CITY OF WINCHESTER

PROGAM PLAN

Effective November 1, 2023 (Updated May 1, 2026)

General Permit for Small Municipal Separate Storm Sewer Systems

Permit Number: VAR040053

Table of Contents

I. Introduction 3

II. Revisions to the MS4 program plan 4

III. Roles and Responsibilities 4

IV. Other Specific Roles and Responsibilities 4

V. Signed Certification per Part III K 4

VI. Minimum Control Measures (MCMs) Reporting Items 6

MCM 1. Public Education and Outreach 6

Summary of requirements 6

MEASURABLE GOALS 6

BMPs Selected for Implementation 6

MS4 Annual Reporting REQUIREMENTS 7

MCM 2. Public Involvement and Participation 8

Summary of Requirements 8

Measurable goals 9

BMPs selected for implementation 9

MS4 annual reporting 11

MS4 Program Plan MCM 2 Specific Update Requirements 12

MCM 3. Illicit Discharge Detection and Elimination 12

Summary of Requirements 12

measurable goals 12

bmps selected for implementation 13

ms4 annual reporting 15

MS4 Program Plan MCM 3 Specific Update Requirements 15

MCM 4 – Construction Site Stormwater Runoff Control 15

BMPs Selected for Implementation: 16

MS4 Annual Reporting 18

Program Plan MCM 4 Specific Update Requirements 18

MCM 5. Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands 18

Measurable Goals 19

BMPs Selected for Implementation 19

MS4 Annual Reporting – 22

General Permit Reporting Requirements 22

MCM 6. Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee within the MS4 Service Area 23
Summary of the Requirements 23
MS4 Program plan shall include: 23
Measurable Goals 24
BMPs Selected for Implementation and the Reporting Items 24
MS4 Annual Reporting 26
BMP Specific Reporting Requirements 27
MS4 Program Plan MCM 6 Specific Update Requirements 27
Special Conditions 28
MS4 Program Plan Special Conditions Specific Update Requirements 29
Documents Incorporated by Reference 29
Additional MS4 Program Reference Materials 30

I. Introduction

The City of Winchester (City), as an operator of a small Municipal Separate Storm Sewer System (MS4), must develop, implement, and enforce an MS4 Program that complies with the provisions of 9VAC25-890-40. Pursuant to the associated statutes and regulations, this MS4 program must provide for the following:

- Reduce the discharge of pollutants to the "maximum extent practicable" (MEP) in accordance with the permit,
- Protect water quality, and
- Satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations.

Under the City's *General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems,* and in compliance with the provisions of the Clean Water Act, as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the City has been provided authorization to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those waters specifically named in State Water Control Board regulations that prohibit such discharges.

The City's registration number under the General Permit is VAR040053 and is effective from November 1, 2023, through October 31, 2028. The conditions of the referenced permit requires the city to submit a new Registration Statement no later than April 3, 2028.

The referenced General Permit establishes the conditions and requirements under which the city is authorized to discharge to surface waters, to ensure that minimum expectations for implementing an MS4 Program are met. Regulation 9VAC25-890-40 Part1.E establishes six Minimum Control Measures (MCMs) that all MS4 operators are required to address, and are as follows:

1. Public Education and Outreach Program
2. Public Involvement and Participation
3. Illegal Discharge Detection and Elimination
4. Construction site stormwater runoff and erosion and sediment control.
5. Post-construction stormwater management for new development and development on prior developed lands.
6. Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

In addition to the six MCMs, the City is required to address two Special Conditions in order to satisfy the appropriate water quality conditions. The Special Conditions are as follows:

- Special conditions for the Local Total Maximum Daily Load (TMDL).
- Special condition for the Chesapeake Bay TMDL.

This MS4 Program Plan details the commitments necessary to comply with the General Permit for each of the MCMs and the Special Conditions. The City has been implementing the 2018-2023 MS4 Program Plan, but under the requirement with the new permit, effective November 1, 2023, the MS4 Program has been updated, effective May 1, 2025. The MS4 Program Plan is being evaluated annually and provide updated language to address any changes in departmental obligations and/or regulatory requirements, with any changes to the program plan being noted in the MS4 Annual Report prior to its submission to the Virginia Department of Environmental Quality (DEQ) by October 1 of each year of the permit cycle.

II. Revisions to the MS4 program plan

The MS4 Program is an iterative implementation process based on the success of pollutant load reduction and water quality protection. Revisions to the MS4 program plan are expected throughout the life of this permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with this permit as a result of the iterative process do not require modification of this permit. The City shall summarize revisions to the MS4 program plan as part of the annual report as described in Part I.D.3.e. This program plan was developed in accordance with the most recent effective permit pursuant to 9VAC25-890 et. seq.

III. Roles and Responsibilities

The conditions of the General Permit and content of this MS4 Program Plan are enforceable via the United States Environmental Protection Agency (EPA), DEQ, third parties and are applicable to all City activities and operations. Unless otherwise noted, the City's Department of Public Services, Engineering Division, managed by the City Engineer, is responsible for implementing this MS4 Program Plan. To contact the Department of Public Services Department, Engineering Division, regarding questions or comments on our MS4 program, use the following:

Phone: 540-773-1340

Email: engineering@winchesterva.gov

IV. Other Specific Roles and Responsibilities

The City of Winchester Department of Fire and Rescue, led by the Fire and Rescue Chief, is responsible for the implementation of:

- BMP 3.7: Hazardous Spill Response

The City of Winchester Department of Public Services, Refuse and Recycling Division, led by the Refuse & Recycling Coordinator, is responsible for the implementation of:

- BMP 3.8: Household Hazardous Waste Collection
- BMP 3.9: Household Waste Reduction

The City of Winchester Department of Public Services, Utilities Maintenance Division, managed by the Utilities Maintenance Division Manager, and the City of Winchester Department of Parks and Recreation, managed by the Public Works Division Manager, are responsible for implementation of:

- BMP 5.5: City-Owned Stormwater Management Facility Maintenance

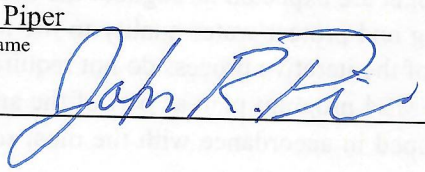
The City of Winchester Department of Public Services - Utilities Maintenance Division, led by the Utilities Maintenance Division Manager, is responsible for implementation of:

- BMP 6.6: Street Sweeping

V. Signed Certification per Part III K

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.

John R Piper Printed Name	City Manager Title
 Signature	9-28-2026 Date
VAR040053 Permit Number	City of Winchester MS4 Name

VI. Minimum Control Measures (MCMs) Reporting Items

MCM 1. Public Education and Outreach

SUMMARY OF REQUIREMENTS

The City's Public Education and Outreach Programs are centered around information provided and distributed through its Stormwater Website. In addition, the City promotes stormwater awareness through participation in public events, occasional mass mailings, and the implementation of an educational program for school-aged children. For more information, Appendix A of this MS4 Program Plan provides information on the City's Public Education and Outreach Plan.:

Under the requirement of MCM 1, the City shall provide the following:

- A list of at least three (3) high-priority stormwater issues the City will communicate to the public as part of the public education and outreach program (shown in Appendix A).
- 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 (shown in Appendix A).
- Identification of the Target audience to receive each high-priority stormwater message (shown in Appendix A).
- The strategies from Table 1 of Part I.E.1.d to be used to communicate each high-priority stormwater message (shown in Appendix A).

MEASURABLE GOALS

The City has identified the following measurable goals for evaluating compliance with the General Permit:

- The City will disseminate public education and outreach messages to the target audiences identified in its High-Priority Water Quality Issue Selection Matrix.
- The City will continue to maintain and update as necessary the Public Education and Outreach Program.
- The City will, as necessary, develop new messages or modify existing ones to more appropriately address the identified target audiences.
- The City will annually request for public input to re-evaluate the Public Education and Outreach Program.

BMPS SELECTED FOR IMPLEMENTATION

The City will continue to implement and maintain the City of Winchester Public Education and Outreach Plan 2019 edition to meet the measurable goals identified above. The City will add to this list of BMPs if, during the permit cycle, it should find significant weaknesses or shortcomings.

Table 1: BMPs Selected for Implementation – MCM 1

BMP	Names	Description	Reporting Items
1.1	City Stormwater Webpage	The City will maintain a web page dedicated to the City's stormwater management program. The MS4 Program Plan, MS4 Annual Reports and other information will be made available to the public through this website. Once a year, in conjunction with the development of the MS4 Annual Report, the City will ensure the validity of all links to stormwater information included on the web page.	Confirmation statement of the MS4 Program Plan posted/updated on the Stormwater webpage

1.2	Social Media	The City will use its Facebook and X accounts a necessary to distribute stormwater related information.	Links to the City's Facebook and X.
1.3	Public Events	The City will participate in public events such a the Community Wellness Festival to distribute stormwater-related information to the citizens.	List of the dates and events/presentations during reporting period.
1.4	Publications (Print and Electronic)	The City will use publications to distribute stormwater related information to its citizens.	List of Publications used during the reporting period.
1.5	Watershed and Stormwater Educational Opportunities	The City will continue to implement its Watershed and Stormwater Education Opportunity. The City will concentrate on delivery of this program to school aged children in a manner that is necessary to ensure that high priority water quality issues are addressed to th target audiences.	List of the dates and schools and/or educational facilities attended during the reporting period.
1.6	Other Message Delivery	The City will utilize other types of message delivery; as necessary. Such as "Clean Up After Your Dog" signage at the City's Dog Park.	List of Other Message Delivery during the reporting period.
1.7	Educational Materials	The City will retain copies (electronic and/or hard copy) of educational materials utilized in delivery of its messages regarding high priority water quality issues to target audiences.	List of educational materials utilized during the reporting period.

The Measurable Goal/BMP Relationship Matrix in Table 2 demonstrates which BMPs are expected to be used to meet each measurable goal for MCM 1.

Table 2: Measurable Goal/BMP Relationship Matrix – MCM 1

Measurable Goals	BMP 1.1	BMP 1.2	BMP 1.3	BMP 1.4	BMP 1.5	BMP 1.6	BMP 1.7
The City will disseminate public education and outreach messages to the target audiences identified in its High-Priority Water Quality Issue Selection Matrix.	X	X	X	X	X	X	X
The City will continue to maintain and update as necessary the Public Education and Outreach Program.		X	X	X	X	X	X
The City will, as necessary, develop new messages, or modify existing ones, to more appropriately address the identified target audiences.		X		X		X	X
The City will annually request public input to re-evaluate the Public Education and Outreach Program.	X	X		X		X	

Measurable Goal/BMP Relationship Matrix – MCM 1

MS4 ANNUAL REPORTING REQUIREMENTS

- General Permit Reporting Requirements

  - A list of the high-priority stormwater issues the City addressed through public education and outreach programs.
  - A list of the strategies used to communicate each high-priority stormwater issue.
- BMP Specific Reporting Requirements
  - In addition to the General Permit reporting requirements, the MS4 Annual Report must include the specific BMP reporting items identified in Table 1.

MCM 2. Public Involvement and Participation

SUMMARY OF REQUIREMENTS

Under the General Permit, the City is required to promote and encourage public involvement and participation. This requires the City to provide public access to, and the ability for public comment on, the City's MS4 Program Plan and MS4 Annual Reports. The City is also required to reduce stormwater pollutant loads and improve water quality. This will be accomplished through the promotion of public participation programs that support local restoration/clean-up projects, programs, groups, meetings, and/or other similar public participation opportunities.

The City is required to develop and implement procedures that allow for the following:

- 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 comments on the permittee's MS4 program plan
- Responding to public comments received on the MS4 program plan; and

Maintaining documentation of public comments received on the MS4 program and associated MS4 program plan and the permittee's response

The City shall implement no fewer than four activities per year from two or more of the categories listed in Table 2 under Part I.E.2.d to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects

This MS4 Program Plan shall include:

- A webpage that provides a means for the public to report:
  - Potential illicit discharges, improper disposal, or spills
  - Complaints regarding land disturbing activities
  - Other potential stormwater pollution concerns
- A webpage address that provides a way for public input on the permittee's MS4 Program

Description of the public involvement activities to be implemented by the permittee, the anticipated timeframe in which the activities will occur, and a metric for each activity to the water quality benefit of the respective activity.

Table 3: Public Involvement Opportunities

Public Involvement Opportunities	Examples
Monitoring	Establish or support citizen monitoring group
Restoration	Stream or watershed clean-up day, adopt-a-water way program
Educational events	Booth at community fair, demonstration of stormwater contro projects, presentation of stormwater materials to schools to mee application education Standards of Learning of curriculun requirements, watershed walks, participation on environmenta advisory committees
Disposal or collection events	Household hazardous chemicals collection, vehicle flui collection
Pollution prevention	Adopt-a-storm drain program, implement a storm drain markin program, promote use of residential stormwater BMPs, implemen pet waste stations in public areas, adopt-a-street program.

MEASURABLE GOALS

The City has identified the following measurable goals for evaluating compliance with the General Permit:

- The City will continue to comply with the applicable public notice requirements.
- The City will update, as necessary, the MS4 Program Plan and coordinate any changes with the MS4 Annual Report.
- The City will post a copy of its updated MS4 Program Plan online within thirty (30) days of submittal of its MS4 Annual Report to DEQ.
- The City will post a copy of its updated MS4 Annual Report online within thirty (30) days of its submittal to DEQ.
- The City will use the Stormwater Complaint Hotline and City's "Contact Us" web page to receive complaints regarding stormwater issues and illicit discharges.
- The City will implement and maintain an MS4 Program Plan and MS4 Annual Report public input/feedback mechanism located on the stormwater webpage.

BMPS SELECTED FOR IMPLEMENTATION

The City has selected the following BMPs to meet the measurable goals for MCM 2.

Table 4: BMPs Selected for Implementation – MCM 2

BMP	Names	Description	Reporting Items
2.1	Public Announcements	The City will provide public notification of all public meetings and hearings in accordance with any applicable federal, state, and local public notice requirements.	N/A
2.2	Public MS4 program Information Access and Feedback	The City will provide the public access to the most updated MS4 Program Plan and MS4 Annual Reports, which are located on the City's Stormwater Webpage https://www.winchesterva.gov/Government/Plans-Publications (BMP 1.1). There is a section for the public to provide feedback as well. Copies of each	Link to the City webpage containing the MS4 Program Plan and MS4 Annual Report

		year's annual report will be retained on-line for the duration of the General Permit.	
2.3	Stormwater Complaint Hotline	The City will maintain its current stormwater complaint hotline and City's "Contact Us" web page to encourage public reporting and involvement. The City promotes 540-662-4131 for reporting urgent issues such as illegal dumping and spills. The City promotes 540-542-1346 for reporting of less urgent issues such as maintenance issues, erosion and sediment control complaints. Citizens may also report complaints online at https://www.winchesterva.gov/Services-Payments/Utilities/Stormwater	Citizen Complaints are converted to autogenerated emails sent to all Staff in the Public Services Department, Engineering Division.
2.4	Promotion of Local Cleanup Events	The City promotes annual events encouraging public participation and involvement that include Pickup Parties and other annual trash collection events. The City will promote these activities through public education and outreach BMPs and the city's web site https://www.winchesterva.gov/News-Happenings/Get-Engaged/Pickup-Parties	Dates and locations of clean up events
2.5	Promotion of the Household Hazardous Waste Collection Days	The City will continue to promote the Household bulk items Collection Days as one of its local participation programs and will contribute to its implementation by providing pick-up and disposal of bulk household items. Dates of these events will be posted at https://www.winchesterva.gov/Services-Payments/Utilities/Waste-Recycling/Annual-Cleanup-Days	Dates of household bulk item collection days

To meet the measurable goals identified for MCM 2, the City will also implement the following BMPs:

- BMP 1.1: Stormwater Webpage
- BMP 1.2: Social Media
- BMP 1.3: Public Events
- BMP 1.4: Publications (Print and Electronic)
- BMP 1.7: Educational Materials

The Measurable Goal/BMP Relationship Matrix in Table 5 demonstrates which BMPs will be used to meet each measurable goal for MCM 2.

Table 5: Measurable Goal/BMP Relationship Matrix – MCM 2

Measurable Goals	BMP 1.1	BMP 1.2	BMP 1.3	BMP 1.4	BMP 1.7	BMP 2.1	BMP 2.2	BMP 2.3	BMP 2.4	BMP 2.5	BMP 2.6
The City will continue to comply with the applicable public notice requirements.	X	X		X	X	X	X				
The City will update as necessary the MS4 Program Plan in conjunction with	X			X		X	X				

Measurable Goals	BMP 1.1	BMP 1.2	BMP 1.3	BMP 1.4	BMP 1.7	BMP 2.1	BMP 2.2	BMP 2.3	BMP 2.4	BMP 2.5	BMP 2.6
the development of the MS4 Annual Report.											
The City will post a copy of its updated MS4 Program Plan on-line within thirty (30) days of submittal of its MS4 Annual Report to DEQ.	X			X		X	X				
The City will post a copy of its updated MS4 Annual Report online within thirty (30) days of its submittal to DEQ.	X			X		X	X				
The City will utilize the Stormwater Complaint Hotline and the City's 311 System to receive complaints regarding stormwater issues and illicit discharges.	X			X		X	X				
The City will implement and maintain a MS4 Program Plan and MS4 Annual Report public input/feedback mechanism located on the stormwater webpage.	X	X	X	X	X	X	X	X	X	X	X

MS4 ANNUAL REPORTING

The City must include the following as part of its MS4 annual report:

- General Permit Reporting Requirements
  - A summary of any public input on the MS4 program received (including stormwater complaints) and how the City responded
  - A webpage to the City's MS4 program and stormwater website
  - A description of the public involvement activities implemented by the permittee

- 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 City collaborated in the public involvement opportunities.

- BMP Specific Reporting Requirements
  - In addition to the General Permit reporting requirements, the MS4 Annual Report must include the specific BMP reporting items identified in Table 4.

MS4 PROGRAM PLAN MCM 2 SPECIFIC UPDATE REQUIREMENTS

- Requirement # 1 – Webpage Update

No later than three (3) months after this permit's effective date, the City is required to maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. This web page is located at https://www.winchesterva.gov/Government/Plans-Publications, under the header MS4 Stormwater Permits. The following information is posted on this webpage:

- Effective MS4 permit and coverage letter.
- Current MS4 Program Plan or location where the MS4 Program Plan can be obtained.
- Annual Report for each year of the term covered by this permit no later than 30 days after submittal to the department.
- Mechanisms for the public to report
  - potential illicit discharges, improper disposal, or spills to the MS4.
  - complaints regarding land disturbing activities
  - other potential stormwater pollution concerns
- Methods for how the public can provide input on the City's MS4 program.

MCM 3. Illicit Discharge Detection and Elimination

SUMMARY OF REQUIREMENTS

Under the General Permit, the City of Winchester is required to develop procedures and tools in the design and implementation of the MS4 Program Plan for detection, identification, and elimination of all unauthorized nonstormwater discharges. Under the MCM 3 requirements, the City must include:

- 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.
- Copies of written notifications of new physical interconnections given by the permittee to other MS4s.
- The IDDE procedures described in Part I E 3 c.

The City's Standard Operating Procedures Manual for Illicit Discharge, Detection, and Elimination can be found in Appendix B.

MEASURABLE GOALS

The City has identified the following measurable goals for evaluating compliance with the General Permit:

- The City will maintain a storm sewer system map and information table that includes all MS4 outfalls owned or operated by the City within the census urbanized area identified by the 2010 decennial census.
- The City will maintain a copy of the current storm sewer system map and outfall information table for review upon request.
- The City will continue to identify other points of discharge.
- The City will notify, in writing, MS4 operators of any known City points of discharge that enter the downstream MS4 prior to discharge into an MS4 outfall.
- The City will maintain legal authority to investigate and require elimination of illicit discharges and illegal dumping, identified as entering its MS4 system.
- The City will develop, implement, and update, when appropriate, written procedures to detect, identify, and address unauthorized non-stormwater discharges, including illicit discharges and illegal dumping, to the small MS4.
- The City will develop a prioritized list of and conduct dry weather field screening on at least fifty (50) MS4 Outfalls annually.
- The City will conduct follow-up on any suspect discharges identified during dry-weather field screening.
- The City will track all investigations and document the date that the illicit discharge was observed and reported, the results of the investigation, any required follow-up, resolution of the investigation, and the date that the investigation was closed.
- The City will maintain a Stormwater Management hotline and City's "Contact Us" web page for reporting of stormwater related issues including illicit discharges and illegal dumping.
- The City will provide emergency response to reported hazardous material spills and accidental releases.
- The City will provide scheduled trash and waste collection services to City residents.
- The City will continue efforts to eliminate sanitary sewer seepage from entering into the MS4 system.

BMPS SELECTED FOR IMPLEMENTATION

The City has selected the following BMPs to meet the measurable goals for MCM 3.

Table 6: BMPs Selected for Implementation – MCM 3

BMP	Names	Description	Reporting Items
3.1	Storm Sewer Infrastructure and Outfall Mapping	The City will maintain a stormwater infrastructure layer as part of its overall GIS program. The General Public will be able to access the stormwater infrastructure layer using the City's interactive mapping program. The City will maintain an MS4 Outfall layer that identifies the location of the City's MS4 outfalls. Paper copies of the Digital map data can be provided by request provided the requestor pay any associated fees. Digital mapping of these	The MS4 Outfall Map and Information Table are available by request

		items can be viewed on the City's GIS page at https://gis.winchesterva.gov/utilitiesmapping/	
3.2	MS4 Operator Coordination	The City will provide written notification to downstream MS4 operators where it identifies that the City's MS4 infrastructure is physically connected.	Name of MS4 Operator notified and date of notification
3.3	Legal Authority	The City will maintain legal authority prohibiting illicit discharges into the MS4 system. The legal authority will also identify those non-stormwater discharges allowed to be discharged into the MS4 system. This legal authority is established at Chapter 9, Article IV of the Code of Winchester.	N/A
3.4	IDDE Investigation and Follow-Up	The City will investigate and conduct follow-up on suspect discharges in accordance to procedures included in the Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures Manual, February 2024 edition.	Number of Illicit Discharges investigated; Number of Illicit Discharges reported; Summary of follow-ups for suspect discharges as a result of field screening.
3.5	MS4 Outfall Dry Weather Field Screening	The City will conduct dry weather screening on fifty (50) MS4 outfalls annually using procedures included in the Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures Manual, February 2024 edition.	Number of outfalls screened; Number of outfalls with suspect discharges as a result of field screening
3.6	Illicit Discharge Tracking and Documentation	The City will track and document suspect and illicit discharges, as well as, City investigation, follow-up and enforcement actions in accordance to procedures included in the Illicit Discharge Detection and Elimination (IDDE) Standard Operation Procedures Manual, May 2019 edition.	Summary of IDDE
3.7	Hazardous Spill Response	The City, in cooperation with Frederick County, will provide emergency response to hazardous material spills and accidental chemical releases.	N/A
3.8	Household Hazardous Waste Collection	The City, in cooperation with Frederick County, will continue to provide household hazardous waste collection opportunities for its residents. The collection schedule will be promoted through use of the City's social media and Cit-E newsletter.	List collection dates
3.9	Household Waste Reduction	The City will continue to provide weekly waste collection services for City residents. In addition, the City will continue to provide fall leaf collection services, yard waste collection services, and bulky waste collection services to City residences. Schedules for these services will be placed on the City's Public Works web page regarding refuse and recycling	Approximate tonnage of household waste collected; Approximate tonnage of recycled materials (paper/cardboard, bottles/cans/plastic, scrap metal); Approximate tonnage of yard waste collected; Number of Recycling bins provided

		https://www.winchesterva.gov/Services-Payments/Utilities/Waste-Recycling	
3.10	Elimination of Sanitary Sewage Seepage from Public Sewers	The City will continue, as part of its sanitary sewer utilities program, implementation of its inflow and infiltration program to replace or slip line sanitary sewers to prevent illicit discharge. The lever of implementation of this BMP each year will be established by the City Council as part of annual budget approval.	Approximate number of linear feet of sewer line replaced; Approximate number of sanitary sewer pipe slip lined; Number of Sanitary sewer manholes repaired/replaced

MS4 ANNUAL REPORTING

The City must include the following as part of its MS4 Annual Report:

- General Permit Reporting Requirements
  - A confirmation statement that the MS4 map and outfall information table have been updated to reflect any changes to the MS4 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.
  - List of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:
    - Source of illicit discharge
    - 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 (describe)
    - How the investigation was resolved
    - Description of any follow-up activities
    - Date the investigation was closed
- BMP Specific Reporting Requirements
  - In addition to the General Permit reporting requirements, the MS4 Annual Report must include the specific BMP reporting items identified in Table 6.

MS4 PROGRAM PLAN MCM 3 SPECIFIC UPDATE REQUIREMENTS

- Illicit Discharge and Elimination System –No later than November 1, 2025, the City shall submit to DEQ, a format file geodatabase or two shapefiles that contain all items as required pursuant to Part I.E.3.a.(3). The MS4 map and outfall information table required by Part I.E.3.a may be incorporated into the MS4 Program plan by reference. The map shall be made available to the department within 14 days upon request.

MCM 4 – Construction Site Stormwater Runoff Control

Under the General Permit, the City is required to implement a Virginia Erosion and Stormwater Management Program (VESMP) consistent with the Virginia Erosion and Stormwater Management Act (§ 62.1-44.15:24 et seq of the Code of Virginia) and the Erosion and Stormwater Management Control Regulation (9VAC25-875). Pursuant their June 17, 2014 letter, DEQ authorized the city to operate a VSMP

beginning on July 1, 2014. The approval letter can be found on the city's MS4 web page at https://www.winchesterva.gov/Government/Plans-Publications and is herein incorporated by reference.

The City is also required to implement appropriate controls to prevent non-stormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections of the MS4. The discharge of non-stormwater discharges, other than those identified in 9VAC25-890-20.D, through the MS4 is not authorized under this MS4 General Permit.

The Construction Site Stormwater Runoff Control Program shall specifically include:

- The local ordinance citations for the VESMP.
- A description of the legal authorities used to ensure compliance with Part I.E.3.b to control construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, and inter-jurisdictional agreements.
- Written inspection procedures to ensure the erosion and sediment controls are properly implemented and all associated documents utilized during inspection including the inspection schedule.
- Written procedures for requiring compliance through corrective action or enforcement action to the extent allowable under federal, state, or local law, regulation, ordinance, or other legal mechanisms.

Documents and other reference materials used by the City for implementation of the Construction Site Stormwater Runoff Control Program are hereby incorporated by reference and listed in Table 15 and Table 16.

