

CITY OF FAIRFAX, VIRGINIA

PERMIT 5/YEAR 1 (FY2024)

MUNICIPAL SEPARATE STORM SEWER SYSTEM

(MS4) ANNUAL REPORT

Reporting Period: July 1, 2023 - June 30, 2024

In accordance with:
VPDES General Permit for
Small Municipal Separate Storm Sewer Systems
Permit # VAR040064



City of Fairfax, Virginia
Public Works - Stormwater
10455 Armstrong Street
Room 200
Fairfax, VA 22030

October 1, 2024



Table of Contents

Signed Certification per Part III K of the MS4 General Permit..... iii
1. Background 1
2. Self-Evaluation of MS4 Program Implementation 1
3. Compliance with Minimum Control Measures (MCMs)..... 1
3.1. Minimum Control Measure #1 – Public Education and Outreach 1
3.1.1. High-Priority Stormwater Issues 2
3.1.2. Communication Strategies 2
3.1.3. Description of Environmental Programs Associated with Communication Strategies..... 3
3.1.4. Educational Activities Conducted Regarding Climate Change 5
3.1.5. Review of MCM #1 Effectiveness..... 5
3.2. Minimum Control Measure #2 – Public Involvement and Participation 6
3.2.1. Summary of Public Input..... 6
3.2.2. MS4 Program/Stormwater Website 6
3.2.3. Public Involvement Activities 6
3.2.4. Activity Metrics 8
3.2.5. Collaboration with Other MS4 Permittees 8
3.2.6. Review of MCM #2 Effectiveness..... 8
3.3. Minimum Control Measure #3 – Illicit Discharge Detection and Elimination 8
3.3.1. MS4 Map and Outfall Information Table Update Confirmation Statement 9
3.3.2. Total Number of Outfalls Screened 9
3.3.3. List of Potential Illicit Discharges to the MS4..... 9
3.3.4. Review of MCM #3 Effectiveness..... 10
3.4. Minimum Control Measure #4 – Construction Site Stormwater Runoff Control 10
3.4.1. Confirmation Statement 10
3.4.2. Total Number of VESCP Inspections Conducted 10
3.4.3. Total Number and Type of VESCP Enforcement Actions 10
3.4.4. Review of MCM #4 Effectiveness..... 10
3.5. Minimum Control Measure #5 – Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands 10
3.5.1. Total Number of Privately Owned SWM Facility Inspections Conducted..... 10
3.5.2. Total Number and Type of Follow-Up/Enforcement Actions 11
3.5.3. Total Number of City-Owned/Operated SWM Facility Inspections Conducted 11
3.5.4. Description of Significant Maintenance, Repair, or Retrofit Activities Performed..... 11
3.5.5. Confirmation Statement Regarding Compliance with Virginia Construction Stormwater General Permit Database 11
3.5.6. Confirmation Statement Regarding Electronically Reporting SWM Facilities Using the DEQ BMP Warehouse & Submission Date 11
3.5.7. Review of MCM #5 Effectiveness..... 11
3.6. Minimum Control Measure #6 – Prevention/Good Housekeeping for Facilities within the MS4 Area Owned and Operated by the Permittee 11
3.6.1. Operational Procedures Developed or Modified..... 11
3.6.2. Summary of Any New SWPPPs Developed 12



- 3.6.3. Summary of Any Modified SWPPPs or Delisted Facilities..... 12
- 3.6.4. Summary of New Turf and Landscape Nutrient Management Plans (NMPs) Developed .. 12
- 3.6.5. Training Events..... 12
- 3.6.6. Review of MCM #6 Effectiveness..... 12
- 4. Compliance with Total Maximum Daily Load (TMDL) Special Conditions..... 13
 - 4.1. Chesapeake Bay TMDL Special Condition Reporting Requirements 13
 - 4.2. Local TMDL Special Condition Reporting Requirements 13
 - 4.2.1. Summary of Local TMDL Action Plan Implementation Actions Conducted..... 14
 - 4.2.2. Water Quality Monitoring Report..... 17



Signed Certification per Part IV K of the MS4 General Permit

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

Print Name: Satoshi Eto

Title: Public Works Program Manager

Signature: _____

Date: 09-25-2024



1. Background

This report is submitted by the City of Fairfax (City), MS4 General Permit Registration Number VAR040064, for the reporting period of July 1, 2023 - June 30, 2024, or Permit Five/Year One (P5/Y1) under the Virginia Pollutant Discharge Elimination System (VPDES) MS4 General Permit (MS4 General Permit). This report covers the City's efforts to implement its MS4 Program Plan, which was most recently updated on May 1, 2024, to meet the conditions of the MS4 General Permit. The official version of the MS4 General Permit is found via the following link: [MS4 General Permit](#).

The City is required to submit an annual report to remain in compliance with the MS4 General Permit. This annual report describes the City's collective efforts in stormwater management. It updates the progress toward meeting the Best Management Practices (BMPs) for each of the six (6) Minimum Control Measures (MCMs) and Total Maximum Daily Load (TMDL) requirements identified in the MS4 General Permit.

The City's May 2024 MS4 Program Plan is found via the following link: <https://www.fairfaxva.gov/government/public-works/stormwater-and-floodplain-management/municipal-separate-storm-sewer-system-ms4>.

2. Self-Evaluation of MS4 Program Implementation

On May 1, 2024, the City completed an update of its MS4 Program Plan to ensure compliance with the reissued permit. During that review, it also reviewed existing BMPs to ensure that BMPs implemented under the May 2024 MS4 Program Plan are appropriate, effective, and meet the requirements of the MS4 General Permit. The City will continue to monitor the status, appropriateness, and effectiveness of each BMP as part of our iterative process to account for updated permit requirements, reduce pollutant loadings, and protect water quality to the maximum extent practicable as the implementation of our program continues.

3. Compliance with Minimum Control Measures (MCMs)

The six MCMs in the MS4 General Permit form its backbone and make up the basics of the City's MS4 Program and MS4 Program Plan requirements. Each MCM requires the City to address several specific requirements throughout the MS4 General Permit cycle. Section 3 contains a summary of activities completed during the reporting period for each of the six MCMs:

- MCM #1 - Public Education and Outreach
- MCM #2 - Public Involvement and Participation
- MCM #3 - Illicit Discharge Detection and Elimination
- MCM #4 - Construction Site Stormwater Runoff Control
- MCM #5 - Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands
- MCM #6 - Pollution Prevention/Good Housekeeping for Facilities Within the MS4 Area Owned and Operated by the Permittee

3.1. Minimum Control Measure #1 – Public Education and Outreach

MCM #1 details the expectations and requirements of the City's efforts to increase public knowledge and awareness regarding stormwater pollution, anthropogenic impacts on water quality, and local water quality concerns.



