



City of Salem, Virginia

Municipal Separate Storm Sewer System Annual Report

For

General Permit No. VAR040010

Permit Year

July 1, 2022 through June 30, 2023

This annual report is submitted in accordance with 9VAC25-890-40 as part of the requirement for permit coverage to discharge stormwater to surface waters of the Commonwealth of Virginia consistent with the VAR04 General Permit effective date November 1, 2018.

Submitted: October 2, 2023

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ACRONYMS

BMP	Best Management Practices
CVC	Clean Valley Council
DEQ	Virginia Department of Environmental Quality
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
POC	Pollutants of Concern
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
VESCP	Virginia Erosion and Sediment Control Program
VSMP	Virginia Stormwater Management Program
VPDES	Virginia Pollution Discharge Elimination System

1.0 GENERAL ANNUAL REPORTING REQUIREMENTS

1.1. General Information (Part I.D.2.a)

Permittee Name: City of Salem

Permit Number: VAR040010

1.2. Reporting Period (Part I.D.2.b)

The reporting period for which the annual report is being submitted:

July 1, 2022 through June 30, 2023

1.3. Signed Certification (Part I.D.2.c)

A signed certification as 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 ensure 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."

Printed Name: Jay Taliaferro

Title: City Manager

Signature: _____ Date: _____

1.4. Reporting for MCMs #1 - #6 (Part I.D.2.d)

Include information for each annual reporting item specified in Part I.E:

Reporting information for each Minimum Control Measure is provided in Section 2.0.

1.5. Evaluation of the MS4 Program Implementation (Part I.D.2.e)

An evaluation of the MS4 program implementation, including a review of each MCM to determine the MS4 program’s effectiveness and whether changes to the MS4 Program Plan are necessary:

An evaluation for each Minimum Control Measure is provided in Section 2.0. Changes that are necessary to be made to the MS4 Program Plan are summarized in Table 1.

Table 1: Summary of MS4 Program Plan Changes

2.0 MINIMUM CONTROL MEASURES

2.1. MCM #1: Public Education and Outreach

2.1.1. High Priority Stormwater Issues (Part I.E.1.g(1))

A list of high-priority stormwater issues addressed in the public education and outreach program:

A list of high-priority stormwater issues addressed in public education and outreach program is provided in Table 2.

2.1.2. High Priority Stormwater Issue Communication Strategies (Part I.E. 1.g(2))

A list of strategies used to communicate each high-priority stormwater issue:

A list of strategies used to communicate each high-priority stormwater issue is provided in Table 2. Appendix A includes some documentation of the communication efforts described in Table 2.

Table 2: High Priority Stormwater Issues					
#	Stormwater Issue	Strategy	Communication	Metric	Beneficial
1	Public Education on Stormwater Impacts	Curriculum	Stream School and Events (10/26/22; 11/14/22; 1/24/23; 2/6/23; 3/14/23; 4/17/23; 5/1/23). Discussed Pollution Prevention, Sediment, Bacteria, Nutirents, and Recycling.	235 Persons	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Public Education on Litter	Curriculum with event	Childrens Story/Puppet Show April 12/13, 2023	107 Persons	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Pollution Prevention	Social Media	Facebook, Instagram, Twitter, and LinkedIn Posts	Average 225 views per month	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.1.3. MCM #1 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #1 requirements met completed in accordance with the MS4 Program Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.2. MCM #2: Public Involvement and Participation

2.2.1. Public Input Summary (Part I.E.2.f(1))

A summary of any public input on the MS4 program received (including stormwater complaints) and responses:

If any MS4 Program inputs or stormwater complaints were received from the public, were responses provided?

☐ Yes () ☐ No () ☒ Not Applicable (No input or complaints)

2.2.2. MS4 Program Webpage (Part I.E.2.f(2))

A webpage address to the MS4 program and stormwater website:

The webpage address is <https://www.salemva.gov/242/Stormwater-Information>

2.2.3. Public Involvement Activities Implemented (Part I.E.2.f(3))

A description of the public involvement activities implemented:

A description of the implemented public involvement activities is provided in Table 3.

2.2.4. Public Involvement Activity Metric and Evaluation (Part I.E.2.f(4))

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:

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 is provided in Table 3. Appendix A includes some documentation of the public involvement activities.

