City of Salem, Virginia

Municipal Separate Storm Sewer System Annual Report

For

General Permit No. VAR040010

Permit Year

July 1, 2021 through June 30, 2022

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 1, 2022

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APPENDICES

TABLES

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)

Permitee 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, 2021 through June 30, 2022

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:

Title:

Signature: James E. Taliaferro, II Digitally signed by James E. Taliaferro, II Date: 2022.10.04 14:16:30 -04'00' 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
City of Salem will update the Sediment TMDL Action Plan.

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 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 (11/9/21; 11/16/21; 4/4/22). Discussed Pollution Prevention, Sediment, Bacteria, Nutirents, and Recycling.	94 Persons	☒ Yes ☐ No
2	Public Education on Bacteria and Sediment	Curriculum with event	Compost event with compost trailer February 21 2022 - March 31 2022	702 Persons	☒ Yes ☐ No
3	Pollution Prevention	Written Materials	Quarterly Stormwater Newsletter Publication	1,299 Recipients	☒ Yes ☐ 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 compliants)

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://salemva.gov/Departments/Community-Development/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 documentation of the public involvement activities.

Table 3: Public Involvement Activities Implemented					
#	Activity Description/Date	Category	Metric	Collaboration	Beneficial
1	Storm Drain Stenciling - 6/24/22 & 6/29/22	Pollution Prevention	6 Participants & 20 storm drains marked.	Clean Valley Council	☒ Yes ☐ No
2	In-Person Stream School 11/9/21; 11/16/21; 4/4/22	Educational	94 Participants	Clean Valley Council	☒ Yes ☐ No
3	Composting Program 2/21-3/31/2022 and 2/28/22	Educational	702 Participants	Clean Valley Council	☒ Yes ☐ No
4	Cleanup Day 4/9/2022	Restoration	267 Participants	Clean Valley Council	☒ Yes ☐ 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?	☐ Yes ☐ No ☒ Not Applicable (No input/complaints)
2.1	Is the effective MS4 permit and coverage letter on the webpage?	☒ Yes ☐ No
2.1	Is the most current MS4 Program Plan on the webpage?	☒ Yes ☐ 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?	☒ Yes ☐ No ☐ 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?	☒ Yes ☐ No
2.1	Is there a method for how the public can provide input of the MS4 Program Plan on the webpage?	☒ Yes ☐ No
2.1	Is there a method for responding to public input?	☒ Yes ☐ No
2.1	Is there a method for maintaining public input received and the city's responses?	☒ Yes ☐ 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 yard as part of the dry weather screening program is 52. This represents 17% of the total outfalls.

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?	☐ Yes ☒ Not Applicable (No new or discovered) ☐ No

3.2	Were all reported or observed non-stormwater discharges eliminated?	☒ Yes ☐ No
3.2	Were inspections, surveillance, monitoring and enforcement procedures in response to reports implemented?	☒ Yes ☐ No
3.3	Were illicit discharge detection and elimination procedures implemented, enforced and documentation maintained of at least 50 outfalls?	☒ Yes ☐ 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: 2245-2259 West Main St Explanation: Project began without a permit but Stop Work Order issued until permit obtained.

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 566.

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 17.

The total number of Stop Work Orders issued is 16.

The total number of Fines Issued is 1.

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 1.

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
SS Elem & 6 Yorkshire	Basins inspected 6/16/2022. 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?	☒ Yes ☐ No
5.1	Did all regulated land disturbance activities have a City approved SWM plan?	☒ Yes, all applicable ☐ No
5.1	Were all stormwater management facilities recorded with inspection and maintenance plans and/or agreements, where applicable?	☒ Yes ☐ No
5.2	Was the stormwater management facility tracking database updated?	☒ Yes ☐ Not Applicable (No new or discovered) ☐ 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 (Two constructed private BMPs have not been added to the BMP Warehouse. These will be added within the next reporting year.)

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

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. Implemented previously approved nutrient management plans.)

☐ 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**
Salem Golf Course	35	6/22/2021
City of Salem - Parks	27.16	6/22/2021

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 ( ) ☐ 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
6/28/21 - 7/15/21	97	MS4 Training on Entire Program including Good Housekeeping, Pollution Prevention and IDDE.

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?	☐ Yes ☒ Not Applicable (Not required. Training was conducted within the required 2 year period.) ☐ No
6.2	Was the annual comprehensive compliance evaluations conducted?	☒ Yes ☐ No
6.2	Were the SWPPPs reviewed within 30 days after an unauthorized discharge, release or spill reported?	☐ Yes ☒ Not Applicable (Not required) ☐ No
6.2	Were the SWPPPs updated within 90 days after an unauthorized discharge?	☐ Yes ☒ Not Applicable (Not required) ☐ 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?	☒ Yes ☐ No
6.3	Were the nutrient management plans implemented through completion of application records?	☒ Yes ☐ No
6.5	Did all signed contracts executed for pesticide and herbicide application maintain proof of certifications on file?	☒ Yes ☐ Not Applicable ☐ No
6.5	Did training occur and were proof of certifications maintained on file for employees performing pesticide and herbicide applications?	☒ Yes ☐ Not Applicable ☐ No
6.6	Were all signed contracts executed with contract good housekeeping and pollution prevention language?	☒ Yes ☐ 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 ( )

Note: Training was conducted within the required 2 year period

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
2	SWPPP developed, implemented and maintained for the Streets Facility.	Completed and Ongoing
3	MCMs 1 - 4 and 6 and City Ordinances developed and implemented to specifically address and minimize PCBs.	Completed and Ongoing
4	Notification to DEQ in writing within 30 days of discovery, if found.	Ongoing

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
2	Implement and enforce ordinances or policies related to outdoor water waste.	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	Coordination with DEQ to be able to take additional credit for the implementation of Salem's MS4 Program. Evaluate a credit for the reduced land disturbance threshold written in Salem's ordinance. Determine lane miles swept potential of City streets. Select a street sweeping scenario to implement.	Progress Made, Ongoing
2	Develop necessary documentation per expert panel report.	Completed
3	Develop sweeping training materials and implement training.	June 30, 2023
4	Assess numerical progress towards meeting the WLA over the permit cycle. Re-evaluate Street Sweeping Program.	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):	138.93 Tons
Lane Miles	TMDL Action Plan Guidance requires lane mile approach to be implemented starting July 30, 2022 however Salem tracked lane miles this reporting year. See Appendix C. TMDL Action Plan to be updated.