3.1.1. High-Priority Stormwater Issues

The MS4 General Permit requires that the City identify no less than three (3) high-priority stormwater issues to meet the goals associated with MCM #1. The following is a list of the high-priority stormwater issues that the City continued to address in its public education and outreach program during P5/Y1:

1. Bacteria pollution
2. Nutrient pollution
3. Illicit discharge of chemical contaminants

3.1.2. Communication Strategies

The 2023 MS4 General Permit further requires the City to annually employ two (2) or more of the outreach strategies identified in Table 1 of the MS4 General Permit for each stormwater issue selected. As outlined in Table 1 below, the City used a variety of strategies to communicate each high-priority stormwater issue to the intended audience.

The City chose to employ the communication strategies below in P5/Y1. The following section (Section 3.1.3) provides a summary of the activities and program. Documentation for each activity is available upon request.

Table 1. Summary of Communication Strategies Utilized in P5/Y1

High-Priority Stormwater Issues	Selected Communication Strategies
Bacteria Pollution	Traditional Written Materials <ul style="list-style-type: none"> • Cityscene Newsletter (8/23, 9/23, 1/24, 3/24, 4/24, 5/24)
	Media Materials <ul style="list-style-type: none"> • City of Fairfax’s Stormwater and Floodplain Management webpage • “Please Clean Up After Your Pet” YouTube Video (https://www.youtube.com/watch?v=KaP-FGeRYOk) • NVCWP radio and TV Public Service Announcements (PSAs) and regular “Pet Waste” social media posts on Twitter, Instagram, & Facebook • City of Fairfax social media posts on Facebook and X (formerly Twitter) • City of Fairfax’s Office of Sustainability’s govdelivery emails
	Signage <ul style="list-style-type: none"> • Pet Waste Stations, including a map of pet waste stations within the City (COF MS4 Pet Waste Stations View (arcgis.com))
Nutrient Pollution	Traditional Written Materials <ul style="list-style-type: none"> • A Virginian’s Year-Round Guide to Yard Care • Tips on Keeping Your Lawn Green and Bay Clean • Cityscene newsletter (5/24)



High-Priority Stormwater Issues	Selected Communication Strategies
Nutrient Pollution (Continued)	<p>Media Materials</p> <ul style="list-style-type: none"> • City of Fairfax’s Stormwater and Floodplain Management webpage • Tusico Branch Stream Restoration webpage and video (https://engage.fairfaxva.gov/tusico-branch-stream-restoration-phase-2) • Stafford Drive Stream Restoration webpage and video (https://engage.fairfaxva.gov/stafford-drive-stream-restoration) • NVCWP radio and TV PSAs and regular “Reduce Fertilizer Pollution” social media posts on Twitter, Instagram, & Facebook • City of Fairfax social media posts on Facebook and Twitter • City of Fairfax’s Office of Sustainability govdelivery emails
	<p>Signage</p> <ul style="list-style-type: none"> • City Hall Rain Garden sign informs visitors about nutrient pollution • City Hall Stormwater Pond sign informs visitors about nutrient pollution and how the pond helps prevent stormwater pollution
Illicit Discharge of Chemical Contaminants	<p>Traditional Written Materials</p> <ul style="list-style-type: none"> • Cityscene Newsletter (5/24)
	<p>Media Materials</p> <ul style="list-style-type: none"> • City of Fairfax’s Stormwater and Floodplain Management webpage • NVCWP radio and TV PSAs and regular “Reduce Fertilizer Pollution” social media posts on Twitter, Instagram, & Facebook • City of Fairfax social media posts on Facebook and Twitter • City of Fairfax’s Office of Sustainability govdelivery emails
	<p>Signage</p> <ul style="list-style-type: none"> • Storm Drain Marking Program

3.1.3. Description of Environmental Programs Associated with Communication Strategies

Each year, the City performs education and outreach activities related to stormwater and water quality. As part of the City's MS4 Program Plan, the City distributes educational materials to the community. It conducts outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. Public education and outreach activities conducted during the reporting year were based on the three (3) high-priority water quality issues outlined above.

The City's stormwater management implementation arm is the Department of Public Works (DPW). Stormwater-related initiatives under DPW’s lead include the implementation of the City’s stormwater, urban forestry, street sweeping and trash, recycling, and compost programs. DPW orchestrates the public education and outreach program and certain strategies identified above. Working in partnership with the other City departments, citizen volunteers, and local/regional non-profit groups, a variety of education and outreach activities were conducted during the reporting period:

- **Cityscene Newsletter** – Cityscene is produced by the City’s Communications and Marketing Office and is a monthly report to the citizens of the City. Topics include City News, City Council Updates, upcoming events and projects, and messaging, including stormwater runoff and water quality education. CityScene Newsletters in FY2024 included messages about the importance of picking up pet waste, updates about drainage improvements and other stormwater-related projects funded by the Stormwater Utility Fund, and educational articles about TMDL



requirements and the stream restoration projects the City is undertaking to meet these requirements.

- **Northern Virginia Clean Water Partners (NVCWP)** – The NVCWP is a partnership of Northern Virginia (NOVA) local governments, schools, independent water and sanitary sewer authorities, businesses, the Northern Virginia Regional Commission, and the Virginia Coastal Zone Management Program that care about the quality of NOVA waterways. The NVCWP provides uniform messaging across NOVA utilizing both radio and TV Public Service Announcements (PSAs) and social media messaging via Twitter and Facebook. NOVA high priority stormwater pollutants of concern include phosphorous, nitrogen, salt, and illicit discharges. The NVCWP Annual Summary of Results can be found online:

https://www.onlyrain.org/files/ugd/200411_aed8a812bb9e4ac2a47e6cfb6cfdcd1e.pdf

The City participated with other local jurisdictions as part of the NVCWP to conduct a regional advertising campaign targeting the most prevalent and controllable forms of contamination in local waterways, including pet waste, household chemicals, and waste oil disposal. The NVCWP funded an “Only Rain Down the Drain” advertising campaign focusing on residential stormwater management actions. The campaign included 12,354 ads aired and 1,034,052 views. The NVCWP annual report provides information on stormwater quality issues and the implications of improper pet waste disposal on water quality.