Table 3: Public Involvement Activities Implemented					
#	Activity Description/Date	Category	Metric	Collaboration	Beneficial
1	Storm Drain Stenciling - 6/27/23 & 6/28/23	Pollution Prevention	20 storm drains marked.	Clean Valley Council	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	In-Person Stream School 11/14/22	Educational	24 Participants	Clean Valley Council	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Fall/Winter Cleanup Days 10/22/22 and 2/4/23	Restoration	10 Participants	Clean Valley Council	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Spring Cleanup Days 4/1/2023, 4/13/23, 4/15/23, 4/22/23, 5/17/23	Restoration	52 Participants	Clean Valley Council	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.2.5. MS4 Collaboration (Part I.E.2.f(5))

The name of other MS4 permittees collaborated with in the public involvement opportunities:

If applicable, the name of other MS4 permittees collaborated with for any of the public involvement opportunities are provided in Table 3.

2.2.6. MS4 Program Plan BMP Measurable Goals

The MS4 Program Plan BMPs measurable goals are provided in Table 4.

Table 4: MS4 Program Plan BMP Measurable Goals for MCM #2		
BMP	Measurable Goal	Completeness Status
2.1	Was documentation of the public input or complaints on the MS4 program and MS4 Program Plan maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable (No input/complaints)
2.1	Is the effective MS4 permit and coverage letter on the webpage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.1	Is the most current MS4 Program Plan on the webpage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.1	Is the annual report for each year of the term covered by this permit no later than 30 days after submittal to the department on the webpage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable

2.1	Is there a mechanism for the public to report potential illicit discharges, improper disposal or spills to the MS4, complaints regarding land disturbing activities or other potential stormwater pollution concerns on the webpage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.1	Is there a method for how the public can provide input of the MS4 Program Plan on the webpage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.1	Is there a method for responding to public input?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2.1	Is there a method for maintaining public input received and the city's responses?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.2.7. MCM #2 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #2 requirements met in accordance with the MS4 Program Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.3. MCM #3: Illicit Discharge Detection and Elimination

2.3.1. MS4 Map and Information Table (Part I.E.3.e(1))

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

Were the MS4 storm sewer map and outfall information table updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year?

☒ Yes ☐ No () ☐ Not Applicable (No changes required)

2.3.2. Dry Weather Screening (Part I.E.3.e(2))

The total number of outfalls screened during the reporting period as part of the dry weather screening program:

Were at least 50 outfalls screened during the reporting period? ☒ Yes ☐ No ()

The number of outfalls screened during the reporting year as part of the dry weather screening program is 58.

2.3.3. Illicit Discharges (Part I.E.3.e(3))

A list of illicit discharges to the MS4 including spills reaching the MS4:

Were there any illicit discharges to the MS4 including spills reaching the MS4?

☒ Yes (Refer to Appendix B) ☐ No

2.3.4. MS4 Program Plan BMP Measurable Goals

The MS4 Program Plan BMPs measurable goals are provided in Table 5.

Table 5: MS4 Program Plan BMP Measurable Goals for MCM #3		
BMP	Measurable Goal	Completeness Status
3.1	Was a GIS compatible shapefile submitted to DEQ?	Completed
3.1	Was written notification provided to any downstream adjacent MS4 of any known interconnection established or discovered during the permit reporting year?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable (No new or discovered) <input type="checkbox"/> No

3.2	Were all reported or observed non-stormwater discharges eliminated?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.2	Were inspections, surveillance, monitoring and enforcement procedures in response to reports implemented?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.3	Were illicit discharge detection and elimination procedures implemented, enforced and documentation maintained of at least 50 outfalls?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.3.5. MCM #3 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #3 requirements met in accordance with the MS4 Program Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.4. MCM #4: Construction Site Stormwater Runoff Control

2.4.1. Implementation of VESCP and City Ordinance (Part I.E.4.a(1))

The MS4 has adopted a Virginia Erosion and Sediment Control Program (VESCP). The MS4 implements the VESCP consistent with the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations.

2.4.1.1. Conforming Land Disturbance Projects (Part I.E.4.d(1)(a))

A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the VESCP consistent with the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations:

Were all land disturbing projects that occurred during the reporting period conducted in accordance with the VESCP consistent with the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations?

☒ Yes ☐ No (Refer to Table 6)

2.4.1.2. Non-Conforming Land Disturbance Projects (Part I.E.4.d(1)(b))

If one or more of the land disturbing projects were not conducted with the VESCP consistent with the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations, an explanation as to why the projects did not conform:

If “No” is checked above, an explanation as to why a project did not conform to the VESCP laws and regulations and City ordinance is provided in Table 6.

Table 6: Project(s) Not in Conformance with VESCP

Project Name 1: None to Report

Explanation:

2.4.2. Site Stormwater Runoff Inspections (Part I.E.4.d(2))

Total number of inspections conducted:

The total number of site stormwater runoff inspections conducted for regulated land disturbance activities is 435.