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. The Action Plan will be updated to evaluate street sweeping and other alternatives.)

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

Clean Valley Council

Annual Report for Stormwater Programs

(Roanoke County, City of Roanoke, Vinton, Salem)

FY 2021-2022

Reporting Quarter

X	Quarter 1
X	Quarter 2
X	Quarter 3
X	Quarter 4

MCM 1: BMP# 1.3 Stream School Seminars

Date	Municipality	School	Type of Event	Program Name	Issue Addressed	# Programs	# Children	# Adults	Total Reached	Staff Present
11/9/2021	Salem	Roanoke College	Education Program	Stream School	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients	2	30	2	32	Kimberly and Treyquan
11/16/2021	Salem	Roanoke College	Education Program	Stream School	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients	2	30	2	32	Kimberly and Treyquan
4/4/2022	Salem	Roanoke College	Education Program	Stream School	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients	2	28	2	30	Treyquan
	TOTAL SALEM					**6**	**88**	**6**	**94**	

Clean Valley Council

Annual Report for Stormwater Programs

(Roanoke County, City of Roanoke, Vinton, Salem)

FY 2021-2022

Reporting Quarter

X	Quarter 1
X	Quarter 2
X	Quarter 3
X	Quarter 4

MCM 1: BMP# 1.4 Stormwater Educational Programs

Date	Municipality	School	Type of Event	Program Name	Issue Addressed	# Programs	# Children	# Adults	Total Reached	Staff Present
9/24/2021	City of Roanoke	Morningside Elementary School	Education Program	Groundwater	Pollution Preven	2	40	2	42	Kimberly
10/6/2021	City of Roanoke	Fallon Park elementary school	Education Program	Watersheds to oceans	Pollution Preven	5	90	3	93	Kimberly
10/7/2021	City of Roanoke	Morningside elementary school	Education Program	Watersheds to oceans	Pollution Preven	2	40	2	42	Kimberly
10/13/2021	Roanoke County	Read Mountain middle school	Education Program	A world drowning in plastic	Pollution Preven	2	45	3	48	Kimberly
10/14/2021	City of Roanoke	Grandin Court elementary school	Education Program	Wartville Wizard	Pollution Preven	1	20	3	23	Kimberly
10/18/2021	City of Roanoke	Patrick Henry high school	Education Program	Wind power (6-12)	Sustainability	4	80	4	84	Kimberly
10/19/2021	City of Roanoke	Lincoln Terrace elementary school	Education Program	Rigsby	Pollution Preven	2	45	3	48	Kimberly
10/25/2021	Roanoke County	Read Mountain middle school	Education Program	Wind power (6-12)	Sustainability	2	45	2	47	Kimberly and Trey
10/26/2021	City of Roanoke	Patrick Henry high school	Education Program	Wind power (6-12)	Sustainability	1	25	1	26	Kimberly
10/26/2021	Roanoke County	Read Mountain middle school	Education Program	Wind power (6-12)	Sustainability	2	45	2	47	Kimberly and Trey
10/27/2021	City of Roanoke	Grandin Court elementary school	Education Program	The Water/Green Game	Pollution Preven	1	20	3	23	Kimberly and Trey
10/28/2021	City of Roanoke	Garden City elementary school	Education Program	Oceans of Trash	Pollution Preven	2	31	2	33	Kimberly and Trey
11/4/2021	City of Roanoke	Fairview elementary school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	1	18	2	20	Kimberly and Trey
11/5/2021	City of Roanoke	Fallon Park elementary school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	5	93	3	96	Kimberly and Trey
11/9/2021	City of Roanoke	Wasena elementary school	Education Program	Soil, who needs it?	Pollution Preven	2	30	2	32	Kimberly and Trey
11/11/2021	City of Roanoke	Fishburn Park elementary school	Education Program	Wartville Wizard	Pollution Preven	1	19	2	21	Kimberly and Trey
11/11/2021	Roanoke County	Oak Grove elementary school	Education Program	Groundwater (K-5)	Pollution Preven	3	62	3	65	Kimberly and Trey
11/15/2021	City of Roanoke	Garden City elementary school	Education Program	Soil, who needs it?	Pollution Preven	2	30	2	32	Kimberly and Trey
11/19/2021	City of Roanoke	Garden City elementary school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	2	31	2	33	Treyquan
11/23/2021	City of Roanoke	Preston Park elementary school	Education Program	Oceans of Trash	Pollution Preven	1	20	2	22	Kimberly and Trey
11/30/2021	City of Roanoke	New Vista montessori school	Education Program	Rigsby	Pollution Preven	3	77	6	83	Kimberly and Trey
12/2/2021	City of Roanoke	Lincoln Terrace elementary school	Education Program	Wartville	Pollution Preven	2	45	2	47	Treyquan
12/6/2021	City of Roanoke	Fallon Park elementary school	Education Program	Rigsby	Pollution Preven	4	80	4	84	Kimberly and Trey
12/9/2021	City of Roanoke	Garden City elementary school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	2	36	2	38	Treyquan
12/14/2021	City of Roanoke	Crystal Spring elementary school	Education Program	Oceans of Trash	Pollution Preven	3	60	3	63	Treyquan
1/14/2022	City of Roanoke	Lincoln Terrace Elementary School	Education Program	The Water/Green Game	Pollution Preven	3	64	3	67	Treyquan