- **A Virginian’s Year-Round Guide to Yard Care** – The City’s website includes a link to the Virginia Department of Conservation & Recreation (DCR) publication, which includes tips and techniques for healthy lawns and gardens. The City’s website includes a link to the publication: <https://www.fairfaxva.gov/government/environment-sustainability/water-and-stormwater-resources/sustainable-landscaping>.
- **Tips on Keeping Your Lawn Green and Bay Clean** – The City’s website includes a link to the Virginia DCR publication, which includes tips and techniques for healthy lawns and gardens. The City’s website includes a link to the publication: <https://www.fairfaxva.gov/government/environment-sustainability/water-and-stormwater-resources/sustainable-landscaping>
- **City’s Engage Fairfax Webpage** – The City’s Engage Fairfax webpage ([Engage Fairfax \(fairfaxva.gov\)](https://www.fairfaxva.gov/engage)) includes links to the City’s active and historical stormwater projects to educate its citizens on ongoing efforts to improve water quality in the City’s streams.
- **City of Fairfax Stormwater and Floodplain Management Webpage** – The City’s Stormwater and Floodplain Webpage ([Stormwater and Floodplain Management | City of Fairfax, VA \(fairfaxva.gov\)](https://www.fairfaxva.gov/stormwater)) provides information regarding stormwater quality, methods to reduce stormwater pollution, and links to additional internal and external (e.g., EPA, VA DEQ, etc.) stormwater-related resources and webpage. City stormwater-related webpages include the following:
 - Stormwater Information
 - Stormwater Utility (SWU)
 - City of Fairfax Streams
 - Stormwater Drainage Improvement Policy and Procedures
 - Stormwater Projects
 - Municipal Separate Storm Sewer System (MS4)
 - Stream Restoration FAQ
 - Floodplain Information
 - Watershed Management Planning



- Protecting Water Resources
 - What Citizens Can Do
 - What Children Can Do
- Reporting Illicit Discharges
- Chesapeake Bay Ordinance
- BMP and Stormwater Management Inspection Program
- Virginia Stormwater Management Program (VSMP)
- **Storm Drain Marking Program** – Previous initiatives to mark storm drains in the city with “Only Rain” decals continue, and city resident volunteers placed markers on inlets within the City boundary (examples provided upon request). In P5/Y1, 290 Markers were placed on storm drains in the City.
- **Environmental Sustainability Council (ESC)** – The ESC advises and assists the City Council and all Boards and Commissions on policies and practices dealing with the environment and energy conservation, including sustainable community development, environment and sustainability education and outreach, habitat and soil restoration, solid waste management, and stormwater management. In this capacity, the committee acts as an advocate for protecting, preserving, and enhancing the environment. The committee also provides a means for promoting discussion between the public and private sectors on issues related to the environment. The ESC is composed of City-appointed individuals and City liaisons. The ESC holds regular meetings throughout the year and holds special educational and outreach events to further the environmental commitment expressed by the City. ESC meeting minutes are available upon request.
- **City of Fairfax Social Media Posts (Facebook and X)** – The City makes frequent postings on social media with information about sustainability events, activities, plans, and educational information. The City’s Office of Sustainability social pages were used during the beginning of FY2024, and on March 12, 2024, the City transitioned from using the Sustainability social pages to using the City of Fairfax Government social pages with the hashtag #FFXCitySustainability. In P5/Y1, 2 stormwater-related educational Facebook posts and 1 stormwater-related educational X post were made.
- **City of Fairfax’s Office of Sustainability govdelivery Monthly Emails Blasts** – The City’s Office of Sustainability sends a monthly email blast with information regarding sustainability events, stormwater utility updates, and educational information to interested citizens.

3.1.4. Educational Activities Conducted Regarding Climate Change

The 2023 MS4 General Permit includes educational activities regarding climate change as public education and outreach activities which satisfy the requirements of MCM #1. The City of Fairfax Government social media accounts made climate change-related educational Facebook and X posts during the reporting period.

3.1.5. Review of MCM #1 Effectiveness

The City believes the current MCM #1 activities effectively communicate each high-priority stormwater issue to the intended audience. Therefore, the City does not anticipate the need to make any changes to this element of the City’s MS4 Program Plan at this time.



3.2. Minimum Control Measure #2 – Public Involvement and Participation

MCM #2 is designed to keep the public informed of the City's efforts to minimize pollutant discharge through its MS4 and encourage public involvement in pollution prevention efforts.

3.2.1. Summary of Public Input

The 2023 MS4 General Permit requires the City to implement a program designed to allow for public input on the City's stormwater program and annually report on the input received.

During the P5/Y1 reporting period, the City received and responded to 15 drainage-related comments and complaints. Outside of drainage-related concerns, the City did not receive any other public input on the City's MS4 program. The following table summarizes public input and the City's responses and resolutions. Documentation for each item below is available upon request.

Table 2. Summary of Stormwater-Related Public Input during P5/Y1

Date	Topic	Comment/Complaint Overview	City Response/Resolution
7/12/2023	Drainage	Future Drainage Improvement Project	Consultation
7/19/2023	Drainage	Private Property Drainage	Consultation
8/4/2023	Drainage	Private Property Drainage	Consultation
1/4/2024	Drainage	Private Property Drainage	Consultation
1/10/2024	Drainage	Private Property Drainage	Consultation
2/5/2024	Drainage	Private Property Drainage	Consultation
2/7/2024	Drainage	Private Property Drainage	Consultation
2/16/2024	Drainage	Private Property Drainage	Consultation
2/27/2024	Drainage	Private Property Drainage	Left a voicemail
3/13/2024	Drainage	Drainage onto public sidewalk	Letter to property owner
3/25/2024	Drainage	Private Property Drainage	Consultation
4/3/2024	Drainage	Private Property Drainage	Consultation
4/11/2024	Drainage	Drainage onto the public trail	Request property owner to perform maintenance
4/25/2024	Drainage	Private Property Drainage	Left a voicemail
6/13/2024	Drainage	Private Property Drainage	Consultation

3.2.2. MS4 Program/Stormwater Website

The 2023 MS4 General Permit further requires the City to maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. A link to the City's MS4 Program/Stormwater Website can be found at:

- <https://www.fairfaxva.gov/government/public-works/stormwater-and-floodplain-management/municipal-separate-storm-sewer-system-ms4>

During P5/Y1, the City added its Permit 4/Year 5 annual report and the updated MS4 program plan to its website.

