



NPDES MS4 Permit Annual Report

October 1, 2023 – September 30, 2024

Permit No. NCS000245

Prepared under the direction of S. Wayne Miles, PE, Stormwater Program Manager

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**Raleigh
Stormwater**



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Certification

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



S. Wayne Miles, PE
Stormwater Program Manager
City of Raleigh



Introduction

This report describes programs and activities undertaken during the period of October 1, 2023, through September 30, 2024, as required by the City of Raleigh’s permit to discharge stormwater under National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit Number NCS000245. The annual reporting requirements are described in Part IV. B of the permit. These requirements are included in Table 1 with the associated annual report sections. Annual reporting provides a summary of the activities completed, as identified in the City’s Stormwater Management Plan (SWMP), and the annual report content aligns with the content of the City SWMP.

Table 1. Annual Report Components

Annual Report Component	Report Section(s)
a. A detailed description of the status of implementation of the Stormwater Management Plan. This will include information on development and implementation of each major component of the Stormwater Management Plan for the past year and schedules and plans for the year following each report.	A.1, A.3, B.1, B.2, C.1, C.2, D.1, D.2, E.1, E.2, F.1 F.2, G.1, G.2, H.1, H.2, I.1, I.2, J.1, J.2, K.3
b. Description and justification of any proposed changes to the Stormwater Management Plan. This will include descriptions and supporting information for the proposed changes and how these changes will impact the Stormwater Management Plan (results, effectiveness, implementation schedule, etc.).	K.2
c. Any necessary changes to programs or practices for assessment of management measures implemented through the Stormwater Management Plan.	B.3, C.3, D.3, E.3, F.3, G.3, H.3, I.3, J.3, K.1
d. A summary of data accumulated as part of the Stormwater Management Plan throughout the year along with an assessment of what the data indicates.	A.3, B.2, B.3, C.2, C.3, D.2, D.3, E.2, E.3, F.2, F.3, G.2, G.3, H.2, H.3, I.2, I.3, J.2, J.3, K.2
e. An assessment of compliance with the permit, information on the establishment of appropriate legal authorities, inspections, and enforcement actions.	K.1, K.2, K.3
f. Discussion of program funding.	A.2



Section A: Program Implementation

The City of Raleigh implements, manages, and oversees all aspects of its SWMP to control to the maximum extent practical the discharge of pollutants associated with stormwater runoff from its MS4.

A.1 MS4 Program Management

The City of Raleigh is committed to maintaining compliance with its NPDES MS4 permit and protecting the City's stormwater quality through the implementation of a comprehensive stormwater management program. Stormwater Management Division staff regularly coordinate across internal work groups and City departments to effectively implement programmatic requirements and City-wide initiatives that are outlined in our Stormwater Management Plan (SWMP). During this last year, the SWMP was reviewed, and minor updates were completed. These changes included general program updates limited to FY 24-27 schedules.

Currently, the total number of Full Time Employees (FTEs) associated with MS4 permit program implementation for FY2024 is 146, with 84 FTEs within Raleigh Stormwater in the Engineering Services Department and 62 FTEs within Stormwater Maintenance in the Raleigh Department of Transportation Field Services group. Implementation of each MS4 program component is outlined in Subsection 1 of Sections B through J.

A.2 Program Funding

Raleigh Stormwater receives capital and operating funds appropriated by the City Council that are dedicated to implementing and managing the provisions of the SWMP and complying with MS4 permit requirements. Program elements are primarily funded by the City stormwater utility fee. Additional sources of funding include plan review and permit application fees. The City general fund and revenue from the Raleigh Water utility fee also may be utilized for pollution prevention and good housekeeping activities by owning departments. Further fiscal analysis and investigation of funding options (such as a general fund allocation or a change to the stormwater fee) are conducted annually to maintain adequate funds to meet program needs.

The allocated budget for the City Stormwater Program in FY2023-2024 (fiscal year from July 1, 2023, through June 30, 2024) was sufficient to meet program needs and implement the requirements of the MS4 permit. The total Stormwater Management budget for FY2023-2024 was \$36,441,360, and Capital Improvement Program total expenditures for the City's Stormwater Program for FY2023-2024 were \$8,785,799 with an adopted Capital Improvement Program budget of \$13,128,000 (see Table A-1).

The City increased the stormwater utility fee by 4% for FY2024-2025 (fiscal year from July 1, 2024, through June 30, 2025) based on the determined need for ongoing operational and CIP expenditures. The total budget for the City's Stormwater Program for FY2024-2025 is \$39,261,103. The budget funds annual operations and the Capital Improvement Program. The adopted Capital Improvement Program budget for the City's Stormwater Program for FY2024-2025 is \$13,875,000.



Table A-1: FY2024 Stormwater Program Capital Improvement Program Budget

Stormwater Program Category	FY2023-2024 CIP Budget
Neighborhood Drainage System Improvements	\$1,500,000
General Drainage Infrastructure	\$5,788,000
Asset and Watershed	\$2,000,000
Water Quality/Stream Restoration/GSI Projects	\$1,560,000
Flood Hazard Mitigation and Flood Early Warning	\$960,000
City SCMs and Dams Program	\$1,320,000
Total	\$13,128,000



A.3 Best Management Practices

Table A-2 includes a brief description of the Program Implementation best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table A-2: Program Implementation Metrics and Results

Program Element	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section A The program will be subject to a compliance audit or a voluntary assessment process on an annual basis	Complete annual review with DEQ or conduct a voluntary assessment.	Complete annual review with DEQ or conduct a voluntary assessment.	Report type of assessment completed	Voluntary self-audit completed June 2024; see Section K
Part II Section A.1 The permittee will maintain adequate legal mechanism, such as regulations, ordinances, policies, and procedures to implement all provisions of the SWMP.	Review regulations, ordinances, policies, and procedures and update, if necessary.	Review or evaluate regulations, ordinances, policies, and procedures annually and update, as needed.	Report modifications to the regulations, ordinances, policies, and procedures	Updated Stormwater Design Manual and incorporated in UDO approved by Council on September 3, 2024, Effective November 2, 2024



Program Element	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section A.2 The permittee will implement provisions of the SWMP and evaluate performance and effectiveness of the program components.</p>	<p>Evaluate program effectiveness with responsible parties, as described in each section and summarized in Section 13 of the SWMP.</p>	<p>Evaluate program effectiveness annually with responsible parties annually, as described in each section and summarized in Section 13 of the SWMP.</p>	<p>Program evaluation completed (Y/N)</p> <p>Annual reporting of program effectiveness is described in each annual report section</p>	<p>Yes</p> <p>Sections B-3, C-3, D-3, E-3, F-3, G-3, H-3, I-3, & J-3.</p>
<p>Part II Section A.3 The permittee is required to keep the SWMP up to date with annual updates if any changes are warranted.</p>	<p>Review the SWMP at least once annually and update, as needed.</p>	<p>Review the SWMP at least once annually and update, as needed.</p>	<p>Report modifications to the SWMP and make available to DEQ upon request</p>	<p>The SWMP was updated on July 24, 2024.</p> <p>Updates included general program updates limited to FY 25-27 schedules.</p>



Program Element	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section A.4 The permittee shall maintain, and make available to the Division upon request, written procedures for implementing the six minimum control measures. Written procedures shall identify specific action steps, schedules, resources, and responsibilities for implementing the six minimum measures.	Maintain written procedures as documented in Sections 4 through 12 of the SWMP.	Maintain written procedures as documented in Sections 4 through 12 of the SWMP.	Written procedures are available to DEQ upon request	N/A, written procedures are available to NCDEQ upon request.



Section B: Public Education and Outreach

B.1 Program Narrative

The City uses several methods and media to educate the public on the causes and impacts of stormwater pollution, including utility bill inserts, newsletters, webpages, articles, social media, workshop presentations, and classroom education events. In addition to these materials and programs developed by the City, the City participates in the Clean Water Education Partnership (CWEP), which provides videos, online resources, and printed materials to its members and produces a large multi-media campaign that features television public service announcements, radio public service announcements, and a stormwater informational website, www.nc-cleanwater.org. The CWEP annual report for this reporting period has been submitted directly to DEQ by the Central Pines Regional Council on behalf of the City.

B.2 Best Management Practices

Table B-1 includes a brief description of the Public Education and Outreach best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table B-1: Public Education and Outreach Program Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section B.2 (a) Describe target pollutants and sources	Review annually the target pollutants and sources in the Education, Outreach, and Public Involvement Plan and update, as needed.	Review annually the target pollutants and sources in the Education, Outreach, and Public Involvement Plan and update, as needed.	Report target pollutants and the associated sources	See Table B-2
	Implement the public education and outreach program utilizing the Education, Outreach, and Public Involvement Plan and the Communications Plan.	Implement the public education and outreach program utilizing the Education, Outreach, and Public Involvement and the Communications Plan.	Report reason each target pollutant was selected	See Table B-2
	Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.		



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section B.2 (b) Describe target audiences	Review and update target audiences associated with each pollutant and source in the Public Education and Engagement Plan.	Review annually the target audiences associated with each pollutant and source in the Education, Outreach, and Public Involvement Plan and update, as needed.	Report identified target audiences likely to have significant stormwater impacts for each target pollutant.	See Table B-2
	Implement the public education and outreach program utilizing the Public Education and Engagement Plan and the Communications Plan. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Implement the public education and outreach program utilizing the Education, Outreach, and Public Involvement Plan and the Communications Plan. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Report reason each target audience was selected	See Table B-2
Part II Section B.2 (c) Informational website	Maintain and update the stormwater program webpage. Evaluate program effectiveness and notify the Water Quality Manager of program modifications.	Maintain and update the stormwater program webpage. Evaluate program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of hits to Stormwater Management main site and SWMP webpage	344,390 page views for all Stormwater Management webpages; 464 page views for the SWMP webpage



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section B.2 (d) Distribute public education materials to identified user groups</p>	<p>Distribute public education materials, as described in the Education, Outreach, and Public Involvement Plan.</p> <p>Participate in CWEP activities and events.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	<p>Distribute public education materials, as described in the Education, Outreach, and Public Involvement Plan.</p> <p>Participate in CWEP activities and events.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	<p>Report number of educational materials distributed by type</p> <p>Provide CWEP annual report</p>	<p>See Table B-3</p> <p>Refer to CWEP annual report Annual Reports – Clean Water Education Partnership (CWEP) nc-cleanwater.com</p>
<p>Part II Section B.2 (e) Promote and maintain hotline(s) or helpline(s)</p>	<p>Maintain the stormwater administration helpline to receive public complaints.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	<p>Maintain the stormwater administration helpline to share information and receive public complaints.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	<p>Report number of calls handled by the stormwater administration helpline by type of call</p>	<p>Total calls: Drainage: 228 Utility fee: 77 Plan review: 197 Volunteer: 20 Illicit discharge: 66 Active construction: 123 Capital projects: 26 Utility billing: 74</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section B.2 (f) Implement a public education and outreach program	Review annually the Education, Outreach, and Public Involvement Plan and update, as needed.	Review annually the Education, Outreach, and Public Involvement Plan and update, as needed.	Report City events and number of handouts distributed at each event	See Table B-3
	Review annually the Communications Plan and update, as needed. Implement the public education and outreach program utilizing the Education, Outreach, and Public Involvement Plan and the Communications Plan. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Review annually the Communications Plan and update, as needed. Implement the public education and outreach program utilizing the Education, Outreach, and Public Involvement Plan and the Communications Plan. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications	Report City in-school events and number of participants	See Table B-4



Table B-2: Target pollutants, associated sources, target audiences, and justifications

Target Pollutant	Target Pollutant Justification	Pollutant Sources	Target Audiences	Target Audiences Justification
Sediment	Increases MS4 maintenance, degrades stream and lake biological abundance and diversity, reduces lake depth and storage volume, aesthetically unattractive	Illicit discharges, construction sites, streambank erosion (resulting from increasing imperviousness in the watershed)	Construction contractors, developers, municipal government, property owners/residents, general public	Audiences conduct, oversee, regulate, engage in, and/or observe activities at pollutant sources
Nutrients (nitrogen and phosphorus)	Promotes growth of algae in lakes and streams which can degrade biological abundance and diversity, toxic to aquatic species and humans, impedes recreation, aesthetically unattractive	Illicit discharges, sewage overflows and leaks, clippings and waste from landscape maintenance/lawn care, pet/animal waste, application and improper storage of fertilizers, sediment adsorption, atmospheric deposition	Landscape maintenance/lawn care companies, property owners/residents, municipal government, general public	Audiences store and apply fertilizer, own, or maintain sewer plumbing/pipes, engage in, and/or observe activities at pollutant sources
Trash	Increases MS4 maintenance, aesthetically unattractive	Illicit discharges, construction sites, litter, dumping, restaurants, food trucks	Construction contractors, municipal government, property owners/residents, restaurant and food truck owners/operators, general public	Audiences generate and store trash or engage in and/or observe activities at pollutant sources
Metals	Degrades stream and lake biological abundance and diversity	Illicit discharges; vehicle storage and maintenance; construction sites; paints and finishes, material, and chemical storage	Construction contractors, painting contractors, property owners/ residents, municipal government, vehicle repair shops	Audiences engage in activities that store/handle materials and generate wastes that contain metals and/or observe activities at pollutant sources
Bacteria	Harms public and pet health	Illicit discharges, sewage overflows and leaks, failing septic systems	Property owners/residents, municipal government, general public	Property owners/residents responsible for septic systems and private sewer plumbing and connections, municipal government responsible for most sanitary sewers, general public observes activities at pollutant sources



Target Pollutant	Target Pollutant Justification	Pollutant Sources	Target Audiences	Target Audiences Justification
Oil & grease	Degrades stream and lake biological abundance and diversity	Illicit discharges, vehicle storage and maintenance, restaurants, food trucks	Vehicle repair shops, restaurant and food truck owners/operators, municipal government, general public	Audiences conduct, oversee, engage in, and/or observe activities at pollutant sources

Table B-3: Public Education and Outreach Program event and material distribution log

Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
10/04/2023	Worthdale Project Public Meeting	12	Volunteer Programs, CWEP, Drainage Assistance, Flood Risk, Sediment Pollution, Protect Streams, Rain Barrel, R-3 Rack Card, Stormwater Fee, Stream Stabilization, Rocky-Walnut Watershed Study Brochures
10/04/2023	Site Development Infrastructure Design Project	30	
10/05/2023	October SMAC Meeting	30	
10/10/2023	NC Landscaping Board Email	100+	
10/16/2023	Imagine a Day Without Water Campaign	5000+	Promoted R3 and Utility Billing Assistance through email, social media, and the website
10/21/2023	Volunteer Stream Monitoring Workshop	16	
10/22/2023	Girl Scout Troop Event	16	
10/25/2023	Rose Lane Pop-Up Meeting	34	