2/3/2022	City of Roanoke	Woodrow Wilson middle school	Education Program	Groundwater (K-5)	Pollution Preven	3	75	3	78	Treyquan
2/4/2022	City of Roanoke	Preston Park elementary school	Education Program	Who polluted the river?	Pollution Preven	4	80	4	84	Treyquan
2/17/2022	City of Roanoke	Roanoke City Public Schools Science Fair	Education Program	Science Fair Judge	Pollution Preven	1	40	6	46	Courtney, Treyquan, Deena
2/19/2022	Roanoke County	Roanoke City Public Schools Science Fair	Education Program	Science Fair Judge	Pollution Preven	1	20	5	25	Treyquan
2/21-3/31/2022	Salem	Roanoke College	Education Program	Composting with Compost trailer	Pollution Preven	39	18	1	702	Treyquan
2/28/2022	Salem	Roanoke College	Education Program	Joys of Composting	Pollution Preven	1	18	1	19	Treyquan
3/2/2022	City of Roanoke	Woodrow Wilson middle school	Education Program	A world drowning in plastic	Pollution Preven	6	115	6	121	Treyquan
3/4/2022	City of Roanoke	Forest Park Academy	Education Program	Wind power (6-12)	Sustainability	5	25	5	30	Treyquan
3/8/2022	City of Roanoke	Monterey Elementary School	Education Program	Who polluted the river?	Pollution Preven	4	80	4	84	Treyquan
3/10/2022	Roanoke County	Oak Grove elementary school	Education Program	Wartville Wizard	Pollution Preven	4	60	4	64	Treyquan
3/18/2022	Roanoke County	Green Valley Elementary	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	5	100	5	105	Treyquan
3/23/2022	Roanoke County	Penn Forest Elementary School	Education Program	Who polluted the river?	Pollution Preven	4	80	4	84	Treyquan
3/25/2022	Roanoke County	Oak Grove elementary school	Education Program	Rigsby	Pollution Preven	3	60	3	63	Treyquan
4/1-4/8/2022	Salem	Roanoke College	Education Program	Composting with Compost trailer	Pollution Preven	8	113	1	114	
4/6/2022	City of Roanoke	Round Hill Elementary School	Education Program	Rigsby	Pollution Preven	6	110	6	116	Treyquan
4/7/2022	City of Roanoke	Woodrow Wilson middle school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	3	75	3	78	Treyquan
4/8/2022	City of Roanoke	Preston Park elementary school	Education Program	Preston Park elementary school	Pollution Preven	4	80	4	84	Treyquan
4/12/2022	Salem	West Salem Elementary	Education Program	Rigsby	Pollution Preven	3	75	3	78	Treyquan
4/19/2022	Roanoke County V	William Byrd high school	Education Program	Oceans of Trash	Pollution Preven	3	50	3	53	Treyquan
4/21/2022	City of Roanoke	Garden City elementary school	Education Program	Rigsby	Pollution Preven	3	45	3	48	Treyquan
4/22/2022	Roanoke County	Oak Grove Elementary School	Education Program	Who polluted the River?	Pollution Preven	3	60	3	63	Treyquan
5/4/2022	City of Roanoke	Garden City elementary school	Education Program	Who polluted the river?	Pollution Preven	3	50	4	54	Treyquan
5/5/2022	Roanoke County	William Byrd high school	Education Program	Wind power (6-12)	Sustainability	2	38	1	39	Treyquan
5/6/2022	City of Roanoke	William Byrd high school	Education Program	Wind power (6-12)	Sustainability	2	40	1	41	Treyquan
5/13/2022	City of Roanoke	Preston Park elementary school	Education Program	Watersheds to oceans/Enviroscape (3-5)	Pollution Preven	1	25	3	28	Treyquan
6/28/2022	City of Roanoke	James Madison Middle school	Education Program	Composting with Compost trailer	Pollution Preven	15	350	27	377	Treyquan
	TOTAL ALL					**157**	**2260**	**129**	**3072**	

Clean Valley Council

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FY 2021-2022

Reporting Quarter

X Quarter 1
X Quarter 2
X Quarter 3
X Quarter 4

BMP 1.4 Stormwater Education Program

	Classroom Program	High Priority Issue Addressed
1	Green Game	Pollution Prevention
2	Groundwater	Excess bacteria, sediment and nutrients
3	Oceans of Trash	Excess bacteria, sediment and nutrients
4	Soil: Who Needs it	Sediment, nutrients
5	Water Game	Excess bacteria, sediment and nutrients
6	Watersheds to Oceans	Excess bacteria, sediment and nutrients
7	Who Polluted the River	Excess bacteria, sediment and nutrients
8	Stormdrain Stenciling	Excess bacteria, sediment and nutrients
9	Rigsby	Pollution Prevention, Sustainability
10	Wartville Wizard	Pollution Prevention, nutrients
11	A World Drowning in Plastic	Pollution Prevention, nutrients
12	PBL - Litter Booms	Excess bacteria, sediment and nutrients
13	Virtual Rigsby and the 4Rs	Pollution Prevention, Sustainability
14	Virtual Stream School	Pollution Prevention
15	Compost It! Composting trailer	Pollution Prevention, Excess bacteria, sediment and nutrients

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Reporting Quarter	
X	Quarter 1
X	Quarter 2
X	Quarter 3
X	Quarter 4

MM 1: BMP #1.5 Stormwater Educational Programs and Publications for Adult & General Audience