3.2.3. Public Involvement Activities

The 2023 MS4 General Permit further requires the City to implement no less than four activities per year from two or more of the categories listed in Table 2 in the 2023 MS4 General Permit to provide an opportunity for public involvement to improve water quality and support local restoration and cleanup



projects. The City makes an effort to reach out and engage with all economic and ethnic groups through its public involvement activities. The City’s website, including the stormwater and floodplain management pages, has a translate button which allows readers to easily translate the website into over 250 different languages. This function allows the stormwater management and pollution prevention educational information posted to the website to reach all City residents, regardless of language spoken.

The City engaged the public through the events listed in Table 3 in P5/Y1. A description of the events follows the table. All documentation is available upon request.

Table 3. Summary of City-Sponsored Public Involvement Events in P5/Y1

Category	Event Name(s)	Number of Events Conducted	Beneficial for Improving Water Quality?
Monitoring	N/A	0	N/A
Restoration	Arbor Day	1	Yes
Public Education Activities	Environmental Sustainability Committee (ESC) Meetings	11	Yes
	Rain Barrel Workshop	1	Yes
	Fall Festival	1	Yes
	HisTree Day	1	Yes
Public Meetings	Stream Restoration Public Meeting	1	Yes
Disposal or Collection Events	City-wide Cleanup Events	2	Yes
	Friends of Accotink Cleanup Events	4	Yes
Pollution Prevention	N/A	0	N/A
TOTAL		22	--

Description of Public Participation and Involvement Events:

- Arbor Day** – On October 29, 2023, the City participated in the Arbor Day Foundation’s Tree City USA Program. During the event, the city planted a tree in Van Dyck Park. An Enviroscape model demonstrated to attendees the benefits trees have in mitigating stormwater impacts. Free native tree saplings were available for attendees to take home.
- City ESC Meetings** – During FY24 the ESC had eleven meetings on the following dates: July 19, 2023, September 20, 2023, October 18, 2023, November 15, 2023, December 13, 2023, January 17, 2024, February 21, 2024, March 20, 2024, April 17, 2024, May 15, 2024, and June 24, 2024. FY24 meeting minutes include applicable stormwater-related topics. Documentation is available upon request.
- Rain Barrel Workshop** – On August 12, 2023, the City hosted a sold-out rain barrel workshop at the Green Acres Community Center. During the event, 35 rain barrels were constructed and brought home to be used to control and reuse stormwater runoff on residential properties.
- Fall Festival** – On October 14, 2023, the City hosted a Fall Festival. The ESC tent at this event included Enviroscape Models to demonstrate how stormwater runoff carries pollutants through the watershed. The ESC tent also gave out free pet waste bags and materials with information about the community cleanup events, the Arbor Day event, and the Stormwater Utility.
- HisTree Day/Earth Day** – On April 27, 2024, the City celebrated both Fairfax history and Earth Day, combining living history presenters with learning and exploratory activities. Guided tours of the bioretention and detention facilities at Blenheim gave the public a deeper understanding of what a stormwater BMP is and how it benefits the environment and treats water quantity and quality. A tent was set up with Enviroscape demonstrations, and information about the Stormwater Utility and erosion and sediment control efforts was provided to attendees. There was also a raffle for the City of Fairfax residents to win a rain barrel to use on their property to control and reuse stormwater runoff from their houses.



6. **Community Cleanups** – The City conducted two litter cleanup events along streams and parks within the City.
 - Fall Cleanup – October 29, 2023 – 150 volunteers collected approximately 1,200 pounds of trash and debris from City streams and parks.
 - Spring Cleanup – April 21, 2024 – 250 volunteers collected more than 2,000 pounds of trash and debris from City streams and parks.During these cleanup events, 3,200 pounds of trash were collected. Work logs and photos are available upon request.
7. **Friends of Accotink Creek Cleanup Events** – Friends of Accotink Creek conducted four clean-up events along portions of Accotink Creek within the City. Volunteers worked alongside Accotink Creek where it meets Fairfax Boulevard, Chain Bridge Road, Pickett Road, and Blenheim Boulevard. Across the four events, 99 volunteers worked a total of 198 hours and collected 129 bags of trash. Clean-up events were conducted on:
 - September 16, 2023, where 17 volunteers collected 27 bags of trash
 - October 14, 2023, where 16 volunteers collected 30 bags of trash
 - May 11, 2024, where 22 volunteers collected 22 bags of trash
 - May 25, 2024, where 44 volunteers collected 50 bags of trashPhotos are available upon request.
8. **Stream Restoration Public Meeting** – On May 15, 2024, the Department of Public Works hosted a public meeting to allow citizens to provide input on the City’s future stream restoration project areas.

3.2.4. Activity Metrics

As demonstrated by Table 3, the City believes its current MCM #2 activities effectively encourage public involvement and participation in pollution prevention efforts.

3.2.5. Collaboration with Other MS4 Permittees

The City is part of the NVCWP and participates in the “Only Rain Down the Storm Drain” initiative. This regional advertising campaign targets the prevention of contamination in local waterways from phosphorous, nitrogen, salt, and illicit discharges.

The other MS4 permittees included in the NVCWP are as follows:

Fairfax County | Fairfax County Public Schools | Loudoun County | Arlington County | Stafford County | City of Alexandria | George Mason University | City of Falls Church | Town of Herndon | City of Manassas | City of Manassas Park | Town of Vienna | Town of Leesburg | Town of Dumfries | Prince William County | Prince William County Public Schools.

3.2.6. Review of MCM #2 Effectiveness

The City believes the current MCM #2 activities are effective at engaging the public in the City’s stormwater program. Therefore, the City does not anticipate the need to make any changes to this element of the City’s MS4 Program Plan at this time.

3.3. Minimum Control Measure #3 – Illicit Discharge Detection and Elimination

MCM #3 requires the City to maintain a map of the storm sewer system owned and operated by the City and implement and enforce illicit discharge identification and elimination (IDDE) prohibitions and procedures, including dry weather screening.



3.3.1. MS4 Map and Outfall Information Table Update Confirmation Statement

The City confirms 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 P5/Y1.