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
10/27/2023	Transportation and Treats Event	75	
10/31/2023	Stormwater (billing notification letter) Fee Brochures	68	Fee explanation brochure
11/02/2023	November SMAC Meeting		
11/06/2023	October IDDE Calls	9	
11/07/2023	GIS Day	100	GIS Tools and General Stormwater Informational Materials
11/07/2023	AWRA National Conference Presentation: GSI in Raleigh: Leading by Example	30	
11/07/2023	AWRA National Conference Technical Tour: Innovative Stormwater Tour	30	
11/06/2023	AWRA National Conference Presentation: Advancing Asset Management Approaches for Natural Infrastructure	15	
11/06/2023	Stormwater Week Ahead GovDelivery	5000+	Floodplain awareness, GIS tools, Capture It Art Program, National STEM Day through email
11/08/2023	National STEM Day	5000+	National STEM Day promotion through email, including floodplain awareness, virtual classroom resources, R3 Program, Capture It Contest
11/09/2023	Glenwood Creston Public Meeting	16	
11/13/2023 - 11/16/2023	One Water Summit – presentations made by Raleigh Stormwater staff	1000+	
11/30/2023	American Society of Civil Engineers Eastern Branch – presentation made by Raleigh Stormwater staff	60	



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
12/04/2024	November IDDE Calls	6	
12/07/2023	Raleigh Stormwater University – Ethics in Municipal Government	39	
12/07/2023	December SMAC Meeting	26	
12/07/2023	November IDDE Calls	6	
12/09/2023	Smoky Hollow Park Meeting (City of Raleigh PRCR)	65	
12/18/2023	Stormwater Smart Winter Newsletter	5000+	Capture It Contest, R3, and Homeowner Stormwater Pipe Maintenance newsletter materials
01/04/2024	New Year Email	5000+	
1/4/2024	January SMAC Meeting	26	
1/5/2024	December IDDE Calls		
1/27/2024	Leesville / Strickland Parks Public Information Meeting	15	General Stormwater Informational Brochures
1/30/2024	Stormwater (Billing Notification Letter) Fee Brochures		
2/1/2024	January IDDE Calls	3	
2/8/2024	February SMAC Meeting	32	
2/15/2024	NCSU ETM Meet & Greet	40	General Stormwater Informational Brochures
2/16/2024	Stormwater (Billing Notification Letter) Fee Brochures	6	Fee Brochures



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
2/21/2024	Open House: Stormwater & Sustainable Features in Affordable Housing	50	Green Stormwater Infrastructure fact sheets
2/24/2024	GSI to Mitigate UHIs Public Meeting	7	Presented project sites, plans, and anticipated timeline for project. Received public feedback on plans and planting/tree selection.
2/26/2024	Stormwater Association of North Carolina (SWANC)	30	
2/27/2024	Stormwater Smart Spring Newsletter	5000+	
2/28/2024	Dix Park Summit	250	General Stormwater Informational Brochures
2/29/2024	ASCE Legislative Fly-In	10	Briefed legislative offices on the importance of Dam safety, WRDA Act, Rose Lane, and E Lane Street
3/2/2024	Smoky Hollow Park Public Meeting (City of Raleigh PRCR)	13	Green Stormwater Infrastructure
3/7/2024	February IDDE Calls	10	
3/7/2024	March SMAC	28	
3/12/2024	Rain Garden Rain Barrel Presentation	8	
3/12/2024	Pigeon House Branch Watershed Study Public Meeting	31	Watershed study, Flood Risk, Water Quality, Drainage Assistance, Volunteering Brochures
3/16/2024	Rain Garden Rain Barrel Presentation	9	
3/18/2024	Presentation to Five Points CAC	20	Drainage Assistance, R3, Buffer Builder Bag, Volunteering Brochures



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
3/23/2024	Stream Cleanup	29	
3/25/2024	Stormwater (Billing Notification Letter) Fee Brochures	6	
4/2/2024	April SMAC Meeting	24	
4/2/2024	March IDDE Calls	4	
4/4/2024	May YSC Car Washing and Maintenance Article	196,000	
4/8/2024	Operations and Maintenance of Stormwater Control Measures Conference	300	
4/10/2024	Stormwater (Billing Notification Letter) Fee Brochures	2	
4/10/2024	NC State Earth Fair	103	General Stormwater Informational Brochures
4/19/2024	Raleigh Earth Day Event		General Stormwater Informational Brochures
4/20/2024	Volunteer Stream Monitoring Workshop	4	
4/22/2024	Duke Energy Cleanup, Invasive Plant Removal and Mulching	65	
4/25/2024	WPU Environmental Analysis Class	8	
4/27/2024	Capture It Art Gallery Reception	80	Water Pollution Brochures
5/3/2024	May SMAC Meeting	26	



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
5/3/2024	April IDDE Calls	6	
5/3/2024	Stormwater (Billing Notification Letter) Fee Brochures	1	
5/6/2024	Stormwater (Billing Notification Letter) Fee Brochures	9	
5/7/2024	Smart Cities Conference Workshop (FEWS Presentation)	100	
5/17/2024	Stormwater (Billing Notification Letter) Fee Brochures	1	Fee Brochures
5/17/2024	Millbrook High School Sustainable Academy Field Trip to MBX Stream Repair Project	50	
5/23/2024	Stormwater Management Live Interview		
5/23/2024	Biltmore Hills Tennis Bond Project Open House	15	General Stormwater Informational Brochures
5/29/2024	Saybrook Study Public Meeting	16	General Stormwater Informational Brochures
5/30/2024	Stormwater (Billing Notification Letter) Fee Brochures	4	Fee Brochures
5/30/2024	UHI GSI Project Pup-up Outreach Event	5	Green Stormwater Infrastructure
6/3/2024	Stormwater Smart Summer Newsletter	5300	Newsletter covered hurricane season, preventing pollution in parks, buffer builder bag program, and interview with JC Arboretum
6/5/2024	May IDDE calls	2	
6/15/2024	Walnut Creek Watershed Learning Network	10	Enviroscape Demo, R3



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
6/25/2024	Parks Volunteer Summer Camp	14	
7/10/2024	Stormwater (Billing notification letter) Fee Brochures	1	Fee Brochures
7/10/2024	June IDDE calls	4	
7/11/2024	SPHO Board Meeting and Presentation of Rainwater Rewards Program	20	R3
7/15/2024	Stormwater (Billing notification letter) Fee Brochures	1	Fee Brochures
7/31/2024	Parks Summer Intern Career Presentation	16	
8/2/2024	July IDDE calls	2	
8/9/2024	Wake County Water Partnership Meeting	20	
8/17/2024	Mud Day	94	Lego watershed model, R3, Volunteering, CWEP Brochures
8/17/2024	Emergency Preparedness with Raleigh CERT	30	Flood Risk, Flood Insurance, Stream Stabilization
9/7/2024	Engage Raleigh: Community and Neighborhood Expo	52	R3, Volunteering, Stream Stabilization, CWEP, Rain Barrel Brochures
9/10/2024	National Night Out: North Hills	30	Tabled alongside Parks and Rec and discussed GSI with event participants. Topics included Flood Risk, Stream Stabilization, R3, Volunteering Brochures, Rain Barrels
9/13/2024	NCSU ETM Meet & Greet	30	Public Participation/Volunteer/Internships, Water Quality Monitoring



Date	Description of Event/Activity	Attendee & Material Count (# materials equals # attendees)	Types of Educational Materials
9/17/2024	NC APWA Stormwater Conference – presentations by Raleigh Stormwater staff	250	
9/19/2024	Raleigh Neighborhood College	25	
9/23/2024	Upper Durant Wetland Public Meeting	40	General Stormwater Informational Brochures
9/27/2024	Stormwater Design Manual Update for Current Planning	15	
9/28/2024	Fall Stream Cleanup	24	
9/30/2024	Stormwater Regulations Update for Home Builders	44	
9/30/2024	Stormwater Design Manual Update for Planning Project Managers	20	



Table B-4: Public Education and Outreach school events

Date	# Students Attended	Event Location	Event Description	Virtual/In-person
10/19/2023	130	Brentwood Elem. School		In-person
10/27/2023	164	Dillard Dr. Middle School		In-person
10/31/2023	309	Martin Middle School		In-person
11/3/2023	20	Wake Technical Community College	2-hour presentation describing stormwater, how development impacts stormwater, site considerations, erosion control, stormwater quality and quantity, green stormwater infrastructure and the permitting process.	In-person
11/8/2023	90	Joyner Elementary School		In-person
11/30/2023	50	Bugg Magnet Elementary School	Site visit with students in advance of a STEM week activity. We covered what stormwater is, what a watershed is, natural stream restoration, and GSI.	In-person
12/4/2023	130	Bugg magnet Elementary School	Staff provided water quality presentations to multiple grades	In-person
4/10/2024	103	NC State Earth Fair	Hosted a table at the Earth Fair event to give out general information about the different programs Stormwater offers throughout the city	In-person
4/12/2024	100	Fuller Magnet Elementary School	Presented to a class of 2nd & 3rd grade students on pollutants using the Enviroscape table.	In-person



Date	# Students Attended	Event Location	Event Description	Virtual/In-person
4/28/2024	8	William Peace University Environmental Analysis Class	Presented information related to Raleigh's water quality monitoring & assessment program	In-person
4/26/2024	275	Millbrook Elementary School	Presented information about stormwater engineering, the water cycle, and pollutants to 3rd, 4th, and 5th graders.	In-person
9/25/2024	77	Exploris Middle School	Shared an Enviroscape Demo with 8th grade students to highlight how stormwater runoff carries pollutants into storm drains and water ways.	In-person

B.3 Program Assessment

Raleigh Stormwater staff have maintained successful efforts to provide education and outreach to the community, while also expanding in-person and virtual resources to improve accessibility and inclusivity throughout the city. As part of the annual review of the Stormwater Education Plan (developed in the 2022-2023 reporting year), Stormwater staff created an implementation schedule for tailored educational offerings to address target pollutants and audiences to promote synergy across teams and track fulfillment of compliance activities. New outreach materials developed and disseminated during this reporting period include an instructional video for managing hazardous spills and a flyer targeting food truck operators on proper grease disposal.

City staff use a variety of means to educate the public on water quality and stormwater impacts, including but not limited to tabling at outreach events, SMAC meetings, social media posts, the stormwater helpline, newsletters, and school visits. Outreach materials such as brochures are available in both English and Spanish as well as television, radio, and newspaper outlets via an ongoing partnership with CWEP. The annual Stormwater Capture It! Art contest, a program that invites students to submit artwork and short videos about stormwater pollution, saw an increase in entries from last reporting period. The program also expanded this year to include a month-long exhibition at Pullen Art Center to increase education and outreach exposure. Stormwater staff are also researching new educational tools to bring to outreach events and school visits, as well as expanding virtual resources such as lesson plans and Story Maps for more dynamic and accessible educator tools. Providing tools and resources for educator use can supplement staff efforts to educate students.



In-person school visits decreased from 22 visits from the previous reporting year to 12 visits in this reporting year. This decrease in school engagement was due to a seven-month vacancy in the Environmental Educator staff position beginning December 31, 2023. During the vacancy, education and outreach were conducted by other City staff and through CWEP. To help prevent impacts from staffing vacancies in the future, significant time and effort went into reclassifying the position to create shared coverage between education, outreach, and public participation programs. The reclassified position was filled on July 29, 2024.

The City's Illicit Discharge Detection and Elimination (IDDE) training module and Pollution Prevention and Good Housekeeping (PPGH) training modules have recently changed platforms from iLearn to SuccessFactors. Stormwater staff have worked closely with Raleigh's Human Resources & Information Technology staff to promote continued deployment of these trainings throughout the organization.



Section C: Public Involvement and Participation

C.1 Program Narrative

The City provides opportunities for public involvement and participation in program development and implementation through community volunteer programs and mechanisms for public reporting and comment. The City's SWMP is noticed and presented at a public hearing for comment by the members of the public at least once per permit cycle. As-needed changes to City stormwater regulations and the annual budget for the Stormwater Management Division are also noticed and presented at public hearings for comment by the public. As a means of obtaining regular public input on policy and project matters, City Council established the Stormwater Management Advisory Commission (SMAC), which generally meets on a monthly basis to review stormwater management issues and provide guidance and recommendations to City Council. Comments from the general public also are received during meetings of this commission.

C.2 Best Management Practices

Table C-1 includes a brief description of the Public Involvement and Participation best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table C-1: Public Involvement and Participation Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section C.2 (a) Volunteer community involvement program	Continue to provide community volunteer opportunities. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Continue to provide community volunteer opportunities. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of participants in each City volunteer opportunity	Adopt a Stream:939 Storm drain marking: 14 Stream monitoring: 24 Foster a Stream: 229



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section C.2 (b) Establish a mechanism for public involvement</p>	<p>Conduct meeting(s) with the SMAC.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Conduct meeting(s) with the SMAC.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report dates for SMAC meetings and discussion topics pertaining to MS4 compliance</p>	<p>10.5.2023 – Draft MS4 Permit 12.7.2023 – Draft Budget FY25; Update on SW Design Manual 1.4.2024 – Update on SW Design Manual 2.1.2024 – SW Design Manual Text Changes; FY25 Budget 3.7.2024 – Pigeon House Branch Watershed Study, FY25 Budget; Outreach Arts Contest 4.4.2024 – N/A 5.2.2024 – SMAC workplan development 6.6.2024 – Communications and Public Engagement; SMAC workplan development 9.5.2024 – SMAC workplan development</p>
<p>Part II Section C.2 (c) Establish hotline(s) or helpline(s)</p>	<p>Maintain the stormwater administration helpline to receive public complaints.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan program modifications.</p>	<p>Maintain the stormwater administration helpline to receive public complaints.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>N/A, see helpline reporting metrics in Part II Section B.2 (e)</p>	<p>N/A</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section C.2 (d) Public review and comment	Maintain the webpage for the most recent version of the SWMP.	Maintain the webpage for the most recent version of the SWMP.	Report webpage link for SWMP	https://raleighnc.gov/SupportPages/stormwater-management-plan
	Publicize a comment period for updates to the SWMP. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Publicize a comment period for updates to the SWMP. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report mechanisms used for public review and comment on the SWMP	The City uses the SWMP website with the Stormwater staff contact information, the City's Stormwater helpline phone number, and email address to provide citizens a mechanism to comment on the SWMP between updates.
Part II Section C.2 (e) Public notice	Place legal public notice to advertise public review and comment opportunities when implementing a public involvement/participation program, as needed.	Place legal public notice to advertise public review and comment opportunities when implementing a public involvement/participation program, as needed.	If public notice occurred for SWMP updates, report mechanism(s) used to advertise public review and comment and public notice period.	N/A
	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of SMAC meetings that provided an opportunity for public involvement/participation	9

C.3 Program Assessment

All permit requirements for Public Involvement and Participation are being met with well-advertised opportunities offered multiple times per year. While participation may vary due to influences outside of City staff control, community members continue to be involved in stewardship and engagement opportunities. The Adopt a Stream program grew significantly in the number of participants, with 11 new groups joining the program. Foster a Stream and Storm Drain Marking volunteer opportunities experienced slight decreases in participation over this reporting year. The decrease in participation at the two Foster a Stream events could be attributed to poor weather conditions for the dates those events were scheduled. The reclassification of the Environmental Educator position, which was filled in July 2024, will increase staff capacity for the storm drain marking program during the next permit cycle. The Stream Monitoring volunteer program, which requires volunteers to complete a training and commit to taking monthly samples over one year, increased slightly in the number of volunteers who submitted data. The



Stormwater Management Advisory Commission (SMAC) met nine times this year, with public comment on local stormwater issues provided by commission members and the community. SMAC will continue to regularly convene throughout the next year, have included engagement over NPDES MS4 program areas as part of their current workplan, and will continue to serve as an effective vehicle for public input.