Date	Location	School or Outreach Group	Program	Issued Addressed	Number of Programs	Description	Total Adults	Total Attendance	Staff Present
Quarter 1 - July 1 to Sept 30	ALL		Social Media	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	Website (5321), Facebook (3766), Instagram (945), Twitter (765), Linked In (67)		10,864	10,864	
Q1 Newsletter	ALL		Publication		See email forward on 9/22/2022		1299	1299	
9/18/2021	ALL		Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	WFXR News Living Local		33,000	33,000	Courtney
7/28/2021	City of Roanoke	Brandon Oaks Retirement Community	Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1		30	30	Kimberly
12/13/2021	City of Roanoke	Old Mountain Road Neighborhood Association Meeting	Program about Adopt-A-Street and CVC	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1		7	7	Treyquan
Quarter 2 -Oct 1 to Dec 31	ALL		Social Media	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	Website (2,877), Facebook (13912), Instagram (841), Twitter (626), Linked In (153)		18409	18409	
Q2 Newsletter	ALL		Publication	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	https://files.constantcontact.com/7b3232f1801/d8d6e58f-637f-460d-844e-766f35ab23d2.pdf?rdr=true		1299	1299	
11/4/2021	ALL		Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling --WFXR News Living Local			33000	33000	Deena
11/10/2021	ALL		Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling --AAH and AAS--WFXR News Living Local			33000	33000	Courtney
Oct-Dec	ALL		Cit Sci Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling --AAH and AAS			47	47	Courtney
1/11/2022	ALL	Greater Grandview Area Neighborhood Watch Association	Program about Adopt-A-Street and CVC	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1		10	10	
1/20/2022	ALL	Greater Deyerle Neighborhc	Program about Adopt-A-Street and CVC	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1		6	6	
2/8/2022	ALL	Belmont-Fallon Target Area Stakeholders	Program about Adopt-A-Street and CVC	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1		21	21	
3/13/2022	ALL		Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention	1		77,000	77,000	Courtney
Quarter 3-Jan 1 to Mar 31	ALL			Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	Website (7844), Facebook (5146), Instagram (2965), Twitter (632), Linked In (191)		16778	16778	
Q3 Newsletter	ALL		Publication	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	file:///C:/Users/direc/Downloads/CVC%20Newsletter%20Q2%202021-2022%20v3%2020211230%20121925%20		1323	1323	
1/5/2022	ALL		Publication	Bacteria, Nutrients, Excess Sediment, Pollution Prevention,	1		200	200	

6/28/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling Farm to Table Program with CVC Composting trailer	3	Stories covered by WSLS, WDBJ, WFXR	189,300	189,300	Treyquan
Quarter 4-Apr 1 to June 30	ALL		Social Media	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	Website (3302), Facebook (25784), Instagram (947), Twitter (634), Linked In (209)		30786	30786	
4/6/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	Art to Rescue the River-MMZoo and CVC-covered by WSLS, WDBJ, WFXR	189,300	189,300	Courtney
4/7/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	Clean Valley Day Cleanup on Living Local WFXR	33,000	33,000	Deena
4/9/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	Clean Valley Day at Roanoke Mountain Adventures covered by WSLS	77,000	77,000	Courtney
4/22/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling		Roanoke Earth Day CVC covered by WSLS	77,000	77,000	All Staff
4/23/2022	ALL		Radio News Prograr	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	Earth Day Non-Profits covered by WFIR	2300	2300	Deena
Q4 Newsletter	ALL			Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	C:/Users/direc/Downloads/CVC%20Newsletter%20Spring%202022-corrected%20	1343	1343	
6/7/2022	ALL		News Program	Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	WFXR News at Noon Green Film Festival	33,000	33,000	Courtney
6/29/2022	ALL			Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	ABC's of Composting Landfill Trip covered by Vinton Messenger	8,000	8,000	All Staff
April-June	ALL	ABCs of Composting		Bacteria, Nutrients, Excess Sediment, Pollution Prevention, Sustainability, Recycling	1	DEQ funded program raising awareness on diverting food waste from landfill	37	37	Marc, Courtney
	Total Outreach & Adult Education				**18**	**0**	**867,359**	**867,359**	

Clean Valley Council

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X Quarter 1
X Quarter 2
X Quarter 3
X Quarter 4

MCM 2: BMP #2.1 Storm Drain Stenciling Program

Date	***Location***	***Area***	***Marked***	***Staff***
6/24/2022	West 4th Street	West 4th Street and Roads perpendicular at intersections	fish	Treyquan
6/29/2022		West 4th Street and Roads perpendicular at intersections	fish	Treyquan
		Note: used ARC GIS system		
		TOTAL - Salem	**20**	**0**

Annual Report for Stormwater Programs
(Roanoke County, City of Roanoke, Vinton, Salem)

Clean Valley Council

FY 2021-2022

Reporting Quarter
X Quarter 1
X Quarter 2
X Quarter 3
X Quarter 4

2.2 Stormwater Public Events

Date	Event & High Priority Issue Addressed				Attendance	Impact/Materials Distributed
8/3/2021	**Carilion Community Cleanup**				**25**	**0.3125 Tons of litter/ Total tires: 0**
8/14/2021	Deschutes Tinker Creek Cleanup, Pollution Prevention, Sediment, Bacteria, and Nutrients				74	**0.9 Tons of litter/ Total tires: 34 Giveaways:Reusable totebags**
8/24/2021	VASH National Roanoke Beautification Day, Pollution Prevention, Sediment, Bacteria, and Nutrients	Eureka Park NW			220	**Total litter collected was not weighed Giveaways: Reusable totes**
9/12/2022	Mill Mountain Zoo Sunday, Pollution Prevention, Sediment, Bacteria, and Nutrients				242	Giveaways: Reusable totebags
9/18/2022	Mill Mountain Red Panda and Children's Literacy Day, Pollution Prevention, Sediment, Bacteria, and Nutrients				382	Giveaways: Reusable totebags
July 2021-Mar 2022	Anytime Cleanup, Pollution Prevention, Sediment, Bacteria, and Nutrients				912	6.19375 Tons of litter/Tires: 4
July 2021-Jun 2022	Adopt-A-Street Cleanups				469	4.5125 Tons of litter/ Total tires: 3 Giveaways:Reusable totebags
July 2021-Mar 2022	Compost trailer at Sustainable Roanoke events, Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients				220	Raising Awareness on food waste diverted from landfill
8/27/2022	Community Cleanup-I Love SE				65	812 pounds of trash collected
8/29/2022	Morningside Joys of Composting	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			15	Giveaways: Reusable totebags
8/2-8/6/2022	Hollins University Summer Camp	Compost trailer for Educational programs, Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			112	Raising Awareness on food waste diverted from landfill
Sept2021- June 2022	Community Cleanups	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			1298	3.2 Tons of Litter/ Tires: 36
10/2/2021	Fall Waterways Cleanup	Pollution Prevention, Sediment, Bacteria, and Nutrients			265	2.39375 Tons of litter/ Tires: 2
10/15-10/17/2021	GoFest	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			28000	-Provided Recycling, Composting, and Landfill material sorting/signage/labor-environmental education activities/games at tent
10/30/2021	Mill Mountain Zoo Boo	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			897	Gave candy as "Treats" for answering questions on Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients
11/18/2021	Virtual Earth Summit	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			163	Introduced a variety of environmental careers to students of ALL Municipalities
Jan-Mar 2022	Pop-Up Cleanups	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			16	1.7037 Tons of litter

