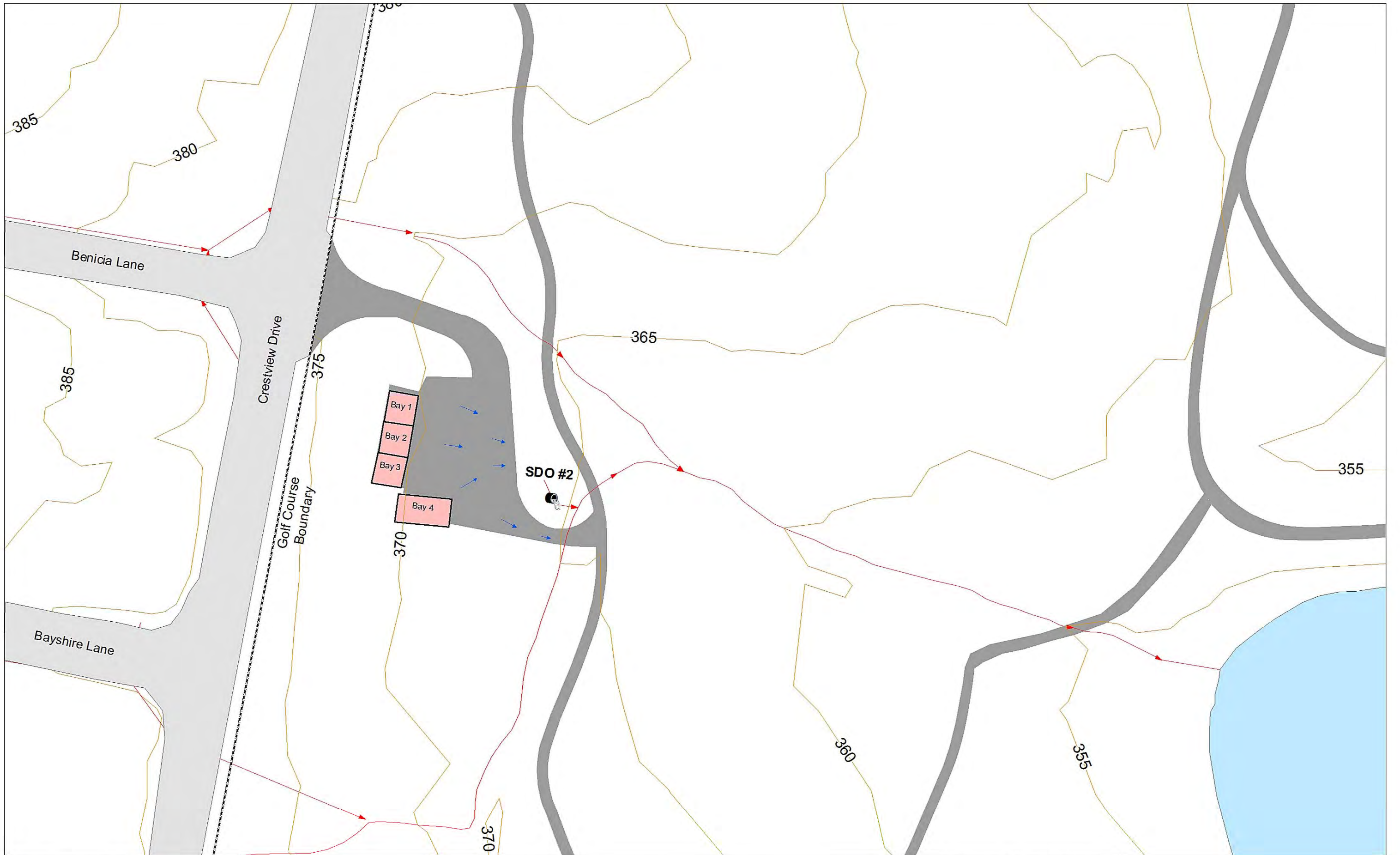


Legend

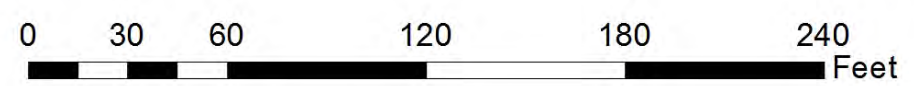
Bollard	Storm Filter	Storm Drain Inlet	Overhead Pipe	Flow Direction	Storage Tank	10-ft Contour	Miscellaneous Structure
Oil Water Separator	Fuel Pump Emergency Shutoff	Spill Kit	Underground Pipe	Fence Line	Concrete	2-ft Contour	
Overhead Service Reels	Manhole	Trench Drain	Building	Pavement	Grate Inlet		