BMPS SELECTED FOR IMPLEMENTATION:

The City has selected the following BMPs to meet the measurable goals for MCM 4. Selected BMPs are as follows:

Table 8: BMPs Selected for Implementation – MCM 4

BMP	Names	Description	Reporting Items
4.1	Legal Authority – ESC	The City will maintain legal authority for implementation of a local erosion and stormwater management program 9VAC25-875. This legal authority is established at Chapter 9 of the City of Winchester Codified Ordinance.	N/A
4.2	Land Disturbing Activity Plan Review	The City will require submission of complete Land Disturbance Permit Application which includes the Virginia Stormwater Management Program Permit Package for regulated land disturbance activities. The City will review the packages for compliance with Chapter 9, Article 2 of the City Code by reviewing each permit application package. Approval for land disturbance will not be given by the City until an application is approved.	Number of Land-disturbance plans submitted; Number of Land-disturbance plans reviewed; Number of Land-disturbance plans approved
	VPDES Construction Activity Permit Coordination	The City will not authorize initiation of land disturbance activities until it receives evidence that the applicant has applied for and obtained coverage under the Virginia General Permit for Discharges of Stormwater from Construction Activities for	Number of VPDES General Permit for the Discharge of Stormwater from Construction

4.3		construction activity, including a general permit registration statement as required under City Code Section 9-21.	Activities permits required
4.4	Land Disturbing Activity Inspections	The City will maintain a land disturbance inspection program that is consistent with the requirements of Section 9-64 of the City Code. In addition, as part of these inspections, the City will inspect sites for compliance with Section 9-30 of the City Code requiring implementation of a pollution prevention plan and Section 9-26 of the City Code requiring compliance with the approved stormwater management plan. The City will enforce these requirements as authorized and in accordance with Chapter 9 of the City Code.	Number of inspections; Number of and type of enforcement actions taken
4.5	Land Disturbing Activity Tracking and Recordkeeping	The City has an existing program to track land disturbance activities to provide the necessary information for routine inspections, as-built inspections, surveys, and determining which areas may be most likely to incur heavier than normal sediment loading. Plan approval records and inspections will be tracked and documented in the City's digital records system.	Number of Land-disturbance plans submitted; Number of Land-disturbance plans reviewed; Number of Land-disturbance plans approved.

To meet the measurable goals identified for MCM 4, the City will use the following BMPs:

- BMP 2.3: Stormwater Complaint Hotline and City's "Contact Us" web page
- BMP 6.5: Staff Training

The Measurable Goal/BMP Relationship Matrix in Table 9 demonstrates which BMPs will be used to meet each Measurable Goal for MCM 4.

Table 9: Measurable Goal/BMP Relationship Matrix – MCM 4

Measurable Goals	BMP 2.3	BMP 4.1	BMP 4.2	BMP 4.3	BMP 4.4	BMP 4.5	BMP 6.5
The City's VESM Program will be found consistent during any programmatic Evaluation by DEQ.			X	X	X	X	X
The City will review VESMP plans for land disturbing activities for compliance with Chapter 9 Article 2 of the Winchester City Code.		X	X			X	
The City will require an agreement in lieu of plan for single family residential land disturbing activities.			X	X		X	
City employees will maintain the appropriate certifications required for plan review, inspection and administration of the City's VESM Program.			X			X	X

Measurable Goals	BMP 2.3	BMP 4.1	BMP 4.2	BMP 4.3	BMP 4.4	BMP 4.5	BMP 6.5
All regulated land disturbing activities will be required to identify a Responsible Land Developer.			X		X	X	
The City will use its legal authority to require that a land disturbing activity has an approved ESC Plan or agreement in lieu of plan prior to land disturbance.		X	X	X	X	X	
The City will utilize and maintain the stormwater complaint hotline and City's "Contact Us" web page as the mechanism for the public to report citizen complaints regarding construction stormwater discharges.	X					X	
The City will continue to implement a land disturbing activity inspection schedule in accordance with Chapter 9 Article 2 of the Winchester City Code.					X	X	X
The City will use its legal authority to require control of construction wastes at land disturbing activities.		X				X	
The City will require that land disturbing activities regulated under the Virginia Stormwater Management Program (VSMP) Construction Stormwater Program obtain VPDES Permit coverage prior to land disturbance.				X		X	

MS4 ANNUAL REPORTING

The City must include the following as part of its MS4 Annual Report:

- Total number of inspections conducted
- Total number and type of enforcement actions implemented
- BMP Specific Reporting Requirements
- the specific BMP reporting items identified in Table 8.

PROGRAM PLAN MCM 4 SPECIFIC UPDATE REQUIREMENTS

- As of May 1, 2024, there are no mandated updates to MCM 4 identified in the MS4 General Permit scheduled for the duration of the permit cycle.

MCM 5. Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands

Summary of Requirements: Under the General Permit, the City is required to implement a Post-Construction Stormwater Management Program for New Development and Redevelopment designed to address discharges entering the MS4.

The Post-Construction Stormwater Management Program for New Development and Redevelopment shall specifically include:

- A copy of the VSMP approval letter issued by the department.
- Written inspection procedures and all associated documents used to conduct inspections of privately owned stormwater management facilities.
- Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned BMPs.
- 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.
- Written inspection procedures and all associated documents used to inspect stormwater management facilities owned or operated by the City.
- The stormwater management facility spreadsheet or database incorporated by reference and the location or webpage address where the spreadsheet or database can be reviewed.

MCM 5 is closely related to having a VESMP that is consistent with the requirements of Virginia Erosion and Stormwater Management Act (§ 62.1-44.15:24 et. seq.) and VESMP Regulations (9VAC25-875).

MEASURABLE GOALS

- The City's VSMP will be found consistent during any programmatic evaluation by DEQ.
- The City will review stormwater management plans for compliance with Chapter 9 Article II of the Winchester City Code.
- The City will use its legal authority to require that a land disturbing activity has an approved stormwater management plan prior to land disturbance.
- The City will inspect regulated land disturbing activities for implementation of a SWPPP.
- The City will inspect land disturbing activities for implementation of an approved Erosion and Stormwater Management Plan.
- The City will require Maintenance Agreements for stormwater management facilities approved as part of the Erosion and Stormwater Management Plan.
- The City will conduct annual inspections on stormwater management facilities that it operates.
- The City will conduct maintenance on its stormwater management facilities when identified as part of an annual inspection.
- Inspections will be conducted on private stormwater management facilities at a minimum of once every five (5) years.
- The City will use its legal authority to ensure that required maintenance is completed when identified as part of an inspection.

BMPS SELECTED FOR IMPLEMENTATION

The City has selected the following BMPs to meet the measurable goals for MCM 5. Selected BMPs are as follows:

Table 10: BMPs Selected for Implementation – MCM 5

BMP	Names	Description	Reporting Items
5.1	Legal Authority - SWM	The City will maintain legal authority necessary to implement a VESMP that is consistent with 9VAC25-875 et. seq. This legal authority is established at Chapter 9, Article 2 of the Code of Winchester	N/A
5.2	Private Stormwater Management Facility Inspections	The City will maintain a post development stormwater management facility inspection program in accordance with Section 9-30 of the City Code. Inspections on such facilities will be conducted at least once every five (5) years. Under the required Maintenance Agreement (BMP 5.3), the City is provided with the right-of-access private property where a stormwater BMP is located, confers responsibility for construction and maintenance to the private landowner, and ensures that the City can undertake steps to maintain a facility should an inspection identify any deficiencies or problems that the landowner is unwilling or unable to correct. Maintenance Agreements are recorded with title to the property, providing the City with an enforceable legal instrument should a private landowner neglect to maintain a stormwater management facility constructed on his or her property. Inspection records will be kept on file with the City Engineer's Division.	Number of inspections; Number of and type of enforcement actions taken; Number of SWM Facilities needing follow-up maintenance
5.3	Maintenance Agreements	The City will require executed Maintenance Agreements for stormwater management facilities in accordance to Section 9-29. The agreement shall be recorded in the office of the Clerk of the Circuit Court of the City of Winchester. A copy of the City of Winchester Stormwater Facilities/BMP Maintenance Agreement is included in the Virginia Stormwater Management Program Permit Application.	Number of maintenance agreements (SWM Facilities)
5.4	City-Owned Stormwater Management Facility Inspections	The City Division of Engineering will inspect stormwater management facilities owned/operated by the City annually using procedures identified in the Public Stormwater Management Facility Inspection Standard Operating Procedures Manual, May 2024 edition. Copies of the inspections	Number of inspections; Number of SWM Facilities needing follow-up maintenance

		will be kept on file with the City Engineering Division.	
5.5	City-Owned Management Facility Maintenance	The City Division of Public Works and Parks & Recreation will conduct maintenance on City-Owned Stormwater Management Facilities as necessary and in response to Division of Engineering inspections.	Summary of maintenance activities (SWM Facilities)
5.6	Tracking and Documentation	The City will track and document permanent stormwater management facilities in the City's BMP spreadsheet maintained by the City Engineering Division.	Submission of excel spreadsheet detailing new stormwater management facilities

To meet the measurable goals identified for MCM 5, the City will also utilize the following BMPs:

- BMP 4.2: Land Disturbing Activity Plan Review
- BMP 4.3: VPDES Construction Activity Permit Coordination
- BMP 4.4: Land Disturbing Activity Inspections

The Measurable Goal/BMP Relationship Matrix in Table 11 demonstrates which BMPs will be used to meet each measurable goal for MCM 5.

Table 11: Measurable Goal/BMP Relationship Matrix – MCM 5

Measurable Goals	BMP 4.2	BMP 4.3	BMP 4.4	BMP 5.1	BMP 5.2	BMP 5.3	BMP 5.4	BMP 5.5	BMP 5.6
The City's VESMP will be found consistent during any programmatic evaluation by DEQ.	X	X	X	X	X	X	X	X	X
The City will review stormwater management plans for compliance with Chapter 9 Article 2 of the Winchester City Code.	X			X			X	X	X
The City will use its legal authority to require that a land disturbing activity has an approved Erosion and Stormwater Management Plan prior to land disturbance.	X	X	X	X					X
The City will inspect regulated land disturbing activities for implementation of a SWPPP.			X						X
The City will inspect land disturbing activities for implementation of an approved Erosion and			X				X	X	X

Measurable Goals	BMP 4.2	BMP 4.3	BMP 4.4	BMP 5.1	BMP 5.2	BMP 5.3	BMP 5.4	BMP 5.5	BMP 5.6
Stormwater Management Plan.									
The City will require Maintenance Agreements for stormwater management facilities approved as part of an Erosion and Stormwater Management Plan.			X	X	X	X	X	X	X
The City will conduct annual inspections on stormwater management facilities that it operates.			X				X	X	X
The City will conduct maintenance on its stormwater management facilities when identified as part of an annual inspection.			X			X		X	X
Inspections will be conducted on private stormwater management facilities at a minimum of once every five (5) years.			X		X	X			X
The City will use its legal authority to ensure that required maintenance is completed when identified as part of an inspection.				X		X		X	X

MS4 ANNUAL REPORTING –

The City must include the following as part of its MS4 Annual Report.

GENERAL PERMIT REPORTING REQUIREMENTS

The City will track, collect and submit to DEQ in its MS4 Annual Report the following items regarding MCM 5:

- The number of privately owned stormwater management facility inspections conducted
- The number of enforcement actions initiated by the City to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action.
- Total number of inspections conducted on stormwater management facilities owned or operated by the City.
- A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the City to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection.

- As specified in Part I.E.5.a(1), a confirmation statement that the City submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the City was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with in accordance with Part III B 1 or a statement that the City did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.
- A confirmation statement that the City electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part III B 1 and 2; and
- A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part III B 5.
- BMP Specific Reporting Requirements

  In addition to the General Permit reporting requirements, the MS4 Annual Report must include the specific BMP reporting items identified in Table 10.
- MS4 Program Plan MCM 5 Specific Update Requirements

  As of November 1, 2025, there are no mandated updates to MCM 5 identified in the MS4 General Permit scheduled for the duration of the permit cycle.

MCM 6. Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee within the MS4 Service Area

SUMMARY OF THE REQUIREMENTS

Under the General Permit, the City is required to maintain and implement written good housekeeping procedures for those activities listed in Part I.E.6.b at facilities owned or operated by the City designed to (1) prevent illicit discharges; (2) ensure City staff or contractors properly dispose of waste materials, including landscape wastes and prevent waste from entering the MS4; (3) Prevent the discharge of wastewater or wash water not authorized in accordance with 9VAC25-890-20; and (3) minimize the pollutants in stormwater runoff. These written procedures will be utilized as part of the employee stormwater training program for appropriate City staff. In addition, MCM 6 requires the City to implement NMPs on certain properties.

MS4 PROGRAM PLAN SHALL INCLUDE:

- A list of written good housekeeping procedures for the operations and maintenance activities as required by Part I.E.6.a and b.
- A list of all high priority facilities owned or operated by the city required to maintain a SWPPP in accordance with Part I.E.6.h that includes the facility name, facility location, and the location of the SWPPP hardcopy or electronic document being maintained. The SWPPP for each high-priority facility shall be incorporated by reference;
- 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:
  - Total acreage covered by the Nutrient Management Plan
  - The DCR approval date and expiration date for each nutrient management plan
  - Location of the nutrient management plan hardcopy or electronic document being maintained.
- 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

- Written training plan as required in Part I.E.6.d.

MEASURABLE GOALS

The following measurable goals are included in the updated MS4 Program Plan for MCM 6:

- The City will continue to implement, maintain, and update as necessary the written procedures/SOPs for those activities at facilities owned or operated by the City.
- The City will maintain coverage of the City Yards facility under its Municipal Separate Storm Sewer System (MS4) program.
- The City will continue to implement, maintain, and update as necessary SWPPPs that were created for its High Priority Facilities.
- The City will continue to implement, maintain, and update as necessary NMPs on City properties meeting the regulatory requirements for NMP coverage.
- The City will implement and maintain the City of Winchester Stormwater Training Plan for relevant employees.
- City employees will maintain the appropriate certifications required for plan review, inspection, and program administration of the City's Erosion Control and Stormwater Management Program.
- City employees and contractors will maintain the appropriate certifications required for pesticide application as required under the Pesticide Act.

BMPS SELECTED FOR IMPLEMENTATION AND THE REPORTING ITEMS

The City has selected the following BMPs to meet the measurable goals for MCM 6.

Selected BMPs are as follows:

Table 12: BMPs Selected for Implementation of MCM 6

BMP	Names	Description	Reporting Items
6.1	Standard Operating Procedures	The city will implement, maintain, and update, as necessary, standard operating procedures and pollution prevention methods for those activities at facilities owned or operated by the city.	N/A
6.2	Stormwater Pollution Prevention Plans	The city will develop, implement, maintain, and update as necessary SWPPPs for High-Priority Facilities.	N/A
6.3	Nutrient Management Plans	The city will develop, implement, maintain, and update as necessary NMPs by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia. NMPs must be submitted to DEQ at least 30 days prior to expiration. Copies of the nutrient management plans will be incorporated by reference into the MS4 Program Plan upon approval.	Any new or updated NMPs

6.4	Pollution Prevention Inspections	The city will conduct quarterly pollution prevention inspection at the High Priority Facilities accordingly following the inspection guidelines in the SWPPP.	Date of Inspection
6.5	Staff Training	The city will conduct staff training and follow guidelines in accordance with the City of Winchester Stormwater Training Plan, May 2024 edition.	List of Training Events (including dates, # attending, training objective)
6.6	Street Sweeping	The city will continue its street sweeping program and track the amount of litter and debris removed.	# of lane miles swept

To ensure contractors working on behalf of the city implement the necessary good housekeeping and pollution prevention procedures, as well as any associated stormwater pollution plans, all associated documents are to be contained in the project bid package, become part of the overall project for which the contract documents apply, and are included in the estimates for performance, stormwater management, and erosion and sediment control bonds. All associated project sites are inspected for compliance and for which the procedures for corrective and enforcement actions, as outlined previously, apply.

The Measurable Goal/BMP Relationship Matrix in Table 13 demonstrates which BMPs will be used to meet each Measurable Goal for MCM 6.

Table 13: Measurable Goal/BMP Relationship Matrix – MCM 6

Measurable Goals	BMP 6.1	BMP 6.2	BMP 6.3	BMP 6.4	BMP 6.5	BMP 6.6	BMP 6.7
The City will implement, maintain, and update as necessary the written procedures/SOPs for those activities at facilities owned or operated by the City, which was created on June 2015.	X	X	X	X	X	X	X
The City will maintain coverage of the City Yards facility under its MS4 program.	X						X
The City will continue to implement, maintain, and update as necessary SWPPPs that were created for VPDES General Permit and High Priority Facilities.	X	X		X	X		
The City will implement, maintain, and update as necessary NMPs on City properties identified in the NMP Facility Evaluation, which was created on June 2016.	X		X		X		

Measurable Goals	BMP 6.1	BMP 6.2	BMP 6.3	BMP 6.4	BMP 6.5	BMP 6.6	BMP 6.7
The City will implement, maintain, and update every two (2) years the City of Winchester Stormwater Training Plan for relevant employees.	X				X		
City employees will maintain the appropriate certifications required for plan review, inspections, and program administration of the City's ESC Program.	X				X		
City employees will maintain the appropriate certifications required for plan, review, inspection, and program administration of the City's Stormwater Management Program.	X				X		
City employees and contractors will maintain the appropriate certifications required for pesticide application as required under the Pesticide Act.	X				X		

MS4 ANNUAL REPORTING

The City must include the following as part of its MS4 Annual Report:

- General Permit Reporting Requirements
  - 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.6.j, 6.l, or 6.m;
  - 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);
  - 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.

- A summary of any new SWPPPs developed for the high-priority facilities that have a high potential for discharging pollutants that are not covered under a separate VPDES permit during the reporting period.
    - No later than June 30 of each year, the City 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 has a high potential to discharge pollutants as described in Part I.E.6.c. If the facility is determined to be a high-priority facility with a high potential to discharge pollutants, the City shall develop a SWPPP meeting the requirements of Part I.E.6.d no later than December 31 of that same year.

- A summary of any SWPPPs modified or the rationale of any high priority facilities delisted during the reporting period.
- A summary of any new turf and landscape nutrient management plans developed that includes:
    - Location and the total acreage of each land area
    - The date of the approved nutrient management plan
- A list of the training events conducted
    - The date of the training event
    - The number of employees who attended the training event
    - The objective of the training event

BMP SPECIFIC REPORTING REQUIREMENTS

In addition to the General Permit reporting requirements, the MS4 Annual Report must include the specific BMP reporting items identified in Table 11.

MS4 PROGRAM PLAN MCM 6 SPECIFIC UPDATE REQUIREMENTS

- Requirement # 1 (Due: November 1, 2019) – Identify High Priority Facilities with High Potential to Discharge Pollutants.
    - The City must identify if there are any more City owned or operated High Priority Facilities. Also, the City must develop, implement, maintain, and update as necessary a SWPPP for each of the High Priority Facilities.

Table 14: Sites Identified as Requiring NMPs

Address	Notes Regarding Use	Turf Acreage	Latitude	Longitude
1001 E Cork St.	Jim Barnett Park	71.6	39.1727797	-78.1548890
623 North Pleasant Valley Rd.	Friendship Park	9.3	39.1899529	-78.1508964
900 Whittier Ave.	Whittier Park	5.9	39.1911247	-78.1779289
167 Bruce Dr.	Weaver Neighborhood Park	5.1	39.149049	-78.1757645
2024 Harvest Dr.	Park Place Public Park	4.0	39.1659935	-78.1887412
805 Crestview Terrace St.	West Ridge & Harvest Ridge Park	1.4	39.1585249	-78.1931146

SPECIAL CONDITIONS

As a result of approved TMDLs, the following General Permit Special Conditions are applicable to the City:

- Chesapeake Bay TMDL special condition.
- Local TMDL special condition.

5 identifies those TMDLs in which the City has waste load allocations (WLAs).

Table 15: TMDLs with Waste Loads Allocated to the City of Winchester

TMDL	Approval Date	Pollutant of Concern	WLA
Opequon Watershed TMDLs for Benthic Impairments: Abrams Creek and Lower Opequon Creek, Frederick and Clarke Counties, Virginia	6/28/2005	Sediment	442.7 tons/year of sediment to Abrams Creek[1]
			269.2 tons/year of sediment to the Lower Opequon Creek[1]
Bacteria TMDLs for Abrams Creek and Upper and Lower Opequon Creek Located in Frederick and Clarke County, Virginia	12/20/2005	E. Coli	310x1010 cfu/year of E. Coli to Abrams Creek
Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment	12/29/20102	Sediment	Pollutant reduction calculations for sediment, phosphorus and nitrogen will be calculated with development of the Chesapeake Bay Action Plan
		Phosphorus	
		Nitrogen	

1 WLA Aggregated with VDOT MS4

2 Approved by EPA

Previously, in response to the Opequon Creek Watershed TMDL Implementation Plan, which was approved by the Virginia State Water Control Board on March 23, 2007, the City has incorporated the following pollutant reduction efforts into its operations:

- Reduced the threshold for regulated land disturbing activities from 10,000 ft2 to 5,000 ft2 under Chapter 9 Article 2
- Instituted stream buffer protection under Chapter 9 Article 4
- Prohibited feeding of waterfowl under Chapter 5 Article 3
- Continued its program to eliminate entry of sanitary sewage into the storm system

MS4 PROGRAM PLAN SPECIAL CONDITIONS SPECIFIC UPDATE REQUIREMENTS

- Requirement # 1 (Due: May 1, 2024) – Local TMDL

  For TMDLs approved by the EPA prior to July 1, 2013, and in which an individual or aggregate waste load has been allocated to the City, the City shall update the previously approved local TMDL action plans to meet the conditions of Part II B 3, B 4, B 5, B 6, and B 7 as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan.

- Requirement # 2 (Due: November 1, 2022) – Local TMDL

  No later than 36 months after the effective date of this permit, the City shall submit to the department the anticipated end dates by which the City will meet each WLA for sediment, phosphorous, or nitrogen. The proposed end date may be developed in accordance with Part II B 2.

- Requirement # 3 (Due: November 1, 2019) –Chesapeake Bay TMDL

  No later than 12 months after the permit effective date, the City shall submit an updated Chesapeake Bay TMDL action plan for the reductions required in Part II A 3, A 4, and A 5 that includes the following information on Part II A 11.

DOCUMENTS INCORPORATED BY REFERENCE

Documents identified in Table 6 are considered part of the MS4 Program Plan. These documents provide policy, procedure and guidance for implementation of certain BMPs and measurable goals.

Table 16: Documents Incorporated into the MS4 Program Plan by Reference

Title	Date	Location
City Code Chapter 9-Water Quality	N/A	https://library.municode.com/va/winchester/codes/code_of_ordinances?nodeId=CO_CH9WAPR_ARTIIERCOSTMAPR_S9-25STMAPLCOPL9VAC25-875-510
Public Services Standards Manual	10/2017	Expand the engineering tab under https://www.winchesterva.gov/Services-Payments/Permits-Licensing-Applications
VSMP Permit Application Package	07/2014	Expand the engineering tab under https://www.winchesterva.gov/Services-Payments/Permits-Licensing-Applications
Land Disturbance Application Package	07/2014	Expand the engineering tab under https://www.winchesterva.gov/Services-Payments/Permits-Licensing-Applications
Land Disturbance Package-Single Family Dwellings	07/2014	Expand the engineering tab under https://www.winchesterva.gov/Services-Payments/Permits-Licensing-Applications

Public Education Outreach Plan	05/2019	Appendix A
Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures Manual	05/2019	Appendix B
Public Stormwater Management Facility Inspection Standard Operating Procedures Manual	05/2019	Appendix C
Municipal High Priority Facility Determination	05/2019	Appendix D
Nutrient Management Plan Facility Determination	05/2019	Appendix E
City of Winchester Stormwater Training Plan	05/2019	Appendix F
2025 Abrams Creek and Lower Opequon Creek TMDL Action Plan	8/15/2026	https://www.winchesterva.gov/Government/Plans-Publications

ADDITIONAL MS4 PROGRAM REFERENCE MATERIALS

In addition to the documents incorporated into the MS4 Program Plan in Table 17, the City of Winchester has additional reference materials available for use in implementation of the MS4 Program as necessary and are not considered part of the MS4 Program Plan itself.

Table 17: Additional MS4 Program Reference Materials

Available Materials	Expected Usage for MCMs:						Location
	1	2	3	4	5	6	
Pick Up Party	X	X					https://www.winchesterva.gov/News-Happenings/Get-Engaged/Pickup-Parties
Brochure/Flyer "Do Not Feed the Geese in the Park"	X	X					https://www.winchesterva.gov/Government/Plans-Publications
What is a Watershed (PBS)	X						https://www.winchesterva.gov/Government/Plans-Publications
Brochure/Flyer "It's Your Doodie" (Pet Waste)	X	X					https://www.winchesterva.gov/Government/Plans-Publications
City Stormwater Webpage	X	X	X	X	X		https://www.winchesterva.gov/Services-Payments/Utilities/Stormwater
City 311 System		X	X	X	X		Winchester VA app
City "News and Happenings" Webpage	X	X	X				https://www.winchesterva.gov/News-Happenings/Latest-News
Brochure/Flyer "Stormwater Complaint Hotline"	X	X	X	X			https://www.winchesterva.gov/Government/Plans-Publications
Annual Report		X					https://www.winchesterva.gov/Government/Plans-Publications

Available Materials	Expected Usage for MCMs:						Location
	1	2	3	4	5	6	
Brochure/Flyer "Yard Waste"		X	X				https://www.winchesterva.gov/Government/Plans-Publications
"Unwanted Items" Webpage		X	X				https://www.winchesterva.gov/Government/Plans-Publications
"Refuse and Recycling" Webpage		X	X				https://www.winchesterva.gov/Services-Payments/Utilities/Waste-Recycling
Virginia Stormwater Management Handbook				X			https://online.encodeplus.com/regs/deq-va/doc-viewer.aspx?secid=228#secid-761
Virginia Erosion and Stormwater Management Regulation (§62.1-44.15:51 et. seq.)				X			https://law.lis.virginia.gov/admincode/title9/agency25/chapter875/
City BMP Spreadsheet					X		City Engineering Division Office
BMP Inspection Reports					X		City Engineering Division Office
City Yards SWPPP						X	Physically located at Winchester City Yards/301 E Cork Street/Winchester, VA 22601 (Digital Copy https://www.winchesterva.gov/Government/Plans-Publications)
Inspection Escalation Procedural Document				X			Available upon request

Appendix A

Public Education and Outreach Program

PUBLIC EDUCATION AND OUTREACH PROGRAM

May 2025 Edition

City of Winchester,
Virginia Public Services
Campus Department of
Public Services
301 East Cork Street
Winchester, VA 22601

CONTENTS

Table of Contents

Appendix A 2

I. MS4 GENERAL PERMITREQUIREMENTS 4

II. IDENTIFICATION OF THE PROPOSED HIGH-PRIORITY STORMWATER ISSUES, TARGETED AUDIENCE(S), AND THE RATIONALE FOR EACH SELECTION 5

III. STRATEGIES FOR PUBLIC EDUCATION ANDOUTREACH 5

I. MS4 GENERAL PERMITREQUIREMENTS

The MS4 General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) (General Permit) requires that the City of Winchester (City) implement a MS4 Public Education and Outreach Program (Program) designed to:

- 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
- Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications
- Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

The City is required to 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 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

This Program will clearly identify the high-priority stormwater issues, explain the importance of the high-priority issues, include measures or actions the public can take to minimize the impact of the high-priority stormwater issues, and provide a contact, website, or location where the public can find out more information.

II. IDENTIFICATION OF THE PROPOSED HIGH-PRIORITY STORMWATER ISSUES, TARGETED AUDIENCE(S), AND THE RATIONALE FOR EACH SELECTION

Table 1 provides the City's proposed three (3) High-Priority Water Quality Issues, the Targeted Audience(s), and the Selection Rationale for each issue. The targeted audiences were selected based on the potential to have significant impacts for each high-priority stormwater issue, consistent with the City's previous Program.

Table 1: Potential High Priority Stormwater Issues.