Section D: Illicit Discharge Detection and Elimination

D.1 Program Narrative

The City's illicit discharge program began in 1995 and has operated continuously since then. This program is based on a [City ordinance](#) that defines what constitutes an illicit discharge and an illicit connection and provides enforcement protocols. The ordinance provides the legal authority to implement the Illicit Discharge Detection and Elimination (IDDE) program.

Illicit discharges and illicit connections are identified through reports from the public, reports from City staff across all departments, dry weather screening observations, and outfall inspections. A team of four staff is assigned to the IDDE program to implement the dry weather screening program, inspect outfalls, investigate potential illicit discharges, and maintain documentation of inspections, enforcement, and remediation actions associated with those activities. Preventive measures include educating City staff and the public through various means, including direct mailings to businesses, such as landscapers and restaurants, that have a history of illicit discharges. Outreach efforts also include regular updates to website content, social media, utility billing and newsletter inserts, and coordination with Wake County and professional associations to distribute illicit discharge prevention information to wider audiences.

D.2 Best Management Practices

Table D-1 includes a brief description of the IDDE best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table D-1: IDDE Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section D.2 (a) Maintain appropriate legal authorities	Maintain and enforce public ordinances. Update, if necessary, to maintain legal authority. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Maintain and enforce public ordinances. Update, if necessary, to maintain legal authority. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	N/A, see Part II Section A.1 for reporting of legal authority updates	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section D.2 (b) Maintain a storm sewer system base map of major MS4 outfalls	Maintain the storm sewer system base map in GIS and update annually as new inventory is added.	Maintain the storm sewer system base map in GIS and update annually as new inventory is added.	Report number of major outfalls	Total: 856
	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Provide overview map of receiving streams and major outfalls	See Figure D-1 below
Part II Section D.2 (c) Inspection/detection program to detect dry weather flows at MS4 outfalls	Review annually the IDDE Plan and update, as needed. Implement the IDDE Plan. Report any discharge that constitutes an imminent threat to health or the environment by phone or email to the DEQ Regional Office (during business hours) or NC Division of Emergency Management State Operation Center hotline (outside of business hours) within 24 hours. Raleigh Water is responsible for reporting of sanitary sewer overflows. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Review annually the IDDE Plan and update, as needed. Implement the IDDE Plan. Report any discharge that constitutes an imminent threat to health or the environment by phone or email to the DEQ Regional Office (during business hours) or NC Division of Emergency Management State Operation Center hotline (outside of business hours) within 24 hours. Raleigh Water is responsible for reporting of sanitary sewer overflows. Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.	Report number of dry weather inspections completed and results Report number of discharges reported to the DEQ Regional Office or NC Division of Emergency Management due to an imminent threat to health or the environment	134 dry weather flow outfall inspections were completed; results in Table D-2. 46 illicit discharges were reported to the DEQ Regional Office due to an imminent threat to health or the environment



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section D.2 (d) Employee training	<p>Review annually the Education, Outreach, and Public Involvement Plan, and update, as needed.</p> <p>Conduct employee training and document attendance.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	<p>Review annually the Education, Outreach, and Public Involvement Plan and update, as needed.</p> <p>Conduct employee training and document attendance.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of plan and/or program modifications.</p>	Report types of IDDE training provided and number of staff in attendance	787 City staff completed the IDDE training module through the City's Success Factors platform
Part II Section D.2 (e) Maintain a public reporting mechanism(s)	<p>Maintain the stormwater administration helpline to receive public reports.</p> <p>Maintain the illicit discharge reporting email address (IllegalDischarge@raleighnc.gov).</p> <p>Coordinate with appropriate City staff so illicit discharge complaints received through the SeeClickFix app are routed to Raleigh Stormwater.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Maintain the stormwater administration helpline to receive public reports.</p> <p>Maintain the illicit discharge reporting email address (IllegalDischarge@raleighnc.gov).</p> <p>Coordinate with appropriate City staff so illicit discharge complaints received through the SeeClickFix app are routed to Raleigh Stormwater.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report total number of illicit discharge complaints received</p> <p>See helpline reporting metrics in Table 5, Part II Section B.2 (e) of SWMP</p>	City staff responded to 209 calls of potential illicit discharges; 66 calls were received through the City's Stormwater helpline



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section D.2 (f) Documentation	Maintain IDDE inspection records, notices of violations and compliance, and other program records. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Maintain IDDE inspection records, notices of violations and compliance, and other program records. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report dates of investigations, any enforcement action(s), and remediation that occurred	See Table D-2 below



Figure D-1: Receiving waters and major outfalls

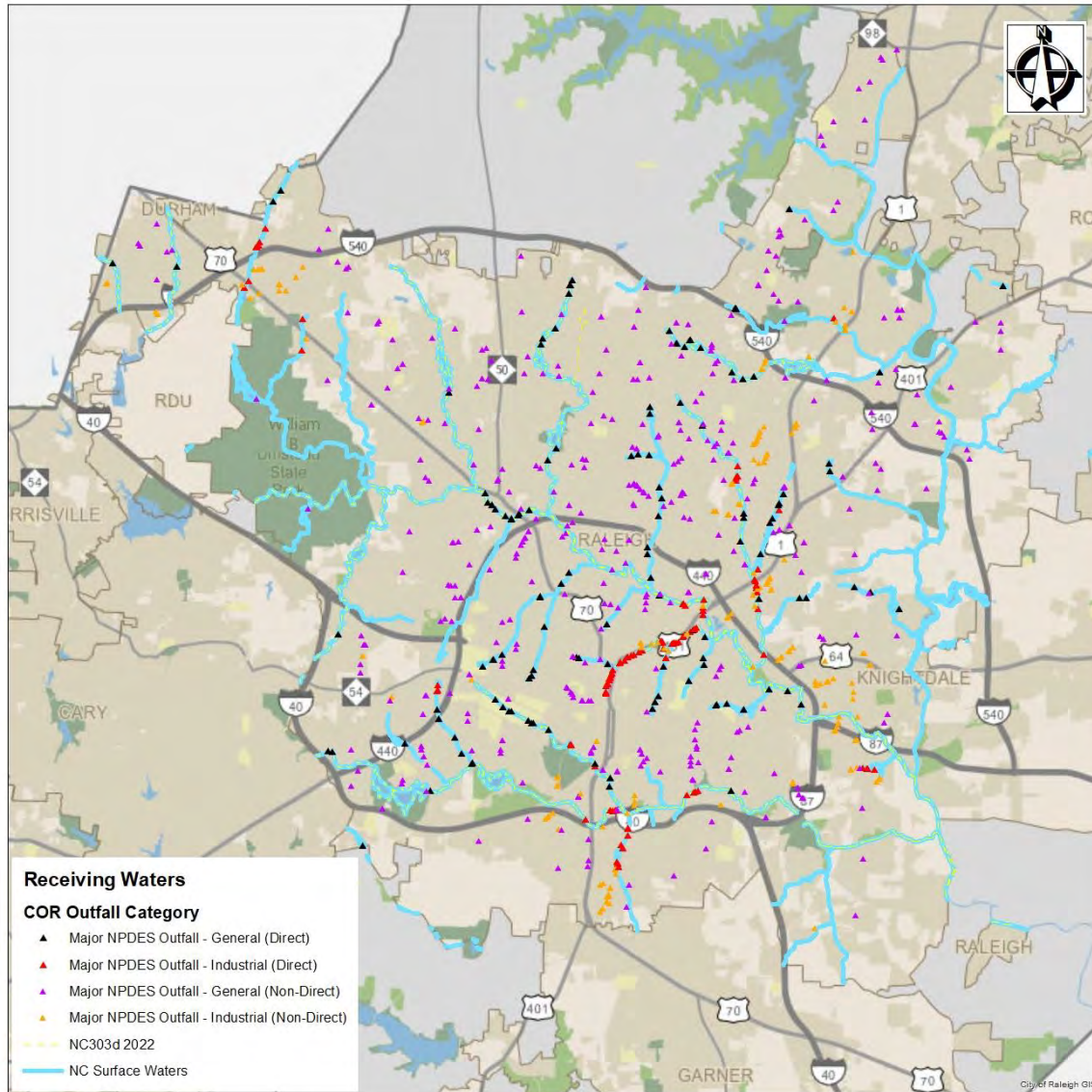




Table D-2: IDDE investigations and actions taken October 1, 2023 - September 30, 2024

Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
1437 Nottingham Rd, Raleigh, NC, 27607	10/2/2023	10/2/2023	Contractor pumping out water from an excavation	Investigated and found not to be a water quality concern; no further action taken	Not Required
3000 Brook Mill Dr, Raleigh, NC, 27612	10/2/2023	10/3/2023	Carpet company dumping wastewater in storm drain	Notice of Violation	Vacuum and removal
2929 Capital Blvd, Raleigh, NC, 27604	10/3/2023	10/3/2023	Food truck was possibly dumping wastewater into a storm drain	Warning Letter	Not Required
914 Wimbleton Dr, Raleigh, NC, 27609	10/12/2023	10/12/2023	Potential Private SSO	Investigated and found not to be a water quality concern; no further action taken	Not Required
737 Hunting Ridge Rd, Raleigh, NC, 27615	11/6/2023	11/6/2023	City of Raleigh SSO ~690 gallons discharged, with ~690 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
230 Seawell Ave, Raleigh, NC, 27601	10/6/2023	10/9/2023	Possible SSO from apartment complex	Investigated and found not to be a water quality concern; no further action taken	Not Required
706 E Jones St, Raleigh, NC, 27601	10/9/2023	10/10/2023	Storm drain smells like sewer	Referred to proper authority	Vacuum and removal
North Hills Dr, Raleigh, NC, 27612	10/9/2023	10/10/2023	Orange muddy water discharge to Mine Creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
1900 Main Campus Dr, Raleigh, NC, 27606	11/12/2023	11/12/2023	City of Raleigh SSO ~1,380 gallons discharged, with ~1,380 gallons reaching surface waters	Referred to proper authority	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
4421 Woodlawn Dr, Raleigh, NC, 27616	10/11/2023	10/12/2023	Neighbor washing bins in the road	Investigated and found not to be a water quality concern; no further action taken	Not Required
2420 Lake Wheeler Rd, Raleigh, NC, 27603	10/17/2023	10/17/2023	Fuel leak	Warning Letter	Sweeping and removal
4612 Dansey Dr, Raleigh, NC, 27616	10/18/2023	10/18/2023	Private aerial sewer line disconnected and discharging into a creek	Notice of Violation	Vacuum and removal
1903 Alexander Rd, Raleigh, NC, 27608	10/23/2023	10/23/2023	City of Raleigh SSO ~1,500 gallons discharged, with ~1,500 gallons discharged to surface waters	Referred to proper authority	Vacuum and removal
2201 Raven Rd, Raleigh, NC, 27614	10/22/2023	10/23/2023	Neighbor disposing of dog waste bags into storm drain	Warning Letter	Not Required
2521 Shepherd Valley St, Raleigh, NC, 27610	10/30/2023	10/31/2023	Car up on jacks possibly leaking fluids into street	Investigated and found not to be a water quality concern; no further action taken	Not Required
7716 Prospector Pl, Raleigh, NC, 27615	10/31/2023	10/31/2023	Vehicle parks along road and routinely leaks motor oil	Investigated and found not to be a water quality concern; no further action taken	Not Required
7800 Milltrace Run, Raleigh, NC, 27615	10/26/2023	10/31/2023	Yard waste debris being dumped into wooded/creek area	Investigated and found not to be a water quality concern; no further action taken	Not Required
2245 Garner Rd, Raleigh, NC, 27610	11/3/2023	11/3/2023	City of Raleigh SSO ~550 gallons discharged with ~500 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
7108 Longstreet Dr, Raleigh, NC, 27615	11/6/2023	11/6/2023	Private SSO at condominium complex.	Notice of Violation	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
4000 New Bern Ave, Raleigh, NC, 27610	11/13/2023	11/14/2023	Landscapers blowing material into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
7720 Prospector Pl, Raleigh, NC, 27615	11/16/2023	11/16/2023	Car parked on road leaking oil	Investigated and found not to be a water quality concern; no further action taken	Sweeping and removal
5501 Capitol Blvd, Raleigh, NC, 27616	11/16/2023	11/16/2023	Fats, oils, grease dumped into storm drain	Notice of Violation	Vacuum and removal
4000 Converse Dr, Raleigh, NC, 27609	11/16/2023	11/16/2023	Waste removal company possibly dumping a liquid into the storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
2908 Chipmunk Ln, Raleigh, NC, 27607	11/21/2023	11/22/2023	Observed foam in the channel that drains to House Creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
1117 Chatham Ln, Raleigh, NC, 27610	11/23/2023	11/23/2023	City of Raleigh SSO ~ 990 gallons discharged, with 0 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
219 Oberlin Rd, Raleigh, NC, 27605	11/24/2023	11/27/2023	White foamy liquid splashed on pedestrians	Investigated and found not to be a water quality concern; no further action taken	Not Required
4520 Hargrove Rd, Raleigh, NC, 27604	11/27/2023	11/27/2023	Possible fuel from vehicle accident entered storm drain	Investigated and found not to be a water quality concern; no further action taken	Vacuum and removal
8300 Health Park, Raleigh, NC, 27615	11/28/2023	11/28/2023	Fire extinguisher residue left in parking lot	Investigated and found not to be a water quality concern; no further action taken	Sweeping and removal
2601 Oxford Rd, Raleigh, NC, 27608	11/30/2023	11/30/2023	Red/Orange discharge reported in creek	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
901 Hodges St, Raleigh, NC, 27608	12/14/2023	12/14/2023	Transformer pole fell over and discharged 3 cooling tanks worth of non-PCB cooling oil	Notice of Violation	Vacuum and removal
3731 Charleston Park Dr, Raleigh, NC, 27604	12/2/2023	12/2/2023	City of Raleigh SSO ~4,680 gallons discharged with ~2,680 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
901 Hodges St, Raleigh, NC, 27608	12/4/2023	12/4/2023	Fats, oil, grease discharge	Referred to proper authority	Vacuum and removal
Homewood Banks Dr & Crabtree Valley Ave, Raleigh, NC, 27612	12/6/2023	12/7/2023	Suds and debris in creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
1901 Clark Ave, Raleigh, NC, 27605	12/11/2023	12/11/2023	City of Raleigh SSO ~325 gallons discharged with ~200 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
5832 Whitebud Dr, Raleigh, NC, 27609	12/11/2023	12/11/2023	City of Raleigh SSO ~2,040 gallons discharged with 0 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
2108 Balboa Rd, Raleigh, NC, 27603	12/10/2023	12/11/2023	Neighbor disposing of leaves into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
740 Powell Dr, Raleigh, NC, 27606	12/7/2023	12/11/2023	Pond appears to be a dark brown/black color	Investigated and found not to be a water quality concern; no further action taken	Not Required
2908 Chipmunk Ln, Raleigh, NC, 27607	12/10/2023	12/11/2023	White foam in creek behind house	Investigated and found not to be a water quality concern; no further action taken	Not Required
Yonkers Rd & N Raleigh Blvd, Raleigh, NC, 27604	12/12/2023	12/13/2023	Vehicle crashed into SCM device along Yonkers Rd, discharging ~ 1 gallon of coolant into the device	Referred to proper authority	Excavation and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
8417 Sawyer Dr, Raleigh, NC, 27613	12/13/2023	12/13/2023	City of Raleigh SSO ~1,335 gallons discharged with ~1,335 gallons to surface waters.	Referred to proper authority	Vacuum and removal
700 Green Ridge Dr, Raleigh, NC, 27609	12/14/2023	12/14/2023	City of Raleigh SSO ~190 gallons discharged with ~90 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
5020 Aspen Meadow St, Raleigh, NC, 27616	12/15/2023	12/15/2023	Potential fish kill in SCM device	Investigated and found not to be a water quality concern; no further action taken	Not Required
950 Peterson St, Raleigh, NC, 27610	12/15/2023	12/15/2023	Illegal dumping off State St. near Little Rock Creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
705 Beacon Lake Dr, Raleigh, NC, 27610	12/19/2023	12/19/2023	Vehicle fire, oil discharged to ground from firefighting activities and may have reached a storm drain	Notice of Violation	Vacuum and removal
6505 Lincolville Rd, Raleigh, NC, 27607	12/20/2023	12/20/2023	Suspected private SSO	Investigated and found not to be a water quality concern; no further action taken	Not Required
601 Oleander Rd, Raleigh, NC, 27603	12/20/2023	12/20/2023	Private SSO out of sewer cleanout	Warning Letter	Vacuum and removal
914 Wimbleson Dr, Raleigh, NC, 27609	12/20/2023	12/20/2023	Claims of soap scum in creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
436 Buck Jones Rd, Raleigh, NC, 27606	12/20/2023	12/20/2023	Gray water potentially discharged into the storm drain	Warning Letter	Source removed; no additional remediation required
2801 Wake Forest Rd, Raleigh, NC, 27609	12/21/2023	12/21/2023	Grease interceptor overflow entering storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
435 Woodburn Rd, Raleigh, NC, 27605	12/21/2023	12/21/2023	Grease trap overflow	Warning Letter	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
8901 Durant Rd, Raleigh, NC, 27616	12/23/2023	12/23/2023	Water distribution line failure at industrial facility at a rate of 900 gpm	Investigated and found not to be a water quality concern; no further action taken	Not Required
813 Barbara Dr, Raleigh, NC, 27606	12/22/2023	12/28/2023	Possible private SSO	Warning Letter	Not Required
2601 N Raleigh Blvd, Raleigh, NC, 27604	12/28/2023	12/28/2023	Possible paint from vehicle fire entered storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
5801 Falls of Neuse Rd, Raleigh, NC, 27609	12/29/2023	12/29/2023	Potential motor vehicle fluids discharged	Investigated and found not to be a water quality concern; no further action taken	Not Required
1500 Banbury Rd, Raleigh, NC, 27607	12/30/2023	12/30/2023	City of Raleigh SSO ~1,100 gallons discharged, with ~800 gallons being discharged to surface waters	Referred to proper authority	Vacuum and removal
6209 River Jasmine Ln, Raleigh, NC, 27604	1/2/2024	1/2/2024	City of Raleigh SSO ~143 gallons discharged, with ~143 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
401 Capital Blvd, Raleigh, NC, 27603	1/5/2024	1/5/2024	Used motor oil discharged to curb and entered the storm drain	Notice of Violation	Vacuum and removal
2900 Briar Mill Trl, Raleigh, NC, 27612	1/5/2024	1/5/2024	Fecal odor at outfall during DWF	Investigated and found not to be a water quality concern; no further action taken	Not Required
4905 North Hills Dr, Raleigh, NC, 27612	1/10/2024	1/10/2024	City of Raleigh SSO ~ 1450 gallons discharged, with ~1450 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
4801 Blue Bird Ct, Raleigh, NC, 27606	1/13/2024	1/13/2024	City of Raleigh SSO ~252 gallons discharged, with ~252 gallons reaching surface waters	Referred to proper authority	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
6713 Perkins Dr, Raleigh, NC, 27612	1/16/2024	1/17/2024	Potential private SSO	Investigated and found not to be a water quality concern; no further action taken	Not Required
7301 Grist Mill Rd, Raleigh, NC, 27615	1/19/2024	1/19/2024	City of Raleigh SSO ~1500 gallons discharged with ~1500 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
2215 New Hope Church Rd, Raleigh, NC, 27604	1/26/2024	1/30/2024	Multiple mobile detailing stations set up and process water entering surface waters	Investigated and found not to be a water quality concern; no further action taken	Not Required
1709 High Holly Ln, Raleigh, NC, 27614	1/29/2024	1/29/2024	Discharge out of sewer service cleanout	Warning Letter	Vacuum and removal
3805 Brentwood Rd, Raleigh, NC, 27604	1/30/2024	1/31/2024	Grease interceptor cleanout overflowing from private business	Warning Letter	Vacuum and removal
600 Dacian Rd, Raleigh, NC, 27610	1/31/2024	1/31/2024	Oil leaking from machines working on greenway trail	Investigated and found not to be a water quality concern; no further action taken	Not Required
5012 Brookhaven Dr, Raleigh, NC, 27612	2/1/2024	2/2/2024	Sewage leaking from private property ~1000 gallons discharged	Notice of Violation	Excavation and removal
5536 Neuse View Dr, Raleigh, NC, 27610	2/4/2024	2/4/2024	City of Raleigh SSO ~1500 gallons discharged with ~200 gallons discharged to surface waters	Referred to proper authority	Vacuum and removal
2645 E Millbrook Rd, Raleigh, NC, 27604	2/3/2024	2/5/2024	Sewer cleanout overflowing	Warning Letter	Vacuum and removal
2215 New Hope Church Rd, Raleigh, NC, 27604	2/3/2024	2/5/2024	Mobile car washing activities with wash water entering stormwater system	Warning Letter	Remediation not needed
Greyson St & Dacian Rd, Raleigh, NC, 27610	2/9/2024	2/9/2024	SWS truck ruptured fuel tank	Summary Memorandum	Sweeping and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
1020 Corporation Pkwy, Raleigh, NC, 27610	2/9/2024	2/9/2024	Truck driver dumping grease down a manhole	Investigated and found not to be a water quality concern; no further action taken	Not Required
6028 Triangle Dr, Raleigh, NC, 27617	2/12/2024	2/12/2024	Discharging processed wastewater from industrial activity	Notice of Violation	Source removed; no additional remediation required
1527 Tryon Rd, Raleigh, NC, 27603	2/16/2024	2/16/2024	City of Raleigh SSO ~475 gallons discharged, with ~375 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
8509 Lakewood Dr, Raleigh, NC, 27613	2/27/2024	2/27/2024	Potential dumping into creek under Lakewood Drive	Investigated and found not to be a water quality concern; no further action taken	Not Required
900 Lorimer Rd, Raleigh, NC, 27606	2/29/2024	2/29/2024	City of Raleigh SSO ~750 gallons discharged, with ~650 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
2601 S Saunders St, Raleigh, NC, 27603	3/2/2024	3/5/2024	Mobile car washing activities	Investigated and found not to be a water quality concern; no further action taken	Not Required
5337 Huntley Overlook Dr, Durham, NC, 27703	3/5/2024	3/5/2024	SWS truck discharged hydraulic oil	Summary Memorandum	Vacuum and removal
1101 Ivy Ln, Raleigh, NC, 27609	3/5/2024	3/6/2024	Painters washing equipment/tools in creek with water from the house	Warning Letter	Not Required
4583 Harris Brook Dr, Raleigh, NC, 27616	3/7/2024	3/7/2024	Potential sewer discharge	Referred to proper authority	Not Required
7049 Jeffreys Creek Ln, Raleigh, NC, 27616	3/7/2024	3/7/2024	City of Raleigh SSO ~6,059 gallons discharged, with an undetermined amount reaching surface waters	Referred to proper authority	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
2110 Blue Ridge Rd, Raleigh, NC, 27607	3/8/2024	3/8/2024	Suds in creek	Warning Letter	Not Required
708 Glenbrook Dr, Raleigh, NC, 27610	3/11/2024	3/12/2024	Use of harsh chemicals in garage	Investigated and found not to be a water quality concern; no further action taken	Not Required
4336 Lyman Ave, Raleigh, NC, 27616	3/12/2024	3/12/2024	Resident dumping yard waste into SCM	Warning Letter	Not Required
8000 Monument Ln, Raleigh, NC, 27615	3/14/2024	3/14/2024	Mobile car washing activities	Investigated and found not to be a water quality concern; no further action taken	Not Required
3844 Pin Oak Rd, Raleigh, NC, 27604	3/13/2024	3/14/2024	Cars parked alongside street with potential to discharge motor oil near storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
1720 Quail Ridge Rd, Raleigh, NC, 27609	3/18/2024	3/19/2024	Pipe discharge near pool pump house	Investigated and found not to be a water quality concern; no further action taken	Not Required
1678 Nottingham Rd, Raleigh, NC, 27607	3/18/2024	3/19/2024	Potential SSO	Investigated and found not to be a water quality concern; no further action taken	Not Required
6927 Buffaloe Rd, Raleigh, NC, 27616	3/20/2024	3/20/2024	Diesel fuel spill	Warning Letter	Vacuum and removal
2820 Knowles St, Raleigh, NC, 27603	3/19/2024	3/21/2024	Sewage cleanout leaking	Investigated and found not to be a water quality concern; no further action taken	Not Required
105 Keeter Center Dr, Raleigh, NC, 27601	3/22/2024	3/25/2024	Oil and fuel leaking from junk vehicles at training facility	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
3900 Wester Rd, Raleigh, NC, 27604	3/28/2024	4/1/2024	Flow/Seeping observed from the stream bank during stream walk	Investigated and found not to be a water quality concern; no further action taken	Not Required
11201 Galleria Ave, Raleigh, NC, 27614	4/2/2024	4/3/2024	Repeatedly dumping cooking oil/grease behind restaurant	Notice of Violation	Excavation and removal
1401 New Bern Ave, Raleigh, NC, 27610	4/3/2024	4/3/2024	Grease interceptor overflowing	Notice of Violation	Vacuum and removal
11 S Boylan Ave, Raleigh, NC, 27603	4/3/2024	4/3/2024	Dumping of grease down the storm drain on South Boylan Avenue between W. Morgan and Hillsborough Street	Investigated and found not to be a water quality concern; no further action taken	Not Required
9950 Durant Rd, Raleigh, NC, 27614	4/8/2024	4/8/2024	Cooking oil dumped into storm drain	Warning Letter	Vacuum and removal
222 Fayetteville St, Raleigh, NC, 27601	4/8/2024	4/8/2024	Used oil container left on sidewalk	Investigated and found not to be a water quality concern; no further action taken	Not Required
I 440 & Six Forks Rd, Raleigh, NC, 27609	4/9/2024	4/9/2024	A vehicle carrying a large amount of cooking oil overturned and spilled into a storm drain	Notice of Violation	Berm construction
634 Stacy St, Raleigh, NC, 27607	4/15/2024	4/15/2024	Stream discoloration present near Meredith College	Investigated and found not to be a water quality concern; no further action taken	Not Required
500 Royal St, Raleigh, NC, 27607	4/15/2024	4/16/2024	Auto shop has automotive fluids discarded across their property	Warning Letter	Sweeping and removal
1451 Sawyer Rd, Raleigh, NC, 27610	4/13/2024	4/15/2024	Paint spilled near a storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
6308 J Richard Dr, Raleigh, NC, 27617	4/15/2024	5/11/2024	Chlorine spill at pool supply and maintenance company	Notice of Violation	Excavation and removal
1141 Raleigh School Dr, Raleigh, NC, 27607	4/15/2024	4/16/2024	City of Raleigh SSO ~24,800 gallons, with ~13,700 gallons reaching surface waters	Referred to proper authority	Vacuum and removal