1/27/2022	Star City Sustainibility Series-Pledge to Recycle Right with RDS	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			20	Giveaway: Reusable totebags
2/24/2022	Star City Sustainibility Series-Monitoring Our Waterways with the Roanoke River Project	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			15	Giveaway: Reusable totebags
3/24/2022	Star City Sustainibility Series-Driving Down Emissions	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			6	Giveaway: Reusable totebags
4/28/2022	Star City Sustainibility Series-Incorporating Sustainable Stormwater Management in Public and Private Education	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			5	Giveaway: Reusable totebags
5/26/2022	Star City Sustainibility Series-Defining Roanoke's New Weather "Normals"	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			7	Giveaway: Reusable totebags
6/20/2022	Star City Sustainibility Series-Family Fishing Night	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			20	Giveaway: Reusable totebags
6/7/2022	Rainbarrel Workshop-Carilion's Morningside Urban Farms	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients			10	Giveaway: Reusable totebags
6/28/2022	Rainbarrel Workshop-Grace Covenant Church-outside nature area	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			10	Giveaway: Reusable totebags
4/9/2022	Clean Valley Council at Roanoke Mountain Adventures for Clean Valley Day	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			70	Giveaway: Reusable totebags
4/9/2022	Clean Valley Day Cleanup	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			267	12.95 Tons/Tires:39 Giveaway: Reusable totebags
4/22/2022	Roanoke Earth Day	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			2,750	CVC had tent and table, coordinated 10 speakers, and was on the Earth Day Committee Giveaway: Reusable totebags
4/22/2022	Mill Mountain Zoo Party for the Planet featuring Art to Rescue the River with CVC	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			620	Giveaway: Reusable totebags
4/30/2022	Vinton Dogwood Festival	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			12,000	Giveaway: Reusable totebags
6/8-6/9/2022	Green Film Festival	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			63	Giveaway: Reusable totebags
6/17/2022	United Way: Day of Action at Washington Park	Recycling, Pollution Prevention, Sediment, Bacteria, and Nutrients, Sustainability			100	Giveaway: Reusable totebags
				Total participants:	**49338**	

FY 2021-2022 Q1 Photo Documentation for Stormwater Report

BMP 2.2-Public Event: Courtney Plaster Receiving Award at VASH Beautification Day 7-24-21