A link to the City’s current outfall map can be found at:

<https://www.fairfaxva.gov/government/public-works/stormwater-and-floodplain-management/municipal-separate-storm-sewer-system-ms4>.

3.3.2. Total Number of Outfalls Screened

The City screened 52 outfalls as part of their Outfall Screening Program during P5/Y1. The results of the outfall screenings were categorized as follows:

- 48 outfalls were categorized as “Unlikely”
- 3 outfalls were categorized as “Potential Illicit”
- 1 outfall was categorized as “Illicit”

The flows for the three outfalls categorized as “potential illicit” were investigated and determined to “Unlikely.”

The flow for the outfall categorized as “illicit” was investigated. The origin categorization was paint staining in the manhole from past activities. No further follow-up is planned.

Outfall Screening Forms for screened outfalls are available upon request.

3.3.3. List of Potential Illicit Discharges to the MS4

During this reporting period, six instances of potential illicit discharges to the City’s MS4 were identified and investigated, as summarized in Table 4.

Table 4. Potential Illicit Discharges to the MS4 Identified and Investigated in P5/Y1

Location	Source	Date	Identification Method	Resolution	Follow-Up	Date Closed
3251 Blenheim Blvd	Used cooking oil	6/21/2024	Complaint	Verbal Consultation	No follow-up needed	6/24/2024
3790 Pickett Rd	800-gallon gasoline from a tanker into the collection system	4/22/2024	Property Owner	Verbal Consultation	No follow-up needed	5/1/2024
3936 Blenheim Blvd	Used cooking grease into a storm drain	3/28/2024	Complaint	Verbal Consultation	No follow-up needed	4/3/2024
11165 Main St	Car washing operation	3/22/2024	City-Reported	Verbal Consultation	No follow-up needed	4/9/2024
10814 First St	200 gallons of diesel fuel into a waterway	11/27/2023	Emergency Dispatch	Arrest	Notified DEQ and court trial	1/16/2024
3150 Draper Dr	Draining of community pool into a nearby stream	10/3/2023	City-Reported	Verbal Consultation	No follow-up needed	10/23/2023



Documentation of the potential illicit discharges is available upon request, including a memo documenting each incident and a summary table indicating its status.

3.3.4. Review of MCM #3 Effectiveness

The City believes that the current MCM #3 activities are effective at identifying and eliminating illicit discharges within the City's jurisdiction. Therefore, the City does not anticipate the need to make any changes to this element of the City's MS4 Program Plan at this time.

3.4. Minimum Control Measure #4 – Construction Site Stormwater Runoff Control

MCM #4 contains the MS4 General Permit conditions to address discharges to the MS4 from regulated construction site stormwater runoff.

3.4.1. Confirmation Statement

The City confirms that all land-disturbing projects that occurred during the reporting period were conducted in accordance with the City's approved Virginia Erosion and Sediment Control Program (VESCP).

3.4.2. Total Number of VESCP Inspections Conducted

The City performed 378 VESCP inspections in P5/Y1.

3.4.3. Total Number and Type of VESCP Enforcement Actions

Four formal enforcement actions were necessary to achieve compliance. Four total sites were issued a Notice to Comply and no sites were issued a Stop Work Order. Corrections were implemented, and sites were returned to compliance within 7 days of the formal enforcement action. Copies of formal deficiency notifications and enforcement actions are available upon request.

3.4.4. Review of MCM #4 Effectiveness

The City determined that its VESCP and Virginia Stormwater Management Program (VSMP) programs are effective and consistent with the Virginia Stormwater Management Act and VSMP Regulations during P5/Y1. DEQ did not review the City's local VESCP and VSMP through the agency's periodic review and, therefore, did not provide any documentation for evaluation by the City. During the upcoming permit year, P5/Y2, changes will be made to incorporate the VESMP updates made to the Virginia Erosion and Stormwater Management Regulations. These updates were implemented on July 1, 2024, which was after P5/Y1 concluded.

3.5. Minimum Control Measure #5 – Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands

MCM #5 contains the MS4 General Permit conditions to address discharges to the MS4 from post-development stormwater runoff. The City implements an approved Virginia Stormwater Management Program (VSMP).

3.5.1. Total Number of Privately Owned SWM Facility Inspections Conducted

The City performed 471 Privately Owned SWM Facility Inspections in P5/Y1. Private BMP Inspection Forms are available upon request.



3.5.2. Total Number and Type of Follow-Up/Enforcement Actions

Of the 471 private BMPs inspected, 68 BMPs were found to require maintenance or repair during this reporting period, and the corresponding inspection reports were sent to property owners requiring maintenance. 26 BMPs were brought into compliance within 30 days of the inspection reports being sent to the property owners. 42 Notices to Comply have been sent as a follow-up to the inspection report for BMPs not brought into compliance in the 30-day window. BMPs that remain non-compliant will be referred to the City Attorney. A spreadsheet containing enforcement records, and examples of typical BMP Inspection Reports, Notices to Comply, Maintenance Reports, and Compliance Letters are available upon request.

3.5.3. Total Number of City-Owned/Operated SWM Facility Inspections Conducted

The City performed an inspection of all 53 Publicly Owned SWM Facilities in P5/Y1. A list of Public BMP inspections is available upon request.

3.5.4. Description of Significant Maintenance, Repair, or Retrofit Activities Performed

In P5/Y1, one publicly owned SWM facility required maintenance or repair outside the scope of routine maintenance. This was a bioretention facility that required the removal of overgrown vegetation and accumulated sediment around the outfall. Refer to Section 4.2.1 for information regarding public pond retrofit activities.

3.5.5. Confirmation Statement Regarding Compliance with Virginia Construction Stormwater General Permit Database

The City confirms that it submitted SWM facility information through the Virginia Construction Stormwater General Permit database for those land-disturbing activities for which the City was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.

3.5.6. Confirmation Statement Regarding Electronically Reporting SWM Facilities Using the DEQ BMP Warehouse & Submission Date

The City confirms that it electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part III. The information was submitted on September 3, 2024.

3.5.7. Review of MCM #5 Effectiveness

The City believes that the current MCM #5 activities are effective at addressing discharges to the MS4 from post-development stormwater runoff. Therefore, the City does not anticipate the need to make any changes to this element of the City's MS4 Program Plan at this time.

3.6. Minimum Control Measure #6 – Prevention/Good Housekeeping for Facilities within the MS4 Area Owned and Operated by the Permittee

MCM #6 defines the MS4 General Permit's conditions and requirements for minimizing pollutant discharge associated with City facilities and operations.