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
7440 Louisburg Rd, Raleigh, NC, 27616	4/17/2024	4/18/2024	Diesel spill in grocery store parking lot	Notice of Violation	Vacuum and removal
3315 Vinson Ct, Raleigh, NC, 27604	4/17/2024	4/18/2024	City of Raleigh SSO weeping from creek bank	Referred to proper authority	Vacuum and removal
Rock Quarry Rd & I 40, Raleigh, NC, 27610	4/19/2024	4/19/2024	Septic trunk overturned on exit ramp, discharging some volume into a storm drain	Notice of Violation	Vacuum and removal
4700 Hiddenbrook Dr, Raleigh, NC, 27609	4/19/2024	4/19/2024	Storm drain smelled like sewer	Investigated and found not to be a water quality concern; no further action taken	Not Required
2001 N Raleigh Blvd, Raleigh, NC, 27604	4/19/2024	4/19/2024	Potential algae blooms	Investigated and found not to be a water quality concern; no further action taken	Not Required
2940 Wakefield Pines Dr, Raleigh, NC, 27614	4/19/2024	4/19/2024	Laundry business dumping chemicals from 55-gallon drums	Investigated and found not to be a water quality concern; no further action taken	Not Required
3030 Capital Blvd, Raleigh, NC, 27604	4/16/2024	4/19/2024	Car wash operating behind business and potentially discharging to a nearby storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
4220 Craftsman Dr, Raleigh, NC, 27609	4/18/2024	4/26/2024	Potential sanitary sewer leak observed during Marsh Creek stream walk	Investigated and found not to be a water quality concern; no further action taken	Not Required
3110 New Bern Ave, Raleigh, NC, 27610	4/24/2024	4/26/2024	Sewage overflowing from cleanout	Investigated and found not to be a water quality concern; no further action taken	Not Required
316 Fayetteville St, Raleigh, NC, 27601	4/26/2024	4/26/2024	Unknown discharge on Fayetteville St	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
3510 Wade Ave, Raleigh, NC, 27607	4/27/2024	4/30/2024	Contractors dumping paint	Investigated and found not to be a water quality concern; no further action taken	Not Required
4321 Lassiter at North Hills Ave, Raleigh, NC, 27609	5/1/2024	5/1/2024	Sewage discharging out of stormwater pipe on North Hills property	Notice of Violation	Vacuum and removal
10320 Globe Rd, Morrisville, NC, 27560	5/3/2024	5/3/2024	City of Raleigh SSO ~5,498 gallons discharged with 0 gallons reaching surface waters.	Referred to proper authority	Vacuum and removal
1200 S State St, Raleigh, NC, 27610	5/6/2024	5/6/2024	City of Raleigh SSO ~140 gallons discharged, with 0 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
741 Wimbleton Dr, Raleigh, NC, 27609	5/7/2024	5/7/2024	Staff observed a french drain pop up at 741 Wimbleton Dr discharging milky white substance	Warning Letter	Not Required
630 Rock Quarry Rd, Raleigh, NC, 27610	5/8/2024	5/8/2024	Grey/metallic looking discharge out of PVC pipe	Investigated and found not to be a water quality concern; no further action taken	Not Required
1116 Lombar St, Raleigh, NC, 27610	5/9/2024	5/9/2024	Sewage debris around cleanout, discharge mostly contained in yard/sidewalk	Warning Letter	Disinfectant application
1520 E Millbrook Rd, Raleigh, NC, 27609	5/16/2024	5/17/2024	Sewage backing up out of manhole into SCM	Investigated and found not to be a water quality concern; no further action taken	Not Required
7100 Great Laurel Dr, Raleigh, NC, 27616	5/17/2024	5/17/2024	City of Raleigh SSO ~5000 gallons discharged, with ~500 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
1201 Sunnybrook Rd, Raleigh, NC, 27610	5/17/2024	5/22/2024	Chemicals used to remove graffiti were flowing into surface waters	Other	Source removed; no additional remediation required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
7401 Sandy Creek Dr, Raleigh, NC, 27615	5/20/2024	5/20/2024	City of Raleigh SSO ~2600 gallons discharged, with ~2600 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
2421 Landmark Dr, Raleigh, NC, 27607	5/17/2024	5/20/2024	Chemicals discharged directly to the storm drain	Notice of Violation	Source removed; no additional remediation required
Atlantic Ave & E Millbrook Rd, Raleigh, NC, 27616	5/22/2024	5/22/2024	Vehicle accident with diesel fuel spilled on road	Notice of Violation	Sweeping and removal
Hargrove Rd & Spring Forest Rd, Raleigh, NC, 27616	5/22/2024	5/23/2024	Trash truck fire	Notice of Violation	Sweeping and removal
8421 Hobhouse Cir, Raleigh, NC, 27615	5/22/2024	5/22/2024	City of Raleigh SSO ~4700 gallons discharged, with ~100 gallons reaching surface waters	Referred to proper authority	Vacuum and removal
7116 Longstreet Dr, Raleigh, NC, 27615	5/20/2024	5/21/2024	Private SSO	Warning Letter	Disinfectant application
3611 Pine Knoll Dr, Raleigh, NC, 27604	5/24/2024	5/28/2024	Sewage discharging out of cleanout near sidewalk	Investigated and found not to be a water quality concern; no further action taken	Not Required
2235 New Hope Church Rd, Raleigh, NC, 27604	5/24/2024	5/28/2024	Food truck dumping wastewater into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
5265 Six Forks Rd, Raleigh, NC, 27609	5/31/2024	5/31/2024	Private SSO discharging to the City's storm system and reaching surface waters	Notice of Violation	Excavation and removal
608 Carolina Pines Ave, Raleigh, NC, 27603	6/3/2024	6/3/2024	Broken sewer lateral service line	Notice of Violation	Disinfectant application



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
2304 Gorman St, Raleigh, NC, 27606	6/3/2024	6/3/2024	Grease trap is overflowing and entering a catch basin	Notice of Violation	Vacuum and removal
5811 Poyner Village Pkwy, Raleigh, NC, 27616	6/6/2024	6/6/2024	Cooking grease ponded in parking lot	Notice of Violation	Vacuum and removal
410 Chamberlain St, Raleigh, NC, 27607	6/8/2024	6/10/2024	Suds discharging out of pipe from basement	Investigated and found not to be a water quality concern; no further action taken	Not Required
307 N Bloodworth St, Raleigh, NC, 27601	6/8/2024	6/10/2024	Recurring sewage overflow onto sidewalk	Investigated and found not to be a water quality concern; no further action taken	Not Required
533 E Edenton St, Raleigh, NC, 27601	6/8/2024	6/10/2024	Sewer odor coming from storm drain on property	Investigated and found not to be a water quality concern; no further action taken	Not Required
1669 North Market Dr, Raleigh, NC, 27609	6/9/2024	6/10/2024	Mobile car washing discharge entering storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
725 Rock Quarry Rd, Raleigh, NC, 27610	6/13/2024	6/14/2024	Chemical dumping near fence line	Investigated and found not to be a water quality concern; no further action taken	Not Required
1917 Nancy Ann Dr, Raleigh, NC, 27607	6/18/2024	6/18/2024	Workers dumped unused concrete down storm drains	Notice of Violation	Sweeping and removal
410 Chamberlain St, Raleigh, NC, 27607	6/20/2024	6/20/2024	Soapy discharge coming from pipe located from basement	Notice of Violation	Not Required
4401 Log Cabin Dr, Raleigh, NC, 27616	6/21/2024	6/21/2024	Unknown powder dumped into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
5800 Departure Dr, Raleigh, NC, 27616	6/24/2024	6/25/2024	Paint dumped in creek	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
4025 Iverson St, Raleigh, NC, 27604	6/24/2024	6/25/2024	Potential illicit discharge	Investigated and found not to be a water quality concern; no further action taken	Not Required
4129 Commodity Pkwy, Raleigh, NC, 27610	6/25/2024	6/25/2024	Someone changed oil over storm drain and spilled a little bit	Investigated and found not to be a water quality concern; no further action taken	Not Required
321 Leagan Dr, Raleigh, NC, 27603	6/26/2024	6/26/2024	Concrete wash out discharging to curb and entering a storm drain	Notice of Violation	Vacuum and removal
111 Cox Ave, Raleigh, NC, 27605	7/26/2024	7/26/2024	Concrete wash out discharging to curb and entering a storm drain	Notice of Violation	Source removed; no additional remediation required
6225 Saybrooke Dr, Raleigh, NC, 27604	6/26/2024	6/26/2024	Potential automotive fluids discharging to the road	Investigated and found not to be a water quality concern; no further action taken	Not Required
11511 Arnold Palmer Dr, Raleigh, NC, 27617	6/25/2024	6/26/2024	Automotive fluids	Investigated and found not to be a water quality concern; no further action taken	Not Required
8300 Health Park, Raleigh, NC, 27615	6/26/2024	6/27/2024	Sediment deposited into creek	Notice of Violation	Vacuum and removal
1839 Capital Blvd, Raleigh, NC, 27604	6/30/2024	7/1/2024	Soap and wastewater from car washing activities in street	Investigated and found not to be a water quality concern; no further action taken	Not Required
5013 Amberfield Way, Raleigh, NC, 27604	7/1/2024	7/1/2024	Animal by-products discharged to storm drain	Warning Letter	Source removed; no additional remediation required
5501 Capital Blvd, Raleigh, NC, 27616	7/2/2024	7/2/2024	Grease dumped into storm drain	Warning Letter	Vacuum and removal
4359 Six Forks Rd, Raleigh, NC, 27609	7/5/2024	7/5/2024	Car wash not collecting their waste material	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
2950 E Millbrook Rd, Raleigh, NC, 27604	7/7/2024	7/8/2024	Mobile car washing activities potentially discharging to a nearby storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
2807 Ashland St, Raleigh, NC, 27608	7/11/2024	7/11/2024	A catch basin observed to have dry weather flow	Investigated and found not to be a water quality concern; no further action taken	Not Required
2331 Grant Ave, Raleigh, NC, 27608	7/12/2024	7/15/2024	Irrigation continuing to run water and washing all the chemicals down the street and the sidewalk	Investigated and found not to be a water quality concern; no further action taken	Not Required
1116 N Blount St, Raleigh, NC, 27604	7/12/2024	7/15/2024	Sand pile washed away and deposited into surface waters	Notice of Violation	Sweeping and removal
3110 New Bern Ave, Raleigh, NC, 27610	7/15/2024	7/15/2024	Residual grease and odor coming from trash dumpsters	Notice of Violation	Sweeping and removal
4516 Baymar Dr, Raleigh, NC, 27612	7/18/2024	7/18/2024	Large amount of water running over the trail on Crabtree Creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
517 W Cabarrus St, Raleigh, NC, 27603	7/19/2024	7/22/2024	Someone washing out paint tools	Notice of Violation	Not Required
2305 Lake Wheeler Rd, Raleigh, NC, 27603	7/23/2024	7/23/2024	Oil spilled in parking lot	Notice of Violation	Not Required
304 Bon Marche Ln, Raleigh, NC, 27615	7/24/2024	7/25/2024	White substance washing across the street from a drainage pipe	Warning Letter	Vacuum and removal
127 W Hargett St, Raleigh, NC, 27601	7/23/2024	7/29/2024	Constant stream of water being discharged into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
4110 Briargrove Cir, Raleigh, NC, 27607	7/28/2024	7/29/2024	Vehicle struck an object, damaging fuel tank, leaking fuel in parking lot and some into nearby storm drain	Warning Letter	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
Capital Blvd & I 540, Raleigh, NC, 27616	7/30/2024	7/30/2024	Sheet rock mud was spilled into roadway at Capital Blvd near I-540	Referred to proper authority	Sweeping and removal
2312 Dahlgreen Rd, Raleigh, NC, 27615	8/1/2024	8/1/2024	Hydraulic oil leak from SWS trucks	Investigated and found not to be a water quality concern; no further action taken	Not Required
Forum Dr & Health Park, Raleigh, NC, 27615	8/1/2024	8/2/2024	Sediment from horizontal drilling operation washed onto sidewalk and down curblin into the storm drain	Warning Letter	Not Required
411 N Harrington St, Raleigh, NC, 27603	8/5/2024	8/5/2024	Dumpster leaking	Notice of Violation	Not Required
4408 Jacqueline Ln, Raleigh, NC, 27616	8/6/2024	8/6/2024	Private SSO	Warning Letter	Not Required
5004 Kota St, Raleigh, NC, 27610	8/8/2024	8/8/2024	City of Raleigh SSO ~20 gallons	Referred to proper authority	Vacuum and removal
716 Pebblebrook Dr, Raleigh, NC, 27609	8/9/2024	8/9/2024	City of Raleigh SSO ~2,450 gallons	Referred to proper authority	Vacuum and removal
808 Cotton Pl, Raleigh, NC, 27601	8/12/2024	8/12/2024	Water being pumped to the curb from the back of the house	Investigated and found not to be a water quality concern; no further action taken	Not Required
McGuire Dr & Farmlea Cir, Raleigh, NC, 27616	8/13/2024	8/14/2024	Excessive amount of dog waste on sidewalk and street	Investigated and found not to be a water quality concern; no further action taken	Not Required
8056 Remington Heights Dr, Raleigh, NC, 27616	8/13/2024	8/14/2024	Grass clippings are being blown or left on the street by the Homeowner	Warning Letter	Not Required
7204 Pinewood Ln, Raleigh, NC, 27616	8/14/2024	8/14/2024	Runoff is brown slime and owner would like it tested	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
8071 Monument Ln, Raleigh, NC, 27615	8/14/2024	8/14/2024	Mobile car washing activities	Investigated and found not to be a water quality concern; no further action taken	Not Required
2400 Hillsborough St, Raleigh, NC, 27607	8/15/2024	8/15/2024	Discharge running into the street	Investigated and found not to be a water quality concern; no further action taken	Not Required
401 Ramblewood Dr, Raleigh, NC, 27609	8/14/2024	8/15/2024	Blue discoloration in creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
516 N East St, Raleigh, NC, 27604	8/17/2024	8/19/2024	Concrete wash discharged to road	Investigated and found not to be a water quality concern; no further action taken	Not Required
Ronald Dr & Craftsman Dr, Raleigh, NC, 27609	8/16/2024	8/19/2024	Mobile car washing, with wash going into storm drain	Investigated and found not to be a water quality concern; no further action taken	Not Required
9100 Glenwood Ave, Raleigh, NC, 27617	8/19/2024	8/19/2024	Unknown liquid being dumped on the backside of the property	Investigated and found not to be a water quality concern; no further action taken	Not Required
2817 Roundleaf Ct, Raleigh, NC, 27604	8/21/2024	8/22/2024	Automotive fluids discharged to road	Warning Letter	Not Required
7500 Old Wake Forest Rd, Raleigh, NC, 27616	8/23/2024	8/23/2024	Load fire in trash truck, some liquid was discharged during firefighting activities	Notice of Violation	Sweeping and removal
3400 Fernwood Dr, Raleigh, NC, 27612	8/23/2024	8/23/2024	SSO ~675 Gallons discharged	Referred to proper authority	Vacuum and removal
5700 Louisburg Rd, Raleigh, NC, 27616	8/24/2024	8/26/2024	Food truck is draining some unknown fluid into the city storm drain	Notice of Violation	Not Required
2772 Everett Ave, Raleigh, NC, 27607	8/26/2024	8/26/2024	Fuel oil in un-named Tributary	Notice of Violation	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
417 Gardner St, Raleigh, NC, 27607	8/26/2024	8/26/2024	City of Raleigh SSO ~365 gallons discharged	Referred to proper authority	Vacuum and removal
3601 New Bern Ave, Raleigh, NC, 27610	8/27/2024	8/27/2024	Possible carwash process water entering storm drain	Warning Letter	Not Required
W Lane St, Raleigh, NC, 27603	8/29/2024	8/29/2024	Potential discharge of fuel/hydraulic oil	Investigated and found not to be a water quality concern; no further action taken	Not Required
1839 Capital Blvd, Raleigh, NC, 27604	8/28/2024	8/29/2024	Mobile carwash concern	Investigated and found not to be a water quality concern; no further action taken	Not Required
8601 Olde Station Dr, Raleigh, NC, 27615	9/3/2024	9/4/2024	Discolored creek, potentially paint dumped into creek	Investigated and found not to be a water quality concern; no further action taken	Not Required
421 Chapanoke Rd, Raleigh, NC, 27603	9/1/2024	9/3/2024	Mobile carwash concern	Investigated and found not to be a water quality concern; no further action taken	Not Required
3800 Hillsborough St, Raleigh, NC, 27607	9/3/2024	9/3/2024	SSO into catch basin	Notice of Violation	Vacuum and removal
3436 Singleleaf Ln, Raleigh, NC, 27616	9/3/2024	9/4/2024	Raw sewage discharged on road	Notice of Violation	Vacuum and removal
5622 Louisburg Rd, Raleigh, NC, 27616	9/4/2024	9/4/2024	Commercial car wash discharging its wash water into stormwater yard inlet	Notice of Violation	Not Required
1527 Crest Rd, Raleigh, NC, 27606	9/6/2024	9/6/2024	City of Raleigh SSO ~870 gallons discharged	Referred to proper authority	Vacuum and removal
2301 Beechridge Rd, Raleigh, NC, 27608	9/9/2024	9/9/2024	Pool water discharged into storm drain	Warning Letter	Not Required
2536 Albemarle Ave, Raleigh, NC, 27610	9/10/2024	9/10/2024	Sewer odor discovered after it rains along the lake	Investigated and found not to be a water quality concern; no further action taken	Not Required