Town of Herndon
Centennial Golf Course
Maintenance Operations
Herndon, Virginia



- | | | |
|----------------|-----------------------|----------------------|
| Flow Direction | Stormwater Facilities | Outfall |
| Storm Sewer | Roads | Storage Bays |
| 5-foot Contour | Impervious Surfaces | Golf Course Boundary |



Town of Herndon
 Centennial Golf Course
 Materials Storage Facility
 Herndon, Virginia

APPENDIX A

CHEMICAL INVENTORY

Chemical	Purpose	EPA Registration Number
26GT	Fungicide	432-888
Banner Maxx	Fungicide	100-741
Banol	Fungicide	432-942
Bayleton	Fungicide	432-1360
Chipco 26019	Fungicide	432-8888
Chipco Signature	Fungicide	432-890
Civitas	Fungicide	69526-13
Compass	Fungicide	432-1371
Curlan EG	Fungicide	7969-224
Daconil Ultrex	Fungicide	50534-202-100
Quali Pro Myclobutanil	Fungicide	66222-185
Eagle 20EW	Fungicide	62719-463
Emerald	Fungicide	7969-196
Fore 80WP	Fungicide	62719-388
Heritage TL	Fungicide	100-1191
Qualipro Chlorothalonil	Fungicide	66222-154
Insignia SC	Fungicide	7969-184
Iprodione Pro 2SE	Fungicide	66330-305-7969
Chlorothalonilo 720	Fungicide	89442-9
Prostar WDG	Fungicide	432-1223
Segway	Fungicide	71512-13-279
Subdue Maxx	Fungicide	100-796
Quali Pro T-meth	Fungicide	66222-134
Propicanizole Select	Fungicide	89442-17
Daconil Action	Fungicide	100-1364

Chemical	Purpose	EPA Registration Number
Omni Tebuconazole	Fungicide	84220-44-5905
Xzemplar	Fungicide	7969-349
Endorse	Fungicide	66330-41
Touche	Fungicide	7969-224
Quali Pro Tebucanazole	Fungicide	66222-117
Medallian	Fungicide	100-769
QualiPro Ipro-2	Fungicide	53883-380
Myclobutanil	Fungicide	66222-185
Dithane	Fungicide	62719-402
Echo 720	Fungicide	60063-7
Quali Pro Mefenoxam 2AQ	Fungicide	53883-433
Select Source Azoxy 2SC	Fungicide	89442-21
Ensign 720	Fungicide	34704-966
Instrata	Fungicide	100-1231
Mainsail	Fungicide	721126-6
Proplant	Fungicide	55260-9
Secure	Fungicide	71512-20-100
Tourney	Fungicide	59639-144
Regulate Select	Fungicide	89-442-16
Lexicon	Fungicide	7969-350
Fluazinam Select	Fungicide	89443-37
Trinity	Fungicide	7969-257
Exteris	Fungicide	432-1536
Endow 2SC	Fungicide	60063-59
Armada	Fungicide	432-1513

Chemical	Purpose	EPA Registration Number
Artavia sSC	Fungicide	91234-74
Navicon	Fungicide	7963-403
Maxtima	Fungicide	7969-404
Lesco 18 Plus	Fungicide	432-888-10404
Pedigree	Fungicide	71711-28-2217
912 MSMA	Herbicide	9779-133
Acclaim Extra	Herbicide	432-950
Confront	Herbicide	62719-92
Dimension 2EW	Herbicide	62719-92
Dismiss	Herbicide	279-3295
Drive 75 DF	Herbicide	7969-130
Fusilade II	Herbicide	100-1084
Goose/Crabgrass	Herbicide	9198-176
Lontrel	Herbicide	62719-305
Prograss	Herbicide	432-941
Target Plus MSMA	Herbicide	42519-3
Prosecutor Pro	Herbicide	69289
Round Up Pro	Herbicide	524-475
Pylex	Herbicide	7969-327
Lesco 3-way	Herbicide	228-IL-1
Halo 75 WDG	Herbicide	89442-34
QualiPro Sedemaster	Herbicide	91234-31-53883
Vexis	Herbicide	2217-1024
Prosedge	Herbicide	228-711
Allelectus GC SC	Insecticide	432-1421