High-Priority Water Quality issue	Targeted Audience(s)	Selection Rationale
Reduce the amount of sediments and nutrients in stormwater discharges	Residential property owners and tenants	City of Winchester (MS4) discharges to local waters that are considered impaired or "not meeting" water quality standards. This water pollution is caused by sediments and nutrients discharged with stormwater that does not undergo any pollutant treatment. In addition, under the Chesapeake Bay TMDL, the City is required to reduce the sediment and nutrient loads discharged with stormwater
	Contractors, including landscaping companies conducting work in Winchester	
Reduce the bacteria levels in City of Winchester Streams	Properties using septic systems	City of Winchester (MS4) discharges to local waters that are considered impaired or "not meeting" water quality standards. This water pollution is caused by excessive bacteria, especially from animal waste, discharged with stormwater that does not undergo any pollutant treatment
	Dog owners	
Reduce the number of illicit discharges	Residential property owners and tenants	City of Winchester (MS4) has an active Illicit Discharge Detection and Elimination Program. One effective method to reduce pollutants in waterways is to reduce the number of illicit discharges. However, to reduce the amount of illicit discharges, the public must recognize and understand the impacts of these discharges that do not have the authorization under the VPDES General Permit
	School aged children	
	Commercial Establishments	

III. STRATEGIES FOR PUBLIC EDUCATION ANDOUTREACH

Table 3 displays the proposed strategies the City may utilize for the Public Education and Outreach Program. The City's current Program uses the strategies listed in Table 3 and will continue to perform these strategies to ensure optimal outreach to the public. Under this program, the City will also advertise Public Involvement events such as stream clean-up.

By increasing the public's knowledge and awareness of stormwater pollution and providing methodology of reducing pollutants and contaminants, there is a greater chance of public involvement to improve the overall quality of the waterways.

Table 2: Strategies for Public Education and Outreach

Strategies for Public Education and Outreach			
Strategies		**Explanation**	**Anticipated Time of Delivery**
Traditional Written Materials	**Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens**	**Inform residents, commercial establishments, and contractors about how pollutants can create water quality issues and how good pollution prevention plan methods can help reduce negative impacts on waterbodies**	**Annually (Once every one or two years)**
Alternative materials	**Bumper stickers, refrigerator magnets, t- shirts, or drink koozies**	**Increase awareness of water quality issues, and how pollutants can have a negative impact on the waterbodies.**	**Annually (one to three times a year)**
Signage	**Temporary or permanent signage in public places or facilities, vehicle signage, billboards, or storm drain**	**Increase awareness of water quality issues, and how pollutants can have a negative impact on the waterbodies.**	**Permanent structure.**
Media Materials	**Information disseminated through electronic media, radio, televisions, movie theater, or newspaper**	**Inform residents, commercial establishments, and contractors about how pollutants can create water quality issues and how good pollution prevention plan methods can help reduce negative impacts on waterbodies**	**Annually (Once every one to two years)**
Speaking Engagements	**Presentations to school, church, industry, trade, special interest, or community groups**	**Inform residents, commercial establishments, and contractors about how pollutants can create water quality issues and how good pollution prevention plan methods can help reduce negative impacts on waterbodies**	**Annually (Several times a year)**
Curriculum Materials	**Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens.**	**Inform residents, commercial establishments, and contractors about how pollutants can create water quality issues and how good pollution prevention plan methods can help reduce negative impacts on waterbodies**	**Annually (Several times a year)**
Training Materials	**Materials developed to disseminate during workshops offered to local citizens, trade organizations, or industrial officials.**	**Inform residents, commercial establishments, and contractors about how pollutants can create water quality issues and how good pollution prevention plan methods can help reduce negative impacts on waterbodies**	**Annually (Once every one to two years)**

Appendix B

Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures Manual

CITY OF WINCHESTER

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) STANDARD OPERATING PROCEDURES MANUAL

September 2025

Prepared for: Winchester Virginia Prepared by: Kimley»Horn

Table of Contents

Introduction 3
Illicit Discharge Definition 4
Authority and Enforcement 4
Legal Authority 4
Dry Weather Field Screening Preparation 9
Outfall Screening Prioritization 10
Field Map Preparation 10
Pre-Field Screening Briefing and Preparation 11
Roles and Responsibilities Associated with Field Screening Activities 12
Conducting Dry Weather Field Screening 12
Investigation, Reporting, and Documentation 20
Investigating Suspect Discharges and Complaints 20
Reporting Stormwater Issues & Contacting Other Agencies 22
Documentation 23
Safety 23
In Case of An Emergency 23
General Safety 23
Hazardous Materials 24
Physical Hazards 24

Appendices

Appendix A – Modified ORI Sample Collection Field Sheet and Outfall Assessment Graphics

Appendix B – City of Winchester Annual IDDE Tracking Spreadsheet

Appendix C – City of Winchester MS4 Outfall Map

Tables

Table 1 – Authorized Versus Unauthorized Nonstormwater Discharges 4
Table 2 – Minimum Control Measure (MCM) 3 Outline 5
Table 3 – City Code Chapter 9, Article IV, IDDE-Related Sections 6
Table 4 – Enforcement Methodologies 8
Table 5 – Field Screening Equipment 11
Table 6 – DPSED Field Screening Roles and Responsibilities 12
Table 7 – City of Winchester and Other Agency Contact Information Table 22

Figures

Figure 1 – Illicit Discharge Example 3
Figure 2 – Enforcement Methodology Flow Chart 8
Figure 3 – City of Winchester Outfall Map 9
Figure 4 – Field Screening Prioritization Matrix 10
Figure 5 – Section 1 of the ORI Sample Collection Field Sheet 13
Figure 6 – Section 2 of the ORI Sample Collection Field Sheet 13
Figure 7 – Characterizing Submersion and Flow 14
Figure 8 – Section 3 of the ORI Sample Collection Field Sheet 14
Figure 9 – Section 4 of the ORI Sample Collection Field Sheet 15
Figure 10 – Color and Turbidity Estimation 15
Figure 11 – Interpreting Color and Turbidity 16
Figure 12 – Determining the Severity of Floatables 17
Figure 13 – Section 5 of the ORI Sample Collection Field Sheet 17
Figure 14 – Interpreting Benthic and Other Biotic Indicators 18
Figure 15 – Typical Findings at Both Flowing and Non-Flowing Outfalls 19
Figure 16 – Sections 6 – 8 of the ORI Sample Collection Field Sheet 20
Figure 17 – Suspect Discharge Investigation and Reporting Decision Tree 21

Introduction

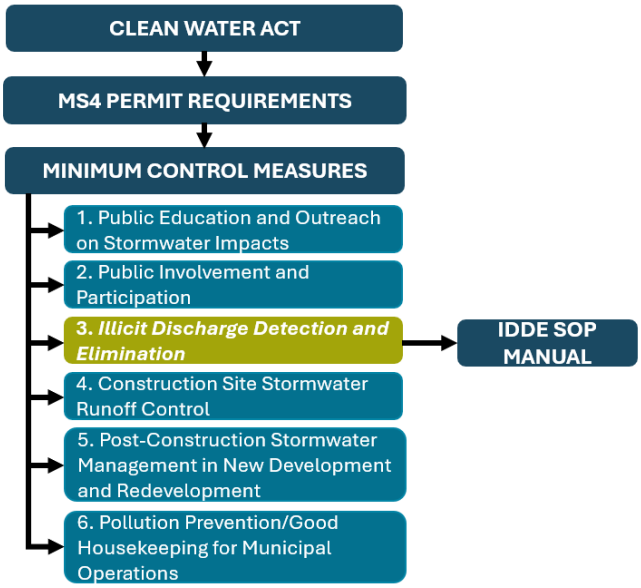


Figure 1 – Illicit Discharge Example [3]

A Municipal Separate Storm Sewer System (MS4) is a network of drainage systems, including pipes, ditches, and other conveyances designed to carry stormwater runoff directly to nearby streams, rivers, and other bodies of water [1]. The MS4 program is a regulatory framework established by EPA, under the authority of the Clean Water Act National Pollutant Discharge Elimination System (NPDES), to treat these stormwater conveyance systems as a point source discharge [1]. The MS4 permit program is designed to address the unique challenges associated with urban and suburban areas, where stormwater can pick up pollutants from various sources and ultimately discharge into local water bodies [1].

The City of Winchester operates a Municipal Separate Storm Sewer System that is regulated under the Clean Water Act and the MS4 General Permit, and as such, must develop, implement, and enforce an MS4 Program that includes the following six Minimum Control Measures (MCMs):

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



The standard operating procedures (SOP) included in this manual outline the responsibilities and procedures that are to be implemented by the City to comply with ***Minimum Control Measure 3*** (MCM 3) of the MS4 General Permit regarding Illicit Discharge Detection and Elimination (IDDE). This SOP manual is applicable to the City of Winchester employees and its contractors assigned to inspect stormwater infrastructure for evidence of illicit discharges. This SOP manual is published under the authority of the Department of Public Services, Engineering Division (DPSED).

Illicit Discharge Definition

Nonstormwater discharges can be broken into two categories, as shown in Table 1. The General Permit, under 9VAC25-890-40.I.E.3., requires the City of Winchester to prevent and prohibit unauthorized nonstormwater discharges into the MS4, otherwise known as illicit discharges.

Table 1 – Authorized Versus Unauthorized Nonstormwater Discharges

Authorized Nonstormwater Discharges	Unauthorized Nonstormwater Discharges (Illicit Discharges)
➢ Water Line Flushing ➢ Uncontaminated Groundwater ➢ Air Conditioning Condensation ➢ Diverted Stream Flows ➢ Landscape Irrigation ➢ Residential Car Washing	➢ Paint ➢ Motor Oil ➢ Grease ➢ Concrete Washout Wastewater ➢ Sanitary Sewer Flows ➢ Yard Waste ➢ Trash ➢ Debris

Authority and Enforcement

This section of the IDDE SOP Manual demonstrates the City's compliance with 9VAC25-890-40.I.E.3.b.

Legal Authority

This section outlines the legal authority under which the City of Winchester must operate its MS4 and enforce illicit discharge activities. Table 2 outlines Minimum Control Measure 3 of the MS4 General Permit, which this IDDE SOP Manual has been developed to comply with. Table 3 outlines portions of City Code Chapter 9, Article IV, otherwise known as the "Water Protection Ordinance of the City of Winchester". This portion of the City's code provides definitions, requirements, and enforcement methodologies for illicit discharge activities within the City's MS4.

Table 2 – Minimum Control Measure (MCM) 3 Outline

Minimum Control Measure 3 (9VAC25-890-40.I.E.3.) Outline
a) The permittee shall develop and maintain an accurate MS4 map and information table as follows (See MS4 General Permit for the entirety of the requirements for this section)
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 towards 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 has been documented, an observation point may be established for future screening events; and
g) A checklist or mechanism to track information for dry weather screening events (See MS4 General Permit for the entirety of the requirements of this section)
(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 (See MS4 General Permit for the entirety of the requirements of this section)

Table 3 – City Code Chapter 9, Article IV, IDDE-Related Sections

Code Section 9-61: Discharges to the City's Storm Sewer System
d) It shall be unlawful and a violation of this Article to: (1) Throw, drain, or otherwise discharge into the City's storm sewer system any pollutants or waters containing pollutants other than stormwater; (2) Connect, or cause or allow to be connected, any sanitary sewer to the storm sewer system, any such connections owned or authorized by the City prior to April 11, 2006; (3) Cause or allow any illicit connection to the City's storm sewer system; or (4) Violate any condition or provision of this Article, or any permit or approval granted to allow any stormwater discharges to the City's storm sewer system. e) Subject to the provisions of subsection (c) of this section, the following activities shall not be considered illicit discharges: (1) Water line flushing; (2) Landscape irrigation; (3) Diverting stream flows or rising groundwater, or infiltration of uncontaminated groundwater; (4) Public safety activities, including, but not limited to, law enforcement and fire fighting; (5) Pumping of uncontaminated groundwater from potable water sources, foundation drains, irrigation waters, springs, or water from crawl spaces or footing drains; (6) Lawn watering; (7) Individual car washing on residential properties; (8) De-chlorinated swimming pool discharges (less than one PPM chlorine); (9) Street washing; (10)Any activity authorized by a valid National Pollutant Discharge Elimination System (NPDES) permit, waiver or discharge order, a Virginia Pollutant Discharge Elimination System (VPDES) permit, waiver or discharge order, or a Virginia Pollution Abatement (VPA) permit; (11)Any activity by a governmental entity in accordance with Federal, state, and local regulations and standards for the maintenance or repair of drinking water reservoirs or drinking water treatment or distribution systems; and (12)Any activity by the City, its employees and agents, in accordance with federal, state and local regulations and standards, for the maintenance of any component of its stormwater management system. (13) Discharges specified in writing by the director as being necessary to protect public health and safety. (14) Dye testing, following notification to the City Engineer. f) If any of the activities listed in subsection (b), above, of this section are found to be sources of pollutants to public waters, the Program Authority shall so notify the person performing such activities and shall order that such activities be stopped or conducted in such manner as to avoid the discharge of pollutants into such waters. Failure to comply with any such order shall be unlawful and a violation of this Article.
Code Section 9-64: Inspections and Monitoring
a) The Program Authority shall be permitted to enter and inspect properties and facilities at reasonable times as often as may be necessary to determine compliance with this chapter. The Program Authority shall have authority to carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the provisions of this Article, including the prohibition of illicit discharges to the storm sewer system. The Program Authority may monitor stormwater outfalls or other components of the municipal storm sewer system as may be appropriate in the administration and enforcement of this Article. b) The Program Authority shall have the authority to require pollution prevention plans from any person whose discharges cause or may cause a violation of a VPDES permit.

Code Section 9-65: Enforcement, Penalties, Remedies
a) A willful violation of the provisions of this Article shall constitute a Class 1 misdemeanor. Each day that a continuing violation of this Article is maintained or permitted to remain shall constitute a separate offense.
b) Any person who commits any act prohibited by this Article shall be liable to the City for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the storm sewer system.
c) Any person who commits any act prohibited by this Article shall be subject to a civil penalty in an amount not to exceed $1,000.00 for each day that a violation continues. The court assessing such penalty may, at its discretion, order that the penalty be paid into the treasury of the City for the purpose of abating, preventing or mitigating environmental pollution.
d) The City may bring legal action to enjoin the continuing violation of this Article. The existence of any other remedy, at law or in equity, shall be no defense to any such action.
e) The Program Authority shall have authority to order that any activity found to be in violation of this Article be stopped or conducted in such a manner as to avoid the discharge of sewage, industrial wastes or other wastes into the storm sewer system.
f) Any discharge caused or permitted to exist in violation of any provisions of this Article constitutes a threat to the public health, safety and welfare, and is hereby declared and deemed a public nuisance. Following receipt of written notice of such nuisance from the Program Authority, if the responsible person fails to abate or obviate such nuisance, then the City may do so and charge and collect the cost thereof from the responsible person, in any manner provided by law (including, without limitation, any manner provided by law for the collection of state or local taxes).
g) The remedies listed in this chapter are not exclusive of any other remedies available under any applicable Federal, State or local law.
h) The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one or more of the remedies set forth herein has been sought or granted.

Enforcement Methodologies

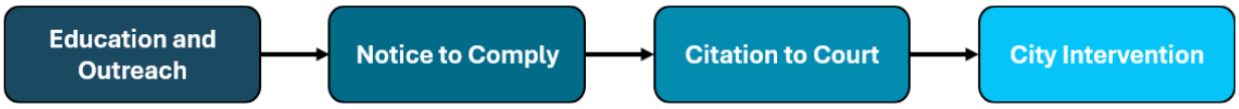


Figure 2 – Enforcement Methodology Flow Chart

Unauthorized nonstormwater discharges are considered illicit discharges and must be eliminated, per Minimum Control Measure 3 in the General Permit (9VAC25-890-40.I.E.3.b). Chapter 9 of the City Code (Table 3) outlines the City of Winchester's options for enforcement of illicit discharge elimination, which include the methodologies presented in Figure 2 and outlined in Table 4.

Table 4 – Enforcement Methodologies

Enforcement Method	Definition	DPSED Responsibilities
Education and Outreach	Many responsible parties are unaware that what they are doing is illegal and may not even recognize that they are the source of an illicit discharge. Education and Outreach is the first step in eliminating an illicit discharge.	DPSED staff should attempt to attain voluntary compliance using education and outreach.
Notice to Comply	When public education and outreach has failed to eliminate the illicit discharge within a reasonable time frame or the City determines that the illicit discharge is severe enough to not employ education and outreach, the City may choose to issue a Notice to Comply. This notice orders the responsible party to stop the illicit discharge or to discharge in such a manner as to avoid the discharge of sewage, industrial waste, or other unauthorized nonstormwater discharge into the stormwater sewer system.	Notice to Comply is the first step in formal enforcement actions, DPSED staff must coordinate with all appropriate City Divisions or Offices (e.g., City Attorney's Office) to ensure proper protocol is followed.
Citation to Court	If the responsible party fails to eliminate the illicit discharge from entering into the City stormwater system, the City may choose to pursue legal methods through citation to court in accordance with Winchester City Code § 9-65. Such actions may include, but are not limited to, misdemeanor charges, civil penalties, cease and desist orders, etc.	DPSED must coordinate with all appropriate City Divisions or Offices (e.g., City Attorney's Office) to ensure proper protocol is followed and necessary documentation is provided. Collaboration with other City Departments should be coordinated through the City Engineer.
City Intervention	If the discharge is considered a public nuisance and the responsible party has failed to eliminate the illicit discharge after receiving a written Notice to Comply, the City is authorized to eliminate the discharge and charge and collect the City's cost for abating the illicit discharge.	DPSED staff must coordinate with all appropriate City Divisions or Offices (e.g., City Attorney's Office) to ensure proper protocol is followed, as this type of action may require legal action as well as reliance on other City authorities.

Regardless of the action used to eliminate the illicit discharge, DPSED staff must confirm that the illicit discharge has been eliminated. If it is safe to do so, DPSED staff should schedule a site visit to document that the illicit discharge has been eliminated. If the site visit may be confrontational or if the elimination of the illicit discharge is ordered by a Court, DPSED staff should obtain confirmation of elimination through the appropriate City authorities rather than attempting to conduct a site visit.

Dry Weather Field Screening Preparation

At the time this Standard Operating Procedures Manual was written, the City of Winchester, had 257 documented outfalls, as shown in Figure 3, qualifying the City to conduct dry weather screening annually pursuant to requirements set forth in the MS4 General Permit, under 9VAC25-890-40.I.E.3.c(2)(c), which reads as follows:

"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"*

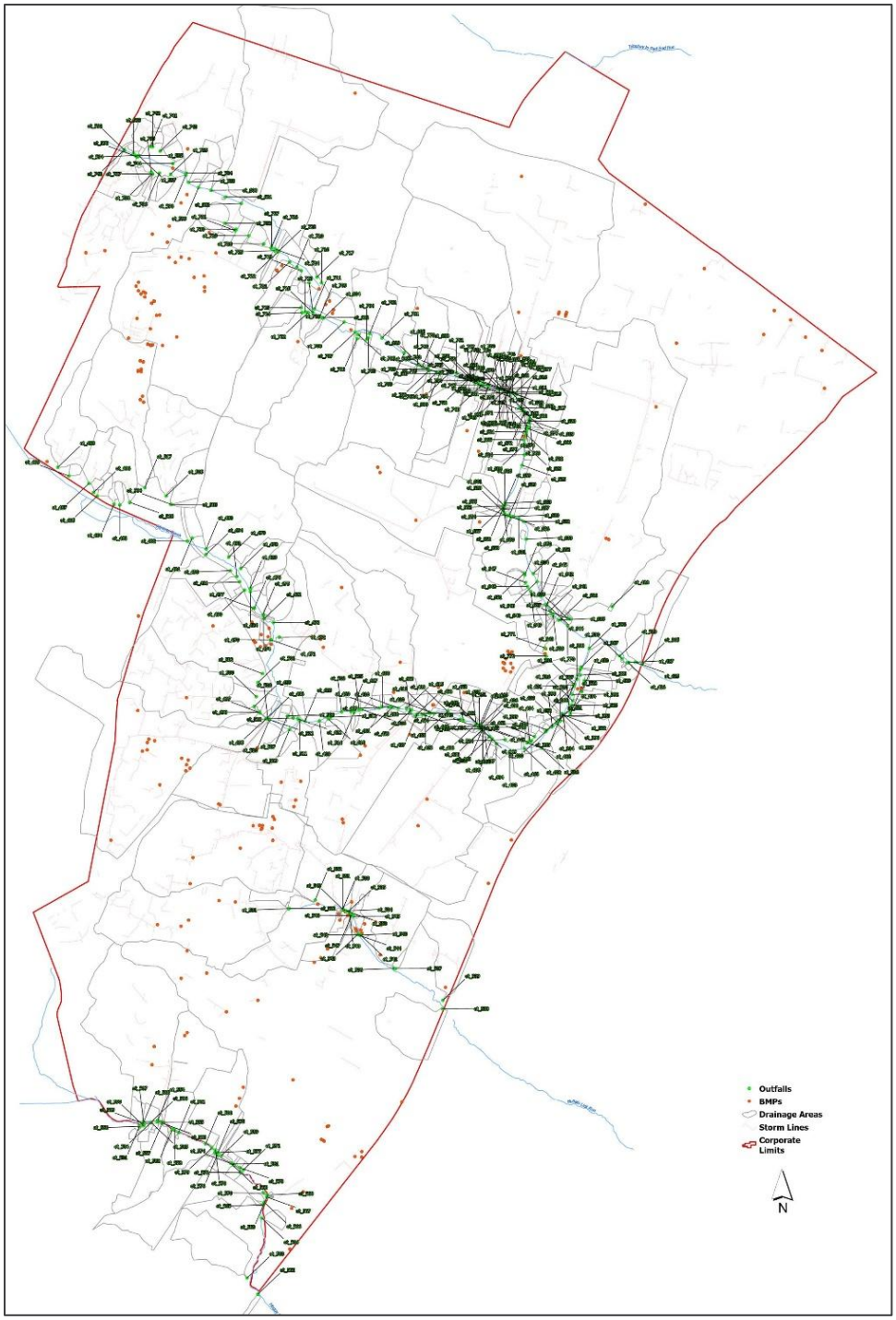


Figure 3 – City of Winchester Outfall Map

Outfall Screening Prity oritization

The City has developed a three-tier prioritization matrix for the fifty outfall locations that are required to be screened annually, which encompasses the sensitivity of the downstream systems and their vulnerability to illicit discharges. This prioritization matrix has been included in Figure 4 and is explained below:

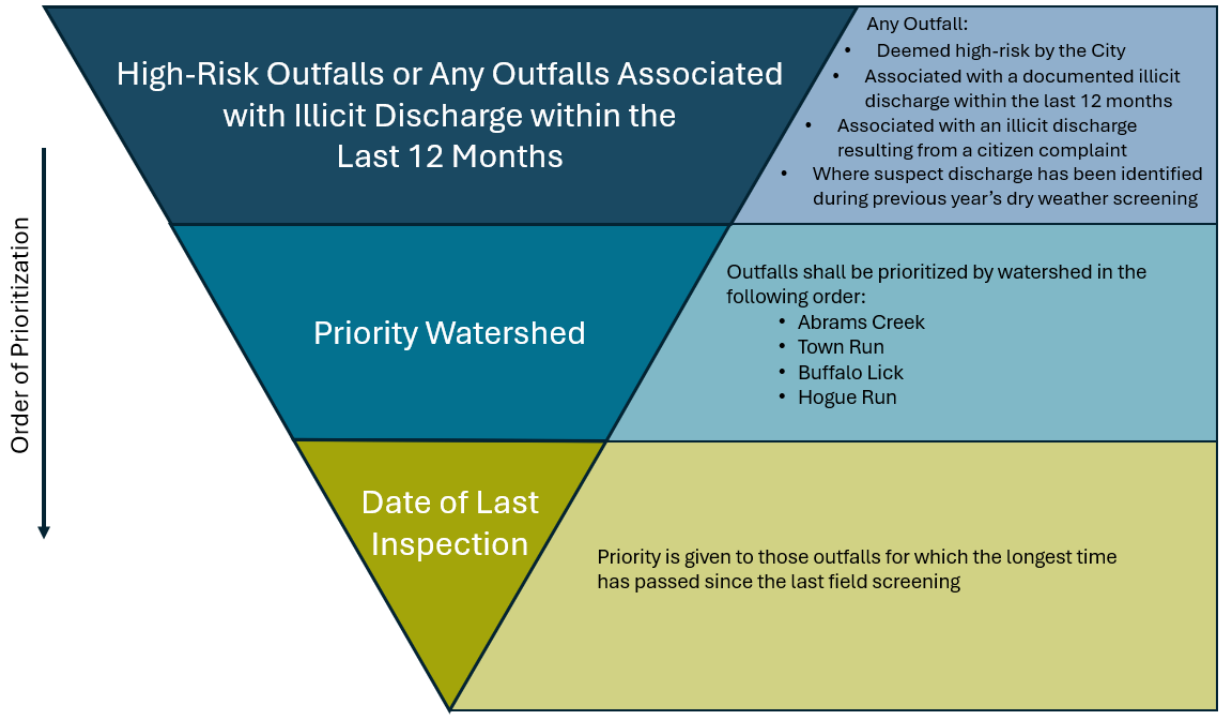


Figure 4 – Field Screening Prioritization Matrix

Tier 1 of the outfall prioritization matrix includes high-risk outfalls or any outfalls associated with illicit discharge in the last twelve months, whether it be a documented discharge, associated with a citizen complaint, or where a suspect discharge has been identified. **Tier 2** prioritizes outfalls based on watershed. The City of Winchester has established a watershed ranking based on Total Maximum Daily Load (TMDL) impairments, with Abrams Creek being the highest priority watershed, followed by Town Run, Buffalo Lick, and Hogue Run. **Tier 3** prioritizes outfalls based on the date of most recent inspection. In this tier, priority is given to outfalls for which the longest time has passed since the last field screening.

Exceptions to Screening Prioritization

Per 9VAC25-890-40.I.E.3.c.(2)(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 has been documented, an observation point may be established for future screening events"*

Field Map Preparation

Once the outfalls for dry weather field screening have been selected using the prioritization matrix above, a field map can be created utilizing the City's Geographic Information System (GIS) and Google My Maps data for the selected outfalls. This data includes a georeferenced point for each outfall, as well as attributes specified under MCM 3, such as the unique identification of the outfall, the name and Hydrologic Unit Code of the receiving water, and an indication of whether the receiving water is impaired.

Pre-Field Screening Briefing and Preparation

The DPSED Stormwater Engineer should conduct a briefing to review the following items before performing the dry weather field screening:

Planning and Objectives

- Review prioritized outfalls and compiled field map
- Identify appropriate field screening days. DPSED staff must only conduct field screening during dry-weather periods. Dry-weather periods are determined using data available from the National Weather Service, the Winchester Regional Airport, and other available weather resources. A dry-weather period exists if the respective data shows that the total sum of rainfall received over the past 48-hours was less than 0.1".