2.4.3. Enforcement Actions (Part I.E.4.d(3))

The total number and type of enforcement actions implemented:

The total number of enforcement actions implemented is 106.

The total number of Stop Work Orders issued is 8.

The total number of Fines Issued is 0.

2.4.4. MCM #4 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #4 requirements met in accordance with the MS4 Program Plan?

☒ Yes ☐ No (.)

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.5. MCM #5: Post-Construction Stormwater Management

2.5.1. Implementation of VSMP and City Ordinance (Part I.E.5.i (1))

The MS4 has approved Virginia Stormwater Management Program (VSMP) and implements the VSMP consistent with the Virginia Stormwater Management Act and VSMP Regulations as well as has developed an inspection and maintenance program in accordance with Parts I.E.5.b and c.

2.5.1.1. Privately-Owned VSMP Inspections (Part I.E.5.i (1)(a))

The number of privately-owned stormwater management facility inspections conducted:

The number of privately-owned stormwater management facility inspections conducted is 0.

2.5.1.2. Privately-Owned VSMP Enforcement Actions (Part I.E.5.i (1)(b))

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

The number of enforcement actions initiated by the MS4 to ensure long-term maintenance of privately-owned stormwater management facilities is 0.

The type of enforcement actions issued are N/A.

2.5.2. Stormwater Management Facility Inspections (Part I.E.5.i(2))

Total number of inspections conducted on stormwater management facilities owned or operated by the permittee:

Were inspections conducted on stormwater management facilities during the reporting year? ☒ Yes ☐ No

The total number of inspections conducted on stormwater management facilities, owned or operated by the MS4 is 15.

2.5.3. Stormwater Management Facility Maintenance (Part I.E.5.i(3))

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

Were significant maintenance, repair, or retrofit activities performed on any stormwater management facilities during the reporting year?

☒ Yes ☐ No ☐ Not Applicable (No significant maintenance required)

A description of significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the MS4 to ensure it continues to perform as designed is provided in Table 7.

Table 7: Maintenance Activities Performed on Stormwater Management Facilities	
Stormwater Management Facility	Significant Maintenance Activity
Facility ID 8	Basins from last annual report inspected 6/8/2023. Fencing was not required therefore all maintenance complete and current inspection report shows compliance.
Facility ID 61	Spring 2023 erosion issue filled in and stabilized rip rap to channel for protection. Basins inspected 6/8/2023 and is compliant.
Facility ID 62	Spring 2023 erosion issue filled in and stabilized rip rap to channel for protection. Basins inspected 6/8/2023 and is compliant.
Facility ID 6	Basins inspected 6/8/2023. Maintenance to be performed and reported next MS4 reporting year.
Facility ID 12	Basins inspected 6/8/2023. Maintenance to be performed and reported next MS4 reporting year.

2.5.4. Virginia Construction Stormwater General Permit Database (Part I.E.5.i(4))

A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f or a statement that the Permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater form Construction Activities:

Stormwater management facility information for stormwater facilities installed after July 1, 2014 was submitted through the Virginia Construction Stormwater General Permit database for land disturbing activities requiring a General VPDES Permit for Discharges of Stormwater from Construction Activities?

☒ Yes ☐ No ☐ Not Applicable

2.5.5. DEQ BMP Warehouse (Part I.E.5.i(5))

A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g and the date on which the information was submitted:

No later than October 1 of each year, stormwater management facilities and BMPs implemented to meet a TMDL load reduction between July 1 and June 30 of each year were electronically reported using the DEQ BMP Warehouse for any practices not reported in accordance with Part I.E.5.f (requirement 2.5.4) including stormwater management facilities from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required?

☐ Yes, Date Submitted: ☐ No ☒ Not Applicable

2.5.6. MS4 Program Plan BMP Measurable Goals

The MS4 Program Plan BMPs measurable goals are provided in Table 8.

Table 8: MS4 Program Plan BMP Measurable Goals for MCM #5		
BMP	Measurable Goal	Completeness Status
5.1	Was the inspection and maintenance program on post-construction stormwater management facilities implemented?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.1	Did all regulated land disturbance activities have a City approved SWM plan?	<input checked="" type="checkbox"/> Yes, all applicable <input type="checkbox"/> No
5.1	Were all stormwater management facilities recorded with inspection and maintenance plans and/or agreements, where applicable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.2	Was the stormwater management facility tracking database updated?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not Applicable (No new or discovered) <input type="checkbox"/> No

2.5.7. MCM #5 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #5 requirements met in accordance with the MS4 Program Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.6. MCM #6: Pollution Prevention and Good Housekeeping

2.6.1. Operational Procedures (Part I.E.6.q(1))

A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period:

Were any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period?