3.6.1. Operational Procedures Developed or Modified

During P5/Y1, the City conducted an evaluation of procedures and determined that updates to standard operating procedures were required to incorporate new permit requirements. Updates were initiated during P5/Y1 and will be finalized during P5/Y2 and incorporated into training materials once complete.



3.6.2. Summary of Any New SWPPPs Developed

The City did not identify any new City-owned and/or operated facilities that have a high potential for discharging pollutants; therefore, no new SWPPPs were developed during the reporting period.

3.6.3. Summary of Any Modified SWPPPs or Delisted Facilities

The City’s Property Yard is the only high-priority municipal facility that was determined to have a high potential of discharging pollutants. There were no modifications to the existing Property Yard SWPPP. In P5/Y1, the City performed monthly inspections at the Property Yard to ensure the implementation of good housekeeping practices. The City did not delist any facilities during this reporting period. The P5/Y1 monthly inspection reports are available upon request.

3.6.4. Summary of New Turf and Landscape Nutrient Management Plans (NMPs) Developed

The City maintains NMPs for the six facilities presented below. All of the six NMPs were updated during the reporting period.

Table 5. City-Maintained NMPs

Facility Name	Acreage	Plan Start Date	Plan End Date
Kutner Park	1.68	January 2024	January 2027
Katherine Johnson Middle School	5.31	January 2024	January 2027
Providence Elementary School	4.70	January 2024	January 2027
Daniels Run Elementary School	2.96	January 2024	January 2027
Green Acres Center	3.68	January 2024	January 2027
Pat Rodio Park	2.91	January 2024	January 2027

The City has not identified any new City-owned and/or operated lands where nutrients are applied to a contiguous area greater than 1 acre; therefore, no new NMPs were developed.

3.6.5. Training Events

During P5/Y1, the City updated the Pollution Prevention/Good Housekeeping Training Plan and developed online training modules. The Pollution Prevention/Good Housekeeping training modules were made available to City Staff on June 5th, 2024, with a due date of June 28th, 2024. The following modules were utilized during FY24:

- Module 1 - Introduction to Stormwater
 - 18 City staff members completed this training
- Module 2 - Illicit Discharge Recognition, Reporting, and Elimination (IDDE)
 - 18 City staff members completed this training
- Module 3 - General Pollution Prevention and Good Housekeeping (P2/GH)
 - 18 City staff members completed this training
- Module 7 - High Priority Municipal Facilities and SWPPPs
 - 18 City staff members completed this training
- Module 8 - Spill Control and Response
 - 15 City staff members completed this training

3.6.6. Review of MCM #6 Effectiveness

The City believes that the current MCM #6 activities are effective at addressing discharges to the MS4 from City operations. Therefore, the City does not anticipate the need to make any changes to this element of the City’s MS4 Program Plan at this time.



4. Compliance with Total Maximum Daily Load (TMDL) Special Conditions

EPA has approved the following eight local TMDLs, which require the City to develop and implement Local TMDL action plans:

- Accotink Creek Chloride TMDL Action Plan
- Accotink Creek Sediment TMDL Action Plan
- Bull Run Sediment TMDL Action Plan
- Popes Head Creek Sediment TMDL Action Plan
- Accotink Creek Fecal Coliform TMDL Action Plan
- Difficult Run Sediment TMDL Action Plan
- Difficult Run E. Coli TMDL Action Plan
- Occoquan River E. Coli TMDL Action Plan

City stormwater discharges have also been allocated a PCB wasteload in the TMDL of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia. Sections 4.1 and 4.2 summarize the activities completed and progress made toward meeting the required pollutant reductions for the approved TMDLs.

4.1. Chesapeake Bay TMDL Special Condition Reporting Requirements

The City operates an MS4 in the Potomac River watershed, which is a tributary to the Chesapeake Bay. As such, the MS4 General Permit Part II A, Chesapeake Bay TMDL Special Condition (CB Special Condition), applies to the City's MS4 discharges. The CB Special Condition requires that the City develop and maintain a Chesapeake Bay TMDL Action Plan that addresses pollutants of concern and requires the City to submit a Chesapeake Bay TMDL implementation annual status report. A summary of actions conducted to implement the Chesapeake Bay TMDL action plan and the estimated reduction of pollutants of concern achieved by the BMPs implemented can be found in the Chesapeake Bay TMDL Implementation Annual Status Report submitted to DEQ under a separate cover.

4.2. Local TMDL Special Condition Reporting Requirements

The City has developed the following 8 local TMDL Action Plans to address local impairments for which the City MS4 was allocated a stormwater wasteload:

- Bacteria-Specific Action Plans
 - Accotink Creek Fecal Coliform TMDL Action Plan, **revised February 2022¹**
 - Difficult Run E. coli TMDL Action Plan, **revised February 2022**
 - Occoquan River E. coli TMDL Action Plan, **revised February 2022**
- Chloride-Specific Action Plans
 - Accotink Creek Chloride TMDL Action Plan, **revised February 2022**
- Sediment-Specific Action Plans
 - Accotink Creek Sediment TMDL Action Plan
 - Bull Run Sediment TMDL Action Plan
 - Difficult Run Sediment TMDL Action Plan
 - Popes Head Creek Sediment TMDL Action Plan

¹ The bacteria-related TMDL Action Plans for Accotink Creek, Difficult Run, and the Occoquan River watershed, and the Accotink Creek Chloride TMDL Action Plan were updated in February 2022 to address DEQ comments found in its January 21, 2022 letter to Mr. Satoshi Eto.



Discharges from the City’s MS4 have also been allocated a PCB wasteload in the TMDL of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia. The required reductions associated with the City’s PCB wasteload in the PCB TMDL is within the Margin of Safety and is expected to be met by the proposed reductions in atmospheric depositions and requiring no additional effort by the City.

4.2.1. Summary of Local TMDL Action Plan Implementation Actions Conducted

The City relies heavily on pollutant reductions associated with implementing its MS4 Program Plan. Progress in implementing the MS4 Program Plan is documented in the main body of the Annual Report. Tables 6, 7, and 8 provide a summary of the activities completed during the reporting cycle specific to the pollutant type and watershed.