Preparation and Materials

Gather the following field equipment and ensure that it is working properly:

Table 5 – Field Screening Equipment

Function	Item
Structure Access	Manhole Magnet
	Sledgehammer
	High Powered Lamps/Flashlights
	Field Map
Record Data	ORI Sample Collection Field Sheet
	Logbook
	Tablet/Mobile Phone
	Waterproof Pen
	Flashlights
	Measuring Tapes
Safety	Traffic Cones
	High Visibility Safety Vests
	Portable Eyewash Kit
	Gloves
	Full Coverage Clothing (Pants, Long sleeves)
	Eye Goggles
	Steel-Toed Boots or Safety Shoes

Roles and Responsibilities

- Review Roles and Responsibilities Associated with Field Screening Activities section of this SOP Manual

Protocols and Documentation

- Review Dry Weather Field Screening Preparation section of this SOP Manual
- Review Conducting Dry Weather Field Screening section of this SOP Manual and ORI Sample Collection Field Sheet (Appendix A)
- Review Investigation, Reporting, and Documentation section of this SOP Manual

Safety and Compliance

- Review safety procedures outlined in the Safety section of this SOP Manual

Roles and Responsibilities Associated with Field Screening Activities

The following descriptions identify the roles and responsibilities of individual Department of Public Services, Engineering Division (DPSED) staff while conducting field screening activities:

Table 6 – DPSED Field Screening Roles and Responsibilities

Role	Responsibilities
City Engineer	1. Disseminate this SOP to appropriate DPSED staff 2. Periodically review and update this SOP to account for changes in activities or regulatory requirements 3. Provide the materials and equipment necessary to carry out the requirements of this SOP 4. Provide appropriate training to employees undertaking the inspection tasks 5. Ensure that safety procedures are followed 6. Approve the annual list of outfalls selected for field screening 7. Take appropriate action when inspection reports indicate evidence of illicit discharge
DPSED Stormwater Engineer	1. Develop a prioritized list of outfalls and associated field packages using this SOP 2. Ensure that all equipment is calibrated and maintained in working condition 3. Conduct pre-task briefings to ensure readiness of equipment and DPSED staff to safely undertake the assigned inspection operations 4. Ensure safety precautions are observed by all DPSED staff 5. Manage data following an inspection operation 6. Ensure that data is provided to the appropriate DPSED staff that it can be entered into the City's GIS database system 7. Report any emergencies and hazardous situations to the supervisors 8. Report to the supervisors and other appropriate agencies if evidence of an illicit discharge is discovered
DPSED Staff	1. Follow the guidelines contained in this SOP 2. Follow the direction of the DPSED Stormwater Engineer 3. Conduct inspections using the procedures outlined in this SOP 4. Conduct water quality testing of observed dry weather discharges 5. Determine the likely source of any suspected illicit discharge 6. Document findings made during inspections 7. Report to the supervisor any emergencies, hazards, and suspected illicit discharges

Conducting Dry Weather Field Screening

Pursuant to the General Permit (9VAC25-890-40.I.E.3.c(2)(c)), DPSED staff must annually complete dry weather field screening for a minimum of fifty (50) outfalls that have been selected using the prioritization methodology outlined in the Dry Weather Field Screening Preparation section of this SOP Manual.

DPSED staff should conduct field screening activities by completing an Outfall Reconnaissance Inventory (ORI) Sample Collection Field Sheet while maintaining compliance with the items outlined in the Safety section of this SOP Manual. A copy of the ORI Sample Collection Field Sheet in its entirety has been included in Appendix A and is explained in the following sections. Both the ORI Sample Collection Field Sheet and the section explanations below have been sourced from "*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*" [2].

ORI Sample Collection Field Sheet Section 1: Background Data

The first section of the ORI field sheet (Figure 5) is used to record basic data about the survey, including time of day, GPS coordinates for the outfall, field crew members, and current and past weather conditions. Each outfall should be named with a unique identifying number and should be photographed at the time of inspection. Crews should mark the spatial location of outfall they encounter directly on field maps, record the coordinates, and make note of the photo number that correlates with each outfall. The land use of the drainage area contributing to the outfall should be recorded to the best of the observer's ability. The land cover of large diameter outfalls that drain dozens or hundreds of acres may be difficult to characterize without aerial imagery or a drainage area map. If found during field screening, the origin of the outfall should be noted in the "Notes" portion of Section 1.

SECTION 1: BACKGROUND DATA			
Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours:	Last 48 hours:	
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☐ Suburban Residential		Other:	
☐ Commercial		Known Industries:	
Notes (e.g., origin of outfall, if known):			

Figure 5 – Section 1 of the ORI Sample Collection Field Sheet

ORI Sample Collection Field Sheet Section 2: Outfall Description

The second section of the ORI field sheet (Figure 6) is where basic outfall characteristics are recorded. These characteristics include pipe material, shape, dimensions, and whether the pipe outfall is submerged or if sediment is present. Figure 7 includes photos that illustrate how to characterize relative submergence, deposition, and flow at outfall points.

SECTION 2: OUTFALL DESCRIPTION					
LOCATION	**MATERIAL**	**SHAPE**		**DIMENSIONS (IN.)**	**SUBMERGED**
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:	☐ Circular ☐ Elliptical ☐ Box ☐ Other:	☐ Single ☐ Double ☐ Triple ☐ Other:	Diameter/Dimensions:	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Figure 6 – Section 2 of the ORI Sample Collection Field Sheet



Figure 7 – Characterizing Submersion and Flow [2]

ORI Sample Collection Field Sheet Section 3: Quantitative Characterization

The third section of the ORI field sheet (Figure 8) records measurements of flowing outfalls, including flow, temperature, pH, and ammonia. Field crews measure the rate of flow by recording the time it takes to fill a container of a known volume, such as a one-liter sample bottle. Field crews may use a thermometer to measure flow temperature. For illicit discharges needing to be sampled and sent to a lab for processing, the fields for pH and Ammonia will be completed once results are received from the lab.

SECTION 3: QUANTITATIVE CHARACTERIZATION				
FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow	Volume		Liter	Bottle
	Time to fill		Sec	
Temperature			°F	Thermometer
pH *(Once Received from Lab)*			pH Units	Test strip/Probe
Ammonia *(Once Received from Lab)*			mg/L	Test strip

Figure 8 – Section 3 of the ORI Sample Collection Field Sheet

ORI Sample Collection Field Sheet Section 4: Physical Indicators for Flowing Outfalls

The fourth section of the ORI field sheet (Figure 9) records data about four indicators associated with flowing outfalls – odor, color, turbidity, and floatables. This section asks whether each indicator is present, and if so, what its severity is on a scale of one to three. These indicators are further explained in the following subsections.

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY					
Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*					
INDICATOR	**CHECK if Present**	**DESCRIPTION**	**RELATIVE SEVERITY INDEX (1-3)**		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatable Materials - Does **Not** Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Figure 9 – Section 4 of the ORI Sample Collection Field Sheet

Odor

This section asks for a description of any odor that emanates from the outfall and an associated severity score. The entire field crew should reach consensus about whether an odor is present and how severe it is. A severity score of one means that the odor is faint, a score of two indicates a moderate odor, and a score of three is assigned if the odor is so strong that the crew smells it a considerable distance away from the outfalls.

Color

This section asks for the color of the discharge. The best way to measure color is to collect the discharge in a clear sample bottle and hold it up to the light (Figure 10). Crews should also look for downstream plumes of color that appear to be associated with the outfall. Figure 11 includes graphics for interpreting color and turbidity, for reference.



Figure 10 – Color and Turbidity Estimation [2]

Turbidity

This section asks for a visual estimate of the turbidity of the discharge, which is a measure of the cloudiness of the water and how easily light can penetrate through the sample bottle. Similarly to color, turbidity is best observed in a clear sample bottle held up to the light (Figure 10). Crews should also look for turbidity in the plunge pool below the outfall and note any downstream turbidity plumes that appear to be related to the outfall. Figure 11 includes graphics for interpreting color and turbidity, for reference.



Figure 11 – Interpreting Color and Turbidity [2]

Floatables

The last indicator is the presence of any floatable materials in the discharge or the plunge pool below. Sewage, oil, sheen, and suds are all examples of floatable indicators, while trash and debris generally are not considered floatable indicators in the context of the ORI field sheet.

Surface oil sheens are ranked based on their thickness and coverage, and a thick or swirling sheen associated with a petroleum-like odor may be diagnostic of an oil discharge. Suds are rated based on their foaminess and staying power. A severity score of three is designated for thick foam that travels many feet before breaking up. Suds that break up quickly may simply reflect water turbulence and do not necessarily have an illicit origin. Suds that are accompanied by a strong organic or sewage-like odor may indicate a sanitary sewer leak or connection. If the suds have a fragrant odor, they may indicate the presence of laundry water or similar wash waters. Figure 12 includes graphics for determining the severity of floatables, for reference.

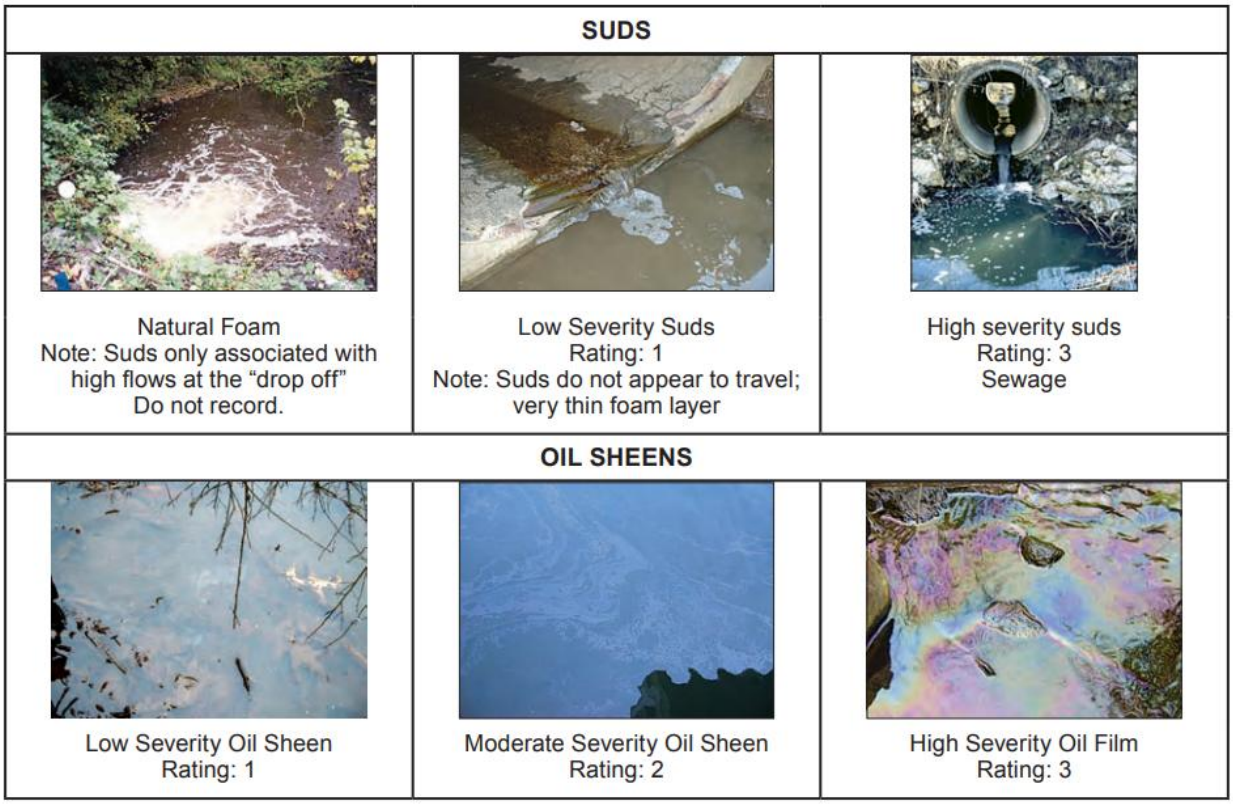


Figure 12 – Determining the Severity of Floatables [2]

ORI Sample Collection Field Sheet Section 5: Physical Indicators for Flowing and Non-Flowing Outfalls

Section 5 of the field sheet (Figure 13) examines physical indicators found at both flowing and non-flowing outfalls that can reveal the impact of past discharges. Physical indicators include outfall damage, outfall deposits or stains, abnormal vegetation growth, poor pool quality, and benthic growth on pipe surfaces.

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALLS			
Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*			
INDICATOR	**CHECK if Present**	**DESCRIPTION**	**COMMENTS**
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Figure 13 – Section 5 of the ORI Sample Collection Field Sheet

Figure 14 and Figure 15 include graphics for interpreting benthic and biotic factors and typical findings for flowing and non-flowing outfalls, respectively.



Bacterial growth at this outfall indicates nutrient enrichment and a likely sewage source.



This bright red bacterial growth often indicates high manganese and iron concentrations. Surprisingly, it is not typically associated with illicit discharges.



Sporalitis filamentous bacteria, also known as “sewage fungus” can be used to track down sanitary sewer leaks.



Algal mats on lakes indicate eutrophication. Several sources can cause this problem. Investigate potential illicit sources.



Illicit discharges or excessive nutrient application can lead to extreme algal growth on stream beds.



The drainage to this outfall most likely has a high nutrient concentration. The cause may be an illicit discharge, but may be excessive use of lawn chemicals.



This brownish algae indicates an elevated nutrient level.

Figure 14 – Interpreting Benthic and Other Biotic Indicators



Figure 15 – Typical Findings at Both Flowing and Non-Flowing Outfalls

ORI Sample Collection Field Sheet Sections 6 - 8: Initial Designation and Actions

The last three sections of the ORI field sheet (Figure 16) are where the crew designates the illicit discharge severity of the outfall and recommends appropriate management and monitoring actions. A discharge rating is designated as obvious, suspect, potential, or unlikely, depending on the number and severity of the discharge indicators checked in preceding sections.

Section 7 of the ORI field sheet records whether indicator samples were collected for laboratory analysis or whether an intermittent flow trap was installed. Field crews should record whether the sample was taken from a pool or directly from the outfall, and the type of intermittent flow trap used, if any. The section can also be used to recommend follow-up sampling, if the crew does not carry sample bottles or traps during the survey.

Section 8 of the ORI field sheet is used to note any unusual conditions near the outfall such as dumping, pipe failure, bank erosion, or maintenance needs. While these maintenance conditions are not directly related to illicit discharge detection, they are often of interest to City or other agencies that maintain the infrastructure.

SECTION 6: OVERALL OUTFALL CHARACTERIZATION				
☐ Unlikely	☐ Potential (presence of two or more indicators)	☐ Suspect (one or more indicators with a severity of 3)	☐ Obvious	
SECTION 7: DATA COLLECTION				
1. Sample for the lab?	☐ Yes	☐ No		
2. If yes, collected from:	☐ Flow	☐ Pool		
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM	☐ Caulk dam
SECTION 8: NON-ILLICIT DISCHARGE CONCERNS				
Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?				

Figure 16 – Sections 6 – 8 of the ORI Sample Collection Field Sheet

Investigation, Reporting, and Documentation

The City is obligated to investigate suspect unauthorized nonstormwater discharges to their stormwater system under the MS4 Permit, 9VAC25-890-40.I.E.3.c. The City can become aware of a suspect discharge through a complaint, DPSED staff observation, or while conducting field screening activities, and the DPSED is responsible for identifying the source of the suspect discharge.

Investigating Suspect Discharges and Complaints

When preparing to investigate suspect discharges, whether the suspect discharge originates from a field discovery or a citizen complaint, DPSED staff should familiarize themselves with the composition and activities of the upstream drainage area, as well as the nature of the suspect discharge. ***Attempts should be made to investigate suspect discharges as soon as practicable after being made aware of them. Per 9VAC25-890-40.I.E.3.c.(3), 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.***

DPSED staff should use the decision tree in Figure *17* when investigating a suspect discharge or a complaint.

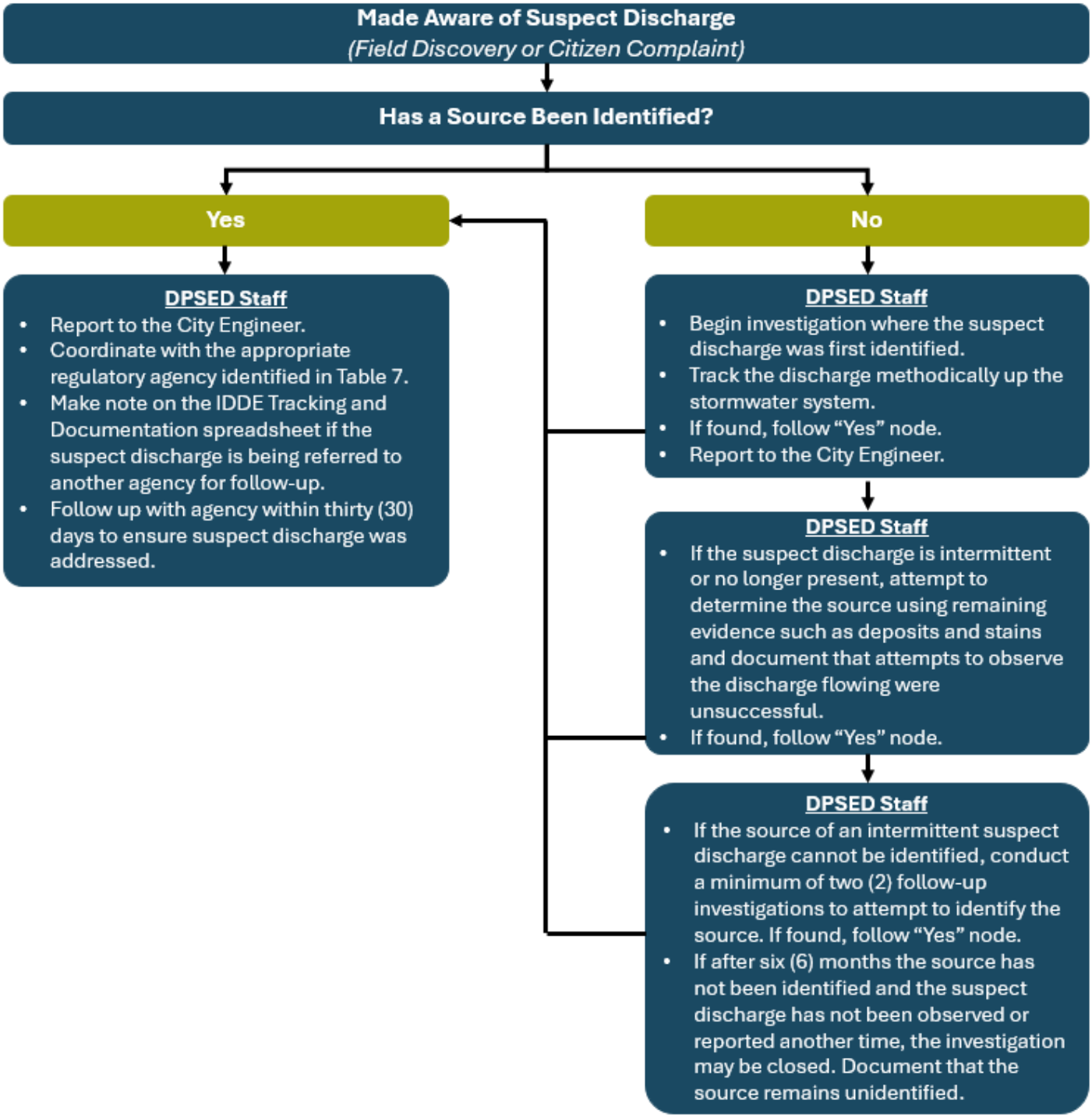


Figure 17 – Suspect Discharge Investigation and Reporting Decision Tree

Reporting Stormwater Issues & Contacting Other Agencies

The City encourages reporting stormwater issues by contacting one of its two dedicated phone numbers. In addition to City's stormwater contacts, other agencies often have the necessary legal authorities and responsibilities to address suspect discharges. Table 7 provides contact information and responsibilities of these agencies:

Table 7 – City of Winchester and Other Agency Contact Information Table

City of Winchester Contacts		
Issue Description	**Contact**	**Contact Information**
Spills, Releases, and Other Stormwater Issues Requiring Urgent Response	Emergency Services Non-Emergency Line	(540) 662-4131
Other Stormwater Related Issues	Stormwater Reporting Hotline	(540) 542-1346
Less Urgent Stormwater Issues	City of Winchester 311 System	City of Winchester Request Portal engineering@winchesterva.gov
Other Agencies		
Issue Description	**Contact**	**Contact Information**
Potential Emergency Situations or Threats to Heath and Safety	Emergency Services	Phone Number: 911
Failed Septic Systems	Frederick-Winchester Health Department	Phone Number: (540) 722-3470 Address: 10 Baker Street, Winchester, VA 22601
- Suspect or Illicit Discharges Not Associated with the City of Winchester Storm Sewer System - Discharges Regulated Under the Virginia Pollutant Discharge Elimination System Permitting Program - Suspect Discharge with the Potential to Reach Receiving Waters	Department of Environmental Quality (DEQ)	Phone Number: (540) 574-7800 Address: Valley Regional Office 4411 Early Road/ P.O. Box 3000 Harrisonburg, VA 22801
- Illicit Discharges from VDOT Right-of-Way - VDOT MS4 Outfalls - VDOT MS4 Permit Compliance	Virginia Department of Transportation (VDOT)	Phone Number: (540) 332-9075 Address: Staunton District Office 811 Commerce Road Staunton, VA 24402-2249

Documentation

Outfalls with suspect discharges or complaints should be recorded in the City of Winchester Tracking and Documentation Spreadsheet for follow-up in accordance with the decision tree in Figure 17. All collected data, including any field screening documentation, ORI Forms, and the storage location of any photos should be kept filed together in the City Engineering Division office.

DPSED staff should document the following information during site visits and investigations:

- Date of Site Visit
- Name of DPSED Staff Conducting Site Visit
- Observed Conditions
- Observed Source of Suspect Discharge
- Documentation Photographs
- Photo Numbers and Descriptions

DPSED staff should coordinate through the City Engineer to conduct certain activities, such as dye testing, smoke testing, and water quality sampling requiring lab analysis.

Safety

In Case of An Emergency

Immediately notify 911 and division heads if any of the following situations arise:

- Any person is seriously injured or is in immediate danger of injury or death for any reason
- The gas monitor indicates hazardous or combustible gas
- The team suspects or discovers any situation requiring the immediate attention of emergency response teams

If contacting the division head first appears to pose an unacceptable risk, DPSED staff should call 911 prior to contacting the division head. DPSED staff should then move to a safe location and wait for emergency responders to arrive. When calling 911, callers should be prepared to provide the following information and remain on scene until emergency responders arrive:

- Reason for calling (injury, combustible gas, etc.)
- Name of caller
- Location of caller, including address and nearest cross street
- Details of emergency situation
- Any other information requested by the 911 dispatcher

General Safety

DPSED staff should take general safety precautions during all activities, including, but not limited to:

- Activities such as field screening and follow-up illicit discharge detection inspections should not be completed in less than teams of two.
- DPSED staff should wear a City-issued safety vests at all times.
- DPSED staff should visually survey the area attempting to be accessed in order to identify all potential hazards and should take all available efforts to minimize their exposure to those hazards.
- DPSED staff must obtain permission to access structures that are located on private property. This can be accomplished via preliminary site visit or certified mail. If accessibility cannot be obtained, DPSED staff should note as such on the ORI field sheet and select a substitute outfall from the list of alternates provided.
- Some structures may be located in inaccessible areas, such as those with thick vegetation or steep slopes. DPSED staff should not risk injury to gain access to such structures. Procedures should be established with the supervisor and division heads to provide safe access for the inspection team.
- If exposure to an identified hazard cannot be eliminated or minimized, the DPSED staff should contact their division head for guidance and not enter into a hazardous situation.

- DPSED staff must follow Occupational Safety and Health Administration (OSHA) work safety standards and other applicable guidelines.
- DPSED staff should direct any questions concerning safety to their immediate supervisor.

Hazardous Materials

DPSED staff should always avoid direct contact with hazardous materials. Safety procedures and best professional judgment should be used to minimize exposure to hazardous materials.

Dangerous gases can collect in confined spaces such as culverts. DPSED staff is most likely to encounter these gases when removing manhole covers. DPSED staff should be aware of the dangers of confined spaces and accumulating gases, which are combustible and harmful if inhaled. DPSED inspectors should not enter confined spaces as part of routine inspections. If a confined space must be entered, OSHA regulations shall be followed.

Physical Hazards

Removing Manhole Covers

The following safety measures should be followed to avoid injury while opening manhole covers:

- Bend at the knees, not at the waist.
- Do not lift the manhole cover using your back muscles. Use leg muscles and avoid twisting.
- Wear steel-toed boots or safety shoes to protect feet.
- Do not move manhole covers with hands or fingers.
- Do not enter manholes as part of the routine inspection process.
- Confined space entry must only be done by properly trained and equipped persons, so any necessary entry must be coordinated with or through the City Engineer.

Traffic Safety

DPSED staff should take extreme caution when working near moving traffic. At a minimum, staff should

- Mark the lane with traffic cones and/or signs to give adequate time and space for drivers to react and move around the work area.
- Wear safety vests and/or reflective clothing so that you will be visible to traffic.
- When access is required in extreme situations (e.g., busy highways, sharp turns), DPSED staff should coordinate with the City Engineer to request assistance from the City of Winchester Police to direct traffic and provide additional safety.

APPENDIX A

MODIFIED ORI SAMPLE COLLECTION FIELD SHEET AND OUTFALL ASSESSMENT GRAPHICS

Outfall Reconnaissance Inventory Sample Collection Field Sheet

SECTION 1: BACKGROUND DATA

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☐ Open Space

☐ Ultra-Urban Residential ☐ Institutional

☐ Suburban Residential Other: _____

☐ Commercial Known Industries: _____

Notes (e.g., origin of outfall, if known):

SECTION 2: OUTFALL DESCRIPTION

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

SECTION 3: QUANTITATIVE CHARACTERIZATION

FIELD DATA FOR FLOWING OUTFALLS

PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow	Volume		Liter	Bottle
	Time to fill		Sec	
Temperature			°F	Thermometer
pH *(Once Received from Lab)*			pH Units	Test strip/Probe
Ammonia *(Once Received from Lab)*			mg/L	Test strip

Outfall Reconnaissance Inventory Sample Collection Field Sheet

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

Are Any Physical Indicators Present in the flow? ☐ **Yes** ☐ **No** ***(If No, Skip to Section 5)***

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatable Materials - Does **Not** Include Trash	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALLS

Are physical indicators that are not related to flow present? ☐ **Yes** ☐ **No** ***(If No, Skip to Section 6)***

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

SECTION 6: OVERALL OUTFALL CHARACTERIZATION

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

SECTION 7: DATA COLLECTION

1. Sample for the lab? ☐ Yes ☐ No
2. If yes, collected from: ☐ Flow ☐ Pool
3. Intermittent flow trap set? ☐ Yes ☐ No If Yes, type: ☐ OBM ☐ Caulk dam

SECTION 8: NON-ILLICIT DISCHARGE CONCERNS

Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Characterizing Submersion and Flow



Submerged: More than ½ below water



Partially submerged: Bottom is below water



Fully submerged: Can't see outfall



Outfall fully submerged by debris



Fully submerged from downstream trees trapping debris



Partially submerged by leaf debris "back water"



Trickle Flow: Very narrow stream of water



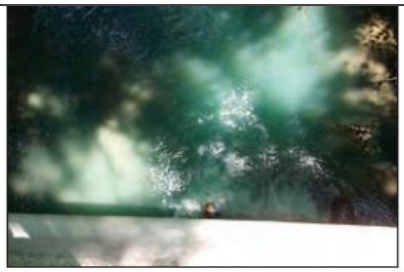
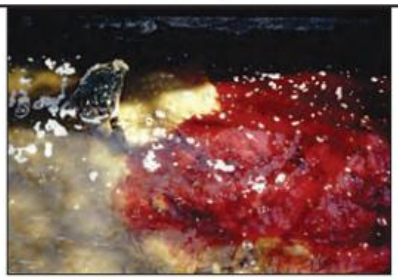
Moderate Flow: Steady stream, but very shallow depth



Significant flow (Source is a fire hydrant discharge)

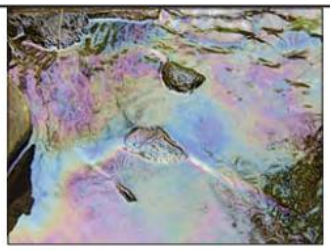
This graphic has been sourced from "*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*".