Chemical	Purpose	EPA Registration Number
Dylox	Insecticide	432-1289
Sevin SL	Insecticide	432-1227
Tempo Ultra GC	Insecticide	432-1452
Bifenthrin	Insecticide	091609/REVA
Merit	Insecticide	432-1318
Quali Pro Bifenthrin	Insecticide	66222-192
Ference	Insecticide	100-1551
Matchpoint	Insecticide	62719-523
Taistar	Insecticide	279-3206
Wisdom Bifenthrin	Insecticide	5481-519
Quali Pro Imidacloprid	Insecticide	53883-229-73220
Conserve	Insecticide	62719-291
Qualipro Lamda	Insecticide	53883-TX-002
Imidiclaporid 2F	Insecticide	89442-5
Provaunt	Insecticide	100-1487
Acelepryn	Insecticide	100-1489
Tetrino	Insecticide	432-1519
A-Rest PGR	Miscellaneous	67690-2
Embark 2S	Miscellaneous	2217-759
Primo Maxx	Miscellaneous	100-937
Trinexapac Ethyl	Miscellaneous	73220-12
Turf Enhancer	Miscellaneous	9180-205
Cutless	Miscellaneous	67690-15
Tide Paclo	Miscellaneous	80697-4
Affirm	Miscellaneous	68173-3-1001

Chemical	Purpose	EPA Registration Number
Duplex	Miscellaneous	130-25
Cascade	Miscellaneous	143-25
Aquarius EP	Miscellaneous	3000054626
Muskateer	Miscellaneous	67690-57
Anuew	Miscellaneous	1001-91
Vivax	Miscellaneous	153-25
Proxy	Miscellaneous	432-1230

Note: Due to the nature of the course operations, this inventory is subject to change at any time and should not be considered a complete representation of the chemicals stored and handled onsite at any given time.

APPENDIX B

STANDARD OPERATING PROCEDURES

APPENDIX C

STORM FILTER SYSTEM MAINTENANCE

Important: Inspection should be performed by a person who is familiar with the StormFilter treatment unit.

StormFilter Maintenance Guidelines

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site, and may be required in the event of a chemical spill or due to excessive sediment loading.

Maintenance Procedures

Although there are other effective maintenance options, CONTECH recommends the following two step procedure:

1. Inspection: Determine the need for maintenance.
2. Maintenance: Cartridge replacement and sediment removal.

Inspection and Maintenance Activity Timing

At least one scheduled inspection activity should take place per year with maintenance following as warranted.

First, inspection should be done before the winter season. During which, the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, maintenance should be performed during periods of dry weather.

In addition, you should check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation. It may be necessary to adjust the inspection/maintenance activity schedule depending on the actual operating conditions encountered by the system.

Generally, inspection activities can be conducted at any time, and maintenance should occur when flows into the system are unlikely.

Maintenance Activity Frequency

Maintenance is performed on an as needed basis, based on inspection. Average maintenance lifecycle is 1-3 years. The primary factor controlling timing of maintenance of the StormFilter is sediment loading. Until appropriate timeline is determined, use the following:

Inspection:

- One time per year
- After major storms

Maintenance:

- As needed
- Per regulatory requirement
- In the event of a chemical spill

Inspection Procedures

It is desirable to inspect during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.