☐ Yes (Refer to Table 9) ☐ No ☒ Not Applicable (Not necessary)

Table 9: Good Housekeeping Operational Procedures Developed or Modified

N/A

2.6.2. Newly Developed SWPPPs (Part I.E.6.q(2))

A summary of any new SWPPPs developed in accordance Part I E 6 c during the reporting period:

Were any new SWPPPs developed in accordance Part I E 6 c during the reporting period?

☐ Yes (Refer to Table 10) ☐ No ☒ Not Applicable (No new high priority facilities)

Table 10: New SWPPPs Developed

SWPPP Name	SWPPP Address
NA	NA

2.6.3. Modified or Delisted SWPPPs (Part I.E.6.q(3))

A summary of any new SWPPPs modified in accordance with Part I E 6 f or the rationale of any high priority facilities delisted in accordance with Part I E 6 h during the reporting period:

Were any new SWPPPs modified after an unauthorized discharge, release or spill reported?

☐ Yes (Refer to Table 11) ☐ No ☒ Not Applicable (Not necessary)

Were any high priority facilities delisted in accordance with Part I E 6 h during the reporting period? ☐ Yes (Refer to Table 11) ☐ No ☒ Not Applicable (No delisted high priority facilities)

If yes, rationale is provided for any high priority facilities delisted in accordance with Part I E 6 h during the reporting period in Table 11.

Table 11: SWPPPs Modified or Delisted	
SWPPPs Modified/Delisted	Rationale for Delisting
NA	NA

2.6.4. Newly Developed Nutrient Management Plans (Part I.E.6.q(4))

A summary of new turf and landscape nutrient management plans developed:

Were any new turf and landscape nutrient management plans developed?

☒ Yes (Refer to Table 12.) ☐ No () ☐ Not Applicable (Not required this permit year)

2.6.4.1. Nutrient Management Plan Acreage (Part I.E.6.q(4)(a))

The location and the total acreage of each land area:

If “Yes” is checked above, the location and total acreage of the land area for any newly developed nutrient management plan is provided in Table 12.

2.6.4.2. Nutrient Management Plan Approval Date (Part I.E.6.q(4)(b))

The date of the approved nutrient management plan:

If “Yes” is checked above, the approval date of any newly developed nutrient management plan is provided in Table 12.

Table 12: New Turf and Landscape Nutrient Management Plans		
Location	Total Acreages	Date Approved
City of Salem	37.13	8/17/2022

2.6.5. Training Events (Part I.E.6.q(5))

A list of the training events conducted in accordance with Part I.E.6.m, including the following information:

Was training conducted?

☐ Yes ☒ No (Training will be conducted in the 2023-2024 year) ☐ Not Applicable
(Not required this permit year.)

If yes is checked above, a list of training events conducted in accordance with Part I.E.6.m is provided in Table 13.

2.6.5.1. Training Dates (Part I.E.6.q(5)(a))

The date of the training event:

If yes is checked above, the date of the training event is provided in Table 13.

2.6.5.2. Quantity Trained (Part I.E.6.q(5)(b))

The number of employees who attended the training event:

If yes is checked above, the number of employees who attended the training event is provided in Table 13.

2.6.5.3. Training Objective (Part I.E.6.q(5)(c))

The objective of the training event:

If yes is checked above, the objective of the training event is provided in Table 13.

Table 13: Training Events		
Date	# of Attendees	Training Objective

2.6.6. MS4 Program Plan BMP Measurable Goals

The MS4 Program Plan BMPs measurable goals are provided in Table 14.

Table 14: MS4 Program Plan BMP Measurable Goals for MCM #6		
BMP	Measurable Goal	Completeness Status
6.1	Was good housekeeping and pollution prevention biennial training conducted this reporting year?	<input type="checkbox"/> Yes <input type="checkbox"/> Not Applicable (Not required. Training was conducted within the required 2 year period.) <input checked="" type="checkbox"/> No
6.2	Was the annual comprehensive compliance evaluations conducted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6.2	Were the SWPPPs reviewed within 30 days after an unauthorized discharge, release or spill reported?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable (Not required) <input type="checkbox"/> No
6.2	Were the SWPPPs updated within 90 days after an unauthorized discharge?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable (Not required) <input type="checkbox"/> No
6.2	Were the MS4's properties reviewed this reporting year to determine if the properties meet the criteria of a high priority facility?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6.3	Were the nutrient management plans implemented through completion of application records?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6.5	Did all signed contracts executed for pesticide and herbicide application maintain proof of certifications on file?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not Applicable <input type="checkbox"/> No
6.5	Did training occur and were proof of certifications maintained on file for employees performing pesticide and herbicide applications?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not Applicable <input type="checkbox"/> No
6.6	Were all signed contracts executed with contract good housekeeping and pollution prevention language?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.6.7. MCM #6 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary:

Were all MCM #6 requirements met in accordance with the MS4 Program Plan?