Interpreting Color and Turbidity

 Color: Brown; Severity: 2 Turbidity Severity: 2	 Color: Blue-green; Severity: 3 Turbidity Severity: 2	 Highly Turbid Discharge Color: Brown; Severity: 3 Turbidity Severity: 3
 Sewage Discharge Color: 3 Turbidity: 3	 Paint Color: White; Severity: 3 Turbidity: 3	 Industrial Discharge Color: Green; Severity: 3 Turbidity Severity: 3
 Blood Color: Red; Severity: 3 Turbidity Severity: None	 Failing Septic System: Turbidity Severity: 3	 Turbidity in Downstream Plume Turbidity Severity: 2 (also confirm with sample bottle)
 High Turbidity in Pool Turbidity Severity: 2 (Confirm with sample bottle)	 Iron Floc Color: Reddish Orange; Severity: 3 (Often associated with a natural source)	 Slight Turbidity Turbidity: 1 (Difficult to interpret this observation; May be natural or an illicit discharge)

This graphic has been sourced from "*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*".

Determining the Severity of Floatables

SUDS		
		
Natural Foam Note: Suds only associated with high flows at the "drop off" Do not record.	Low Severity Suds Rating: 1 Note: Suds do not appear to travel; very thin foam layer	High severity suds Rating: 3 Sewage
OIL SHEENS		
		
Low Severity Oil Sheen Rating: 1	Moderate Severity Oil Sheen Rating: 2	High Severity Oil Film Rating: 3

This graphic has been sourced from "*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*".

Interpreting Benthic and Other Biotic Indicators



Bacterial growth at this outfall indicates nutrient enrichment and a likely sewage source.



This bright red bacterial growth often indicates high manganese and iron concentrations. Surprisingly, it is not typically associated with illicit discharges.



Sporalitis filamentous bacteria, also known as “sewage fungus” can be used to track down sanitary sewer leaks.



Algal mats on lakes indicate eutrophication. Several sources can cause this problem. Investigate potential illicit sources.



Illicit discharges or excessive nutrient application can lead to extreme algal growth on stream beds.



The drainage to this outfall most likely has a high nutrient concentration. The cause may be an illicit discharge, but may be excessive use of lawn chemicals.



This brownish algae indicates an elevated nutrient level.

This graphic has been sourced from “*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*”.

Typical Findings at Both Flowing and Non-Flowing Outfalls



Reddish staining on the rocks below this outfall indicate high iron concentrations.



Toilet paper directly below the storm drain outlet.



Watershed Protection??



Trash is not an indicator of illicit discharges, but should be noted.



Staining at the base of the outfall may indicate a persistent, intermittent discharge.



Excessive vegetation may indicate enriched flows associated with sewage.



Brownish stain of unclear origin. May be from degradation of the brick infrastructure.



Cracked rock below the outfall may indicate an intermittent discharge.



Poor pool quality. Consider sampling from the pool to determine origin.

This graphic has been sourced from "*Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments*".

APPENDIX B

CITY OF WINCHESTER ANNUAL IDDE TRACKING SPREADSHEET

2024 - 2025 City of Winchester Annual IDDE Tracking Spreadsheet (MS4 Permit Year 2)

ID #	DATE	TIME	CONTACT NAME	PHONE NUMBER	APPROX. ADDRESS OF DISCHARGE	DESCRIPTION OF EVENT
IDR24-001	7/4/2024	1:15PM	Scott Gray		2012 S Pleasant Valley Rd	F&R ran a call at 2012 S. Pleasant Valley rd (incident # 24-22547) on July 4th at 1315 hours. We responded for a large spill. Units arrived on scene to find a small grease like spill that had been diluted due to recent rainfall and drained from Chipotle (side C) into the storm drain in the parking lot between Chipotle and Orange Theory fitness. The bulk of the product was approx. half gallon is size but was diluted by rainwater and ran through by vehicle traffic. The product was exactly where a drain came off the roof of Chipotle. Crews found some similar (smaller amount) product on the roof near the exhaust of the hood system. Crews applied stay dry and scooped up absorbed material, placed in trash bags and deposited near the grease traps for disposal by the restaurant. Manager on duty notified of issues. Solution dictated by impending thunderstorms and that the product would continue to drain into the storm system if not cleaned up before the next storm which was forecasted to be in approx. 30 minutes. Area on roof believed to be clear of all substance that may run off into drain/roadway.
IDR24-002	11/7/2024	8:29 PM	Jevon Curry	540-486-8951	Walmart Supercenter: 2350 S. Pleasant Valley Road	Winchester Fire and Rescue Department's units responded to a diesel fuel spill to the rear of the Walmart Supercenter at 2350 S. Pleasant Valley Road this morning around 04:50. We arrived and noted about 20 gallons of diesel fuel that leaked out of a trailer's refrigerator cooling unit that was backed into the rear loading docks located at the southwest corner of the store. During our initial investigation, we did note a drain in the bottom corner of the loading dock that the fluid had leaked into. We opened up the manhole cover located on the other side of the access road to the store and noted a very small amount of the fluid had made its way to the area below the manhole cover and had stopped. The leak was controlled, we applied 20 bags of absorbent and placed an absorbent boom at the drain in the loading dock. The store manager at Walmart was placing an emergency work order for a contractor to respond out to clean up the spill and make the necessary repairs. I've attached a diagram of the area described above, and a few photos of the incident scene.
IDR25-001	2/24/2025	11:30 AM	Donnie Johnston	540-974-8729	441 Linden Drive Winchester VA 22601	At approximately 11:30 AM, the Engineering Department was made aware of a vehicle accident which occurred across from 441 Linden Drive in Winchester, VA. A car was traveling northbound on Linden Dr, when they lost control, veered off the east side of the road, and struck a fire hydrant. This impact caused vehicular fluids to spill out of the bottom of the car. The fluid ran down the gutter pan, but did not reach the nearest downline storm inlet. Fire and rescue applied absorbent material to the fluid to stop it from traveling further. There is no longer an illicit discharge concern.
IDR25-002	6/2/2025	8:20 AM	Sam Wilson	540-664-3072	209 Opequon Ave Winchester VA 22601	At 8:20 AM, Public Services Crew Maintenance Supervisor, Sam Wilson, called to say he was on-site at a residence due to a call for a blocked sanitary lateral. Upon his arrival and during initial investigation, he was approached by an adjacent property owner who claimed the owner at 209 Opequon Ave was discharging water from the rear of the house into a stormwater open channel, which was suspected to be sanitary discharges. (Notes from Michael Lyday) Carie contacted me to go investigate an illicit discharge at 209 Opequon. When I arrived I met with Sam Wilson and he started by first telling me that the home owner called in to request to "shut off the sewer" due to an over flow of the sump pump running and backing up the interior of the house. After Sam described his position in the situation he then brought me to the rear of the house and showed me a 2" PVC installation of the extention for the sump pump exiting his house with tape and a 3/4" house attached to it. The hose continued to lead into the back of the property and shoved under the fence. After futher inspection I noticed saturation everywhere, findning it into the property of 213 Opequon Ave and into the citys storm channel in the rear. I sampled the water twice for chlorine, the test came up poistive showing very little traces of diluted sewage flowing out of the 2" PVC discharge device. Sam Wilson and his crew worked to find the lateral for several hours. Upon finding the lateral he was able to cut through it and initiate a push cam test to verify that the problem was on the home owners side, our right of way was clear of debris and grease. After a while I noticed a potential resident, I approached and ask her if she knew who the owner was. She specified and confirmed that the owner is her brother and he did install the discharge point of the flow and she said it was raw sewaged with ground water. The problem has not been resovled but Sam Wilson had a cleanout installed on the citys side at 3PM. Pictures were taked for future statements.

APPENDIX C

CITY OF WINCHESTER MS4 OUTFALL MAP

Public and Private Stormwater Management Facility Inspection Standard Operating Procedures Manual

May 2025 Edition

City of Winchester, Virginia
Public Services Campus
Department of Public Services
301 East Cork Street Winchester, VA
22601
(540) 773-1340

Table of Contents

1 Overview 4
2 Requirements for City Owned Facilities 4
3 Roles and Responsibilities 5
3.1 Inspections 5
3.2 Maintenance 6
3.3 Inspection and Maintenance Records and Documentation 7
4 Safety 7
4.1 General Safety 7
4.1.1 Hazardous Materials 8
4.1.2 Physical Hazards 8
4.1.3 Traffic Safety 8
4.2 In Case of Emergency 9
5 Public Stormwater Management Facilities 9

Referenced Checklists

SWM Inspection Checklist # 1	Bioretention Practices
SWM Inspection Checklist # 2	Filtering Practices
SWM Inspection Checklist # 3	Constructed Wetlands
SWM Inspection Checklist # 4	Wet Ponds including Detention Ponds
SWM Inspection Checklist # 5	Extended Detention Ponds
SWM Inspection Checklist # 6	Underground Detention Facilities

Under the stormwater management program, the City is obligated to maintain those stormwater management facilities owned and operated by the City to ensure that they function as designed, and should deficiencies be found, provide the required maintenance to ensure the systems are operating as intended. Similarly, the city is obligated to develop inspection and enforcement protocols to ensure privately owned facilities are properly maintained and in proper operation. The City's storm sewer system is identified as a municipal separate storm sewer system (MS4) and is regulated under the federal Clean Water Act, Virginia State Water Control Law, and Virginia General Permit for Stormwater Discharge from Small MS4s (MS4 General Permit). It is for these reasons that the City must develop and enforce certain procedures to ensure and meet compliance with the associated regulations and the MS4 General Permit. This document indicates the Standard Operating Procedures (SOPs) that will be used to ensure the operation and maintenance obligations are fulfilled for all publicly and privately owned and operated stormwater management facilities.

1 Requirements

1.1 Publicly Owned Facilities

The City is obligated to develop and implement an inspection and maintenance program for those stormwater management facilities owned or operated by the City that discharge into the MS4 (Part I E 5 b):

1. *Within six months of the permit effective date, the permittee shall develop and maintain written inspection and maintenance procedures 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).*

The development and implementation of this SOP allows the City to operate a public stormwater management facility inspection and maintenance program to meet compliance with the MS4 General Permit.

When a publicly owned stormwater management facility requires maintenance, the engineering inspector shall provide copies of the SWM Inspection Checklist to the Utilities Maintenance Division or the Department of Parks and Recreation. Digital copies of all inspections will be maintained in OpenFoms.

Upon notification that the required maintenance of the public facility has been completed, the engineering inspector shall conduct a follow-up inspection of the stormwater management facility to ensure that the required maintenance has been adequately completed.

1.2 Privately Owned Facilities

The City is obligated to develop and implement an inspection and enforcement program for those stormwater management facilities ***not*** owned or operated by the City, but that discharge into the MS4 (Part I E 5 c):

1. *Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee that includes an inspection frequency of no less often than once per five years for all privately owned stormwater management facilities that discharge into the MS4.*
2. *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.*
3. *Utilize its legal authority for enforcement of the maintenance responsibilities in accordance with 9VAC25-870-112 if maintenance is neglected by the owner,*
4. *The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan;*
5. *The permittee may utilize the inspection report provided by the owner of a stormwater management facility as part of an inspection and enforcement program in accordance with 9VAC25-870-114.C.*

The development and implementation of the SOP contained in this document allows the City to operate a public stormwater management facility inspection and maintenance program to meet compliance with the MS4 General Permit.

2 Roles and Responsibilities

The following roles and responsibilities are established in this SOP.

2.1 Inspections for Public Facilities

The City of Winchester Department of Public Services – Engineering Division is responsible for conducting inspections on all stormwater management facilities owned and/or operated by the City. Inspections shall be conducted at least once per year on all city-owned facilities.

Using the BMP database, staff will generate a list of all city owned facilities for annual inspection. All inspections will be conducted using digital forms and by uploading images taken at the time of the inspection to OpenForms. Any deficiencies will be noted in the database, and the appropriate supervisor of the respective facilities will be notified of the discrepancies and given a timeline in which to conduct the improvements. Once completed, the supervisor or work crew supervisor must contact Engineering Division staff for reinspection. Staff will then reinspect the respective facility(ies) and update the database accordingly.

2.2 Inspections for Private Facilities

The City of Winchester Department of Public Services – Engineering Division is responsible for ensuring inspections are conducted on all stormwater management facilities ***not*** owned and/or operated by the City. Inspections shall be conducted on at least 20% of all privately-owned facilities annually.

Under the city's MS4 regulatory obligations, the city maintains a database of all stormwater quality and quantity facilities within its MS4 boundary. Annual inspection request letters will be generated from this database and provided annually by the City of Winchester Public Services, Engineering Division, to all owners of properties on which BMP 's reside advising them of their obligations under the legally binding BMP agreements. These letters advise the property owners of their obligations to inspect and maintain their facilities and the legal ramifications for not doing so. Letters state that inspection checklists are available upon request. Once the inspection has been completed, they are to provide the date of the inspection and the signature of the owner or owner's representative on the accompanying form. This form is to be submitted to city staff upon completion. Once received, the BMP database is updated accordingly.

The city is also obligated to conduct their own inspections of these facilities to ensure they are being properly maintained. A sample of 20% of the BMP's on record is selected for inspection. Engineering Division staff conducts said inspections using digital versions of the checklists through Open Forms, and digital images are uploaded to the respective files to reflect the conditions at the time of the inspection. The checklists provided are produced by DEQ, are generic in nature, and the respective site facilities may not contain all items listed on the associated checklists. If a component on the checklist is not a component of the associated BMP, the respective measure should be noted as N/A. Should the situation warrant the use of a printed copy of the inspection checklist, the completed form shall be scanned and saved to the BMP inspection folder using the naming convention: BMP-**[BMP asset number]** – **[address of BMP location]**. Should staff note any deficiencies, they are included in the BMP database and included in a post-inspection letter to the BMP owner\operator. Again, once the deficiencies are corrected, the owners are required to contact the city and advise them of the completion of work. City staff will then conduct a reinspection of the facility and update the database accordingly.

Table 1: Public\Private Stormwater Management Facility Checklists

Checklist	Title
SWM Inspection Checklist #1	Bioretention Practices including Rain Gardens
SWM Inspection Checklist #2	Filtering Practices
SWM Inspection Checklist #3	Constructed Wetlands
SWM Inspection Checklist #4	Wet Ponds including Retention Ponds
SWM Inspection Checklist #5	Extended Detention Ponds
SWM Inspection Checklist #6	Underground Detention Facilities

2.3 Maintenance of Public\Private Facilities

The Division of Public Services - Utilities Maintenance Division, or the Department of Parks and Recreation are responsible for conducting all required maintenance on ***publicly*** owned stormwater management facilities. Should the city be notified or find that maintenance on a publicly owned stormwater management facility is required, the appropriate department will attempt to conduct the required maintenance within ninety (90) days. If the required maintenance is going to take longer than ninety (90) days, the department representative shall notify the engineering inspector accordingly. Once the required maintenance has been completed, the engineering inspector shall be notified so that they may conduct a follow-up inspection.

It is the owner's or owner's designee's responsibility to ensure all maintenance is conducted on all ***privately*** owned BMP facilities. Should there be a need to contact a private BMP owner of a maintenance issue outside of the procedures as outlined above, the property owner shall be notified immediately by mail and given a window of 90 days in which to respond. If no response is provided a second letter will be sent by registered mail. Should the property owner remain non-responsive, the matter will be turned over to Zoning Enforcement and Engineering Division staff will assume the role of subject matter experts should the case result in further action.

2.4 Public\Private Inspection and Maintenance Records and Documentation

Documentation of inspection and maintenance is important in demonstrating MS4 General Permit compliance. Copies of all inspection checklists and associated documentation are maintained in OpenForms. All documentation shall be maintained in OpenForms or held digitally in the respective BMP inspection folder. For the purposes of this SOP, the *'Last City Inspection'* date as entered into the BMP Master Spreadsheet signifies the date on which the facility was found to be in compliance.

Digital copies of the inspections shall be kept for a period of five (5) years from the date of the inspection and maintained in the BMP Inspections folder.

3 Safety

Safety procedures must always be followed by the inspection and maintenance personnel. Inspection and maintenance personnel shall be aware of the following health and safety hazards during all inspections:

- Exposure to hazardous waste, gases, and materials
- Heavy lifting (e.g., removal of manhole covers)
- Confined space entry
- Exposure to traffic operations
- Exposure to insects and wildlife

3.1 General Safety

Staff shall take the following general safety precautions during all inspections:

- Activities such as field screening and follow-up illicit discharge detection inspections should be completed by a team consisting of at least two personnel.
- Staff shall wear their city-issued Personal Protective Equipment (PPE).
- Staff should conduct a visual assessment of each BMP, and of every component to which access is required, identifying any potential hazards to avoid during the inspection.
- If exposure to an identified hazard cannot be eliminated or minimized, staff should contact their division head for guidance and not enter a hazardous situation.
- Staff must follow Occupational Safety and Health Administration (OSHA) work safety standards and other applicable guidelines and standards.
- Staff should direct any safety concern questions to their division head.

3.1.1 Hazardous Materials

Avoid direct contact with hazardous materials. Safety procedures and best professional judgment should be used at all times to minimize any potential exposure to hazardous materials.

Gases can collect in culverts, manholes, and other confined spaces, and may be encountered when removing a manhole cover. Inspectors shall not enter a confined space unless certified to do so. If a confined space must be entered, OSHA regulations shall be followed.

3.1.2 Physical Hazards

Manhole Covers - The following safety measures shall be followed to avoid injury when moving manhole covers:

- Bend at the knees, not at the waist.
    - Do not lift a manhole cover with your back muscles.
    - Use leg muscles and avoid twisting.
- Wear steel-toed boots or safety shoes to protect feet and toes.
- Do not move manhole covers with hands or fingers.
- Do not enter a manhole as part of the routine inspection process.
    - Confined space entry must only be done by properly trained and equipped individuals
    - Any necessary entry must be coordinated with or through the City Engineer.

3.1.3 Traffic Safety

Take caution when working near moving traffic. The following safety measures must be followed at all times:

- Mark the lane with traffic cones and/or signs to give adequate time and space for drivers to react and move around the work area.
- Wear the appropriate PPE, including safety vests and/or reflective clothing, to be more visible to traffic.
- In situations involving busy highways or sharp turns, staff should coordinate with their division head to determine if assistance from City of Winchester Police is necessary to direct traffic and provide additional safety.

3.2 In Case of Emergency

Immediately notify division heads of:

- Any serious injury or immediate threat of injury or death to staff, or
- The need for EMS.

In case of emergency, the most senior person on site is to call 911 and advise the division head immediately thereafter. Staff should then move to a safe location and wait for emergency responders.

When calling 911, staff should remain calm and provide the following information:

- Name
- Address, nearest cross street, or landmark
- Details of the emergency
- Other information requested by the 911 dispatcher

4 Public Stormwater Management Facilities

The current list of existing SWM Management Facilities can be found in the BMP Master Spreadsheet which is a part of the MS4 Annual Report.

Appendix C.1

Checklist 1 Bioretention Practices

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Contributing Drainage Area	Inadequate vegetation	Supplement as necessary			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are excessive landscape waste or yard clippings	Remove as soon as possible and recycle or compost			
	Oil, grease or other unauthorized substances are entering the facility	Identify and control the source of this pollution. It may be necessary to erect fences, signs, etc.			
Pre-Treatment	There is inadequate access to the pre-treatment facility	Establish adequate access			
	Stormwater discharge is ponding at point of disconnection	Remove as soon as possible			
	There is evidence of clogging (standing water, noticeable odors, water stains, algae or floating aquatic vegetation, or oil/grease)	Identify and eliminate the source of the problem. If necessary, remove and clean or replace the clogged material			
	There is evidence of erosion and / or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Pre-Treatment	There is dead vegetation/exposed soil in the grass filter	Restabilize and revegetate as necessary			
Inlets	Check for sediment build-up at curb cuts, gravel diaphragms or pavement edges that prevent flow from getting into the bed, and check for bypassing	Remove sediment and correct any other problems that block inflow			
	There is excessive trash/ debris/sediment	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil at or around the inlet	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	Inflow is hindered by trees and/or shrubs	Remove woody vegetation from points of inflow and directly above underdrains (Trees and shrubs may be located closer to the perimeter)			
Side Slopes	There is evidence of rill or gully erosion or bare soil	Identify the source of erosion damage and prevent it from recurring. Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is excessive sediment accumulation	Remove as soon as possible			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Side Slopes	Side slopes support nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
Vegetation	Plant composition is inconsistent with the approved plans and any stakes or wires are in good condition	Determine if existing plant materials are at least consistent with general Bioretention design criteria and replace inconsistent species			
	There should be 75- 90% cover (mulch plus vegetation), and the mulch cover should be 2-3 inches deep	Supplement vegetation and mulch as needed			
	There is evidence of hydrocarbons or other deleterious materials, resulting in unsatisfactory plant growth or mortality,	Replace contaminated mulch. If problem persists, test soils for hydrocarbons and other toxic substances. If excess levels are found, the soils, plants, and mulch may all need to be replaced in accordance with the approved construction plans			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Vegetation	Invasive species or weeds make up at least 10% of the facility's vegetation	Remove invasive species and excessive weeds as soon as possible and replace vegetation as needed			
	The grass is too high	Mow within a week. Grass species should be selected that have dense cover, are relatively slow growing, and require the least mowing and chemical inputs. Grass should be from 6-10 inches high			
	Vegetation is diseased, dying or dead	Remove and replace. Increase watering, but avoid using chemical fertilizers, unless absolutely necessary			
	Winter-killed or salt- killed vegetation is present	Replace with hardier species			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Filter Media	The filter media is too low, too compacted, or the composition is inconsistent with design specifications	Raise the level, loosen and amend or replace the media, as needed, to be consistent with the state design criteria for Bioretention (85-88% sand, 8-12% soil fines, 3-5% organic matter in form of leaf compost). Other remediation options are described in the maintenance section of the state design criteria for Bioretention			
	The mulch is older than 3 years or is otherwise in poor condition	The mulch must be replaced every 2-3 years			
	There is evidence that chemicals, fertilizers, and/or oil/grease are present	Remove undesirable chemicals from media and facility as soon as possible. Replace mulch or media as needed			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Filter Media	There is excessive trash/debris/sediment accumulation	Remove trash and debris as soon as possible. Check plant health and, without damaging plants, manually remove the sediment, especially if the depth exceeds 20% of the facility's design depth			
	There is evidence of concentrated flows, erosion or exposed soil	Identify the source of erosion damage and prevent it from recurring. Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	The filter bed is clogged and/or filled inappropriately	Redistribute the soil substrate and remove sediment within 2 weeks			
	The topsoil is in poor condition (e.g., the pH level is not 6-7, the composition is inappropriate, etc.)	Ensure a 3-inch surface depth of topsoil consistent with the state design criteria for Bioretention (loamy sand or sandy loam texture, with less than 5% clay content, and organic matter content of at least 2%). If the pH is less than 65, spread limestone			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Underdrain/ Proper Drainage	The perforated pipe is not conveying water as designed	Determine if pipe is clogged with debris or if woody roots have pierced pipe, as necessary, clean out or replace the pipe			
	The underlying soil interface is clogged (there is evidence on the surface of soil crusting, standing water, the facility does not dewater between storms, or water ponds on the surface of basin for more than 48 hours after an event)	Measure draw-down rate of the observation well for 3 days following a storm event in excess of 1/2 inches in depth. After 3 days, if there is standing water on top but not in the underdrain, this indicates a clogged soil layer. If standing water is both on the surface and in the underdrain, then underdrain is probably clogged. This should be promptly investigated and remediated to restore proper filtration. Grading changes or underdrain repairs may be needed. The filter media may need to be raked, excavated, cleaned, or replaced to correct the problem. Holes inconsistent with design, allowing water to flow directly through a planter to the ground, must be plugged			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Planters	The planter is unable to receive or detain stormwater prior to infiltration Water does not drain from the reservoir within 3- 4 hours of after a storm event	Identify and correct sources of clogging. Topsoil and sand/peat layer may need to be amended with sand or replaced all together			
	The planter has structural deficiencies, including rot, cracks, and failure, or the planter is unable to contain the filter media or vegetation	Make needed repairs as soon as possible			
Outlet/Overflow Spillway	Outlets are obstructed or erosion and soil exposure is evident below the outlet	Remove obstructions and stabilize eroded or exposed areas			
	There is excessive trash/debris/sediment accumulation	Remove as soon as possible			
	Any grates present are in good condition	Repair or replace as necessary			
Observation Well	Is the observation well still capped?	Repair, as necessary			
	Access to the Infiltration facility or its components is inadequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Bioretention Practices-Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	There is evidence of standing water	Fill in low spots and stabilize. Correct flow problems causing ponding			
	Mosquito proliferation	Eliminate stagnant pools and establish vegetation; treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide (such as Bacillus thurendensis or Altoside formulations) can be applied, only if absolutely necessary			
	Complaints from local residents	Correct real problems			
	Encroachment on the bioretention area or easement by buildings or other structures	Inform involved property owners of BMPs status, and clearly mark the boundaries of the receiving pervious area, as needed			

Additional Notes/Comments:

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Appendix C.2

Checklist 2 Filtering Practices

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Filtering Practices Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Contributing Drainage Area and Side Slopes	Inadequate vegetation	Supplement as necessary			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are excessive landscape waste or yard clippings	Remove as soon as possible, and recycle or compost			
Pre-Treatment	There is inadequate access to the pre- treatment facility	Establish adequate access			
	Excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is dead vegetation	Replace dead vegetation as necessary			
	Perimeter turf (or a grass filter strip) is too high	Mow at least 4 times a year to keep the grass at a height of 4" to 9". Remove grass clippings after mowing			
	There is evidence of oil, grease, clogging (standing water, noticeable odors, water stains, algae)	Identify and eliminate the source of the problem. If necessary, remove and clean, or replace the clogged material			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Filtering Practices Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Inlets	The inlet provides a stable conveyance into the swale	Stabilize as soon as possible and as needed, and clear blockages			
	There is excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion and / or bare or exposed soil at or around inlet	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
Sedimentation Chambers	There is excessive trash/sediment	Remove as soon as possible (wet and dry chambers)			
Filter Media	If facility takes longer than 48 hours to drain or filter media is discolored, the media is probably clogged	Replace the top sand layer of an enclosed filter (typically done every 5 years). Till or aerate the surface to improve infiltration and grass cover of an open filter (also typically done every 5 years)			
Oil and Grease	Evidence of filter surface clogging	Clean or replace filter media, as necessary			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Filtering Practices Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Underdrain	The underdrain is not conveying water as designed	To determine if the pipe is clogged, measure the draw-down rate of the observation well for three days following a storm event in excess of 1/2 inches in depth. After three days, if there is standing water on top but not in the underdrain, this indicates a clogged sand layer that must be replaced. If standing water is both on the surface and in the underdrain, then the underdrain is probably clogged. As soon as possible, clean out the pipe manually or, if needed, use a high-pressure hose. Replace the underdrain if it is structurally damaged			
Observation Well	Is the observation well still capped?	Repair, as necessary			
	The outlet provides stable conveyance	Remove blockages and stabilize, as needed			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Filtering Practices Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Outlet	Evidence of flow bypassing facility	Repair as soon as possible			
	Outlets are obstructed or erosion and soil exposure is evident below the outlet	Remove obstructions and stabilize eroded or exposed areas			
Structural Components	Evidence of structural deterioration	Repair as necessary			
	Evidence of spalling or cracking of structural components	Depending on severity, patch or repair as soon as possible			
	Grates are not in good condition	Repair or replace, as necessary			
Pump (where applicable)	Catalog cuts and wiring diagram for pump available	If missing, obtain replacements			
	Waterproof conduits for wiring appear to be intact	Repair as necessary			
	Panel box is well marked	If not, mark it correctly			
	No evidence of pump failure (excess water in pump well, etc.)	Repair as necessary			
Overall	Access to the facility or its components is adequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			
	Condition of hydraulic control components	Repair, as necessary			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Filtering Practices Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	Complaints from local residents	Correct real problems			
	Noticeable odors outside facility	Determine source and eliminate it			
	Mosquito proliferation	Eliminate stagnant pools if feasible, and treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide (such as Bacillus thurendensis or Altoside formulations) can be applied, only if absolutely necessary			
	Encroachment on the filter or easement by buildings or other structures	Inform involved property owners of BMPs status. Clearly mark the boundaries of the receiving pervious area, as needed			