BMP 2.2- Public Event: Deschutes Tinker Creek Cleanup

BMP 1.3-Stream School with William Byrd Middle 9-9-21

BMP 2.2-Public Event: Mill Mountain Zoo Red Panda/Literacy Day 9-18-21

FY 2021-2022 Q2 Photo Documentation for Stormwater Report

BMP 1.5: Public Awareness: Fall Waterways Living Local Interview 10-1-21

BMP 2.2: Girl Scout Troop Participating in Fall Waterways

BMP 1.4: School Programs: Fallon Park Enviroscape 10-6-21

BMP 2.2: Deena Sasser and Beth Ruffing at GOFest October 2021

BMP 2.2: Composting Demonstration Trailer GOFest 2021

BMP 1.4: Fairview Elementary Watersheds to Oceans Enviroscape 11-4-21

BMP 1.5: Promoting Adopt A Street and Adopt A Highway on Living Local 11-10-21

BMP 1.4: Fishburn Elementary Wartville Wizard 11-11-21

BMP 1.4: Oak Grove Elementary 4th Grade Groundwater 11-11-21

BMP 1.4: Roanoke College Stream School 11-16-21

BMP 2.2: Pop-Up Cleanup 12-9-21

FY 2021-2022 Q3 Photo Documentation for Stormwater Report

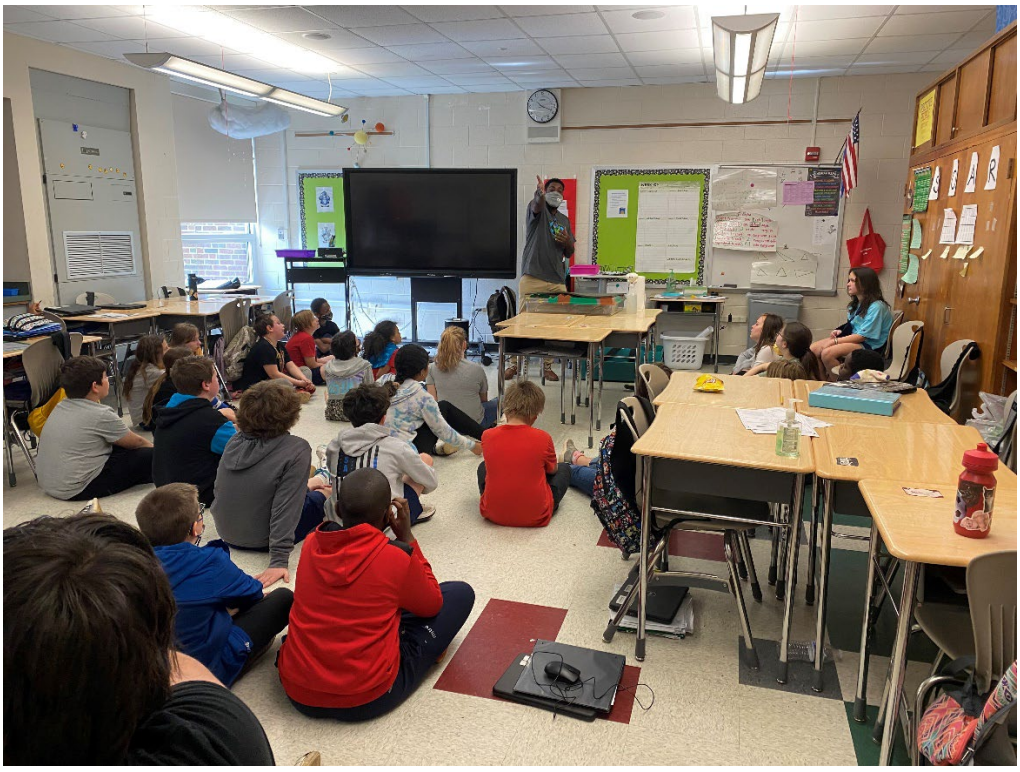
BMP 2.2: Pop Up Cleanup on Roselawn 1-13-2022

BMP 2.2: SCSS Lauren Cutlip with RDS 1-27-2022

BMP 2.2: Pop Up Cleanup in Gainsboro 2-9-2022

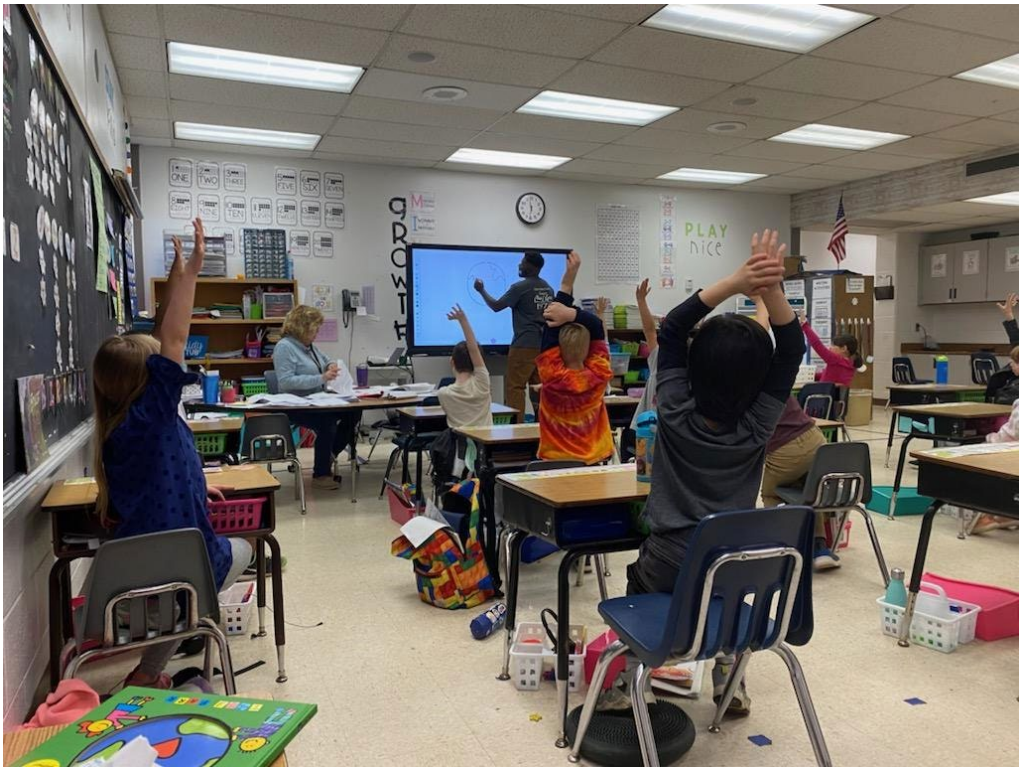
BMP 2.2: SCSS presenter Rachel Pence presenting on Citizen Science Roanoke River Project 2-24-2022