Table 6. City Activities Completed During the Reporting Cycle Specific to Reducing Bacteria in Response to Bacteria-Related Wasteload Allocations

Activity	MS4 General Permit Table 5 Strategy	Applicable TMDL Action Plan		
		Accotink Creek	Difficult Run	Occoquan River
Implement TMDL Action Plans	--	✓	✓	✓
Implement the City MS4 Program Plan	--	✓	✓	✓
Provide Citywide access to Dog Park located at 11000 Berry Street (Constructed 2018)	Place dog parks away from environmentally sensitive areas			✓
Require Removal of Pet Wastes from Public Rights-of-Way and Non-Owner Properties (City Code Section 6-61)	Adopt and enforce pet waste ordinances or policies, or leash laws or policies	✓	✓	✓
Maintain Pet Waste Stations across the City. (Map: 21637 (fairfaxva.gov)). The City maintains 22 different pet waste stations.	Provide signage to pick up dog waste, providing pet waste bags and disposal containers	✓	✓	✓
The City operates a wastewater lateral repair and replacement program to assist in the offset of expenses associated with the repair and replacement of privately-owned sanitary laterals. The City's efforts resulted in 17 reimbursements totaling \$41,712.93 for the replacement of 647 feet of private sanitary lateral.	Implement a program to identify potentially failing septic systems	✓	✓	✓
Enforce stream buffer requirements under Section §4.18 of the City Zoning Ordinance - Chesapeake Bay Preservation	Protect riparian buffers and provide unmanicured vegetative buffers along streams to dissuade stream access	✓	✓	✓
The City Department of Public Works will pick up dead animals on most public City roads. Citizens are informed to call the City at 703-385-7980.	Implement a program for removing animal carcasses from roadways and properly disposing of them, either through proper storage or through transport to a licensed facility.	✓	✓	✓
The City has implemented a pilot program in which three Throne Bathrooms were	Other	✓		



Activity	MS4 General Permit Table 5 Strategy	Applicable TMDL Action Plan		
		Accotink Creek	Difficult Run	Occoquan River
installed in the Accotink Creek watershed to provide rest areas for the public.				
The City raised an open sanitary grate at the City Property Yard, a remnant of the historic wastewater treatment plant at the site, above the Base Flood Elevation to eliminate potential inflow to the sanitary sewer.	Other	✓		
Publish “Scoop the Poop” Ads in CityScene Newsletter (8/23, 9/23, 1/24, 3/24, 4/24, 5/24).	Other	✓	✓	✓
Publish “What Citizens Can Do” including Proper Disposal of Pet Wastes on the City webpage (https://www.fairfaxva.gov/government/public-works/stormwater-and-floodplain-management/protecting-water-resources/what-citizens-can-do).	Other	✓	✓	✓
Participate in NVRP’s “Only Rain” Outreach Program. See MCM 1 for NVRP’s link to the Annual Report.	Other	✓	✓	✓
Continue Street Sweeping Throughout the City.	Other	✓	✓	✓
Partner with GMU to Conduct Watershed Water Quality Monitoring.	Other	✓	✓	✓

Table 7. City Activities Completed During the Reporting Cycle Specific to Reducing Chloride in Response to Chloride-Related Wasteload Allocations

Activity	TMDL Action Plan BMP	Applicable TMDL Action Plan
		Accotink Creek
Implement the City’s MS4 Program Plan	Numerous	✓
Publish Salt Management in the City Article in January 2024 CityScene Newsletter	Additional Public Education Material – CityScene	✓
Maintain City “Winter Salt Smart” Webpage (https://www.fairfaxva.gov/government/emergency-management/city-winter-weather-information)	Additional Public Education Material – “Winter Smart Tips”	✓
Participate in NVRP’s “Only Rain” Outreach Program (see MCM 1 for NVRP’s link to Annual Report)	Additional Public Education Material – “Only Rain Down the Storm Drain”	✓
Conduct Salt Management Plan Training	BMP 6.9 – Develop and Implement Salt Management Plan	✓
Provide Covered Storage for Long-term Salt Storage	BMP 6.9 – Develop and Implement Salt Management Plan	✓
Provide Secondary Containment for Brine Storage	BMP 6.9 – Develop and Implement Salt Management Plan	✓
Employ Anti-Icing Techniques Prior to Winter Weather Events	BMP 6.9 – Develop and Implement Salt Management Plan	✓



Activity	TMDL Action Plan BMP	Applicable TMDL Action Plan
		Accotink Creek
Employ Good Housekeeping Practices to Minimize Salt Release as a Result of Loading/Unloading	BMP 6.7 - Written Good Housekeeping and Pollution Prevention Protocols for Daily Municipal Operations and Maintenance	✓
Wash Salt-Contaminated Vehicles and Equipment in Sanitary Sewer Connected CUE Bus Bay	BMP 6.7 - Written Good Housekeeping and Pollution Prevention Protocols for Daily Municipal Operations and Maintenance	✓
Conduct Street Sweeping Throughout the City	Other BMPs – Street Sweeping	✓

Table 8. City Activities Completed During the Reporting Cycle Specific to Reducing Sediment in Response to Sediment-Related Wasteload Allocations

Activity	TMDL Action Plan BMP	Applicable TMDL Action Plan			
		Accotink Creek	Bull Run	Difficult Run	Popes Head Creek
Implement the City MS4 Program Plan	MS4 Program Plan	✓	✓	✓	✓
Participate in NVRP’s “Only Rain” Outreach Program. See MCM 1 for NVRP’s link to Annual Report	Additional Educational Material – CityScene Newsletter	✓	✓	✓	✓
Implement VESCP Program	City of Fairfax Erosion and Sediment Control (E&SC) Ordinance	✓	✓	✓	✓
Implement VSMP Program	Implementation of VA Stormwater Management Program	✓	✓	✓	✓
Implement Chesapeake Bay Preservation Ordinance	VSMP Permits	✓	✓	✓	✓
Continue Street Sweeping Throughout City	Other BMPs. Street Sweeping	✓	✓	✓	✓
Partner with GMU to Conduct Watershed Water Quality Monitoring	Implement WQ Monitoring Program	✓	✓	✓	✓

In addition to the programmatic sediment reduction efforts identified above, the City has completed three stream restoration projects, one pond retrofit project, three outfall restoration projects, and one bioretention installation in the Accotink Creek watershed that reduced the sediment load by approximately an additional 205,023 lbs. The completed projects are:

- Daniels Run Stream Restoration, which reduced the sediment load by 34,333 lbs.
- Tusico Creek Restoration Phase I, which reduced the sediment load by 40,390 lbs.
- Tusico Creek Restoration Phase II, which reduced the sediment load by 44,209 lbs.
- City Hall Pond Retrofit, which reduced the sediment load by 1,300 lbs.