Additional Notes/Comments:

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Appendix C.3

Checklist 3 Constructed Wetlands

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Contributing Drainage Area	Inadequate vegetation	Supplement as needed			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are excessive landscape waste and yard clippings	Remove as soon as possible and recycle or compost			
Pre-Treatment	There is inadequate access to the pre- treatment facility	Establish adequate access			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	Sediment deposits are 50% or more of forebay capacity	Dredge the sediment to restore the design capacity; sediment should be dredged from forebays at least every 5 years			
	The sediment marker is not vertical	Adjust the sediment depth marker to a vertical alignment			
	There is dead vegetation	Revegetate, as needed			
Inlets	The inlet does not provide a stable conveyance	Stabilize as soon as possible and as needed, and clear blockages			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Inlets	There is excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion/undercutting at or around the inlet	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is cracking, bulging, erosion or sloughing of the forebay dam	Repair and restabilize as soon as possible			
	There is woody growth on the forebay dam	Remove within 2 weeks of discovery			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from area			
Vegetation (trees, shrubs, aquatic plants)	Plant composition is inconsistent with the approved plans	Determine if existing plant materials are at least consistent with the general "Constructed Wetland" design criteria, and replace inconsistent species			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Vegetation (trees, shrubs, aquatic plants)	Invasive species are present	Remove invasive species as soon as possible, and replace vegetation as needed. As a general rule, control of undesirable invasive species (e.g., cattail and Phragmites) should commence when their coverage exceeds more than 15% of a wetland cell area. Although the application of herbicides is not recommended, some types - - such as Glyphosate - -have been used to control cattails with some success. Extended periods of dewatering may also work, since early manual removal provides only short-term relief from invasive species			
	Vegetation is dead or reinforcement planting is needed	Remove and replace dead or dying vegetation			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Vegetation (trees, shrubs, aquatic plants)	Trees planted in the buffer and on wetland islands and peninsulas need watering during the first growing season	Consider watering every 3 days for first month, and then weekly during first year (April – October), depending on rainfall			
	Practice has become overgrown and is not developing into a mature wetland	Harvest vegetation periodically if the wetland becomes overgrown or to guide maturing of forested wetlands (typically 5 and 10 years after construction)			
Wetland Cells and Pools	Sediment accumulation is 50% or more of capacity	Dredge the sediment to restore the design capacity			
	There is evidence of floating debris, sparse vegetative cover, erosion or slumping of side slopes	Remove debris. Repair and stabilize, as soon as possible			
	Open water is becoming overgrown	Harvest the unwanted vegetation			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Riser/Principle Spillway and Low-Flow Orifice(s)	There is inadequate access to riser for maintenance	Establish adequate access			
	Pieces of the riser are deteriorating, misaligned, broken or missing	Repair as soon as possible			
	Adjustable control valves are accessible and operational	Repair, as needed			
	Reverse-slope pipes and flashboard risers are in good condition	Repair, as needed			
	There is excessive trash/debris/other obstructions in the trash rack	Remove as soon as possible			
	Seepage into conduit	Seal the conduit			
Berm/Dam/ Embankment and Abutments	There is sparse veg cover, settlement, cracking, bulging, misalignment, erosion rills deeper than 2 inches, or sloughing of the dam	Repair and restabilize as soon as possible			
	There are soft spots, boggy areas, seepage or sinkholes present	Reinforce, fill and stabilize as soon as possible			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Berm/Dam/ Embankment and Abutments	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed form area			
	There is woody vegetation on the embankment	Removal of woody species near or on the embankment and maintenance access areas should be done when discovered, but at least every 2 years			
Emergency Spillway	There is woody growth on the spillway	Removal of woody species near or on the emergency spillway should be done when discovered, but at least every 2 years			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Emergency Spillway	There is excessive trash/debris/other obstructions	Remove as soon as possible			
	There is evidence of erosion/back-cutting	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are soft spots, seepage or sinkholes	Reinforce, fill and stabilize as soon as possible			
Outlet	The outlet provides stable conveyance from the wetland	Stabilize as needed			
	There is excessive sediment accumulation	Remove as soon as possible			
	Released water is causing undercutting, erosion or displaced rip-rap at or around the outlet	Repair, reinforce or replace rip rap as needed, and restabilize			
	Woody growth within 5 feet of the outlet pipe barrel	Prune vegetation back to leave a clear discharge area			
	There is excessive trash/debris/other obstructions	Remove as soon as possible			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	Access to the facility or its components is inadequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			
	Water levels in one or more cells are abnormally high or low	Clear blockages of the riser or orifice(s), and make other adjustments needed to meet the approved design specifications			
	Complaints from local residents	Correct real problems			
	Mosquito proliferation	Eliminate stagnant pools if feasible, and treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide (such as Bacillus thurendensis or Altoside formulations) can be applied, only if absolutely necessary. Can also stock the basin with mosquito fish to provide natural mosquito & midge control			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Constructed Wetlands Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	Encroachment on the wetland or easement by buildings or other structures	Inform involved property owners of BMPs status ; clearly mark the boundaries of the receiving pervious area, as needed			
	Safety signage is not adequate	Provide sufficient, legible safety signage			

Additional Notes/Comments:

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Appendix C.4

Checklist 4 Wet Ponds

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wetponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Contributing Drainage Area	Inadequate vegetation	Supplement as needed			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are excessive landscape waste and yard clippings	Remove as soon as possible and recycle or compost			
Pre-Treatment	There is inadequate access to the pre- treatment facility	Establish adequate access			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare or exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	Sediment deposits are 50% or more of forebay capacity	Dredge the sediment to restore the design capacity; sediment should be dredged from forebays at least every 5-7 years (earlier if performance is being affected)			
	The sediment marker is not vertical	Adjust the sediment depth marker to a vertical alignment			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Pre-Treatment	There is evidence of clogging	Clear blockages of the riser or orifice(s), and make other adjustments needed to meet the approved design specifications			
	There is dead vegetation	Revegetate, as needed			
Inlet	The inlet provides a stable conveyance into the pond	Stabilize as soon as possible and as needed, and clear blockages			
	There is excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion/undercutting at or around the inlet	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is cracking, bulging, erosion or sloughing of the forebay dam	Repair and restabilize as soon as possible			
	There is woody growth on the forebay dam	Remove within 2 weeks of discovery			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
	There is more than 1 inch of settlement	Add fill material and compact the soil to the design grade			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Inlet	The inlet alignment is incorrect	Correct as soon as possible			
	Plant composition is inconsistent with the approved plans	Determine if existing plant materials are consistent with the general Wet Pond design criteria, and replace inconsistent species			
	Invasive species are present	Remove invasive species as soon as possible and replace vegetation as needed			
	Trees planted in the buffer and on wetland islands and peninsulas need watering during the first growing season	Consider watering every 3 days for first month, and then weekly during first year (April – October), depending on rainfall			
	Grass around the facility is overgrown	Mow (at least twice a year) to a height of 4”-9” high and remove grass clippings			
	Vegetation is dead or reinforcement planting is needed	Remove and replace dead or dying vegetation			
Permanent Pool and Side Slopes	There is excessive trash/debris	Remove as soon as possible			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Permanent Pool and Side Slopes	There is evidence of sparse vegetative cover, erosion or slumping side slopes	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
	There is excessive sediment accumulation	Conduct a bathymetric study to determine the impact to design volumes, and dredge if necessary			
Riser/Principle Spillway and Low-Flow Orifice(s)	There is inadequate access to the riser for maintenance	Establish adequate access			
	Pieces of the riser are deteriorating, misaligned, broken or missing	Repair as soon as possible			
	Adjustable control valves are accessible and operational	Repair, as needed			
	Reverse-slope pipes and flashboard risers are in good condition	Repair, as needed			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Riser/Principle Spillway and Low-Flow Orifice(s)	There is evidence of clogging	Clear blockages of the riser or orifice(s), and make other adjustments needed to meet the approved design specs			
	Seepage into conduit	Seal the conduit			
	There is excessive trash/debris/other obstructions in the trash rack	Remove as soon as possible			
Dam/ Embankment and Abutments	There is sparse veg cover, settlement, cracking, bulging, misalignment, erosion rills deeper than 2 inches, or sloughing of the dam	Repair and restabilize as soon as possible, especially after major storms			
	There are soft spots, seepage, boggy areas or sinkholes present	Reinforce, fill and stabilize as soon as possible			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from area			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Dam/ Embankment and Abutments	There is woody vegetation on the embankment	Removal of woody species near or on the embankment and maintenance access areas should be done when discovered, but at least every 2 years			
Overflow/ Emergency Spillway	There is woody growth on the spillway	Removal of woody species near or on the emergency spillway should be done when discovered, but at least every 2 years			
	There is excessive trash/ debris/other obstructions	Remove as soon as possible			
	There is evidence of erosion/back cutting	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There are soft spots, seepage or sinkholes	Reinforce, fill, and stabilize as soon as possible			
	Only one layer of stone armoring exists above the native soil	Reinforce rip-rap or other armoring materials			
Outlet	The outlet provides a stable conveyance from the pond	Stabilize as soon as possible and as needed, and clear blockages			
	There is woody growth within 5 feet of the outlet pipe barrel	Prune vegetation back to leave a clear discharge area			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Outlet	There is excessive trash/ debris/other obstructions	Remove as soon as possible			
	There is excessive sediment accumulation at the outlet	Remove sediment			
	Discharge is causing undercutting, erosion or displaced rip-rap at or around the outlet	Repair, reinforce or replace rip rap as needed, and restabilize			
Overall	Access to the facility or its components is inadequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			
	Fences are inadequate	Collapsed fences must be restored to an upright position. Jagged edges and damaged fences must be repaired or replaced			
	Water levels in one or more cells are abnormally high or	Clear blockages of the riser or orifice(s), and make other			
	Complaints from local residents	Correct real problems			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Wet Ponds Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	Mosquito proliferation	Eliminate stagnant pools, and stock the basin with mosquito fish to provide natural mosquito & midge control. Treat for mosquitoes, as needed. If spraying, then use mosquito larvicide(e.g., Bacillus thurendensis or Altoside formulations), only if absolutely necessary			
	Encroachment on the pond or easement by buildings or other structures	Inform involved property owners of BMPs status, and clearly mark the boundaries of the receiving pervious area, as needed			
	Safety signage is not adequate	Provide sufficient, legible safety signage			

Additional Notes/Comments:

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Appendix C.5

Checklist 5 Extended Detention

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Contributing Drainage Area	Inadequate vegetation	Supplement as needed			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare of exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is excessive landscape waste and yard clippings	Remove as soon as possible			
Pre-Treatment	There is inadequate access to the pre- treatment facility	Establish adequate access			
	There is excessive trash/debris	Remove as soon as possible			
	There is evidence of erosion and/or bare of exposed soil	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	Sediment deposits are 50% or more of forebay capacity	Dredge the sediment to restore the design capacity; sediment should be dredged from forebays at least every 5-7 years (earlier when needed)			
	The sediment marker is not vertical	Adjust the sediment depth marker to a vertical alignment			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Pre-Treatment	There is evidence of clogging	Clear blockages of the riser or orifice(s), and make other adjustments needed to meet the approved design specifications			
	There is dead vegetation	Revegetate, as needed			
Inlet	The inlet provides a stable conveyance into the pond	Stabilize as soon as possible and as needed, and clear blockages			
	There is excessive trash/debris/sediment	Remove as soon as possible			
	There is evidence of erosion/undercutting at or around the inlet	Repair erosion damage and restabilize			
	There is cracking, bulging, erosion or sloughing of the forebay dam	Repair and restabilize as soon as possible			
	There is woody growth on the forebay dam	Remove within 2 weeks of discovery			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
	There is more than 1 inch of settlement	Add fill material and compact the soil to the design grade			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Inlet	The inlet alignment is incorrect	Correct as soon as possible			
Vegetation	Plant composition is inconsistent with the approved plans	Determine if existing plant materials are consistent with the general Wet Pond design criteria, and replace inconsistent species			
	Invasive species are present	Remove invasive species as soon as possible, and replace vegetation as needed			
	Trees planted in the buffer and on wetland islands and peninsulas need watering during the first growing season	Consider watering every 3 days for first month, and then weekly during first year (April – October), depending on rainfall			
	Grass around the facility is overgrown	Mow (at least twice a year) to a height of 4”-9” high and remove grass clippings			
	Vegetation is dead or reinforcement planting is needed	Remove and replace dead or dying vegetation			
Permanent Pool and Side Slopes	There is excessive trash/debris	Remove as soon as possible			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Permanent Pool and Side Slopes	There is evidence of sparse vegetative cover, erosion or slumping side slopes	Repair and stabilize physical damage, and reseed or plant additional vegetation			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
	There is excessive sediment accumulation	Conduct a bathymetric study to determine the impact to design volumes, and dredge if necessary			
Riser/Principle Spillway and Low-Flow Orifice(s)	There is inadequate access to the riser for maintenance	Establish adequate access			
	Pieces of the riser are deteriorating, misaligned, broken or missing	Repair as soon as possible			
	Adjustable control valves are accessible and operational	Repair, as needed			
	Reverse-slope pipes and flashboard risers are in good condition	Repair, as needed			
	Seepage into conduit	Seal conduit			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Riser/Principle Spillway and Low-Flow Orifice(s)	There is evidence of clogging	Clear blockages of the riser or orifice(s) and make other adjustments needed to meet the approved design specs			
	There is excessive trash/ debris/other obstructions in the trash rack	Remove as soon as possible			
Dam/ Embankment and Abutments	There is sparse veg cover, settlement, cracking, bulging, misalignment, erosion rills deeper than 2 inches, or sloughing	Repair and restabilize as soon as possible, especially after major storms			
	There are soft spots, seepage, boggy areas or sinkholes	Reinforce, fill and stabilize as soon as possible			
	There is evidence of nuisance animals	Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area			
	There is woody vegetation on the embankment	Removal of woody species near or on the embankment and maintenance access areas should be done when discovered, but at least every 2 years			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overflow/ Emergency Spillway	There is woody growth on the spillway	Removal of woody species near or on the emergency spillway should be done when discovered, but at least every 2 years			
	There is excessive trash/ debris/other obstructions	Remove as soon as possible			
	There is evidence of erosion/back cutting	Repair erosion damage and reseed			
	There are soft spots, seepage or sinkholes	Reinforce, fill and stabilize as soon as possible			
	Only one layer of stone armoring exists above the native soil	Reinforce rip-rap or other armoring materials			
Outlet	The outlet provides a stable conveyance from the pond	Stabilize as soon as possible and as needed, and clear blockages			
	There is woody growth within 5 feet of the outlet pipe barrel	Prune vegetation back to leave a clear discharge area			
	There is excessive trash/ debris/other obstructions	Remove as soon as possible			
	There is excessive sediment accumulation at the outlet	Remove sediment			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Outlet	Discharge is causing undercutting, erosion or displaced rip-rap at or around the outlet	Repair, reinforce or replace rip rap as needed, and restabilize			
Overall	Access to the facility or its components is inadequate	Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated			
	Fences are inadequate	Collapsed fences must be restored to an upright position Jagged edges and damaged fences must be repaired or replaced			
	Water levels in one or more cells are abnormally high or low	Clear blockages of the riser or orifice(s) and make other adjustments needed to meet the approved design specifications			
	Complaints from local residents	Correct real problems			

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.
*per VSMP Handbook, July 13 ed (draft)

BMP Type: Extended Detention Operation & Maintenance			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution***	**(Y/N)**	**Req'd.?**	**Comments**
Overall	Mosquito proliferation	Eliminate stagnant pools and stock the basin with mosquito fish to provide natural mosquito & midge control. Treat for mosquitoes as needed. If spraying, then use mosquito larvicide (e.g., Bacillus thurendensis or Altoside formulations), only if absolutely necessary			
	Encroachment on the pond or easement by buildings or other structures	Inform involved property owners of BMPs status, and clearly mark the boundaries of the receiving pervious area, as needed			
	Safety signage is not adequate	Provide sufficient, legible safety signage			

Additional Notes/Comments:

Follow-up Inspection Date: _____/_____/20 _____ **Follow-up Notes/Comments:**

Appendix C.6

Checklist 6 Underground Detention Facility

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____ Note: Leave section blank, if item N/A.

BMP Type: Underground Detention Facility			**Checked? (Y/N)**	**Maint. Req'd.?**	**Comments**
BMP Elements	**Problems**	**Recommended Solution**			
Contributing Drainage Area	There is excessive trash and debris	Remove as soon as possible			
Inflows	There is excessive trash / Debris / Sediment	Remove as soon as possible			
	There is a _____% Blockage	Remove blockage			
	There is spalling	Depending on severity, patch or repair as soon as possible			
	There is erosion	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is undermining	Depending on severity, monitor or repair the area			
	There is a damaged joint (Separation / Failure)	Repair/replace damaged pipe as soon as possible			
	There is a tree over / near the structure	Remove the tree, and cut so stump is flush with the ground			
Detention Pipe/ Chamber / Vault	There is excessive trash /debris /sediment	Remove as soon as possible			
	There is spalling	Depending on severity, patch or repair as soon as possible			
	There is erosion	Depending on severity, monitor or stabilize the area (reseed/revegetate)			

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.

BMP Type: Underground Detention Facility			**Checked?** (Y/N)	**Maint. Req'd.?**	**Comments**
BMP Elements	**Problems**	**Recommended Solution**			
Detention Pipe / Chamber / Vault	There is undermining	Depending on severity, monitor or repair the area			
	There is a damaged joint (Separation / Failure)	Repair/replace damaged pipe as soon as possible			
	There is a tree over / near the structure	Remove the tree, and cut so stump is flush with the ground			
	Ladder / Steps are in poor condition	Repair/replace ladder steps as needed			
	There are access issues	Ensure all manholes and/or access doors are operable			
Control Structure	There is excessive trash /debris /sediment	Remove as soon as possible			
	There is spalling	Depending on severity, patch or repair as soon as possible			
	There is erosion	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is undermining	Depending on severity, monitor or repair the area			
	There is a damaged joint (Separation / Failure)	Repair as soon as possible			
	The Flow Restrictor is damaged	Repair or replace, as needed			

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.

BMP Type: Underground Detention Facility			**Checked?**	**Maint.**	
BMP Elements	**Problems**	**Recommended Solution**	**(Y/N)**	**Req'd.?**	**Comments**
Control Structure	The Flow Restrictor is missing	Replace missing Flow Restrictor			
	The Flow Restrictor is blocked/buried (_____%)	Remove blockage as soon as possible			
	The Trash Rack is damaged	Repair or replace, as needed			
	The Trash Rack is missing	Replace missing Trash Rack			
	The Trash Rack is Blocked/Buried (%)	Remove blockage as soon as possible			
	There are access issues	Ensure all manholes and/or access doors are operable			
Outfall	There is excessive trash / debris /sediment	Remove as soon as possible			
	There is a _____% Blockage	Remove blockage			
	There is spalling	Depending on severity, patch or repair as soon as possible			
	There is erosion	Depending on severity, monitor or stabilize the area (reseed/revegetate)			
	There is undermining	Depending on severity, monitor or repair the area			
	There is a damaged joint (Separation / Failure)	Repair/replace damaged pipe as soon as possible			

Winchester public services Virginia

CITY OF WINCHESTER, VA

Rouss City Hall * 15 North Cameron Street * 22601
540-667-1815 * www.winchesterva.gov

BMP #:_____ **Tax Map #:**_____ **Date:** ___ ___/___ ___ / 20___ ___

Project Name: _____ **Inspector:** _____

Note: Leave section blank, if item N/A.

BMP Type: Underground Detention Facility			**Checked? (Y/N)**	**Maint. Req'd.?**	**Comments**
BMP Elements	**Problems**	**Recommended Solution**			
Outfall	There is a tree over / near the structure	Remove the tree, and cut so stump is flush with the ground			

Additional Notes/Comments:

Appendix D

Municipal High Priority Facility Determination

Municipal High-Priority Facilities

May 2025

Department of Public Services
Engineering Division
301 E Cork St. Winchester,
VA 22601
(540) 773-1340

Table of Contents

Contents

1 Overview 4
2 Requirements 4
3 High Priority Facilities 5

1 Overview

Pursuant to Chapter 890 of Virginia Administrative Code, Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer System (MS4), the City of Winchester is required to maintain a Stormwater Pollution Prevention Plan (SWPPP) for each High-Priority Facilities as defined in 9VAC25-890-1.

2 Requirements

Pursuant to Part I.E.6.i of 9VAC25-890-40, the city shall maintain and implement a site specific SWPPP for each high-priority facility 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:

- Areas where residuals from using, storing, or cleaning machinery or equipment remain and are exposed to stormwater;
- Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- Material handling equipment;
- 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);
- Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- 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;
- Waste material except waste in covered, nonleaking containers (e.g., dumpsters);
- Application or disposal of process wastewater (unless otherwise permitted); or
- 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.
- Application or disposal of process wastewater (unless otherwise permitted)

Within 12 months of permit coverage, the city shall identify any new high-priority facilities located in expanded 2020 census urban areas with a population of at least 50,000 and implement SWPPPs for such high-priority facilities within 36 months of permit coverage.

3 High Priority Facilities

301 E Cork Street

The Public Services Campus facility falls under the purview of a High-Priority Facility as it meets the definition and criteria above. A Stormwater Pollution Prevention Plan has been implemented for this facility and is hereby incorporated by reference.

1120 Woffington Way

The City Park Maintenance Building falls under the purview of a High-Priority Facility as it meets the definition and criteria above. A Stormwater Pollution Prevention Plan has been implemented for this facility and is hereby incorporated by reference.

Appendix E

Nutrient Management Plan Facility Determination

Nutrient Management Plan Facility Determination

May 2024

Department of Public Services
Engineering Division
1301 E Cork St.
Winchester, VA 2601

Table ofContents

1.1 Introduction 1
1.2 City Property Evaluation Protocol 1
1.3 City Nutrient Management Plan Evaluation Results 1
1.4 Nutrient Management Planning 3

1.1 Introduction

Under the Virginia Pollutant Discharge Elimination System (VPDES) MS4 General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4 General Permit), the City of Winchester must identify all applicable lands where nutrients are applied to a contiguous area of more than one acre.

This evaluation identifies those areas for which nutrients are applied to more than one acre. For the purposes of this analysis, "contiguous" was attributed to whole tax parcels and not to portions of individual parcels, themselves. For example, a parcel that had two one-half acre turf areas separated by a sidewalk would be considered to have one-acre nutrient application. Similarly, if two (2) parcels were contiguous to each other and each had nutrients applied to one-half acre, they would be considered to have one-acre of nutrient application.

1.2 City Property Evaluation Protocol

City facilities were evaluated using the following protocols:

1. Parcels greater than 1.0 acre in size, owned by the City of Winchester or by the City of Winchester Public Schools, were identified using the latest GIS data supplied by the City of Winchester.
    a. Parcels owned by separate authorities or joint authorities were not included.

2. The estimated turf acreage for each parcel was calculated through GIS analysis of the 2023 City of Winchester aerial imagery.

3. A list of City public and School parcels with turf estimated to be greater than 1.0 acre submitted to the City of Winchester for review.

4. The City of Winchester identified those parcels upon which nutrients were applied.

1.3 City Nutrient Management Evaluation Results

Analysis of the City's aerial imagery identified nineteen (19) City of Winchester-owned parcels in which more than one-acre of turf was observed (Table 1). In addition, seven (8) City of Winchester Public School-owned parcels were also identified (Table 2).

Of the twenty-six (26) identified parcels, the following six (6) parcels were confirmed to have nutrients applied on a routine schedule:

- Jim Barnett Park, 1001 E. Cork Street, (39.1727797, -78.154889), 71.6 acres
- Friendship Park, 623 N. Pleasant Valley Rd, (39.1899529, -78.1508964), 9.3 acres
- Whittier Park, 900 Whittier Avenue, (39.1911247, -78.1779289), 5.9 acres
- Weaver Neighborhood Park, 167 Bruce Drive, (39.149049, -78.1757645), 5.1 acres
- Park Place Public Park, 2014 Harvest Drive, (39.1659935, -78.1887412), 4.0 acres
- West Ridge and Harvest Ridge Park, 805 Crestview Terrace SS, (39.1585249, -78.1931146), 1.4 acres

Figure 1 provides a geographic view of these locations identified in red.

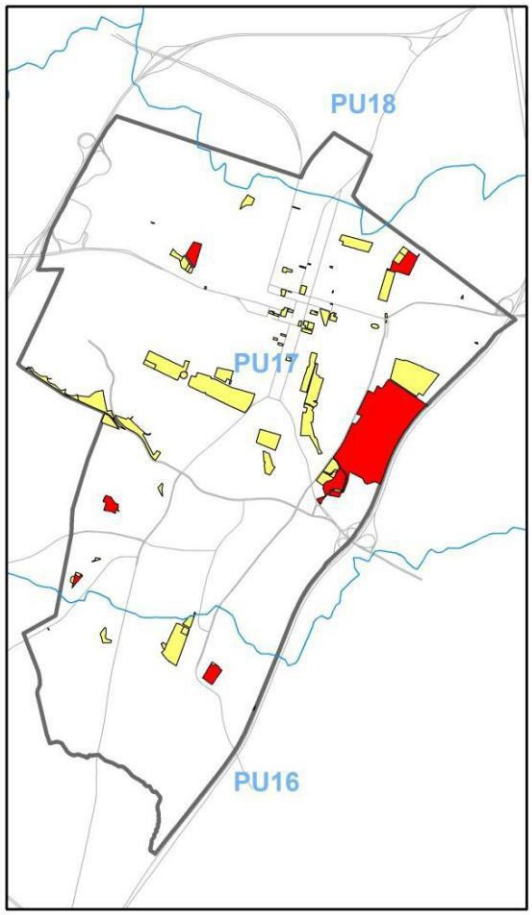


Figure 1: City-Owned Parcels Requiring Nutrient Management Plans

1.4 Nutrient Management Planning

Turf and landscape area Nutrient Management Plans for the six (6) identified City properties must be developed by a certified turf and landscape nutrient management planner, in accordance with § 10.1-104.2 of the Code of Virginia and implemented by the City.

Given the fact that almost three-quarters of the acreage requiring Nutrient Management Plans is located at the Jim Barnett Park, with the remaining acreage scattered among the five other properties, the following development and implementation schedule is recommended:

- The City of Winchester should develop and implement a master Nutrient Management Plan for all turf and landscaped land uses on the six properties during Fiscal Year 2024 by the expiration date of the current Plans by 4/15/2019.
    - Duplicative information that would apply to all six properties would only need to be included once in the master Nutrient Management Plan. Individual site requirements would be included in individual chapters.
        - This would save the City considerable time and effort in updating the Nutrient Management Plans in the future.