☐ Yes ☒ No (Training will be provided in the 2023-2024 year)

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

3.0 TMDL SPECIAL CONDITIONS

3.1. Roanoke (Staunton) River Watershed PCB TMDL Action Plan

3.1.1. PCB TMDL Implementation (Part II.B.9)

A summary of actions conducted to implement each local TMDL action plan:

Table 15: PCB TMDL Action Plan Summary of Actions		
BMP	Measurable Goals	Completeness Status
1	Assessment of City Properties.	Completed-SWPPP developed.
2	SWPPP developed, implemented and maintained for the Streets Facility.	Completed and Ongoing-SWPPP inspected Feb 2023
3	MCMs 1 - 4 and 6 and City Ordinances developed and implemented to specifically address and minimize PCBs are described in section 4.1.6 in the PCB TMDL Action Plan.	Completed and Ongoing
4	Notification to DEQ in writing within 30 days of discovery, if found.	Ongoing-NA for 2022-2023

Were all requirements met in accordance with the Roanoke (Staunton) River Watershed PCB TMDL Action Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

3.2. Upper Roanoke River Watershed E.coli TMDL Action Plan

3.2.1. Bacteria TMDL Implementation (Part II.B.9)

A summary of actions conducted to implement each local TMDL action plan:

Table 16: Bacteria TMDL Action Plan Summary of Actions		
BMP	Measurable Goals	Completeness Status
1	Post signage and provide disposal containers and waste bags.	Completed, Ongoing- 2022: 1 case (6000 bags each) and 15 cases (2000 bags each) 2023: 2 cases (6000 bags each) and 9 cases (2000 bags each).
2	Implement and enforce ordinances or policies related to outdoor water waste. These ordinances and policies are described in section 4.1.8 of the Upper Roanoke River Bacteria Action Plan.	Completed, Ongoing
3	Educate the public on sewer backup prevention and actions taken if the sewer overflows.	Completed, Ongoing
4	Enhanced Public Education and Outreach and Public Participation within the watershed through partnership with the Clean Valley Council.	Completed, Ongoing

Were all requirements met in accordance with the Upper Roanoke River Watershed E.coli TMDL Action Plan?

☒ Yes ☐ No ()

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

3.3. Upper Roanoke River Watershed Sediment TMDL Action Plan

3.3.1. Sediment TMDL Implementation (Part II.B.9)

A summary of actions conducted to implement each local TMDL action plan:

Table 17: Sediment TMDL Action Plan Summary of Actions		
BMP	Measurable Goal	Completeness Status
1	<p>Coordination with DEQ to be able to take additional credit for the implementation of Salem's MS4 Program.</p> <p>Evaluate a credit for the reduced land disturbance threshold written in Salem's ordinance.</p> <p>Determine lane miles swept potential of City streets. Select a street sweeping scenario to implement.</p>	Ongoing
2	Develop necessary documentation per expert panel report.	Completed
3	Develop sweeping training materials and implement training.	To Be Completed
4	<p>Assess numerical progress towards meeting the WLA over the permit cycle.</p> <p>Re-evaluate Street Sweeping Program.</p>	June 30, 2024

A summary of quantifiable pollutant of concern reductions is provided in Table 18.

Table 18: POC Reductions	
BMP #10: Street Sweeping Using the Mass Loading Approach	
Goal (tons of material swept):	793.55 Tons
Progress toward Goal (tons of material swept based on lane mile approach):	0 Tons/yr (Lane Mile)
Lane Miles	Street sweeping was completed over the 2022-2023 year. A total of 74 sweeping events were recorded, with an average of 5.22 lane miles swept. Despite street sweeping occurring the distinction between curbed and non-curb lane mile was not reported, therefore the calculated tonnage is reported as 0 Tons/Yr.

3.3.2. Sediment TMDL Evaluation (Part I.D.2.e)

Review the TMDL Special Condition to determine the Local TMDL Action Plan's effectiveness and whether or not changes to the Local TMDL Action Plan are necessary:

Were all requirements met in accordance with the Upper Roanoke River Watershed Sediment TMDL Action Plan?

☐ Yes ☒ No (City has made progress towards meeting the WLA)

Are the MS4 Program measurable goals effective?