BMP 2.2: Pop-Up Cleanup in Southeast 3-10-2022



BMP 1.4: Green Valley Elementary Enviroscape 3-18-2022

BMP 2.2: Community Cleanup Kiwanis Spring Into Action cleanup 3-19-2022



BMP 1.4: Penn Forest Elementary 3-23-2022

BMP 1.4: Oak Grove Elementary 3-25-2022

FY 2021-2022 Q4 Photo Documentation for Stormwater Report

BMP 1.3 Roanoke College Stream School 4-4-22

BMP 1.4 Woodrow Wilson MS Enviroscape 4-7-22

BMP 1.5 and 2.2 WSLS 10 Clean Valley Day 4-9-22

BMP 2.2 Pop up cleanup Salem 4-14-22

BMP 2.2 Pop up cleanup 4-14-22

BMP 1.5 ABCs of Composting kickoff 4-19-22

BMP 1.5 Smoking post Community Inn 4-22-22

BMP 1.5 Art to Rescue the River student sculpture/News Program 4-6-22

BMP 1.5 and BMP 2.2 Party for the Planet at MMZ 4-23-22

BMP 1.5 and BMP 2.2 Earth Day Roanoke 4-23-22

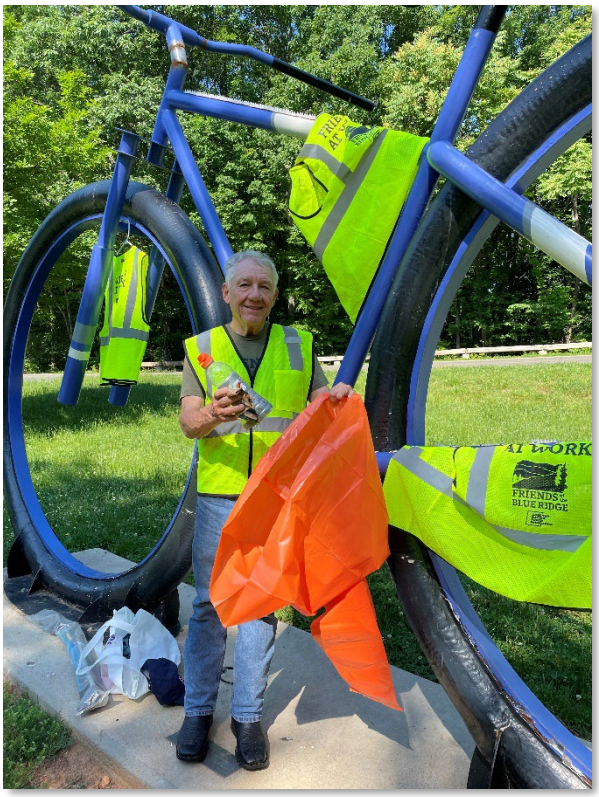
BMP 2.2 Vinton Dogwood Festival 4-30-22

BMP 1.5 Smoking post Viet Sub 5-6-22

BMP 1.5 Smoking post delivery to Rescue Mission 5-19-22

BMP 2.2 Friends of BRP Tinker Creek 5-21-22

BMP 2.2 Kiwanis Spring Cleanup 5-21-22



BMP 2.2 Gary Duerk Friends of BRP Anytime cleanup 6-2-22

BMP 2.1 Stenciling 6-2-22

BMP 2.2 Allegheny Partners AAS 6-3-22

BMP 1.5 and 2.2 Ironman Green Team 6-4-22

BMP 1.4 Wind Power William Byrd HS 6-7-22

BMP 1.5 and 2.2 Green Film Festival 6-8 and 6-9-22

BMP 2.2 Connor Maguire Anytime Cleanup 6-15-22

BMP 2.2 Vinton Anytime Cleanup Thrasher UMC Kids 6-16-22

BMP 2.2 CVC at United Way Day of Action 6-17-22

BMP 1.5 and 2.2 Smith Gap Landfill visit 6-29-22

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:
Concrete washout into storm drain ditch.	1851 West Main St.	5/16/2022	City of Salem	Yes	Area has been cleaned up. The issue has been resolved.	05/20/2022
Sediment from utility work has impacted parking areas at church. Sediment has impacted storm drain along Clay Street	College Lane	4/28/2022	City of Salem	Yes	City Water and Sewer addressed sedimentation same day.	4/28/2022
Sediment from water line break impacted outfall.	100 Kimball Ave	12/27/2021	City of Salem	Yes	City of Salem Water and Sewer Dept. addressed issue upon repair of water line.	12/27/2021
Sediment impacted roadway along Virginia Ave	825-835 Virginia Ave	12/17/2021	City of Salem	Yes	Street sweeper removed sediment.	12/17/2021
Sewer manhole structure at Masons Creek is compromised and impacting creek	1301 Electirc Rd	12/8/2021	Citizen	Yes	City of Salem Water and Sewer fixed compromised manhole.	12/10/2021
Rv dumped waste into the strorm drain	2111 Mill Lane	7/23/2021	Virginia DEQ	Yes	A letter detailing the city IDDE ordinance was sent to the address of the incident.	7/27/2021

Appendix C: Street Sweeping

Appendix C: Street Sweeping

Start Date	Finish Date	Lane Miles Swept	Tonnage
2022-05-24 12:00 PM	2022-05-25 12:00 PM		
2022-05-26 10:55 AM	2022-05-27 10:55 AM		
2022-05-28 11:41 AM	2022-05-29 11:41 AM	6	1.18
2022-06-02 01:42 AM	2022-06-03 01:42 AM	5.6	1.17
2022-06-03 06:48 AM	2022-06-04 06:48 AM	3	0.87
2022-06-22 03:23 AM	2022-06-23 03:23 AM	0.32	
2021-07-02 09:35 AM	2021-07-03 09:35 AM		3.03
2021-07-02 10:10 AM	2021-07-03 10:10 AM		2.82
2021-07-07 09:12 AM	2021-07-08 09:12 AM		8.02
2021-07-08 08:35 AM	2021-07-09 08:35 AM		1.11
2021-07-09 08:10 AM	2021-07-10 08:10 AM		4.38
2021-07-12 11:04 AM	2021-07-13 11:04 AM		1.8
2021-07-13 04:35 AM	2021-07-14 04:35 AM		
2021-07-14 02:52 AM	2021-07-15 02:52 AM		3
2021-07-15 08:38 AM	2021-07-16 08:38 AM		2.87
2021-07-15 03:54 AM	2021-07-16 03:54 AM		3.8
2021-07-20 01:31 AM	2021-07-21 01:31 AM		0.57
2021-07-21 07:23 AM	2021-07-22 07:23 AM	9.5	1.63
2021-07-22 12:14 PM	2021-07-23 12:14 PM	5.45	2.17
2021-07-23 07:43 AM	2021-07-24 07:43 AM	5.3	2.6
2021-07-28 01:51 AM	2021-07-29 01:51 AM	4.9	2.57
2021-08-03 10:03 AM	2021-08-04 10:03 AM	8.43	1.28
2021-08-04 01:54 AM	2021-08-05 01:54 AM	4.1	1.72
2021-08-05 01:09 AM	2021-08-06 01:09 AM	3.1	0.74
2021-08-12 01:50 AM	2021-08-13 01:50 AM	3.7	1.73
2021-08-18 02:59 AM	2021-08-19 02:59 AM	3.9	0.61
2021-08-19 11:02 AM	2021-08-20 11:02 AM	4.5	1.31
2021-08-20 08:19 AM	2021-08-21 08:19 AM	7	0.79
2021-08-24 01:29 AM	2021-08-25 01:29 AM	5.7	1.06
2021-08-25 01:45 AM	2021-08-26 01:45 AM	6.5	1.13
2021-08-27 01:36 AM	2021-08-28 01:36 AM		
2021-10-05 03:59 AM	2021-10-06 03:59 AM		
2021-10-18 01:51 AM	2021-10-19 01:51 AM	4	0.75
2021-10-19 06:48 AM	2021-10-20 06:48 AM	6	1.05
2021-10-20 07:04 AM	2021-10-21 07:04 AM	4.7	1.43
2021-10-21 11:46 AM	2021-10-22 11:46 AM	7.8	1.62
2021-10-27 12:46 PM	2021-10-28 12:46 PM	7	0.8
2021-10-28 10:08 AM	2021-10-29 10:08 AM	7	1.76
2021-10-29 04:06 AM	2021-10-30 04:06 AM	6	1.22
2021-11-03 01:30 AM	2021-11-04 01:30 AM	4	2.29
2021-11-04 08:21 AM	2021-11-05 08:21 AM	7	1.81
2021-11-05 04:03 AM	2021-11-06 04:03 AM	6	1.27
2021-11-15 08:45 AM	2021-11-16 08:45 AM	6.9	0.8
2021-11-16 08:49 AM	2021-11-17 08:49 AM	3	0.63
2021-11-18 01:21 AM	2021-11-19 01:21 AM	5	1.65
2021-11-18 01:39 AM	2021-11-19 01:39 AM	4	1.71
2021-11-30 02:04 AM	2021-12-01 02:04 AM	4	1.2
2021-12-01 01:41 AM	2021-12-02 01:41 AM	6.5	1.18
2021-12-02 01:29 AM	2021-12-03 01:29 AM	4.5	1.13
2021-12-10 07:32 AM	2021-12-11 07:32 AM		
2021-12-13 01:38 AM	2021-12-14 01:38 AM	5	1
2021-12-14 10:57 AM	2021-12-15 10:57 AM	4	0.46
2021-12-15 01:29 AM	2021-12-16 01:29 AM	5	1.36