Table 1: City of Winchester Public Properties with Greater than One (1.0) Acres of Turf*

Parcel ID No.	Address	Notes Regarding Use	Turf Acreage	Nutrients Applied	Latitude	Longitude
253-01- 1	*1001 E Cork St*	*Jim Barnett Park*	*71.6*	***Yes***	*39.1727797*	*-78.1548890*
175-01--23A	*623 North Pleasant Valley Rd*	*Friendship Park*	*9.3*	***Yes***	*39.1899529*	*-78.1508964*
171-01--11B	*900 Whittier Ave*	*Whittier Park*	*5.9*	***Yes***	*39.1911247*	*-78.1779289*
311-01-18	*167 Bruce Dr*	*Weaver Neighborhood Park*	*5.1*	***Yes***	*39.149049*	*-78.1757645*
250-04-B89	*2024 Harvest Dr*	*Park Place Public Park*	*4.0*	***Yes***	*39.1659935*	*-78.1887412*
269-05-B86	*805 Crestview Terrace SS*	*West Ridge & Harvest Ridge Park*	*1.4*	***Yes***	*39.1585249*	*-78.1931146*
209-01- 1	1643 Meadow Branch Ave	Abrams Creek Wetland Preserve	4.5	No	39.1738085	-78.1632222
188-06-61	1511 Stone House Court	Abrams Creek Wetland Preserve	3.1	No	39.1780701	-78.1961193
213-01- 2	301 East Pall Mall St	Shawnee Springs Preserve	2.4	No	39.1775122	-78.1625733
171-07- 3	853 Whittier Ave	Open parcel for Town Run	2.2	No	39.1901562	-78.1791487
291-01--5E1	100 West Tevis St	Retention Basin	2.1	No	39.1543132	-78.1786967
289-07- 1	702 Kennedy Dr	Retention Basin	2.0	No	39.1527912	-78.1895305
213-01- 1	301 303 E Cork St	City Yards	1.5	No	39.1762981	-78.1905257
233-07-E A	50 Montague Circle	Stormwater Conveyance	1.4	No	39.1700675	-78.1685056
234-01-14	1400 S Pleasant Valley Rd	Public Park	1.3	No	39.1685538	-78.1613155
253-01- 1 1	1360 S Pleasant Valley Rd	Public Park	1.3	No	39.1695974	-78.1602963
151-16- 1	1105 Whittier Ave (Rear Lot)	Open parcel for Town Run	1.2	No	39.1909314	-78.1801839
193-01-U14	215 East Cork St	Green Circle	1.2	No	39.1791061	-78.1632282
291-01--5E2	101 West Tevis St	Retention Basin	1.1	No	39.1533418	-78.1792227

*Shaded entries do not have nutrients applied on a routine schedule and do not currently require Nutrient Management Plans.

Table 2: City of Winchester Public Schools with Greater than One (1.0) Acres of Turf*

Parcel ID No.	Address	Notes Regarding Use	Turf Acreage	Nutrients Applied	Latitude	Longitude
211-01-1	425 Handley Boulevard	High School	17.8	No	39.1772319	-78.174353
190-01-2	536 Jefferson St	Elementary School	6.4	No	39.1798863	-78.1814772
215-01-2	48 South Purcell Ave	Middle School	17.4	No	39.1786764	-78.1499246
311-01- 20	100 West Cedarmeade Ave	Elementary School	10.0	No	39.1519455	-78.1805058
232-01-B	1300-1310 South Loudoun St	Elementary School	5.0	No	39.1724858	-78.1684497
154-01-I 1	598 North Kent St	Elementary School	4.5	No	39.1920587	-78.1571287
175-06- 8B	550 Virginia Ave	Elementary School	4.5	No	39.1878189	-78.1532216
149-01-7B	427 Meadow Branch Ave	Elementary School	4.5	No	39.1866440	-78.1909930

*Shaded entries do not have nutrients applied on a routine schedule and do not currently require Nutrient Management Plans.

Appendix F

City of Winchester Stormwater Training Plan

City of Winchester Stormwater Training Plan

May 2024 Edition

Department of Public Services
Engineering Division
301 E Cork St. Winchester,
VA 22601
(540) 667-1815

Table of Contents

1 Introduction 1

2 Pollution Prevention Training 1

2.1 Stormwater Training Modules and Schedule 2

2.2 Relevant Employee Identification and Training Requirements 2

2.3 Delivery and Documentation 4

3 Other MS4 General Permit Training & Certification Requirements 4

3.1 Erosion and Sediment Control Certifications 4

3.1.1 MS4 General Permit Requirement 4

3.1.2 Applicability 4

3.1.3 Current City Staff 4

3.1.4 Contractor Responsible Land Developer (RLD) 5

3.2 Virginia Stormwater Management Program Certifications 5

3.2.1 MS4 General Permit Requirement 5

3.2.2 Applicability 5

3.2.3 Current City Staff 5

3.3 Pesticide Application 5

3.3.1 MS4 Permit Requirement 5

3.3.2 Applicability 5

3.3.3 City Employee Certifications under the Virginia Pesticide Control Act 6

3.3.4 Contractors 6

3.4 Fertilizer Application 6

3.5 Emergency Response Training Summary 6

3.5.1 MS4 Permit Requirement 6

3.5.2 Summary of Emergency Response Training 7

3.5.3 Documentation 7

4 APPENDICES 8

1 Introduction

Under the terms of the reissued Virginia Stormwater Management Program (VSMP) General Permit for Discharges from Small MS4s (MS4 General Permit), the City of Winchester is required to develop and implement an employee training program to address the requirements of Minimum Control Measure #6 (Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee Within the MS4 Service Area). This training program will explain the procedures and techniques for pollution prevention and good housekeeping methods for all relative City employees.

This training plan includes the:

- Pollution prevention training schedule and presentations for relevant personnel on these topics:

    a. Illicit discharge recognition and reporting
    b. Roads, streets and parking lot maintenance
    c. Fleet and facility operations
    d. Park and grounds maintenance

- Other certification and training requirements, including the:

    a. Summary of the emergency response training and certification program
    b. Provisions under the Virginia Erosion and Sediment Control Law
    c. Provisions under the Virginia Stormwater Management Act
    d. Provisions under the Virginia Pesticides Control Act
    e. Provisions under the Virginia Fertilizer Act

2 Pollution Prevention Training

This training plan will increase the City employee's awareness and knowledge of illicit discharges, pollution prevention and good housekeeping techniques for City activities. The topics of this training plan includes:

- *The recognition and reporting of illicit discharges*

- *Good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance*

- *Good housekeeping and pollution prevention practices that are to be employed in and around maintenance and public works facilities*

- *Good housekeeping and pollution prevention practices that are to be employed in and around recreational facilities*

2.1 Stormwater Training and Schedule

The Department of Public Services has developed a training presentation in PowerPoint format. This presentation can be divided into four (4) sections:

- *Illicit Discharges*
  - Objective: Provide City staff a more clear understanding of what illicit discharges are and procedures to prevent, detect, and eliminate these discharges.

- *Pollution Prevention Practices*
  - Objective: Provide City staff a better understanding how to prevent and reduce stormwater pollution by adhering to SOPs and good housekeeping practices.

- *Required Certifications*
  - Objective: Provide City staff a better understanding of what types of certifications are required under certain laws and regulations.

- *Quiz*
  - Objective: To evaluate the effectiveness of the training presentation and determine any necessary changes are required moving forward.

To increase the effectiveness of these training modules, they will be updated every 24 months to ensure City staff are not viewing the same presentations.

2.2 Relevant Employee Identification and Training Requirements

The City has identified the relevant employees who are required to attend the training presentation. Table 1 identifies employee job titles and a training schedule letter for each Division, which corresponds and aligns with the training schedule design detailed in Table 2. Each division is required to attend this training once every 24 months. To optimize the learning experience, divisions have been grouped and assigned a training schedule letter – this way, not all divisions will be attending at once. Employees that are unable to attend the training must attend another training presentation session as soon as possible.

Table 1: City of Winchester Relevant Staff Requiring Stormwater Training

Department / Division	Job Titles	Training Schedule Letter
Refuse	Sanitation Worker I, Sanitation Worker II, Crew Leader, Crew Supervisor,	**a**
Facilities Maintenance	Facilities Director, Assistant Facilities Director, Maintenance Tech, Laborer, Lead Cleaner, Custodian	**a**
Parks & Rec Maintenance	Grounds and Facilities Superintendent, Maintenance Tech 1, Maintenance Tech 2, Maintenance Tech NC/PT	**b**
Arborist	City Arborist, Maintenance Tech 1	**b**
Inspections	Building Official, Combination Inspector, Senior Code Compliance Inspector, Code Compliance Inspector	**b**
Utilities - Transmission	Utilities Maintenance Supervisor, Crew Supervisor, Sr. Utility Service Mechanic, Utility Service Mechanic III, Utility Service Mechanic II, Utility Service Mechanic I	**c**
Winchester Parking Authority	Maintenance Tech 2, Maintenance Tech 3, Enforcement Officer	**d**
Streets / Snow & Ice	Supervisor, Maintenance Tech 1, Maintenance Tech 2, Maintenance Tech 3	**d**
Hwy Maintenance Traffic	Signs & Marking Maintenance Tech, Signal Tech, Traffic Supervisor	**d**
Utilities - Engineering	City Engineer, Utility Engineer, Stormwater Engineer, Public Property Coordinator, Construction Inspector	*

* Engineering Staff will annually participate in at least one training presentation

Table 2: City of Winchester Training Schedule for Relevant Staff

FY2024	FY2025	FY2026	FY2027
a, c	**b, d**	**a, c**	**b, d**
c	**d**	**c**	**d**
a, c	**b, d**	**a, c**	**b, d**
a	**b**	**a**	**b**

2.3 Delivery and Documentation

Each presentation is planned to be delivered within 45- minutes, which includes discussions and questions/answers. The Public Services Engineering Division will coordinate the training presentation with the appropriate supervisors.

At the end of each training presentation, a sign-in sheet will be provided to ensure all required employees have attended this training. Completed sign-in sheets should be filed with the Engineering Division along with the presented presentation slides as required by the MS4 General Permit. The sign-in sheets and presentation slides must be kept for a minimum of three years after each training event and will have the following information:

- Date of the training event.
- Number of employees attending the training event.
- Objective of the training event.

3. Other MS4 General Permit Training & Certification Requirements

In addition, the MS4 General Permit requires training, certification, and documentation of other specified employees.

3.1 Erosion and Sediment Control Certifications

3.1.1 MS4 General Permit Requirement

The MS4 General Permit requires that "Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law."

3.1.2 Applicability

The City currently operates a Virginia Erosion and Sediment Control Program under Chapter 840 of the Virginia Administrative Code (Erosion and Sediment Control Regulations). As such, City staff responsible for implementation of this program must maintain the appropriate certifications for plan review, inspection, and program administration.

3.1.3 Current City Staff

The City has one program administrator, one combined administrator, and one inspector on staff. In accordance with § 62.1-44.15:53 B. of the Code of Virginia, these City staff have met the necessary requirements for certification under the Virginia DEQ Erosion and Sediment Control training and certification program. Certifications will need to be renewed in accordance to requirements established by the State Water Control Board. For more information, staff should see the relevant information contained here: http://www.deq.virginia.gov/connectwithdeq/trainingcertification.aspx.

The City also has one professional engineer on staff that are qualified to review ESC plans under the program. In accordance with § 62.1-44.15:53 C., professional registration in the Commonwealth pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 meets the certification requirements, for the purposes of renewals.

3.1.4 Contractor Responsible Land Developer (RLD)

City Code (Section 9-38) requires that contractors have the required certificate of competence (RLD) as described in Virginia Code §62.1-44.15:58. The person in charge of and responsible for a land disturbing activity must be designated prior to the commencement of any land disturbing activity.

3.2 Virginia Stormwater Management Program Certifications

3.2.1 MS4 General Permit Requirement

The MS4 General Permit requires that "Employees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia Stormwater Management Act."

3.2.2 Applicability

The City currently operates a Virginia Stormwater Management Program (VSMP) under Chapter 870 of the Virginia Administrative Code. Through this regulation, City staff responsible for implementation of this program must maintain the appropriate certifications for plan review, inspection, and program administration. Training and certification is handled by DEQ.

3.2.3 Current City Staff

The City has one combined administrator on staff. In accordance with § 62.1-44.15:30 of the Code of Virginia, this City staff have met the necessary requirements for certification under the Virginia DEQ Stormwater Management training and certification program. Certifications will need to be renewed in accordance to requirements established by the State Water Control Board. For more information, staff should see the relevant information contained here:
http://www.deq.virginia.gov/connectwithdeq/trainingcertification.aspx.

3.3 Pesticide Application

3.3.1 MS4 Permit Requirement

The MS4 General Permit requires that *"Employees and contractors hired by the permittee (City of Winchester) who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§3.2-3900 et seq. of the Code of Virginia)."*

3.3.2 Applicability

City employees that use pesticides as a government representative must obtain and retain certification under the Virginia Pesticide Control Act. No other City employee may apply pesticides as part of their job duties. Certification may require testing, on the job training, and classroom education. Information regarding certifications can be found at the Virginia Department of Agriculture and Consumer Services (VDACS) website, below, or by contacting VDACs directly at:

Virginia Department of Agriculture and Consumer Services
Pesticide Services
102 Governor Street, 1st Floor
Richmond, VA 23219
PHONE - 804.786.3798, FAX - 804.786.9149
http://www.vdacs.virginia.gov/pesticide-applicator-certification.shtml

3.3.3 City Employee Certifications under the Virginia Pesticide Control Act

As of January 24, 2019, the City has a total of five (16) individuals certified to apply pesticides as either a commercial applicator not for hire (government employee) or a technician.

3.3.4 Contractors

Businesses that apply pesticides for compensation must be registered with VDACS, and their employees must hold the appropriate certifications. As part of the City's procurement process, the City will require any business that it hires to provide documentation that the required registration and certifications have been satisfied.

3.4 Fertilizer Application

Virginia Administrative Code 2 VAC 5-405 (Regulations for the Application of Fertilizer to Nonagricultural Lands) requires training for local entities engaged in the commercial application of fertilizers to nonagricultural lands. Certified Fertilizer Applicators (CFAs) may apply fertilizer to nonagricultural land as part of their official duties. Trained Applicators under the control and instruction of CFAs may apply fertilizer without the CFA being physically present. Untrained employees may only apply fertilizer if they are under the direct supervision of a CFA. The City must maintain copies of all training for Trained Applicators.

Information regarding certifications and training is available at:
http://www.vdacs.virginia.gov/plant-industry-services-certified-fertilizer-applicator-training.shtml

As of January 24, 2019, the City has a total of five (5) individuals certified to apply pesticides as either a commercial applicator not for hire (government employee) or a technician.

3.5 Emergency Response Training Summary

3.5.1 MS4 Permit Requirement

The MS4 General Permit requires that "*The appropriate emergency response employees shall have training in spill responses. A summary of the training or certification program provided to emergency response employees shall be included in the first annual report.*"

3.5.2 Summary of Emergency Response Training

The City of Winchester Fire & Rescue Department (FRD) is a combination department consisting of four volunteer fire departments with staffing supplemented by career City fire department staff. The Fire Departments operate under the Incident Command System (ICS), which is an organized approach to effectively control and manage operations at emergency incidents, required under Paragraph 1910.120(q)(3)(ii) of the federal Occupational Safety and Health Standards. As part of implementing its ICS Program, FRD has established minimum training certification standards. The minimum certification level for firefighters and Emergency Medical Service (EMS) providers is certification in Hazardous Materials Awareness, with higher certification levels encouraged. Under OSHA, those certified under the Awareness level must have:

- An understanding of hazardous substances and the risks associated with such substances in an emergency
- An understanding of the potential outcomes associated with an emergency created when hazardous substances are present
- The ability to recognize the presence of hazardous substances in an emergency
- An understanding of the role of the first responder at the awareness level, including site security / control and use of the U.S. Department of Transportation's emergency response guidebook
- The ability to realize the need for additional resources and to provide good information to the communication center

3.5.3 Documentation

The FRD's training program is defined and regulated under separate federal and state regulations. SOPs and training events are designed and implemented in order to comply with those regulations. Training documentation will be maintained by the appropriate volunteer fire company or the FRD.

5 APPENDICES

Attachment 2. Pollution Prevention/Good Housekeeping for Municipal Operations - Standard Operating Procedures 2024 - 2028

MS4 General Permit No. VAR040053

Pollution Prevention / Good Housekeeping For Municipal Operations

Standard Operating Procedures

2024 - 2028

Contents

Attachment 2. Pollution Prevention/Good Housekeeping for Municipal Operations - Standard Operating Procedures 2024 - 2028 1
Section 1 – Purpose and Scope 4
Section 2 – Background 4
Section 3 – Standard Operating Procedures - Municipal Facilities 5
SOP 3.1 – Standard Operating Procedures - Municipal Facilities 6
SOP 3.2 – Standard Operating Procedures - Municipal Facilities 8
Practices: 8
Inspections/Maintenance/ Spill Response /Reporting: 8
Training: 8
Section 4 – Standard Operating Procedures – Road, Street, and Parking Lot Maintenance 9
Section 4.1 – Standard Operating Procedures for Road, Street, and Parking Lot Maintenance. 10
Practice: 10
Inspections/Maintenance/ Spill Response /Reporting: 10

Training: 10
Section 4.2 – Roads, Streets, & Parking Lot Maintenance - Salt/Deicing Application 11
Purpose: To protect stormwater from salt/deicers and sand by properly storing and applying the materials. 11
Section 4.4 – Roads, Streets, and Parking Lot Maintenance – Erosion and Sediment Control 12
Purpose: To protect stormwater from pollutants during construction or maintenance operations by implementing proper erosion and sediment control practices. 12
Practice: 12
Inspections/Maintenance/ Spill Response /Reporting: 12
Training: 12
Practice: 14
Inspections/Maintenance/ Spill Response /Reporting: 14
Training: 15
Practice: 16
Inspections/Maintenance/ Spill Response /Reporting: 16
Training: 16
Practice: 17
Inspections/Maintenance/ Spill Response /Reporting: 17
Training: 17
Practice: 19
Inspections/Maintenance/ Spill Response /Reporting: 19
Training: 19
Practice: 21
Inspections/Maintenance/ Spill Response /Reporting: 22
Training: 22
Practice: 23
Inspections/Maintenance/ Spill Response /Reporting: 23
Training: 23
Purpose: 24
Practices: 24
Inspections/Maintenance/ Spill Response /Reporting: 24
Training: 26
Section 7 – Standard Operating Procedures – Municipal Operations 27
Section 7.1 – Municipal Operations – General 28

Practice: 28
Inspections/Maintenance/ Spill Response /Reporting: 28
Training: 28
Section 8 – Standard Operating Procedures - Utility Maintenance 29
Section 8.1 Standard Operating Procedures – Water System Maintenance 30
Practice: 30
Inspections/Maintenance/ Spill Response /Reporting: 30
Training: 30
Section 8.2 – Standard Operating Procedures – Sewer System Maintenance 31
Practice: 31
Inspections/Maintenance/ Spill Response /Reporting: 31
Training: 31

Section 1 – Purpose and Scope

Section 2 – Background

Municipal operations such as vehicle/equipment storage and maintenance, grounds maintenance, and parking lot maintenance can be a source of stormwater pollution if good housekeeping practices are not implemented during active municipal operations. The Pollution Prevention/Good Housekeeping components of the MS4 Permit require municipalities to re-evaluate municipal operations and storm infrastructure management to develop written procedures that minimize or prevent pollutant discharge from their daily operations. The daily good housekeeping procedures assist the City of Winchester in meeting the MS4 Permit obligations, and encourage City employees to use Best Management Practices (BMPs) in their daily municipal operations.

The following good housekeeping procedures are intended to address the requirements of Part I.E.6.a and b of 9VAC25-890-40, and for those activities listed in Part I.E.6.a and b at all facilities owned or operated by the City. These procedures are designed to meet the objectives of (1) preventing illicit discharges; (2) Ensure City 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 or 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.

To address the MS4 Permit requirements, good housekeeping procedures meeting the objectives have been developed for the following activities when conducted within the City:

1. Road, street, sidewalk, and parking lot maintenance and cleaning, including best management practices for anti-icing and deicing agent application, transport, and storage
2. Discharging water pumped from construction and maintenance activities not covered by another permit covering such activities
3. Temporary storage of landscaping materials
4. Maintenance of permittee owned or operated vehicles and equipment
5. Application of materials, including pesticides and herbicides shall not exceed manufacturer's recommendations; and
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

The six City operations and associated procedures are described in Section 3 through Section 8. Unless otherwise stated, the City's Engineering Division, led by the City Engineer, is responsible for ensuring good housekeeping practices are implemented for all municipal facilities and operations. At the beginning of each section pertinent City departments responsible for implementing the good housekeeping procedures are identified.

Each standard operating procedure by itself is not intended to meet every requirement per Sec. II(B)(6)(a)(1-8); but the document as a whole meets all requirements listed.

Section 3 – Standard Operating Procedures - Municipal Facilities

Municipal facilities have the potential to produce pollutants from their day-to-day operations. It is imperative to implement good housekeeping procedures on all municipal facilities.

Included in this section are general good housekeeping practices and general spill/leak cleanup procedures that are to be implemented on all municipal facilities by each facility supervisor. Facility inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's Stormwater Pollution Prevention Plan (SWPPP) binder.

The City's Engineering Division will coordinate with each facility supervisor to ensure good housekeeping procedures are being applied and to ensure the City of Winchester remains compliant with the MS4 Permit requirements.

SOP 3.1 – Standard Operating Procedures - Municipal Facilities

Municipal facilities have the potential to produce pollutants from their day-to-day operations. It is imperative to implement good housekeeping procedures on all municipal facilities.

Included in this section are general good housekeeping practices and general spill/leak cleanup procedures that are to be implemented on all municipal facilities by each facility supervisor. Facility inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's Stormwater Pollution Prevention Plan (SWPPP) binder.

The City's Engineering Division will work in close coordination with each facility supervisor to ensure good housekeeping procedures are being applied and to ensure the City of Winchester remains compliant with the MS4 Permit requirements.

Purpose: To protect stormwater from pollutants by implementing general good housekeeping practices.

Practices:

- All operations and activities at the City yard facility are to be in accordance with the Stormwater Pollution Prevention Plan (SWPPP) developed in accordance with Part I.E.6.b1.i of 9VAC25-875-40.
- Do not dispose of leaves, grass clippings, tree trimmings, trash, oil, fuel, sediment, or any other pollutant into a storm drain or water body.
- Keep open, exposed areas clean and protected from precipitation.
- Keep equipment, stockpiles, chemicals, paints, etc. covered.
- Post signs and labels in problem areas and areas containing hazardous materials.
- Consider additional control measures in conjunction with coverings; including curbing, grading, or elevating materials to divert stormwater run-on and to contain stormwater run-off.
- Identify and label any storm drain inlets at or near the facility to notify employees and contractors not to dispose of any materials or waste.
- Do not wash down or hose down any outdoor work areas or trash/waste container storage areas except where wash water will only enter the sanitary sewer following treatment.
- Recycle waste, used oil, solvents, grease rags, wash water, and other spent liquids. Store materials to be recycled under cover with secondary containment.
- Install secondary containment devices where appropriate. Secondary controls include curbing, drip pans, basins, sumps, oil/water separators, catch basin inserts, oil pads/skimmers, and impervious work areas.
- Use oil/water separators, or other commercially available devices to minimize oil and grease discharge to stormwater runoff.
- Stabilize or cover exposed denuded areas to minimize erosion and sedimentation during rain events. This can be done by applying mulch or permanent vegetation that will hold the soils in place.
- Install erosion and sediment controls in accordance with the *Virginia Erosion and Sediment Control Handbook (VESCH)* as needed during construction and utility maintenance activities.
- Do not use chemicals when cleaning outside of buildings. Filter building wash water before it enters the storm drain.
- If possible, dispose of building wash water at an approved location connected to sanitary sewer.

Inspections/Maintenance/ Spill Response /Reporting:

- Schedule routine inspections focusing on areas that have a greater potential to spill, leak, discharge into stormwater runoff.
- Monitor floor drains and storm inlets and/or catch basins, and inspect, remove/replace as appropriate.
- Inspect oil/water separators and floor drain systems periodically to determine maintenance needs.
- Inspect equipment and storage areas at regularly scheduled days/times for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

SOP 3.2 – Standard Operating Procedures - Municipal Facilities

Purpose: To protect stormwater from spilled pollutants by implementing proper spill cleanup procedures and preventative measures.

Practices:

- Do not use water to clean up spills/leaks.
- Do not wash spills/leaks into storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Do not leave spill/leak without cleaning it up.
- Stop the source of the spill/leak immediately, if safe to do so.
- Contain any spilled/leaked liquids, if safe to do so.
- Clean up spill/leak in accordance with spill kit directions.
- Inspect City vehicles/equipment before leaving City property yard.
- Sweep up granules and dispose of properly.
- Install control measures on nearby storm drains and water bodies if spill could potentially reach the stormwater systems.
- Position mats to contain leaks from vehicles and equipment until they can be repaired.
- Use secondary containment under or around petroleum and chemical storage containers.
- Notify supervisor of any spills greater than five (5) gallons or any spill that reaches the storm drain. If a supervisor is unavailable, call the stormwater hotline (540)-542-1346 or the Police Department's non- emergency line (540)-662-4131. Immediately call 911 if a spill presents a threat to health or safety or is considered an emergency.

Inspections/Maintenance/ Spill Response /Reporting:

- Develop and maintain a site-specific spill prevention/spill response plan.
- Maintain a spill kit in areas where petroleum or hazardous materials are stored.
- Maintain spill kits on all City owned equipment/vehicles that are used for municipal operations.
- Notify supervisor of any spills greater than five (5) gallons or any spill that reaches the storm drain. If a supervisor is unavailable, call the stormwater hotline (540)-542-1346 or the Police Department's non- emergency line (540)-662-4131. Immediately call 911 if a spill presents a threat to health or safety, or is considered an emergency.

Training:

- Train applicable employees in site specific spill response procedures and equipment.
  The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 4 – Standard Operating Procedures – Road, Street, and Parking Lot Maintenance

Road, street, and parking lot maintenance activities have the potential to produce pollutants that may discharge into stormwater runoff if good housekeeping procedures are not implemented in and around municipal parking lots. Potential sources of these pollutants may include parked cars, dumpsters, trash cans, and material stockpiles.

Included in this section are good housekeeping practices for municipal road, street, and parking lot maintenance operations. The procedures are to be implemented on all City owned/operated roads, streets, and parking lots and all construction activities associated with these facilities.

The City's Department of Parks and Recreation (DPR) is responsible for ensuring that all applicable DPR employees comply with the following procedures for parking lots associated with City parks and recreation facilities. Likewise, the City's Department of Public Works (DPW) is responsible for ensuring that the Streets Division staff comply with these procedures for maintenance activities associated with roads and streets. If applicable, all inspections for municipally owned parks and recreation parking lots are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will work in close coordination with the DPR and DPW to ensure good housekeeping procedures are being applied to all municipally owned/operated roads, streets, and parking lots and during construction/maintenance operations to ensure that the City of Winchester remains compliant with the MS4 Permit requirements.

Section 4.1 – Standard Operating Procedures for Road, Street, and Parking Lot Maintenance.

Purpose: To protect stormwater from trash and debris by properly cleaning and maintaining roads, streets, and parking lots through general practices.