To conduct an inspection:

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. Use the following as a general guide. (Other factors, such as regulatory requirements, may need to be considered)

1. Sediment loading on the vault floor. If $>4"$ of accumulated sediment, then go to maintenance.
2. Sediment loading on top of the cartridge. If $>1/4"$ of accumulation, then go to maintenance.
3. Submerged cartridges. If $>4"$ of static water in the cartridge bay for more than 24 hrs after end of rain event, then go to maintenance.
4. Plugged media. If pore space between media granules is absent, then go to maintenance.
5. Bypass condition. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), then go to maintenance.
6. Hazardous material release. If hazardous material release (automotive fluids or other) is reported, then go to maintenance.
7. Pronounced scum line. If pronounced scum line (say $\geq 1/4"$ thick) is present above top cap, then go to maintenance.
8. Calendar Lifecycle. If system has not been maintained for 3 years, then go to maintenance.

Assumptions:

No rainfall for 24 hours or more.

No upstream detention (at least not draining into StormFilter).

Structure is online. Outlet pipe is clear of obstruction. Construction bypass is plugged.

Maintenance

Depending on the configuration of the particular system, workers will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flow is occurring.

Replacement cartridges can be delivered to the site or customers facility. Contact CONTECH for more information.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.

To conduct cartridge replacement and sediment removal:

1. If applicable, set up safety equipment to protect workers and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

Method 1:

- A. This activity will require that workers enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Unscrew (counterclockwise rotations) each filter cartridge from the underdrain connector. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact CONTECH for suggested attachment devices.

Important: Cartridges containing leaf media (CSF) do not require unscrewing from their connectors. Do not damage the manifold connectors. They should remain installed in the manifold and can be capped during the maintenance activity to prevent sediments from entering the under drain manifold.

- B. Remove the used cartridges (up to 250 lbs.) from the vault.

Important: Avoid damaging the cartridges during removal and installation.

- C. Set the used cartridge aside or load onto the hauling truck.
- D. Continue steps A through C until all cartridges have been removed.

Method 2:

- A. Enter the vault using appropriate confined space protocols.
- B. Unscrew the cartridge cap.
- C. Remove the cartridge hood screws (3) hood and float.
- D. At location under structure access, tip the cartridge on its side.

Important: Note that cartridges containing media other than the leaf media require unscrewing from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.

- E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
 - F. Set the empty, used cartridge aside or load onto the hauling truck.
 - G. Continue steps A through E until all cartridges have been removed.
8. Remove accumulated sediment from the floor of the vault and from the forebay. Use vacuum truck for highest effectiveness.
 9. Once the sediments are removed, assess the condition of the vault and the connectors. The connectors are short sections of 2-inch schedule 40 PVC, or threaded schedule 80 PVC that should protrude about 1" above the floor of the vault. Lightly wash down the vault interior.
 - a. Replace any damaged connectors.
 10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Take care not to damage connections.
 11. Close and fasten the door.
 12. Remove safety equipment.
 13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used empty cartridges to CONTECH.

Material Disposal

The accumulated sediment must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals. Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with applicable waste disposal regulations. Coordinate disposal of solids and liquids as part of your maintenance procedure. Contact the local public works department to inquire how they disposes of their street waste residuals.

APPENDIX D

SECONDARY CONTAINMENT RELEASE FORM

RELEASE OF RAINWATER FROM SECONDARY CONTAINMENT STRUCTURE

Complete this form each time that accumulated rainwater is to be released from an exposed secondary containment structure.

Location: _____

Date: _____

SWPPT Member: _____

Time: _____

Description of Secondary Containment Structure: _____

Visual Observation of Accumulated Rainwater

Check yes or no, and provide details under comments.

ITEM	YES	NO	COMMENTS
COLOR			
FOAM			
CLOUDY			
OUTFALL STAINING			
OIL SHEEN			
OTHER			

If accumulated rainwater appears contaminated, list actions taken to remove contaminants:

After the release of the accumulated rainwater, was the secondary containment drain valve properly closed?