☒ Yes (Effective) ☐ No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

Appendix A: Clean Valley Council Documentation for MCM #1 and MCM #2

CVC Reported Clean-ups in Salem

Date	Event Name	Team Name	Municipality	Location of Cleanup	Total Estimated Volunteers	Total Actual Volunteers	Total Hrs	# bags	cu. ft.	#lbs	cu. yds.	Tons	Tires
10/22/2022	Fall Waterways	Girl Botz	City of Salem	Masons Creek at Roanoke Boulevard	8	7	7	3	12	75	0.44	0	0
10/22/2022	Fall Waterways	WIT Committee	City of Salem	Mason Creek near Burton Center for Arts and Technology in Salem VA	5	3	6	5	20	125	0.74	0.1	0
2/4/2023	Anytime	German Club x AXO	City of Salem	Apperson Drive and Roanoke River	70	0	0	0	0	0	0.00	0	0
4/1/2023	Clean Valley Day	n/a	City of Salem	tbd	1	0	0	0	0	0	0.00	0	0
4/1/2023	Clean Valley Day	Altec Industries	City of Salem	The Roanoke Greenway beside the FedEx Ground facility at 2045 Cook Dr, Salem, VA 24153	14	5	25	4	16	100	0.59	0.1	0
4/13/2023	Clean Valley Day	Float Fishermen of VA Roanoke	City of Salem	Mill lane Salem to eddy st bridge	8	4	16	6	24	150	0.89	0.1	0
4/15/2023	Clean Valley Day	Salem Rotary Club	City of Salem	Rotary Park, (the Electric Road Bridge at Lewis Gale) west along the south side of the Roanoke River and along the Greenway to Mill Lane. Aprox. 2.5 miles	50	23	46	20	80	500	2.96	0.3	0
4/22/2023	Anytime	Merrill Lynch	City of Salem	We will be picking up trash along the Salem Greenway (located on the corner of Electric and Apperson)	27	0	0	0	0	0	0.00		0
5/17/2023	Anytime	Team Bradburn	City of Salem	Longwood Park	20	20	60	8	32	200	1.19	0.1	0

Salem Events

Date	School Name/Event Name	Location	School Program/Event	# of Adults	# of Students	#Total	Municipality	Event Type	Issue/Topic Addressed
10/26/2022	Salem Montessori	Salem Montessori		2	7	9	Salem	Education	Pollution from Feces in Our
1/24/2023	Roanoke College	221 College Ln, Salem, VA	Roanoke College Honors	2	19	21	Salem	Education	Project for students of Roanoke
2/6/2023	Roanoke College	El Jefe	Roanoke College Honor	1	3	4	Salem	Education	discuss and refine honors project
2/13/2023	Roanoke College	MacBobs	outreach, volunteer	1	6	7	Salem	Education	Stormwater
2/15/2023	Roanoke College	restaurant	Roanoke College Honor	1	5	6	Salem	Education	environmental educators
2/17/2023	Roanoke College	restaurant	Roanoke College Honor	1	5	6	Salem	Education	discuss and refine honors project
2/17/2023	Roanoke College	cafe	Roanoke College Honor	1	4	5	Salem	Education	discuss and refine honors project
4/12/2023	West Salem Elementary	West Salem Elementary	Rigsby	6	53	59	Salem	Education	Litter
4/13/2023	Glenvar Elementary School	4507 Malus Dr, Salem, VA	Rigsby	3	45	48	Salem	Education	Litter
4/17/2023	St. Anne's Episcopal Day	42 E Main St, Salem, VA 24153	Who Polluted the River?	4	30	34	Salem	Education	Who Polluted the River
11/14/2022	Roanoke College	1705 Electric Rd, Salem, VA	Stream School	4	20	24	Salem	Education	Stream School
3/14/2023	West Salem Elementary	West Salem Elementary		30	70	100	Salem	Event	Stormwater Event
5/1/2023	Roanoke College		Honors Students final	0	19	19	Salem	Event	Stormwater Event
Totals				56	286	342			

CVC Events for All Municipalities

Date	School Name/Event Name	Location	School Program/Event	# of Adults	# of Students	#Total	Municipality
10/14/2022 -	GO FEST	Elmwood Park		16000	16000	32000	ALL
11/18/2022	Earth Summit	Virginia Western Community	Earth Summit	18	71	89	ALL
3/22/2023	Roanoke College	Wellness Fair		40	20	60	ALL
4/22/2023	EarthDay Melrose	2502 Melrose Ave NW suite d,		15	2	17	ALL
4/22/2023	Earth Day Grandin	Earth Day Grandin		220	550	770	ALL
4/29/2023	Mill Mtn Zoo	Mill Mtn Zoo	Party for the Planet	223	125	348	ALL
Totals				16516	16768	33284	