Practice:

- Sweep all City maintained roads and streets in accordance with the City's established street sweeping schedule.
- Dispose of street sweeping material properly and never store street sweeping material in areas where storm water could transport fines to the storm drain system or a waterbody.
- Locate trash cans and dumpsters in areas that are readily accessible to users.
- Do not hose down parking lots or sidewalks within parking lots.
- Do not sweep trash, sediment, or any other pollutants to or down a storm drain or water body.
- Do not place trash cans or dumpsters near a storm drain or water body.
- Do not place hazardous waste in a dumpster or trash can.
- Do not wash out dumpsters. Return to owner for cleaning at owner's facility. If municipally owned containers must be washed, do so in an approved location where wastewater is either recycled or treated before discharging to the sanitary sewer with approval.
- Locate trash cans or dumpsters on a flat concrete surface that does not drain towards a storm drain or water body.
- Ensure all trash cans and dumpsters within parking lots remain covered and have no leaks.
- Request/use dumpsters with properly plugged drain holes whenever possible.
- Pick up trash and debris and dispose of it in a covered trash can or dumpster.
- Empty trash cans and dumpsters scheduled days/times. Do not overfill trash cans or dumpsters.
- Provide properly labeled recycling bins in an area readily accessible to users to reduce the amount of garbage disposed.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect parking lots for trash and debris at regularly scheduled days/times.
- Inspect trash cans and dumpsters at regularly scheduled days/times for leaks, corrosion, broken/missing lids or leaking drain valves.
- Maintain street sweeping equipment for maximum effectiveness.
- Immediately repair or replace any damaged trash cans or dumpsters.
- Regularly inspect parking lots for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including name of the inspector, date, time, location, findings, and actions taken. Document all relevant inspection activities on the respective forms in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 4.2 – Roads, Streets, & Parking Lot Maintenance - Salt/Deicing Application

Purpose: To protect stormwater from salt/deicers and sand by properly storing and applying the materials.

Practice:

- Do not store salt, sand, deicer, or snow near storm drain or water body.
- Do not dispose of salt, sand, deicer, or snow in a storm drain or water body.
- Do not use nitrogen or phosphorus as deicing agents.
- Apply appropriate amount of salt, sand, or deicer as needed to be effective.
- When loading salt, sand, or deicer, minimize salt spillage by not exceeding the capacity of equipment (i.e. front end loader, truck bed).
- When unloading salt, sand and deicer materials move excess materials that may have fallen outside of desired storage area to the desired storage area.
- Operate equipment at low speed for effective spreading.
- Control spread patterns to concentrate material where most effective.
- Consider the use of deicing alternatives such as calcium magnesium acetate, potassium acetate, sand, etc. in sensitive areas.
- If using sand, use coarse, clean (washed) sand, which is free of fine particles and dust and easier to clean in the spring.
- Locate salt, sand, or deicer stockpiles on flat, covered, impervious sites that are protected from runoff and divert run-on around stockpile. Store salt, sand, or deicer in accordance with SOP 5.1.
- Provide diversion where runoff leaves salt storage area to direct runoff to holding tank or stormwater treatment device.
- Where possible, remove snow manually without the use of salt/deicer.

Inspections/Maintenance/ Spill Response /Reporting:

- Regularly inspect salt/deicer storage area to ensure the area remains dry and the materials remain within the designated storage area.
- During the winter months, regularly inspect spreader equipment and calibrate to manufacturer's specifications to maximize the effectiveness of the equipment.
- Maintain accurate logs of amount of salt/deicing material applied to each parking lot.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 4.4 – Roads, Streets, and Parking Lot Maintenance – Erosion and Sediment Control

Purpose: To protect stormwater from pollutants during construction or maintenance operations by implementing proper erosion and sediment control practices.

Practice:

- Do not stockpile materials near storm drains or water bodies.
- Do not remove erosion control measures before construction or maintenance operations are complete and stabilized.
- Do not dispose of sediment or other captured pollutants in a storm drain or a water body.
- Prior to moving control measures, inspect the site and ensure all accumulated debris or other pollutants are cleaned up and removed.
- Minimize the land disturbance and stabilize the disturbed area once construction or maintenance is complete.
- Divert clean water around construction or maintenance sites.
- Install erosion control devices in accordance with the Virginia Stormwater Management Handbook (VSMH).
    - Install inlet protection on all storm drain inlets near the construction or maintenance operations, per C-SCM-04 in Chapter 7 of the VSMH, or approved equivalent.
    - Contain material stockpiles (salt, topsoil, gravel) to prevent pollutant runoff. Stockpiles should be temporary and removed once construction or maintenance is complete and stabilized.
    - If needed, install sediment traps and basins per C-SCM-11 and C-SCM-12 in Chapter 7 of the VSMH to protect downstream channels and water bodies from sediment runoff.
    - Cover bare soil with mulch or other approved cover to prevent sediment runoff.
    - Use an appropriately sized sediment dewatering device when dewatering construction or maintenance area. Dispose of captured sediment at a properly permitted location prior to removing storm drain protection.
- Regularly inspect and maintain erosion and sediment control devices.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect, maintain, and repair control measures in accordance with the VSMH and the Virginia Erosion and Stormwater Management Act (VESMA).
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 5 – Standard Operating Procedures – Vehicle / Equipment

Vehicle and equipment maintenance operations include fueling, washing, repairing, maintaining, and storage for large and small vehicles (fire trucks, emergency vehicles, and utility vehicles) and large and small equipment (lawn mowers, weed-eaters, chemical spreaders). Both operations have the potential to produce pollutant discharge if good housekeeping procedures are not implemented.

Included in this section are good housekeeping practices for vehicle and equipment maintenance operations. The procedures are to be implemented on all City owned/operated facilities where vehicles and equipment are stored and maintained.

The DPR is responsible for ensuring all applicable DPR employees comply with the following procedures. Inspections are to be completed and records maintained as specified in the following procedures for inclusion in the facility's SWPPP binder. If applicable, all inspections for municipally owned parks and recreation parking lots are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will work in close coordination with the DPR to ensure good housekeeping procedures are being implemented where vehicles and equipment are being stored and maintained to ensure that the city remains compliant with the MS4 Permit requirements.

Section 5.1 –Vehicle / Equipment – Storage and Maintenance

Purpose: To protect stormwater from solvents, antifreeze, battery acid, motor oil, fuel, grease, brake fluid, metals, and sediment by properly storing and maintaining the vehicles and equipment.

Practice:

- Do not park vehicles or place equipment over, on, or near a storm drain or water body.
- Do not store vehicles or equipment near storm drains or water bodies.
- Do not dispose of fluids in storm drains or water bodies.
- Whenever possible, store vehicles and equipment inside to minimize the potential for pollutant discharge in stormwater runoff. Where indoor storage is not possible, store on paved areas and under a covered facility.
- If storing vehicles and equipment inside, ensure floor drains have been properly connected and do not outfall into storm drain system. If the drain does outfall to a storm drain system, floor drain should be sealed.
- Store drums, tanks, and containers in low-traffic areas and on pallets.
- Store cracked batteries in leak-proof secondary containers.
- Store drip pans and draining boards in designated and marked holding tubs for reuse.
- Store limited amounts of solvents, antifreeze, motor oil, fuel, grease, etc. to prevent surplus or expiration of fluids. Store in a dry controlled area.
- Store salt, sand, or deicer in limited amounts under cover. If stockpiled outdoors, cover with tarp to minimize stormwater runoff and install fabric barrier around to capture polluted runoff.
- Vehicle maintenance activities must be performed inside the fleet maintenance garages.
- Use drip pans and other containment devices to prevent spills when performing maintenance.
- Move leaking vehicles and equipment indoors or under cover as soon as possible and use a drip pan to contain any leaks as needed. If possible, drain the leaking fluid and tag the vehicle/equipment to alert others of the leak.
- Clean equipment prior to placing in storage. Equipment shall be washed in a controlled location in accordance with SOP 5.2.
- Clean trucks, equipment and tools in designated equipment wash facilities where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Use non-hazardous cleaners when possible.
- Use steam cleaning, pressure washing, or aqueous washers instead of solvents.
- Drain all liquid filters before disposal or recycling and dispose of properly.
- Pour drip pan fluids in appropriate waste/recycle containers as the first step in clean up after repair work is completed.
- Dispose of or recycle all fluids properly.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect parking areas for stains, leaks, and spills at regularly scheduled days/times.
- Inspect equipment, drums, tanks, and containers for leaks, condition, proper storage and proper labeling.
- Maintain vehicles and equipment on a regular basis to prevent leaks.
- Sweep maintenance areas at regularly scheduled days/times to remove dirt/debris.
- Pickup and dispose of waste materials and scrap equipment at regularly scheduled days/times.
- If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 5.2 –Vehicle / Equipment – Washing Areas

Purpose: To protect stormwater from detergents, oils, grease, and heavy metals by properly washing vehicles and equipment.

Practice:

- All vehicles must be washed in the City Yards wash bay.
- Clean trucks, equipment and tools in designated equipment wash facilities where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Do not release vehicle/equipment wash water into a storm drain or water body without prior authorization under a separate VPDES permit.
- If no wash facility is available, clean equipment over a layer of absorbent material spread on a paved surface and/or heavy plastic sheeting and install curbs, berms, or dikes around outdoor wash area to control and contain wastewater. Use wet/dry vacuum or vacuum truck to collect wash water and discharge to the sanitary sewer.
- Use drain guards (filter inserts) or approved equivalent on nearby storm drain inlets to catch sediments and other pollutants that might enter the storm drains as a result of vehicle washing.
- Avoid detergents whenever possible. If detergents are necessary, a phosphate-free, non-toxic, biodegradable soap is recommended.
- Minimize water use when washing and rinsing.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect and maintain washing equipment such as hoses, wands, and nozzles at regularly scheduled days/times to ensure said devices are delivering proper rate of water and shutoff automatically when not in use.
- Where wash racks are used, inspect for leaks, overspray, or other signs of ineffective containment. Immediately correct any observed defects. Clean periodically to remove particulate matter and other pollutants.
- Inspect plumbing, recycling, and pretreatment systems at regularly scheduled days/times to ensure they are functioning properly.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 5.3 –Vehicle / Equipment – Fueling Areas

Purpose: To protect stormwater from gasoline and diesel fuel by properly maintaining fueling areas and by properly fueling vehicles and equipment.

Practice:

- Do not fuel vehicle or equipment near storm drain or water body.
- Do not hose down or bury fuel spills.
- Do not "top off" fuel tanks. This will minimize the possibility of spills.
- Use a permitted off-site facility such as a fuel/gas station to refuel vehicles and equipment, whenever possible.
- If refueling onsite, use a designated fueling area. Designated fueling area should contain a spill kit, spill response practices, and a covered garbage can for proper cleanup and disposal of spilled fuel.
- Protect fuel storage tanks whenever possible to prevent polluting stormwater runoff.
- Cover nearby storm drains during loading/transfer of fuel storage tanks.
- Use overflow protection devices on tanks and enclose fuel tanks with secondary containment.
- When fueling small equipment from portable containers, fuel in a designated area away from storm drains and water bodies. Use a funnel to minimize spills.
- Fuel carefully to minimize drips to the ground.
- Use absorbent material under small equipment during fueling to collect any drips, overflow, or leaks.
- For new or remodeled facilities, the fuel-dispensing area should be covered and paved with an impervious surface. The surface should be sloped to prevent ponding and contain a grade break that allows for polluted runoff to drain inward to a contained area and the remaining runoff to be diverted away from the fueling, storage, and disposal area.

Inspections/Maintenance/ Spill Response /Reporting:

- Inspect fueling equipment at regularly scheduled days/times for corrosion and structural failure, cracks in foundations, and physical damage to container systems.
- Maintain clean fuel dispensing areas using dry cleanup methods.
- Maintain fuel storage tanks in accordance with local, state, and federal laws.
- Regular maintenance is required if oil/water separators are used.
- Inspect fuel storage area and tanks at regularly scheduled days/times for leaks, overfills due to operator error and spills during pumping from truck to storage facility or vice versa. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- Train applicable employees and subcontractors on proper fueling methods and spill cleanup materials.

The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 6 – Standard Operating Procedures – Grounds Maintenance

Grounds maintenance activities such as mowing, tree trimming, irrigating, fertilizing, spraying pesticides, etc. have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during grounds maintenance operations.

Included in this section are good housekeeping practices for grounds maintenance operations. The procedures are to be implemented on all City owned/operated facilities where vegetated areas are maintained and fertilizers, pesticides, and herbicides are applied, handled, and stored.

The DPR is responsible for ensuring all applicable DPR employees comply with the following procedures. If applicable, all inspections for municipally owned parks and recreation facilities are to be completed and records maintained for inclusion in the facility's SWPPP binder.

The City's Engineering Division will coordinate with the DPR to ensure good housekeeping procedures are being implemented during grounds maintenance operations to ensure that the City remains compliant with the MS4 Permit requirements.

Section 6.1 – Grounds Maintenance – Storage and Disposal Pesticides, Herbicides, and Fertilizers

Purpose: To protect stormwater from untreated chemicals by properly storing and disposing of pesticides, herbicides, and fertilizers.

Practice:

- Do not store pesticides, herbicides, and fertilizers near storm drains or water bodies.
- Do not dispose of pesticides, herbicides, and fertilizers near or in storm drains or water bodies.
- Store pesticides, herbicides, and fertilizers in accordance with manufacturer's specifications.
- Where possible, store pesticides, herbicides, and fertilizers in an enclosed, controlled area. (i.e. locked storage shed or cabinet)
- Use proper containers for storing chemicals and clearly label.
- Use and clearly label secondary containers.
- Store Material Safety Data Sheets (MSDS) near chemical storage areas.
- Order only the amount needed to prevent surplus or expired chemicals.
- Order chemicals just prior to usage to reduce storage time.
- Use entire order of chemicals to minimize disposal.
- If disposal is necessary, dispose of fertilizers and pesticides in accordance with manufacturer's specifications and applicable regulations.
- Follow all applicable federal and state regulations for storing pesticides, herbicides, and fertilizers.
- Maintain dog park signs, enforce dog park rules as stated on signage and clean up after dogs as appropriate.
- Maintain "Do Not Feed Geese" signs and clean up after geese as appropriate.

Inspections/Maintenance/ Spill Response /Reporting:

- Annually check expiration dates and dispose of expired products in accordance with the manufacturer's specifications.
- Keep an up-to-date inventory of all pesticides, herbicides and fertilizers stored. The list should include the name of the product, the manufacturer, the number of bags/containers and expiration date.
- Compile a binder of all Material Safety Data Sheets (MSDS) for pesticide, herbicides and fertilizers and have a general location to store it.
- Keep an up-to-date list of all Certified Pesticide Applicators.
- Keep an up-to-date list of pesticides, herbicides and fertilizers being applied. The list should include the name of the product, employee who applied the product, date of application, amount applied and location.
- Inspect storage areas at regularly scheduled days/times for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, date, time, location, findings, and actions taken.

Training:

- All applicable employees who handle or apply pesticides and herbicides shall be certified in accordance with the Virginia Pesticide Control Act through Virginia Department of Agriculture and Consumer Services (VDACS).

The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees

in accordance with the City of Winchester Stormwater Training Plan.

Section 6.2 – Grounds Maintenance – Handling and Application of Pesticides, Herbicides, and Fertilizers

Purpose: To protect stormwater from untreated chemicals by properly handling and applying pesticides, herbicides, and fertilizers.

Practice:

- Do not apply pesticides, herbicides, and fertilizers before a forecasted rain event.
- Do not dispose of pesticides, herbicides, and fertilizers in storm drains or water bodies.
- City employees who use or supervise the use of any pesticide on any area in the performance of their official duties must be certified as either commercial applicators not for hire or a registered technician.
- City employees who use or supervise the use of any fertilizer on any area in the performance of their official duties must be a certified fertilizer applicator.
- Use proper Personal Protection Equipment (PPE) when handling and applying pesticides, herbicides, and fertilizers.
- All employees handling, mixing, and applying pesticides, herbicides, and fertilizers should be knowledgeable of the corresponding MSDS for pesticides, herbicides, and fertilizers.
- Mix only enough chemical for immediate use.
- Follow manufacturer's recommendations for handling, mixing, and applying pesticides, herbicides, and fertilizers.
- Follow all federal and state regulations when handling, mixing, and applying pesticides, herbicides, and fertilizers.
- Mix pesticides, herbicides, and fertilizers in designated areas and away from storm drains or water bodies.
- Employees applying pesticides, herbicides, and fertilizers should read the MSDS for each product they use.
- Calibrate application equipment to ensure proper amount of product is applied.
- Use caution when broadcasting product near a waterway or storm drain structure.
- If fertilizer is broadcast or spilled on a sidewalk, street or driveway, sweep up the excess and dispose of in accordance with manufacturer's specifications.
- Promptly cleanup any spills or leakage. Use dry absorbent for liquids and sweep up solid product. Dispose of waste in accordance with manufacturer's specifications. Do not rinse with water.
- Use fertilizers with no phosphorous content.
- Pesticide application equipment should have an emergency shut-off switch.
- Use the least toxic product or method available to do the job.
- Use biodegradable products when available.
- Spot treat problem areas with pesticides rather than treating larger areas.
- Avoid broadcast spraying of pesticides or herbicides.
- Use the granular form of fertilizers, herbicides, and pesticides to minimize application losses. If using liquids, be aware of wind direction to avoid wind drift of chemicals.
- Wash equipment in accordance with SOP 5.2.
- Apply products when ground is thawed; if applicable, fertilizer in accordance with any pertinent Nutrient Management Plan (NMP), apply pesticides and herbicides only as needed.

Inspections/Maintenance/ Spill Response /Reporting:

- Annually check expiration dates and dispose of expired products in accordance with the manufacturer's specifications.
- Keep an up-to-date inventory of all pesticides, herbicides, and fertilizers stored. The list should include the name of the product, the manufacturer, the number of bags/containers and expiration date.
- Compile a binder of all MSDS for pesticides, herbicides, and fertilizers and have a general location to store it.
- Keep an up-to-date list of all Certified Pesticide Applicators.
- Keep an up-to-date list of pesticides, herbicides, and fertilizers being applied. The list should include the name of the product, employee who applied the product, date of application, amount applied and location.
- Regularly inspect storage areas for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- All applicable employees who handle or apply pesticides and herbicides shall be certified in accordance with the Virginia Pesticide Control Act through Virginia Department of Agriculture and Consumer Services (VDACS).
- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 6.3 – Grounds Maintenance – Mowing, Irrigation, and Disposal of Landscape Waste

Purpose: To protect stormwater from organic matter, sediments, nutrients, and other pollutants by using proper mowing and irrigation techniques and by properly disposing of landscape waste.

Practice:

- Do not dispose of leaves, clippings, or compost in storm drain or water body.
- Do not pile leaves, clippings, and compost piles near a storm drain or water body.
- Do not dump gas from lawn mowing equipment, waste, or contaminated water in storm drain or water body.
- Do not refuel or change mower oil near storm drains.
- Mow only as low as needed for the area's intended use. Where possible, mow once or twice a year to allow for meadow growth.
- Use a bag to catch grass clippings and appropriately dispose of clippings.
- Water at appropriate times (no rain in forecast and cooler time of day) and do not overwater. Overwatering can result in excess runoff.
- If used for composting, use appropriate compost bin away from storm sewer or water body.
- If temporary stockpile is necessary, cover leaves, clippings, and compost piles with tarp or enclose with a barrier so that runoff does not enter storm drain system or water body.
- Do not pile tree trimmings. Dispose of properly at a yard waste facility, chip material and use as mulch, or burn in controlled area as regulated under City Ordinances.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain lawn care equipment in controlled location per SOP 5.1.
- Wash lawn care equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect lawn care equipment and storage areas for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 6.4 – Grounds Maintenance – Portable Toilet Management

Purpose:

To protect stormwater from bacteria, organic matter, disinfectants, and suspended solids by properly placing and maintaining portable toilets.

Practices:

- Do not place toilets on top of storm drain inlets.
- Do not dispose of waste or pollutants in storm drains or water bodies.
- Portable toilets should be placed away from all storm drains and streets.
- Portable toilets should not be located adjacent to any stream or lake.
- Portable toilets shall be placed on a level ground surface that provides unobstructed access to users and servicing pump trucks.
- Portable toilets should, wherever possible, be located upon natural ground and not on or within 5 feet of a paved surface such as asphalt, concrete, or similar.
- If portable toilets must be placed on a paved surface exposed to rainwater or stormwater runoff, extra care must be taken during servicing to ensure any wastewater spilled onto the paved surface is rinsed and adequately collected so as not to leave any residue. A wet shop vacuum or similar would provide for adequate collection.
- To prevent spills, portable toilets should not be moved more often than is absolutely necessary.
- Portable toilets should be anchored down to prevent from tipping over.
- Owner identification and contact information must be effectively displayed in a prominent location on the exterior of each unit for reporting purposes.
- Collected portable toilet waste must be disposed of at a properly permitted wastewater disposal facility by a capable servicing company. Users of portable toilets should make all reasonable efforts to ensure that the waste hauler is disposing of waste at a permitted location.
- Damaged toilets must be repaired and/or replaced immediately.

Inspections/Maintenance/ Spill Response /Reporting:

- Clean and remove waste from portable toilets each week. Additional cleaning may be necessary depending on the volume of use.
- Portable toilet rinsing (excluding the inside of portable toilet waste tank) may be completed on site when the following conditions are met:
    - Rinse water is controlled to prevent it from entering into a storm drain;
    - No more than one (1) gallon of rinse water is used per portable toilet (i.e. low volume high-pressure cleaners, or bucket and rag. No common household hoses.);
    - Rinsing is completed away from a street or storm drain;
    - Where the portable toilet must be located on a paved surface, any rinse water that comes in contact with the paved surface must be adequately collected;
    - Where the portable toilet is located on a non-paved surface, rinsing should be completed at least 5 feet away from a paved surface and rinsing wastewater is drained to the ground at a rate that allows it to immediately soak into the ground;
    - Rinse water generated during the cleaning of portable toilet waste tanks must not be discharged to

the ground or to a storm drain and must be retained within the tank;

- Portable toilet wastewater (human waste/sewage) must never be disposed of on-site.

- Inspect portable toilets daily to ensure proper functionality and to detect leaks or spills. In the event of a toilet unit being tipped over, immediately lift the unit back to its original position and inspect for spills, leakage, or damage to the unit. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken. Document all relevant inspection activities on the proper forms provided in the SWPPP.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 7 – Standard Operating Procedures – Municipal Operations

Municipal operations such as paving, concrete replacement, refuse collection etc. have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during municipal operations.

Included in this section are good housekeeping practices for municipal operations. The procedures are to be implemented during all City operations outside of City owned facilities.

Section 7.1 – Municipal Operations – General

Purpose: To protect stormwater from contaminates during municipal operations.

Practice:

- Concrete
  - Collect concrete slurry and dispose of waste and water or allow slurry to dry and sweep up direct waste
  - Requireconcrete trucks to wash out in a designated location where wash water will not drain to a storm drain, ditch, creek, stream, pond, wetland or any other water body.
- Paving and Pavement Repair
  - When milling, do not allow grindings to accumulate where they can wash into the storm drain, ditch, creek, stream, pond, wetland or any other water body.
  - Mix only the amount of patching material necessary to complete the repair.
  - Locate stockpiles of asphalt patching material on a paved surface. Cover stockpiles to prevent contact with rain.
  - Use less harmful products rather than diesel for asphalt patching and cleanup activities.
  - Promptly sweep up absorbent material and dispose of in accordance with established procedures.
- Street Sweeping
  - Keep street sweepers maintained and in operation.
  - Sweep as close to the curb as possible.
  - Maintain an effective speed.
  - Keep accurate logs of the lane miles swept and/or the amount of material collected.
- Leaf Collection
  - Remove leaves from gutters, ditches and around inlets.
  - Dispose of leaves at City Yards composting area.
- Refuse Collection
  - Do not pick up hazardous material
  - Empty accumulated liquids from trash collection activities at a properly permitted landfill.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain municipal equipment in controlled location per SOP 5.1.
- Wash municipal equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect equipment used for municipal operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 8 Standard Operating Procedures - Utility Maintenance

Section 8 – Standard Operating Procedures - Utility Maintenance

Utility maintenance activities such as fire hydrant testing, waterline repair, and sanitary sewer repair have the potential to produce pollutant discharge if good housekeeping procedures are not implemented during the described activities.

The City's Engineering Division will work in close coordination with the Department of Public Utilities (DPU) to ensure good housekeeping procedures are being followed during utility maintenance operations to ensure that the City remains compliant with the MS4 Permit requirements.

Section 8.1 Standard Operating Procedures – Water System Maintenance

Purpose: To protect stormwater from contaminates during water line maintenance operations.

Practice:

- Install inlet controls and filtering devices for planned and previously approved discharges into storm drain.
- Prior to discharge, inspect discharge flow path and clear/cleanup any debris or pollutants found (i.e., remove trash, leaves, sediment, and wipe up liquids, including oil spills).
- Stop unplanned discharges as quickly as possible.
- Notify DPU of unplanned discharge and discharge extent.
- Identify unplanned discharge location and repair as needed.
- Inspect unplanned discharge flow path and repair damaged areas as needed.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain equipment in controlled location per SOP 5.1.
- Wash municipal equipment in controlled location per SOP 5.2.
- Fill gas tanks in a controlled location per SOP 5.3.
- Regularly inspect equipment used for utility operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.

Section 8.2 – Standard Operating Procedures – Sewer System Maintenance

Purpose: To protect stormwater from contaminates during sewer line maintenance operations.

Practice:

- Remove tree roots and other identified obstructions in sewer lines.
- Immediate clearing of blockage or repair is required where an overflow is currently occurring or for urgent problems that may cause an imminent overflow (e.g. pump station failures, sewer line ruptures, sewer line blockages).
- Clean sewer lines on a regular basis to remove grease, grit, and other debris that may lead to sewer backups.
- Review previous sewer maintenance records to help identify "hot spots" or areas with frequent maintenance problems and locations of potential system failure.
- Identify and track sanitary sewer discharges. Identify dry weather infiltration and inflow first. Wet weather overflow connections are very difficult to locate.
- Locate wet weather overflows and leaking sanitary sewers using conventional source identification techniques such as monitoring and field screening. Techniques used to identify other illicit connection sources can also be used for sewer system evaluation surveys.
- Implement community awareness programs for monitoring sanitary sewer wet weather overflows. A citizen's hotline for reporting observed overflow conditions should be established to supplement field screening efforts.
- When a spill, leak, and/or overflow occurs and when disinfecting a sewage contaminated area, take every effort to ensure that the sewage, disinfectant and/or sewage treated with the disinfectant is not discharged to the storm drain system or receiving waters.

Inspections/Maintenance/ Spill Response /Reporting:

- Store and maintain equipment in controlled location per SOP 5.1.
- Wash equipment in controlled location per SOP 5.2.
- Regularly inspect equipment used for utility operations for leaks and spills. If leaks or spills occur, clean up in accordance with SOP 3.2.
- During routine maintenance and inspection note the condition of sanitary sewer structures and identify areas that need repair or maintenance.
- Establish routine maintenance program. Cleaning should be conducted at an established minimum frequency and more frequently for problem areas such as restaurants that are identified
- Keep up-to-date records of site inspections including the name of the inspector, time, date, location, findings, and actions taken.

Training:

- The City shall provide daily good housekeeping training for City owned/operated facilities for all applicable City employees in accordance with the City of Winchester Stormwater Training Plan.