Address	Date Received	Date Responded	Description	Enforcement Actions Taken	Remediation Actions Taken
920 Williams Rd, Raleigh, NC, 27610	9/11/2024	9/11/2024	City of Raleigh SSO ~ 100 gallons discharged	Referred to proper authority	Vacuum and removal
Six Forks Rd & I 440, Raleigh, NC, 27609	9/11/2024	9/11/2024	Overtured diesel generator leaked fuel into curb and catch basin	Notice of Violation	Not Required
4001 Beryl Rd, Raleigh, NC, 27607	9/12/2024	9/12/2024	Unanticipated bypass of industrial wastewater entering storm drain	Notice of Violation	Not Required
5108 New Bern Ave, Raleigh, NC, 27610	9/13/2024	9/13/2024	Vehicle maintenance fluids discharging and entering pond	Notice of Violation	Vacuum and removal
5253 Covington Bend Dr, Raleigh, NC, 27613	9/16/2024	9/16/2024	Vehicle parked on street discharging motor oil	Investigated and found not to be a water quality concern; no further action taken	Not Required
1 W Lenoir St, Raleigh, NC, 27601	9/18/2024	9/18/2024	Hydraulic oil discharged from street sweeper	Summary Memorandum	Vacuum and removal
1008 Dogwood Ln, Raleigh, NC, 27607	9/19/2024	9/19/2024	Transformer damaged	Investigated and found not to be a water quality concern; no further action taken	Not Required
5605 Bringle Ct, Raleigh, NC, 27610	9/20/2024	9/20/2024	Private SSO entering curb inlet	Notice of Violation	Vacuum and removal
1101 Mercantile Dr, Raleigh, NC, 27609	9/23/2024	9/24/2024	Cooking oil discharging from dumpsters behind restaurant	Notice of Violation	Vacuum and removal

NOV = Notice of Violation
SWS = Solid Waste Services
SSO = Sanitary Sewer Overflow

D.3 Program Assessment

Staff continue to meet all IDDE permit requirements and completed 209 site investigations during the reporting period, which is an approximate 2.5% increase from the previous reporting year. There was a ~3% increase in City of Raleigh SSOs and a ~58% increase in private SSOs from the previous reporting year. Staff also saw a 30% increase in discharges associated with fats, oils, and grease (FOG) from the previous year and a ~10% increase in oil/automotive fluids source identification. The increase in overall investigations, SSOs, FOG discharges, and oil/automotive fluid discharges sources may be a result of increased staff and public awareness due to the effectiveness of the City's Educations and Outreach program. In addition, continued City staff responsiveness and communication across the organization may have increased notification and reporting to Stormwater staff for City SSO incidents. An additional ½ FTE was added to this work group approximately mid-year which increased staff coverage and response capacity over the last several months.



Staff met in April to review the IDDE program plan and all associated standard operating procedures (SOPs) for the IDDE program. Only minor updates were made throughout the documents. The self-audit that was conducted in June and did not identify any gaps in compliance but did identify a few opportunities to further enhance the program. Throughout the next reporting year, staff will utilize data on discharge sources for targeted education and outreach efforts, to inform dry weather flow inspection, and to further coordinate with Raleigh Water staff who regularly assist with SSO complaints.



Section E: Construction Site Runoff Controls

E.1 Program Narrative

The City has implemented construction site runoff controls (erosion and sediment control) since the 1970s. This program is delegated to the City and overseen by DEQ. The City erosion and sediment control ordinance provides legal authority for the program in the City corporate limits and extraterritorial jurisdiction (ETJ) area and is updated when necessary to meet DEQ's minimum requirements. Ordinance changes are noticed and subject to public hearing prior to adoption, as described in Section C.

The program includes plan review, permitting, inspection, education, and enforcement activities to control construction site runoff. For all projects that disturb greater than one acre, an NPDES construction permit is required; that application should be made to DEQ for permit coverage. In addition, all publicly funded projects that disturb more than one acre are required to obtain Erosion and Sediment Control plan approval through DEQ. The City also receives and responds to calls and concerns from citizens related to runoff from construction sites on a regular basis.

E.2 Best Management Practices

Table E-1 includes a brief description of the Construction Site Runoff Controls best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.



Table E-1: Construction Site Runoff Controls Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section E.2 (a) The permittee has a delegated or authorized Sediment and Erosion Control Program. As such, to the extent authorized by law, the permittee is responsible for compliance with the Sediment Pollution Control Act of 1973 and Chapter 4 of Title 15A of the North Carolina Administrative Code. The delegated or authorized Sediment and Erosion Control Program effectively meets the MEP standard for Construction Site Runoff Controls by permitting and controlling development activities disturbing one or more acres of land surface and those activities less than one acre that are part of a larger common plan of development as authorized under the Sediment Pollution Control Act of 1973 and Chapter 4 of Title 15A of the North Carolina Administrative Code.</p>	<p>Implement standard construction site inspection procedures.</p> <p>Perform erosion and sediment control plan reviews.</p> <p>Perform enforcement activities, if necessary.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Implement standard construction site inspection procedures.</p> <p>Perform erosion and sediment control plan reviews.</p> <p>Perform enforcement activities, if necessary.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report number of inspections and enforcement activities conducted</p>	<p>Inspections: 15,179 NOVs: 28 Civil Penalties: 1</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section E.2 (b) The NCG010000 permit establishes requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.</p> <p>Part II Section E.2 (c) The permittee shall provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems. The permittee may implement a plan promoting the existence of the DEQ “Stop Mud” hotline (1-866- STOPMUD) to meet the requirements of this paragraph.</p>	<p>Perform construction site inspections for the erosion and sediment control program and appropriate enforcement activities that meet requirements of Part II Section E.2 (a), if necessary.</p> <p>Perform illicit discharge investigations when reported by City staff or residents.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Perform construction site inspections for the erosion and sediment control program and appropriate enforcement activities that meet requirements of Part II Section E.2 (a), if necessary.</p> <p>Perform illicit discharge investigations when reported by City staff or residents.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>N/A, see reporting metrics in SWMP Table 7 and Part II Section E.2 (a) and Part II Section D.2 (f) of the permit</p>	<p>N/A</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section E.2 (c) The permittee shall provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems. The permittee may implement a plan promoting the existence of the DEQ “Stop Mud” hotline (1-866- STOPMUD) to meet the requirements of this paragraph.</p>	<p>Maintain the stormwater administration helpline to receive public reports.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Maintain the stormwater administration helpline to receive public reports.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>N/A, see reporting metrics in SWMP Table 5 and Part II Section B.2 (c) and (e) of the permit</p>	<p>N/A</p>
<p>Part II Section E.2 (d) For new development and redevelopment projects to be built within the permittee’s planning jurisdiction by entities with eminent domain authority, the permittee shall, to the maximum extent practicable, coordinate the approval of the construction site runoff control with the DEMLR.</p>	<p>Coordinate with DEQ for development and redevelopment projects by entities with eminent domain authority, if necessary. This includes land-disturbing activities conducted by local, state, or United States governments or entities with the power of eminent domain (e.g., public utilities), which remain under jurisdiction of the Division of Energy, Mineral, and Land Resources (DEMLR).</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Coordinate with DEQ for development and redevelopment projects by entities with eminent domain authority, if necessary. This includes land-disturbing activities conducted by local, state, or United States governments or entities with the power of eminent domain (e.g., public utilities), which remain under jurisdiction of the Division of Energy, Mineral, and Land Resources (DEMLR).</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report number of plans that required DEQ coordination for entities with eminent domain authority</p>	<p>23</p>



E.3 Program Assessment

The Construction Site Runoff Control Program continued to meet all permit requirements FY2023-2024 and exceeded the number of routine inspections conducted in the previous reporting period. This team became fully staffed at the end of the last reporting period and has remained so throughout a majority of this reporting period. Staff continue to issue Notice of Violations and civil penalties and routinely utilize non-traditional enforcement tools such as withholding Certificates of Occupancy, preventing building permit issuance, and halting trade inspections to achieve site compliance. Staff continue to document inspection and enforcement procedures and make changes to the UDO to improve overall program effectiveness and compliance.

On September 3, 2023, City Council approved a UDO change that will remove the City's Guidelines for Land Disturbing Activities as an enforceable document of the UDO. As part of this change, the Stormwater Design Manual has been rewritten and incorporated these existing requirements into the UDO, which includes a chapter dedicated to Erosion and Sediment Control design standards and requirements. This UDO change will go into effect November 2, 2024.



Section F: Post-Construction Site Runoff Controls

F.1 Program Narrative

The City's post-construction site runoff controls remain in compliance with the City's MS4 permit through the Neuse Nutrient Sensitive Waters Management Strategy and Water Supply Watershed programs.

The City implements the Neuse Nutrient Sensitive Waters Management Strategy (15A NCAC 2B .0235) throughout the corporate limits and ETJ area of Raleigh. Water Supply Watershed IV (WS-IV) Programs (15A NCAC 2H .0216) are implemented in the Falls Lake and Richland Creek watersheds. A Water Supply Watershed III (WS-III) Program (15A NCAC 2B .0215) is implemented in the Swift Creek watershed.

The City's post-construction site runoff controls are deemed compliant with the implementation of the above-mentioned program measures. The controls are enforced through the City Unified Development Ordinance (UDO) and Stormwater Design Manual, which are at least as stringent as state requirements.

The City provides mechanisms to record deed restrictions and protective covenants to ensure ongoing maintenance of post-construction stormwater control measures (SCMs). The City has also set up a private maintenance policy for owners of private properties with post-construction SCMs. Every year, the private property owner must have a licensed professional engineer or landscape architect certify that the SCM is functioning properly and must send that certification to the City. If these inspections and certifications are not made, then notification and enforcement actions, including issuance of civil penalties, are taken. The maintenance activities required for each SCM are outlined in an operation and maintenance plan, which is approved during the design review process.

The City also provides educational materials and training for developers on requirements for new development, redevelopment, and SCM construction and maintenance.

F.2 Best Management Practices

Table F-1 includes a brief description of the Post-Construction Site Runoff Controls best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.



Table F-1: Post-Construction Site Runoff Controls Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.2 (a) Post-construction stormwater management program	<p>Review the UDO and Stormwater Design Manual annually and make documents available to developers and construction site operators.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Review UDO and Stormwater Design Manual annually and make documents available for developers and construction site operators.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	N/A, see reporting metrics in SWMP Table 4 and Part II Section A of the permit	N/A
Part II Section F.2 (b) Strategies which include SCMs appropriate for the MS4	<p>Maintain the UDO and Stormwater Design Manual so that the City requirements are at least as stringent as the minimum requirements in 15A NCAC 02H .1000 and make documents available to developers and construction site operators.</p> <p>Review annually the SCM Inspections Program Plan and update, if necessary.</p> <p>Implement the SCM inspection and maintenance program.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Maintain the UDO and Stormwater Design Manual so that the City requirements are at least as stringent as the minimum requirements in 15A NCAC 02H .1000 and make documents available to developers and construction site operators.</p> <p>Review annually the SCM Inspections Program Plan and update, if necessary.</p> <p>Implement SCM inspection and maintenance program.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	Report number of sites with SCMs	1,324
			Report number of sites where SCM inspections have been received	1,154
			Report SCM enforcement activities	139 NOVs issued; \$185,000 in civil penalties



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.2 (c) Deed restriction and protective covenants	<p>Develop covenant template for single-owner SCMs.</p> <p>Maintain recording mechanisms for deed restrictions and protective covenants.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Continue to develop covenant template for single-owner SCMs.</p> <p>Maintain recording mechanisms for deed restrictions and protective covenants.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Verify that mechanisms such as recorded deed restrictions, plats, and/or protective covenants are provided so that development activities maintain the project consistent with approved plans</p>	<p>Plat maps and maintenance easements are mechanisms utilized so that SCMs are maintained and consistent with the approved plans</p>
Part II Section F.2 (d) Operation and maintenance plan	<p>Require submittal of operation and maintenance plan(s) prior to Certificate of Occupancy issuance and maintain records of each plan.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Require submittal of operation and maintenance plan(s) prior to certificate of occupancy issuance and maintain records of each plan.</p> <p>Evaluate the program effectiveness and notify the Water Quality Manager of program modifications.</p>	<p>Report number of sites with newly approved operation and maintenance plans at time of plan review</p>	<p>113</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.2 (e) Educational materials and training for developers	Review annually developer training and outreach materials and update, as needed.	Review annually developer training and outreach materials and update, as needed.	Report types of fact sheets, educational brochures, and other materials made available to developers	Web-based; Annual Inspection requirements, As-Built requirements, Outreach centered around Stormwater Design Manual Update
	Conduct training for developers. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications. Notify the Water Quality Manager of program modifications.	Conduct training for developers. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report training events held for developers and number of participants	Quarterly Development Stakeholder Meetings held. At these meetings, updates and stormwater training given for all in attendance. These were held virtually this past year and averaged about 15 developer representatives attending per quarterly meeting.

F.3 Program Elements

Table F-2 includes a brief description of additional Post-Construction Site Runoff Controls program elements required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.