CVC Social Media Posts

Facebook				
Month	Reach	Page visits	Followers	Posts
July	1917	252	2164	30
August	2190	328	2165	13
September	2700	166	2164	22
October	1575	322	2170	17
November	931	182	2263	12
December	1243	114	2179	16
January	1245	254	2185	22
February	1349	270	2195	28
March	1560	327	2209	35
April	2014	506	2223	29
May	5539	436	2237	34
June	3450	433	2253	33
Total	25713	3590	26407	291
Average	2142.75	299.2	2200.6	24.3

Instagram				
Months	Reach	Profile visits	Total Followers	Posts
July	265	35	921	27
August	312	56	930	11
September	218	20	933	13
October	245	14	941	11
November	201	14	1002	11
December	226	22	944	9
January	293	21	952	11
February	244	14	954	18
March	356	43	978	22
April	278	34	983	14
May	418	31	993	15
June	341	19	1003	21
Total	3397	323	11534	183
Average	283.1	26.9	961.2	15.25

Twitter				
Months	Followers	Impressions	Profile visits	Posts
July	211	183	165	27
August	211	411	377	11
September	212	289	31	13
October	211	96	106	10
November	208	191	44	11
December	209	67	24	8
January	210	238	0	11
February	210	157	115	15
March	209	66	0	20
April	211	159	47	14
May	216	27	1	15
June	217	23	0	17
Total	2535	1907	910	172
Average	211.25	158.9	75.8	14.3

Linkedin				
Month	Followers	Page views	Impressions	Posts
July	73	10	147	4
August	76	31	261	4
September	77	18	175	6
October	78	10	188	7
November	77	5	102	5
December	79	3	66	3
January	86	16	137	7
February	86	8	187	8
March	88	10	143	10
April	88	22	149	10
May	88	30	68	8
June	88	4	192	11
Total	984	167	1815	83
Average	82	13.9	151.3	6.9

MCM #1 and #2 Photos 2022-2023 Photos



Fall Waterways October 2022



Stream School Roanoke College 11-14-22



West Salem Stream Night 3-14-23



Rain Barrel Workshop 4-13-23



Earth Day Grandin Village 4-22-23

Appendix B: List of Illicit Discharges

Appendix B: Illicit Discharges

Illicit Discharge	Part I.E.3.e(3)(a) Source	Part I.E.3.e(3)(b) Date Observed & Date Reported:	Part I.E.3.e(3)(c) Detected during Screening, Reported by Public or Other (Describe):	Part I.E.3.e(3)(d) Investigation Resolution:	Part I.E.3.e(3)(e) Description of Follow-up Activities:	Part I.E.3.e(3)(f) Date Investigation Closed:
Washer draining outside into buckets rather than Sanitary Sewer	13 School Lane	9/30/2022	Reported by Citizen	Yes	Washer and dryer disconnected	9/30/2022
Grease dumped into storm drain	1306 West Main St	10/18/2022	Reported by Fire Marshall	Yes	Follow up inspections 10/19/2022; 10/21/2022; 10/27/2022; 11/7/2022; 1/3/2023. Grease was vacuumed out on 10/27/2022 and inspections were completed until no evidence of further impact coming. Investigation closed.	1/5/2023
Fire destroyed building, fire department on scene watering debris	17-23 7th Street	1/23/2023	Reported by Fire Marshall	Yes	Demo contractor hired, no additional discharge to outfalls	1/23/2023