YES

NO

Comments:

APPENDIX E

SPILL DOCUMENTATION FORM

SIGNIFICANT SPILL REPORT

Part 1. Facility (Division) Originating Report									
Name				Phone			Fax		
Address	909 Ferndale Ave.		City	Herndon	State	VA	Zip	20170	
Part 2. Incident Description									
Date/Time Started (24 hr clock):				Date/Time Ended (24 hr clock):					
Cloud Cover				Precipitation Conditions					
Temperature (°F)				Wind Direction & Speed					
Incident Location									
Type Spilled/Released									
Damages or Injuries? NO <input type="checkbox"/> YES <input type="checkbox"/> (if yes, describe):									
Release/Spill To (check applicable box(es)):				Containment <input type="checkbox"/>		Ground <input type="checkbox"/>		Sewer <input type="checkbox"/>	
<i>Amount released to each area checked:</i>									
<i>Amount recovered from each area checked:</i>									
<i>Product/material source container(s):</i>									
<i>Total capacity of spill source container(s):</i>									
If entered the storm inlet, was it contained within the system?						YES <input type="checkbox"/>		NO <input type="checkbox"/>	
Did spill impact adjacent properties? NO <input type="checkbox"/> YES <input type="checkbox"/> (if yes, describe):									
Description of Cause (check all that apply):				<input type="checkbox"/> INADEQUATE PROCEDURES					
<input type="checkbox"/> PERSONNEL ERROR				<input type="checkbox"/> EQUIPMENT/COMPONENT FAILURE					
<input type="checkbox"/> LACK OF TRAINING				<input type="checkbox"/> OTHER (describe):					
Comments:									
Long-Term Corrective Action(s) Taken:									
Part 3. Notifications									
Agency & Telephone #			Contact Name			Date	Time		
<i>Local Emergency: 911</i>							am/pm		
<i>Virginia DEQ: (703) 583-3800</i>							am/pm		
<i>NRC: (800) 424-8802</i>							am/pm		
<i>Other:</i>							am/pm		
Instructions Given By Agencies									
Part 4. Review and Approval									
Preparer of Spill Report (Print Name)				Signature			Date		

SMALL SPILL REPORT

Complete this form for each spill incident that is not considered a significant spill.

Reporting Individual	Individual Responsible for Clean-Up	
_____	_____	_____
Date of Spill	Material Spilled	Approximate Amount of Spill

Location of Spill		

Cause of Spill		

Action Taken		

Reporting Individual	Individual Responsible for Clean-Up	
_____	_____	_____
Date of Spill	Material Spilled	Approximate Amount of Spill

Location of Spill		

Cause of Spill		

Action Taken		

APPENDIX F

INSPECTION CHECKLISTS AND FORMS

TRAINING DOCUMENTATION SHEETFORM 1

QUARTERLY INSPECTION CHECKLISTFORM 2

COMPREHENSIVE SITE COMPLIANCE EVALUATION FORM 3

FORM 1



Semi-Annual Inspection Checklist

Date:	Facility:	Inspector:
-------	-----------	------------

1. Good Housekeeping Procedures	Yes	No	N/A	Observations/Required Actions
Are work areas and floors clean and dry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are brooms, dust pans, and mops on hand for easy access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all areas been inspected for visible leaks or potential discharges of significant materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are containment areas in good condition, with valves closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are dumpsters closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are activity areas free of litter and debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are catch basins and other inlets to the storm drain system free from trash?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Materials Handling and Storage	Yes	No	N/A	Observations/Required Actions
Is there adequate aisle space and organization in all storage areas so that any corrosion or leaks can be detected early?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have proper security measures been taken for storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all containers labeled with contents on the appropriate label?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Safety Data Sheets available for all chemical substances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FORM 2

Are all containers that are not in use closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are containers stored indoors and away from entrances whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are maintenance activities conducted indoors whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If outdoors, are containers protected from precipitation and runoff whenever practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are containers protected from vehicular traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all containers been inspected and are they generally in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do all containers have secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all chemicals mixed indoors or under cover?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are temporary booms deployed when chemicals are transferred between the storage area and equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have soil and other material stockpile areas been swept to prevent runoff of materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have soil and other material stockpile areas exposed for more than 24 hours been covered with tarps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Spill Prevention and Response	Yes	No	N/A	Observations/Required Actions
Is emergency/contingency equipment accessible in close proximity to storage areas (spill kits, drip pans, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have all spills been properly cleaned up and disposed of properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are fuel pumps locked when the fuel station is not in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the Maintenance Facility perimeter fencing in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FORM 2