Table F-2: Post-Construction Site Runoff Controls Program Element Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.3 Design post-construction practices that meet or exceed state rules	<p>Review annually the DEQ model ordinance and regulations for changes affecting the City's post-construction practices. Incorporate and submit revisions to DEQ for approval, as needed.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Review annually the DEQ model ordinance and regulations for changes affecting the City's post-construction practices. Incorporate and submit revisions to DEQ for approval, as needed.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	Report whether UDO was updated (Y/N)	Yes. Stormwater Design Manual was updated and incorporated in UDO approved by Council on September 3, 2024, and effective November 2, 2024.
Part II Section F.4 Implement additional requirements for sensitive receiving waters	<p>Maintain SWMP Table 1, which identifies City receiving waters, including NSW and Water Supply Watershed designations.</p> <p>Implement the Neuse River Basin Nutrient Sensitive Waters Management Strategy throughout the City's corporate limits and ETJ area. Implement Water Supply Watershed rules in designated watersheds.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Maintain SWMP Table 1, which identifies City receiving waters, including NSW and Water Supply Watershed designations.</p> <p>Implement the Neuse River Basin Nutrient Sensitive Waters Management Strategy throughout the City's corporate limits and ETJ area. Implement Water Supply Watershed rules in designated watersheds.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	N/A, see SWMP Table 2 and 4, and Part II Section A.1. of the permit	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.5 Meet post-construction requirements for projects performed by permittee	Maintain UDO and Stormwater Design Manual and make documents available all City Departments.	Maintain UDO and Stormwater Design Manual and make documents available all City Departments.	N/A, see reporting metrics in Table 9 and 11 of the SWMP and Part II Section F.2 (b) and Part II Section G.2 (g) of the permit	N/A
	Review annually the Asset Management SCM Operation & Maintenance Plan and update, if necessary. Implement SCMs and dams asset management program. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Review annually the Asset Management SCM Operation & Maintenance Plan and update, if necessary. Implement SCMs and dams asset management program. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Number of City projects approved for post-construction compliance	8
Part II Section F.6 SCM water quality design volume will account for runoff at build out	Maintain UDO and Stormwater Design Manual and make documents available for developers and construction site operators. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Maintain UDO and Stormwater Design Manual and make documents available for developers and construction site operators. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	N/A, see reporting metrics in SWMP Table 4 and 9 and Part II Section F.2 (b) and Part II Section A.1 of the permit	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section F.7 Non-NCDOT linear transportation projects meet post-construction requirements	Document design requirements for linear projects that will be conveyed to NCDOT demonstrating consistency with current City practices. Implement guidance for NCDOT projects. Evaluate the program effectiveness and notify the Water Quality Manager of program modifications.	Document design requirements for linear projects that will be conveyed to NCDOT demonstrating consistency with current City practices. Implement guidance for NCDOT projects. Evaluate the program effectiveness and notify the Water Quality Manager of program modifications.	Report the number of linear projects with an approved design that will be conveyed to NCDOT	0

F.4 Program Assessment

During FY2023-2024 the Stormwater Plan Review group maintained a full staff and continued to meet all permit requirements. The updates to the Stormwater Design Manual were incorporated into the UDO on 9/3/2024 and will become effective on 11/2/2024. Staff continued to make improvements to existing internal checklists and SOPs while approving more plans than the previous reporting year.

The SCM Inspections program has continued to grow and effectively improve their enforcement efforts in the past year. Staff have filled some vacancies, and developed and implemented an enforcement SOP with dedicated staff to support this increase. Staff have also developed and implemented multiple SOPs for core functions and processes to support program effectiveness. There is a current vacancy which has contributed to the slower increase in total Annual Inspection Reports received by sites. Despite the staff vacancies and the increase in the number of submittals, staff is maintaining a similar compliance rate citywide. Roughly 87% of sites have submitted acceptable reports this reporting year compared to 90% last year. The program is advertising its open position and plans to expand program effectiveness and operation through implementation of the developed SOPs and improved program data and tracking. Staff will continue to annually review the program plan and assess overall workload and long-term staffing needs.



Section G: Pollution Prevention and Good Housekeeping for Municipal Operations

G.1 Program Narrative

The Stormwater Management Division has developed and implemented a facility inventory, inspection program, Site Pollution Prevention Plans (SPPPs) and Stormwater Pollution Prevention Plans (SWPPPs), spill response guidance, and staff training to prevent or mitigate pollution from municipal facilities and operations.

The City also inspects and maintains municipally-owned SCMs and the storm sewer system to assess and maintain its condition.

G.2 Best Management Practices

Table G-1 includes a brief description of the Pollution Prevention and Good Housekeeping best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table G-1: Pollution Prevention and Good Housekeeping for Municipal Operations Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section G.2 (a) Inventory of municipal facilities and operations	Review the inventory annually and update, as needed, based on changes in municipal facilities and operations.	Review the inventory annually and update, as needed, based on changes in municipal facilities and operations.	Report inventory of facilities determined to have significant potential for generating polluted stormwater runoff	30 facilities; see Table G-2 below
	Maintain and update inventory of municipally-owned SCMs. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Maintain and update inventory of municipally-owned SCMs. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of municipal SCMs by type	Total: 72 Wet Pond: 7 UG Detention: 7 Swale: 1 Sand Filter: 3 Cistern: 0 Permeable Pavement: 0 Level Spreader w/ Filter Strip: 3 Green Roof: 0 Filterra: 13 Dry Pond: 8 Wetland: 7 Bioretention: 23



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section G.2 (b) Inspection and maintenance program for municipal facilities and operations	Review annually the Asset Management SCM Operations and Maintenance Plan and Industrial Facility Inspection Program Plan guidance and update, as needed.	Review annually the Asset Management SCM Operations and Maintenance Plan and Industrial Facility Inspection Program Plan guidance and update, as needed.	Report number of facilities inspected	84 facilities were inspected
	Inspect and document municipal facility inspections, including any corrective actions. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Inspect and document municipal facility inspections, including any corrective actions. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report corrective actions taken at municipal facilities or operations	SPPP have been developed for 1 facility during this reporting year. Six summary memoranda were sent to facility contacts to address corrective actions at a total of ten facilities. SPPPs were updated, corrective actions were documented, training completed, and inspections resumed.
Part II Section G.2 (c) SPPPs for municipal facilities	Review annually facility SPPPs/SWPPPs with facility owning departments and update, as needed. Develop SPPPs/SWPPPs for newly identified facilities, if necessary. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Review annually facility SPPPs/SWPPPs with facility owning departments and update, as needed. Develop SPPPs/SWPPPs for newly identified facilities, if necessary. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of facilities within the City corporate limits with SPPPs/SWPPPs	30 facilities have SWPPPs/SPPPs in complete form.



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section G.2 (d) Spill response procedures for municipal facilities and operations	Review facility, operation, and Citywide spill response procedures and update, if necessary. Notify the Water Quality Manager of program modifications.	Review facility, operation, and Citywide spill response procedures annually and update, as needed. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of spill response procedures developed/updated	1
Part II Section G.2 (e) Prevent or minimize contamination of stormwater runoff from all areas used for vehicle and equipment cleaning	Review procedures for vehicle and equipment cleaning operations annually and update, as needed.	Review procedures for vehicle and equipment cleaning operations annually and update, as needed.	Report number of high priority facilities performing vehicle and equipment cleaning operations	8
	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report actions taken to prevent or minimize stormwater runoff from vehicle and equipment cleaning	Stormwater staff have inspected all facilities where vehicle and equipment cleaning occur. SPPPs or SWPPPs have been completed or are in final draft form for several facilities that have and maintain oil/water separators.



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
			Report number of facilities with three or fewer fire trucks undergoing renovations that will include structural measures to prevent wash water from entering the storm sewer system to the extent feasible	Stormwater staff have inspected all fire stations with three or fewer fire trucks and ambulances during this reporting year. The City's Stormwater Design Manual has been updated and includes language to include structural measures to prevent wash water from entering the MS4 at all new facilities with three or fewer fire trucks and ambulances. No facilities are undergoing renovation. One new fire station is currently being designed and will be reviewed to meet the UDO by Stormwater Plan Review staff prior to approval.



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section G.2 (f) Streets, roads, and public parking lots maintenance	<p>Document street, road, and public parking lot BMPs in the MS4 Operation and Maintenance Plan.</p> <p>Implement BMPs to reduce polluted stormwater runoff from municipally-owned streets, roads, and public parking lots.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Document street, road, and public parking lot BMPs in the MS4 Operation and Maintenance Plan.</p> <p>Implement BMPs to reduce polluted stormwater runoff from municipally-owned streets, roads, and public parking lots.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	Report maintenance activities completed in the previous fiscal year	8,781 miles of street were swept
Part II Section G.2 (g) Inspection and Maintenance (I&M) for municipally-owned or maintained stormwater control	Review annually the MS4 Operation and Maintenance Plan and Asset Management SCM	Review annually the MS4 Operation and Maintenance Plan and Asset Management	Report number of municipal SCMs inspected	71 City-owned regulatory compliance SCMs installed prior to this reporting period have been inspected



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
measures (SCMs) and the storm sewer system.	<p>Operation and Maintenance Plan, and revise, as needed.</p> <p>Review annually the Asset Management SCM Operation and Maintenance Plan, and revise, as needed.</p> <p>Establish service level agreements (SLAs) with facility owning departments address shared ownership and maintenance responsibilities and outstanding maintenance needs for SCMs located at municipal facilities.</p>	<p>SCM Operation and Maintenance Plan, and revise, as needed.</p> <p>Implement inspection and maintenance programs documented in the MS4 Operation and Maintenance Plan and Asset Management SCM Operation and Maintenance Plan.</p> <p>Review existing SLAs and coordinate with facility owning departments, if necessary.</p>	Report number of storm sewer conveyance system components inspected	<p>Number of bridges inspected: 60</p> <p>Number of crossline conveyances (culverts) inspected: 2,288</p> <p>Linear footage of drainage system that has had CCTV inspection: 88,843</p> <p>Linear footage of drainage system that has had pole camera inspection: 323,554</p> <p>Number of catch basins inspected: 1,336</p> <p>Number of junctions inspected: 20</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
	<p>Review existing SLAs and coordinate with facility owning departments, if necessary.</p> <p>Implement inspection and maintenance programs documented in the MS4 Operation and Maintenance Plan and Asset Management SCM Operation and Maintenance Plan.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report maintenance and repair actions</p>	<p>Number of storm assets flushed and/or vacuumed: 1,094 Linear feet of stormwater pipe flushed and/or vacuumed: 35,530 Number of crossline conveyances (culverts) maintained: 2,651 Number of inlet/junction tops reset: 541 Number of inlets/junctions maintained: 765 Number of pipes repaired/replaced: 26 Linear feet or channels redefined: 2,012 Number of bridges repaired: 7 Number of culverts repaired: 0 Number of catch basins repaired: 166 Number of junctions repaired: Replacements: 8</p>



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section G.2 (h) Staff training</p>	<p>Review annually and implement the Education, Outreach, and Public Involvement Plan, in conjunction with Part II Section D.2 (d) in Table 7, which documents the employee training program, including who should receive training, types of training, and frequency.</p> <p>Conduct employee training and document attendance.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Review annually and implement the Education, Outreach, and Public Involvement Plan, in conjunction with Part II Section D.2 (d) in Table 7, which documents the employee training program, including who should receive training, types of training, and frequency.</p> <p>Conduct employee training and document attendance.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report types of training provided and number of staff who completed PPGH training</p>	<p>145 City staff completed the PPGH training module via the City's SuccessFactors portal</p>



Table G-2: PPGH inventory of facilities that have significant potential to generate polluted stormwater runoff

Facility Name	Facility Owning Department
Lake Woodard (PUD)	Raleigh Water
Northeast Remote Operations (Burwell St)	VFS/Parks
COR Paratransit Operations Facility	Transportation
Downtown Remote Operations	Engineering Services/Transportation
Raleigh Transit Operations Facility	Go Raleigh
New Bern Avenue Maintenance Facility	Raleigh Fire Department/Engineering Services
Solid Waste-Wilders Grove Service Center	Solid Waste Services
Yard Waste Facility	Solid Waste, Yard Waste Facility
Buffaloe Road Athletic Park	Parks, Recreation and Cultural Resources
Walnut Creek Park North	Parks, Recreation and Cultural Resources
Ridge Road Pool	Parks, Recreation and Cultural Resources
Raleigh Fire Department Facility #1	Raleigh Fire Department
Mt. Herman Rd Operation Facility	Transportation
Biltmore Hills Park	Parks, Recreation and Cultural Resources
Millbrook-Exchange Park	Parks, Recreation and Cultural Resources
Pullen Park	Parks, Recreation and Cultural Resources
Optimist Park	Parks, Recreation and Cultural Resources
Longview Pool	Parks, Recreation and Cultural Resources
Neuse River Resource Recovery Facility	Raleigh Water
E. M. Johnson Water Treatment Plant	Raleigh Water
Raleigh Union Station	Transportation
Bain Odor Control Station	Raleigh Water
Lake Johnson	Parks, Recreation and Cultural Resources
Dorothea Dix Park	Parks, Recreation and Cultural Resources
Keeter Training Center	Raleigh Fire Department
Marsh Creek Facility	Parks, Recreation and Cultural Resources
Walnut Creek Odor Control and Pump Station	Raleigh Water
Crabtree Creek Odor Control & Pump Station	Raleigh Water



Facility Name	Facility Owning Department
Marsh Creek Odor Control Station	Raleigh Water
Buffaloe Road Odor Control Station	Raleigh Water

G.3 Program Assessment

Staff continue to meet PPGH permit requirements. Throughout the past reporting year, staff have completed more than 95 facility inspections, which is a 23% increase from the previous year. All 30 City-wide high priority facilities were inspected at least once, with additional follow-up inspection completed as necessary. Inspections of low priority and minimum exposure facilities were also completed this last year. Summary memoranda were distributed for corrective action at ten facilities for identified deficiencies. All compliance concerns were resolved during this reporting year.

Maintenance of City-owned SCMs has improved; the number of non-compliant individual SCMs decreased from 15 to 11 during this reporting year. In addition, staff have engaged an outside maintenance contractor to help with regular maintenance and have increased the Stormwater Utility Fee to fund the development of an internal SCM Maintenance crew. The contract with the outside contractor will be revised to align with the NPDES MS4 reporting year to simplify reporting. This year, city-wide inventory tracking has expanded to include SCMs that are managed by departments that do not have Service Level Agreements with the Stormwater Management Division.

Stormwater Maintenance staff will continue to review the data collected through inspections, repairs, and maintenance, and will work to analyze it for trends or hotspots of drainage issues. Staff will also be examining inspection capacity and continue to develop the inspection group to manage the growing maintenance and repair needs of the MS4 system.



Section H: Program to Monitor and Evaluate Stormwater Discharges to Municipal Systems

H.1 Program Narrative

The City maintains an inventory of permitted hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); and industrial facilities identified with an industrial activity permitted to discharge stormwater to the City MS4. The City's program prioritizes and inspects City-owned facilities with NPDES Industrial Stormwater Permits annually and privately-owned facilities with NPDES Industrial Stormwater Permits at least once every three years. Non-exposure sites permitted through DEQ are inspected once every permit cycle.

If significant non-compliance is found at a permitted facility or if compliance with the permit does not result in adequate control of pollutants to the MS4, City staff will contact DEQ to report the issue. If significant non-compliance is found at a non-permitted facility, the City will take enforcement action to resolve the problems leading to non-compliance.