Appendix C: Street Sweeping

Appendix C: Street Sweeping

Description	Date	Lane Miles Swept	Tonnage
Street Sweeping Collector	2022-07-02 05:28 AM	2	0.35
Street Sweeping Collector	2022-09-14 08:09 AM	6	1.94
Street Sweeping Collector	2022-10-04 01:43 AM	3	3.81
Street Sweeping Collector	2022-10-05 02:37 AM	2.75	5.85
Street Sweeping Collector	2022-10-11 08:56 AM		0.73
Street Sweeping Collector	2022-10-12 07:32 AM	5	1.02
Street Sweeping Collector	2022-10-13 12:23 PM	6	1.09
Street Sweeping Collector	2022-10-13 02:09 AM	4	0.78
Street Sweeping Collector	2022-10-14 07:49 AM	3	1.39
Street Sweeping Collector	2022-10-15 06:00 AM	4	5.35
Street Sweeping Collector	2022-10-17 02:01 AM	2.5	1.18
Street Sweeping Collector	2022-10-18 01:58 AM	3.5	1.13
Street Sweeping Collector	2022-10-18 05:14 AM	4	0.96
Street Sweeping Collector	2022-10-19 04:36 AM	4	0.75
Street Sweeping Collector	2022-10-20 05:26 AM	4.2	0.95
Street Sweeping Collector	2022-10-21 04:41 AM	3	2.63
Street Sweeping Collector	2022-10-22 10:44 AM	4	0.78
Street Sweeping Collector	2022-10-25 05:17 AM	3	1.5
Street Sweeping Collector	2022-10-26 04:57 AM	1.5	1.09
Street Sweeping Collector	2022-10-27 05:32 AM	2	0.64
Street Sweeping Collector	2022-10-29 11:13 AM	3	1.1
Street Sweeping Collector	2022-11-01 04:48 AM	2	1.38
Street Sweeping Collector	2022-11-03 05:05 AM	3	0.75
Street Sweeping Collector	2022-11-04 04:34 AM	2	0.55
Street Sweeping Collector	2022-11-07 05:04 AM	3	0.64
Street Sweeping Collector	2022-11-08 04:31 AM	2	0.58
Street Sweeping Collector	2022-11-10 04:26 AM	2	0.42
Street Sweeping Collector	2022-11-10 04:33 AM	3	1.07
Street Sweeping Collector	2022-11-14 04:52 AM	3	1.07
Street Sweeping Collector	2022-11-16 04:42 AM	2.5	0.61
Street Sweeping Collector	2022-11-17 04:51 AM	0.5	0.28
Street Sweeping Collector	2022-11-29 05:01 AM	2	0.38
Street Sweeping Collector	2022-12-01 04:07 AM	1.1	1.63
Street Sweeping Collector	2023-01-05 04:14 AM	1.2	0.74
Street Sweeping Collector	2023-02-10 09:03 AM	0.5	1.5
Street Sweeping Collector	2023-02-20 08:43 AM	2.8	4.5
Street Sweeping Collector	2023-02-22 08:13 AM	4.7	4.31
Street Sweeping Collector	2023-02-23 08:45 AM	3.8	3.98
Street Sweeping Collector	2023-02-24 03:04 AM	3.6	2.29
Street Sweeping Collector	2023-02-28 06:55 AM	1.8	2.02
Street Sweeping Collector	2023-03-01 07:22 AM	8	3.17
Street Sweeping Collector	2023-03-02 06:32 AM	10	2.47
Street Sweeping Collector	2023-03-07 06:56 AM	9.5	3.06
Street Sweeping Collector	2023-03-08 02:04 AM	5	1.28
Street Sweeping Collector	2023-03-09 06:50 AM	8.5	3.04
Street Sweeping Collector	2023-03-15 02:03 AM	10	3.09
Street Sweeping Collector	2023-03-16 06:51 AM	10	4.29
Street Sweeping Collector	2023-03-17 06:50 AM	12	2.47
Street Sweeping Collector	2023-03-21 06:47 AM	10	3.59
Street Sweeping Collector	2023-03-22 06:54 AM	12	4.33
Street Sweeping Collector	2023-03-23 06:53 AM	12	5.1
Street Sweeping Collector	2023-03-24 06:59 AM	5	0.73
Street Sweeping Collector	2023-03-28 06:48 AM	4	4.46
Street Sweeping Collector	2023-03-29 02:08 AM	8	5.72

Description	Date	Lane Miles Swept	Tonnage
Street Sweeping Collector	2023-03-30 07:02 AM	10	3.55
Street Sweeping Collector	2023-03-31 07:05 AM	9	5.02
Street Sweeping Collector	2023-04-04 07:05 AM	12	3.48
Street Sweeping Collector	2023-04-05 06:59 AM	13	5.33
Street Sweeping Collector	2023-04-06 06:46 AM	10	6.2
Street Sweeping Collector	2023-04-07 07:08 AM	6	3.48
Street Sweeping Collector	2023-04-11 07:14 AM	8	2.11
Street Sweeping Collector	2023-04-12 07:02 AM	14	4.91
Street Sweeping Collector	2023-04-13 06:50 AM	6	6.39
Street Sweeping Collector	2023-04-14 06:55 AM	6	2.17
Street Sweeping Collector	2023-04-18 06:52 AM	9	2.13
Street Sweeping Collector	2023-04-19 06:53 AM	9	5.12
Street Sweeping Collector	2023-04-20 06:53 AM	1	0.9
Street Sweeping Collector	2023-04-21 06:56 AM	8	3.35
Street Sweeping Collector	2023-05-09 07:53 AM	2.6	0.57
Street Sweeping Collector	2023-05-10 09:39 AM	2.4	1.47
Street Sweeping Collector	2023-05-12 08:34 AM	1.5	0.41
Street Sweeping Collector	2023-05-12 12:00 PM	4.2	2.14
Total		370.65	169.25
Average		5.22	2.35