Has mobile equipment been inspected for potential leaking fluids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Structural Control Devices	Yes	No	N/A	Observations/Required Actions
Has the StormFilter been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the oil water separator been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Scrap Metal Storage	Yes	No	N/A	Observations/Required Actions
Have scrap parts and empty drums no longer in use been removed from the property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Erosion and Sediment Controls	Yes	No	N/A	Observations/Required Actions
Is the facility free of bare areas that could result in soil erosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Fueling Operations	Yes	No	N/A	Observations/Required Actions
Have fuel pumps been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the spill kit fully stocked at the fuel station and accessible for use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is all signage in good, readable condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have fire extinguishers been tested and are they accessible for use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the shut-off valve been tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Vehicles and Equipment Maintenance and Washing	Yes	No	N/A	Observations/Required Actions
Are vehicles and equipment checked for leaking fluids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are drip pans and spill kits located within easy access of vehicle and equipment storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FORM 2

Are maintenance activities performed indoors when practical?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are washing activities confined to specified, approved wash areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are washing activities conducted without the use of detergents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are sprayers and spreaders rinsed indoors where wash water discharges to the sanitary sewer system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Based on a visual inspection of SDO #1, are controls adequate to prevent grass clippings and other materials as a result of equipment washing from entering the storm drain system? This inspection is required during quarters where there is active mowing and turf maintenance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Based on a visual inspection of the Equipment Washing Pad, are controls adequate to prevent grass clippings and other materials as a result of equipment washing from entering surface waters? This inspection is required during quarters where there is active mowing and turf maintenance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicle and equipment parking and storage areas free of built up pollutants (grease, dirt, etc.). If not, what is the plan for removing these materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Other Indicators of Illicit Discharges	Yes	No	N/A	Observations/Required Actions
Is the Maintenance Facility clear of any signs of potential illicit discharges such as odors, staining, sheen, residue, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Personnel Training and Record Keeping	Yes	No	N/A	Observations/Required Actions
Is a program in place to train employees on the SWPPP at least biennially?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are employees trained on proper spill prevention and response for the materials that they handle?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

COMPREHENSIVE SITE COMPLIANCE EVALUATION

Date: _____ Evaluator(s): _____

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
1. Accuracy of Site Map			
Identification and location of outfalls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watershed boundaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direction of runoff flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buildings and impervious areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposed material storage areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

2. Accuracy of SWPPP and Related Records			
Pollution Prevention Team Members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfall characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Semi-annual inspection checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Structural control maintenance records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical inventory (Appendix A)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee training records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

COMPREHENSIVE SITE COMPLIANCE EVALUATION, CONT.

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
3. Accuracy of Potential Pollutant Sources			
Vehicle and equipment maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle, equipment, and material storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage and handling of turf management products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage and handling of fungicides, herbicides, and insecticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment washing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling and outdoor liquid transfer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solid waste containers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material stockpiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

4. Effectiveness of Stormwater Management Controls

Minimize risk of exposure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good housekeeping program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preventive maintenance program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill prevention and response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and equipment parking and storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste/recycling containers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material stockpiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illicit connections and improper discharges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment and erosion control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management of stormwater runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On-site contractor responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPCC plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trench drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill kits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary containment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMPREHENSIVE SITE COMPLIANCE EVALUATION, CONT.

4. Effectiveness of Stormwater Management Controls

	<u>No Action Required</u>	<u>Action Required</u>	<u>Not Applicable</u>
StormFilter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fungicide, herbicide, and insecticide application licenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audubon Society certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental BMPs for Virginia Golf Courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canada geese/waterfowl management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Required Action: _____

5. Overall Evaluation Effectiveness of SWPPP

Required Action: _____

Signature: _____

Title: _____

Date: _____

FORM 3

APPENDIX G

COMPLETED FORMS

Appendix I

Completed TMDL Action Plans

The most recent TMDL action plans can be accessed online using the following links:

- Draft Phase III Chesapeake Bay TMDL Action Plan. [Click here](#) for the online version.
- Sugarland Run TMDL Action Plan. [Click here](#) for the online version.

Hard copies of TMDL action plans are located at the administrative office of the Herndon Department of Public Works and may be accessed by contacting the following:

Town of Herndon Department of Public Works

777 Lynn Street, Herndon, VA 20170

(703) 435-6853

publicworks@herndon-va.gov