H.2 Best Management Practices

Table H-1 includes a brief description of the Program to Monitor and Control Pollutants in Storm Water Discharges to Municipal Systems best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table H-1: Program to Monitor and Control Pollutants in Storm Water Discharges to Municipal Systems Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section H.2 (a) Maintain an inventory of industrial facilities	Review at least once per permit cycle the industrial facility inventory and update, as needed.	Review at least once per permit cycle the industrial facility inventory and update, as needed.	Report number of industrial facilities identified within the City's corporate limits	77
	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.		
Part II Section H.2 (b) Inspection program	Review annually the Industrial Facility Inspection Program Plan and update inspection guidance and checklists, if necessary.	Review annually the Industrial Facility Inspection Program Plan and update inspection guidance and checklists, if necessary.	Report number of facility inspections conducted	77
	Review inspections results and identify program priorities, as needed.	Review inspections results and identify program priorities, if necessary.	Identify program priorities	City-owned facilities – inspected annually;



	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.		Privately-owned facilities - inspected at least once every three years; Non-exposure sites – inspected at least once every permit cycle
Part II Section H.2 (c) Evaluate industrial facilities discharging stormwater to the City's MS4	Conduct inspection activities based on established procedures documented in City guidance and checklists.	Conduct inspection activities based on established procedures documented in City guidance and checklists.	Report number of deficiencies identified and forwarded to DEQ	20
	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report number of illicit discharges identified at industrial facilities	2

H.3 Program Assessment

Staff continued to meet all permit requirements of the Program to Monitor and Control Pollutants in Storm Water Discharges to Municipal Systems. All industrial sites located within the City's jurisdiction were evaluated by staff with at least one site visit that during this reporting period. Each site visit was documented with an inspection report and representative photos. Inspections were performed in coordination with NCDEQ staff at two facilities during this reporting period. Annual review and update of processes, forms and program effectiveness was officially conducted in May 2024 and changes were annotated in each respective document. A self-audit was completed in June 2024 and did not identify any gaps in compliance. Program enhancements included the implementation of a shared email account and calendar for more efficient scheduling and tracking of potential compliance concerns and correspondence across the workgroup. Additionally, Power BI is being utilized to track and visualize data needed for audit and reporting requirements. No substantial changes are scheduled to be implemented to this program prior to issuance of a new permit.



Section I: Water Quality Assessment and Monitoring

I.1 Program Narrative

The City has developed and implemented a Water Quality Assessment and Monitoring Plan that identifies monitoring locations, a monitoring schedule, monitoring parameters, sample data analysis, and data evaluation and assessment.

I.2 Best Management Practices

Table I-1 includes a brief description of the Water Quality Assessment and Monitoring best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table I-1: Water Quality Assessment and Monitoring Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section I.2 (a) Water Quality Assessment and Monitoring Plan	Review annually the Water Quality Assessment and Monitoring Plan and update, as needed. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Review annually the Water Quality Assessment and Monitoring Plan and update as needed. Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.	Report updates and revisions to the Water Quality Assessment and Monitoring Plan and the date submitted to DEQ, if applicable	Updated appendices to include safety sheets for field sample collection, staffing updates, and the procedure for downloading and storing data.
Part II Section I.2 (b) Water quality monitoring	Conduct water quality monitoring and data evaluation as documented in the Water Quality Assessment and Monitoring Plan.	Conduct water quality monitoring and data evaluation, as documented in the Water Quality Assessment and Monitoring Plan.	Report number of stream sites monitored	18
	Provide the current Water Quality Assessment and	Provide the current Water Quality Assessment and	Report number of samples collected	1,014



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
	<p>Monitoring Plan to DEQ, if revised.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Monitoring Plan to DEQ, if revised.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	Report parameters analyzed	Total suspended solids, ammonia, total Kjeldahl nitrogen, nitrate/nitrite, total nitrogen (sum of TKN and NO3/NO2, not collected in the field), calcium, copper, magnesium, total phosphorus, zinc, total hardness, turbidity, E. coli

Section I.3: Program Assessment

The Water Quality Assessment and Monitoring program continues to fulfill permit requirements and identify opportunities for enhancement. Staff reviewed and updated the Assessment and Monitoring Plan on June 5, 2024. Changes were made to reflect updated field safety procedures and staffing changes. A new full-time employee was hired to support water quality monitoring and increase capacity for field sampling and program coordination. Program elements (sampling schedule and Plan updates) were further evaluated during an internal self-audit on June 25, 2024. Staff conducted ambient water quality sampling at Raleigh’s eighteen long-term monitoring stations following the schedule outlined in the Plan. 1014 samples were collected; this change from the previous reporting period is due to four sampling events (typical) occurring during the reporting period whereas five sampling events occurred last year due to a delay with the lab contract process. During this reporting period, a new agreement was established with Raleigh Water for laboratory analysis of grab samples. The memorandum of understanding (MOU) was established to leverage internal expertise and resources, expedite turn-around time for sample analysis, and increase efficiency.

Analysis of monitoring data showed two stations (Pigeon House Branch and Rocky Branch) displayed the highest total nitrogen (TN) values as compared with the other sixteen monitoring stations. These watersheds are highly urbanized and therefore susceptible to impacts from pet waste, fertilizer, and other sources of nitrogen. There appears to be support for statistically higher spring TN values when seasonality was considered (adjusted p-value of 0.0008). Beyond permit requirements, the City is currently conducting watershed studies in both Pigeon House Branch and Rocky Branch watersheds, including additional targeted public education and engagement, stream condition assessment via stream walks, water quality modeling, and identification of potential opportunities for capital investments in green stormwater infrastructure and stream restoration.

Crabtree Creek and Little Brier Creek have previously reported higher concentrations of Total Suspended Solids (TSS) and turbidity compared with other stations; this trend continues for this reporting year, though all turbidity values fell below the State standard of 50 NTUs this year (Little Brier Creek reported a value slightly higher than the State standard in June 2023). Monitoring stations in Crabtree Creek and Little Brier Creek also displayed higher concentrations of TP relative to other monitoring stations. Soil erosion can be a major contributor of TSS and phosphorus to streams. The City is currently partnering on a multi-year study with the US Geological Survey (USGS) to model streambank erosion City-wide.

E. coli data displayed no significant seasonal trend (P-value .211). North Carolina does not currently have a regulatory standard, stream standard, or health advisory standard for E. coli. Instead, a fecal coliform stream standard is used. Because bacteria levels naturally fluctuate, results from multiple fecal coliform sampling events are used to determine a waterbody’s water quality over an extended period of time (e.g., month). There is no State health advisory standard for bacteria that provides an instantaneous health risk advisory determination for



freshwater. Pigeon House Branch has an assigned TMDL for fecal coliform bacteria and the City plans to prioritize conducting fecal coliform bacteria (including e. coli) source tracking in Pigeon House Branch during the next permit cycle as part of the Pigeon House Branch TMDL implementation plan. Staff have partnered with the USGS on a proposal to assess fecal contaminant presence, sources, and transport through the Walnut Creek watershed.



Section J: Total Maximum Daily Loads

J.1 Program Narrative

The following TMDLs within Raleigh’s MS4 service area (corporate limits of the City of Raleigh) are noted in Section 2.5 and Table 2 of the SWMP:

- Falls Lake
- Neuse River Estuary
- Pigeon House Branch
- Perry Creek

The Falls Lake and Neuse River Estuary are managed through 4B Management Plans approved by the EPA and overseen by the North Carolina Department of Environmental Quality (NCDEQ). The City is addressing the requirements of the 4B Management Plan through its implementation of the Nutrient Sensitive Waters Management Strategy and City ordinances adopted as required by State of North Carolina Neuse Nutrient Strategy Rules.

The EPA has assigned a TMDL to Pigeon House Branch for historical exceedances of copper and fecal coliform and to Perry Creek for biological integrity. The City of Raleigh has not been assigned a specific numerical Waste Load Allocations (WLA) for these respective pollutants of concern. Per Part II.J.4, the City has developed TMDL Implementation Plans for both of these watersheds documenting evaluated and tailored strategies and BMPs to address the pollutants of concern.

J.2 Best Management Practices

Table J-1 includes a brief description of the best management practices required by the MS4 permit, the planned actions for the current and future fiscal years as described in the SWMP, the annual reporting metrics identified in the SWMP, and the actual metrics for actions completed in FY2023-2024.

Table J-1: TMDL Metrics and Results

Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section J.3 (a) Identify, describe, and	Continue to monitor TMDL development.	Continue to monitor TMDL development.	Report TMDLs with WLAs within the MS4	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
map watershed, outfalls, and streams	If a TMDL is developed that assigns an individual numeric WLA to the City, evaluate strategies and tailor SWMP BMPs to address the pollutants of concern and associated TMDLs and develop a TMDL Plan.	If a TMDL is developed that assigns an individual numeric WLA to the City MS4, evaluate strategies and tailor SWMP BMPs to address the pollutants of concern and associated TMDLs and develop a TMDL Plan.	Report changes in outfall inventory that may be contributing to impairment of identified streams	N/A
Part II Section J.3 (b) Evaluate existing measures	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, establish measures for identifying and reducing pollutants of concern to the MEP.	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, establish measures for identifying and reducing pollutants of concern to the MEP.	N/A, Report pollutants of concern and measures taken for reduction	N/A
Part II Section J.3 (c) Assessment of available monitoring data	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, review and assess monitoring data.	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, review and assess monitoring data.	N/A, Report monitoring data summary and data trends	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section J.3 (d) Monitoring Plan	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, develop TMDL monitoring plan for applicable assigned NPDES regulated WLA.	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, develop TMDL monitoring plan for applicable assigned NPDES regulated WLA.	N/A, Report updates to monitoring plan	N/A
Part II Section J.3 (e) Additional Measures	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, establish programs and measures to be implemented within the City's MS4 permit program that are designed to achieve the assigned MS4 NPDES regulated WLA and to reduce the TMDL pollutant of concern to the MEP within the watershed to which the TMDL applies.	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, establish programs and measures to be implemented within the City's MS4 permit program that are designed to achieve the assigned MS4 NPDES regulated WLA and to reduce the TMDL pollutant of concern to the MEP within the watershed to which the TMDL applies.	N/A, Report additional measures taken	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
Part II Section J.3 (f) Implementation Plan	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, establish a schedule to address the NPDES WLA pollutant of concerns	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, establish a schedule to address the NPDES WLA pollutant of concerns	N/A, Report achievement of schedule milestones	N/A
Part II Section J.3 (g) Incremental Success	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, track successes per the plan. Review and update as needed	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, track successes per the plan. Review and update as needed	N/A, Report successes	N/A
Part II Section J.3 (h) Reporting	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City, prepare an assessment of activities and data analysis for the TMDL watershed plan	Continue to monitor TMDL development. If a TMDL is developed that assigns an individual numeric WLA to the City MS4, prepare an assessment of activities and data analysis for the TMDL watershed plan	N/A, Report annual assessment outcomes	N/A



Permit Reference/BMP	FY2024	FY2025	Reporting Metric(s)	2023-2024 Results
<p>Part II Section J.4. If no MS4 NPDES regulated waste load allocation (WLA) is specified in the TMDL</p>	<p>Develop Watershed Action Plans for Pigeon House Branch and Perry Creek that include strategies and tailor BMPs to address the POC in the watersheds.</p>	<p>Complete development of Watershed Action Plans for Pigeon House Branch and Perry Creek that include strategies and tailor BMPs to address the POC in the watersheds.</p>	<p>Report the development/maintenance of the Watershed Action Plans and modifications, if necessary</p>	<p>TMDL plans for Pigeon House Branch and Perry Creek watershed have been developed. Implementation is underway.</p>
	<p>Implement the Watershed Action Plans.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Implement the Watershed Action Plans.</p> <p>Coordinate with the Department of Water Resources to integrate the Pigeon House Branch and Perry Creek Watershed Action Plans into the DEQ StoryMap format, as staff and resources are available within DEQ.</p> <p>Evaluate the program effectiveness annually and notify the Water Quality Manager of program modifications.</p>	<p>Report BMPs implemented</p>	<p>Implemented BMPs are detailed in each respective TMDL Implementation Plan and are available upon request.</p>



J.3 Program Assessment

The City of Raleigh has developed TMDL Implementation Plans for Pigeon House Branch and Perry Creek that document the evaluation of strategies to tailor and expand BMPs within the scope of the six MCMs (the development of Watershed Action Plans (WAP) as an acceptable alternative approach to TMDL implementation plans are no longer necessary nor under consideration). In addition, the City has identified strategies beyond minimum control measures to improve water quality and address pollutants of concern. Staff continue to coordinate with NCDEQ on sampling efforts that may impact the copper TMDL in Pigeon House Branch watershed.



Section K: Annual Assessment and Annual Summary

This section assesses overall compliance with the permit during the FY2023-2024 reporting period and documents identified program improvements that will be implemented in FY2024-2025, including potential changes to the SWMP as may be required by issuance of the new permit.

K.1 Assessment

During the 2023-2024 reporting period, City staff continued to develop and improve program components required by the City's MS4 permit. City staff completed a self-audit and gap analysis in June 2024 utilizing the NCDEQ Self-Audit template and generated an executive summary for review by City management. During this exercise, staff reviewed all programs, conducted eight site visits, and documented that the City is meeting and/or exceeding all permit requirements. Opportunities for continuous improvement in program areas were identified and recommendations were made to further tailor programs in anticipation of the issuance of the new permit. Specific findings from completed assessments have been summarized at the end of each section in this report.

K.2 Program Improvements

Following the June 2024 self-audit, the SWMP was reviewed, and minor updates made to the tabular schedules to ensure continuance and completion of annual tasks. Significant changes to program strategies and reporting metrics were not necessary; changes are anticipated upon issuance of the new permit. The updated SWMP serves as an effective mechanism to track all required activities and related metrics throughout the permit year. The updated SWMP was signed by the Stormwater Program Manager in July 2024 and the changes made did not necessitate submittal to NCDEQ.

A concise summary of achievements and assessment of data for each MCM, as required by the SWMP, is outlined in each section of the annual report. These summaries describe and assess staff effort, program effectiveness, and changes and improvements implemented during the reporting period. Generally, program metrics were comparable to previous reporting years, with several program enhancements highlighted. Filled vacancies, position reclassification, and new positions added this reporting period helped promote timely fulfillment of compliance activities, and in some cases expansion/increase of compliance metrics.

The City completed annual review and maintenance of all legal authorities to effectively meet permit requirements. The Stormwater Design Manual update and acceptance by City Council was a significant milestone for the City during the last reporting year. The revisions required subsequent updates to Raleigh's Uniform Development Ordinance (UDO). These changes are applicable for development plans submitted after November 2, 2024. Enforcement actions by staff within the Illicit Discharge Detection and Elimination, Construction Site Runoff Controls, and Post-Construction Site Runoff Controls programs have been adequate to achieve compliance with regulations outlined by the permit and UDO.

K.3 2023-2024 Program Initiatives

This next reporting year will bring changes to the City of Raleigh Stormwater Program. Issuance of a new MS4 permit by NCDEQ is pending. A revised SWMP will be required to be submitted to NCDEQ for review within 12 months of issuance. Upon approval of the SWMP, program plans across the MCMs will be updated to correspond with the new permit language. Stormwater staff have engaged with a consulting firm to complete these pending tasks within the compliance schedule.



Staff will begin implementation of the newly developed TMDL Implementation Plans in both Pigeon House Branch and Perry Creek watersheds. In addition, watershed studies will continue in Pigeon House Branch, Walnut Creek and Marsh Creek watersheds as the City moves towards development of a City-wide modeling tool to inform future initiatives. Lastly, the City will also continue to engage other MS4 communities within North Carolina to share resources and further develop strategies to improve management of stormwater in the City of Raleigh.