2021-12-16 11:06 AM	2021-12-17 11:06 AM	4	0.66
2021-12-21 12:59 PM	2021-12-22 12:59 PM	5	0.86
2021-12-22 01:31 AM	2021-12-23 01:31 AM	5	0.73
2021-12-23 06:45 AM	2021-12-24 06:45 AM	4	1.03
2022-01-12 06:46 AM	2022-01-12 06:46 AM	2.7	
2022-01-11 10:20 AM	2022-01-12 10:20 AM	4.3	0.42
2022-01-14 01:49 AM	2022-01-15 01:49 AM	3	0.71
2022-02-04 02:25 AM	2022-02-05 02:25 AM	3	0.93
2022-02-25 11:38 AM	2022-02-26 11:38 AM	4	2.19
2022-03-01 11:32 AM	2022-03-02 11:32 AM	3.7	1.85
2022-03-03 10:06 AM	2022-03-04 10:06 AM	2	0.39
2022-03-04 12:22 PM	2022-03-05 12:22 PM	4	1.52
2022-03-05 12:00 PM	2022-03-06 12:00 PM	7	3.01
2022-03-08 09:41 AM	2022-03-09 09:41 AM	2.7	0.81
2022-03-11 01:10 AM	2022-03-12 01:10 AM	8	1.26
2022-03-19 12:00 PM	2022-03-19 12:00 PM	6	2.23
2022-03-22 09:02 AM	2022-03-23 09:02 AM	5	2.8
2022-03-24 01:32 AM	2022-03-25 01:32 AM	6	1.3
2022-03-26 12:00 PM	2022-03-27 12:00 PM	4	1.69
2022-03-30 01:24 AM	2022-03-31 01:24 AM	2.5	0.5
2022-03-31 01:45 AM	2022-04-01 01:45 AM	2	1.18
2022-04-02 12:00 PM	2022-04-03 12:00 PM	5	1.27
2022-04-07 01:38 AM	2022-04-08 01:38 AM	4	1.82
2022-04-09 12:00 PM	2022-04-10 12:00 PM	4	0.72
2022-04-13 08:17 AM	2022-04-14 08:17 AM	5	1.06
2022-04-14 12:00 PM	2022-04-15 12:00 PM	4.8	1.31
2022-04-15 01:46 AM	2022-04-16 01:46 AM	3	0.93
2022-04-19 12:00 PM	2022-04-20 12:00 PM	3	1.4
2022-04-20 02:51 AM	2022-04-21 02:51 AM	4.7	1.91
2022-04-21 08:27 AM	2022-04-22 08:27 AM	6.7	1.08
2022-04-22 01:43 AM	2022-04-23 01:43 AM	6	1.77
2022-04-28 01:31 AM	2022-04-29 01:31 AM	6	1.51
2022-04-29 01:17 AM	2022-04-30 01:17 AM	6	1.97
2022-04-30 12:00 PM	2022-05-01 12:00 PM	7.8	1.34
2022-05-04 10:07 AM	2022-05-05 10:07 AM	7	1.34
2022-05-05 12:00 PM	2022-05-06 12:00 PM	10	1.72
2022-05-08 12:00 PM	2022-05-08 12:00 PM	5.4	1.07
2022-05-10 01:00 AM	2022-05-11 01:00 AM	7	1.67
2022-05-11 07:59 AM	2022-05-12 07:59 AM	4.8	1.12
2022-05-12 02:20 AM	2022-05-13 02:20 AM	5	2.19
2022-05-13 09:36 AM	2022-05-14 09:36 AM	6	1.87
2022-05-17 02:22 AM	2022-05-18 02:22 AM	9	2.29
2022-05-18 02:39 AM	2022-05-19 02:39 AM	7	1.31
2022-05-19 10:48 AM	2022-05-20 10:48 AM	8	1.11
Total		417.5	138.93