- Lion Run Outfall Restoration, which reduced the sediment load by 45,077 lbs.
- Pickett Road Outfall Restoration, which reduced the sediment load by 11,571 lbs.
- Shiloh Street Outfall Restoration, which reduced the sediment load by 28,101 lbs.
- University Drive Bioretention, which reduced the sediment load by 42 lbs.

In the Popes Head Creek watershed, the City has completed one land use conversion project and one bioretention installation that reduced the sediment load for this watershed by an additional 1,553 lbs./yr. The completed projects are:

- Impervious Cover to Turf Land Use Conversion, which reduced the sediment load by 1,290 lbs.
- Bioretention #2, which reduced the sediment load by 263 lbs.

4.2.2. Water Quality Monitoring Report

The City, in cooperation with George Mason University (GMU), conducted quarterly ambient monitoring at four locations in the Accotink Creek watershed and one location in both the Difficult Run watershed and the Occoquan watershed during the permit reporting cycle. Monitoring results are provided in Table 9.



Table 9. GMU Quarterly Ambient Monitoring Results

FY 2024 GMU Ambient Monitoring Result Summary

Parameter	Station A Daniels Run at St Andrews Dr					Station B Middle Fork Accotink Creek off Spring Lake Terr					Station C Accotink Creek just above Old Lee Hwy				
	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24
Sample Date	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24
Sample Time	8:35 AM	8:12 AM	9:02 AM	8:43 AM	8:36 AM	9:25 AM	8:42 AM	9:54 AM	9:30 AM	9:28 AM	9:10 AM	8:29 AM	9:37 AM	9:16 AM	9:11 AM
Temperature (°C)	21.6	17.2	16.9	4.6	8.7	22.0	18.0	17.9	4.8	9.2	22.5	18.3	18.4	5.5	9.4
Specific Conductance (umho/cm)	154.0	169.3	206.1	162.6	173.6	217.9	487.9	470.8	361.7	348.7	246.8	391.4	529.7	386.2	332.1
Dissolved oxygen (mg/L)	7.19	8.10	8.65	11.99	10.67	6.68	7.84	8.47	12.27	11.19	6.14	7.42	7.79	11.49	10.2
Dissolved oxygen (% saturation)	81.6	84.1	89.4	92.9	91.7	76.4	82.9	89.5	95.6	97.3	71	78.9	83.1	91.3	89.1
pH	7.26	7.27	7.18	6.99	6.89	7.15	7.11	7.19	7.22	7.23	7.06	7.05	6.95	7.02	7.03
Turbidity (NTU)	0.46	0.16	-0.01	5.81	11.36	1.67	3.20	0.34	10.56	11.2	28.1	4.13	1.87	10.36	11.34
Nitrate + nitrite (mg/L as N)	0.348	-	0.464	0.671	0.099	0.500	-	1.192	1.155	0.131	0.674	-	1.155	0.941	0.108
Total phosphorus (mg/L as P)	0.050	-	0.032	0.046	0.060	0.034	-	0.040	0.044	0.034	0.072	-	0.061	0.059	0.040
Total suspended solids (mg/L)	1.9	-	2.8	3.90	6.8	3.8	-	2.4	6.12	6.3	33.5	-	3.4	8.36	9.1
Volatile suspended solids (mg/L)	1.4	-	0.7	1.36	1.8	0.9	-	1.1	1.77	1.5	4.9	-	1.0	2.28	1.6
Escherichia coli (#/100 mL)	0	1300	140	577	800	0	17	427	437	670	0	40	347	353	1700



FY 2024 GMU Ambient Monitoring Result Summary

Parameter	Station A Daniels Run at St Andrews Dr					Station B Middle Fork Accotink Creek off Spring Lake Terr					Station C Accotink Creek just above Old Lee Hwy				
	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24
Sample Date	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24	7/10/23	9/18/23	10/4/23	1/11/24	4/4/24
Sample Time	8:54 AM	8:12 AM	9:20 AM	9:02 AM	8:55 AM	-	9:27 AM	10:22 AM	9:52 AM	9:54 AM	8:00 AM	7:48 AM	8:36 AM	8:22 AM	8:14 AM
Temperature (°C)	22.8	17.2	18.3	5.3	9.2	21.4	18.6	19.3	7.0	11.3	19.5	17.6	17.5	9.2	9.9
Specific Conductance (umho/cm)	261.0	169.3	414.8	315.4	272.5	655.7	686.3	1062.3	573.8	565.6	289.6	274.5	282.2	366	542.6
Dissolved oxygen (mg/L)	6.25	8.10	7.6	11.36	10.11	5.63	5.59	3.06	10.43	9.87	5.01	6.91	5.83	8.6	8.91
Dissolved oxygen (% saturation)	72.7	84.1	80.8	89.8	88	63.7	59.9	33.3	86.2	90.2	54.5	72.4	61	74.9	78.9
pH	7.04	7.27	7.02	7.01	6.86	7.4	7.27	7.32	7.34	7.19	5.93	6.58	6.08	6.07	6.36
Turbidity (NTU)	16.6	0.16	2.49	10.24	15.56	0.95	0.68	2.07	2.19	4.58	2.61	1.77	1.35	2.24	8.15
Nitrate + nitrite (mg/L as N)	0.534	-	0.693	0.755	0.092	0.524	-	-0.042	0.634	0.068	2.183	-	2.065	1.766	0.182
Total phosphorus (mg/L as P)	0.067	-	0.083	0.060	0.064	0.039	-	0.056	0.033	0.031	0.018	-	0.018	0.026	0.033
Total suspended solids (mg/L)	17.8	-	3.7	7.03	12.5	2.5	-	4.1	2.67	3.3	2.6	-	9.1	2.73	5.3
Volatile suspended solids (mg/L)	2.1	-	1.2	1.90	3.2	0.7	-	1.9	1.11	1.1	0.9	-	1.9	0.89	0.9
Escherichia coli (#/100 mL)	0	1300	230	573	1800	0	17	583	27	503	0	40	72	65	283



MS4 Annual Report
P5/Y1 (FY2024)
VAR040064

October 1, 2024