

Annual Report

Term V, Year 2:
July 1, 2023 – June 30, 2024



For Submittal to:
NC Department of Environmental Quality
Division of Energy, Mineral, and Land Resources

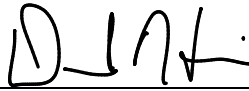
Submitted by:
NC Department of Transportation
NPDES Permit No. NCS000250


August 31, 2024

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Recommended for approval:

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"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 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."

<p>Signed by:  <small>J. R. Hopkins</small> Joey R. Hopkins, PE Secretary North Carolina Department of Transportation</p>	<p>08/23/2024 Date</p>
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This report was prepared and submitted to be compliant with North Carolina Department of Transportation's (NCDOT's) National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit (NCS000250) requirement under Part 4.2 of the permit issued May 1, 2022 (Term V permit). This Annual Report includes an assessment of the activities performed under the permit for the fiscal year (July 1, 2023 – June 30, 2024). This period is also referred to herein as Term V Permit Year 2 (or PY2).

This Annual Report format mimics the general guidance provided by North Carolina Department of the Environment Quality (NCDEQ) and includes appropriate information to accurately describe the progress, status, and results of the Department's permitted programs. This Annual Report includes specific annual reporting metrics identified in NCDOT's updated Transportation Separate Storm Sewer System - Stormwater Management Plan (TS4SMP), which was submitted to NCDEQ on November 3, 2023, and approved by NCDEQ on December 18, 2023. Additionally, the report assesses the Department's compliance with the permit, provides information on the establishment of appropriate legal authorities, inspections, and enforcement actions where applicable, and includes specific annual reporting metrics identified in NCDOT's TS4SMP for each permitted program area. The TS4SMP effectively serves as NCDOT's five-year business plan outlining the major activities to be performed to comply with the permit along with annual reporting metrics. It is the intent of NCDEQ that the reporting metrics contained in this Annual Report serve as the basis of future annual reports. Hence, this Annual Report contains a brief introduction which is then followed by the detailed TS4SMP tabular summary of the Department's Highway Stormwater Program best management practices (BMPs), measurable goals, schedule for implementation, and reporting metrics for this permit year, as well as anticipated/ planned program activities for the next three years. NCDOT's self-assessment for PY2 indicates that the Department was in compliance with the requirements of the TS4SMP.

Highway Stormwater Program staff continued to integrate the Term V permit requirements into the Department's various permit compliance programs during PY2. As anticipated, most programs only required minor modifications to existing established programs. However, several permit programs require significant changes over the course of this five-year permit term. These are detailed in Section 2 of this report.

The NPDES permit authorizes NCDOT to discharge stormwater runoff from general roadways including weigh stations and tolling facilities, construction activities disturbing greater than one acre, borrow pits/waste piles, industrial facilities, maintenance and storage facilities, office buildings, rest areas, ferry terminals and NCDOT-owned railways. Activities conducted by the North Carolina Turnpike Authority, North Carolina Global TransPark, and I-77 Mobility Partners are also covered under this permit. The I-77 Mobility Partners Stormwater Management Program Report is included in Appendix A of this report.

Select Accomplishments for Term V Permit Year 2 (July 1, 2023 – June 30, 2024)

Below are a list of programs required by the permit and a few examples of accomplishments achieved during this permit year (presented as requirements are arranged in the permit):

- **Public Education and Outreach Program** – The permit requires NCDOT to provide educational materials to the traveling public concerning the impacts of stormwater discharges on surface waters and how the public can reduce pollutants in stormwater runoff. In this permit year, NCDOT continued to provide educational materials at Rest Areas/Welcome Centers, Ferry Terminals, and other locations for the traveling public. Additionally, NCDOT made anti-litter messaging materials for the public, including school-aged children, available on NCDOT’s website, social media platforms, and various in-person outreach efforts.
- **Public Involvement and Participation Program** – NCDOT continued to maintain reporting mechanisms for the public to provide input on stormwater issues during project-specific public meetings, or through NCDOT’s website for reporting littering, illicit discharges, or illegal dumping observations. NCDOT conducted approximately 42 public meetings across the state this permit year providing the public an opportunity to discuss stormwater management issues of interest. NCDOT also continued to provide volunteer opportunities to support its anti-litter campaign with its Adopt-A-Highway program, Swat-A-Litterbug, and the biannual Litter Sweep program.
- **Illicit Discharge Detection and Elimination Program (IDDEP)** – NCDOT has established procedures for reporting illicit discharges and illegal dumping activities along NCDOT right-of-way (ROW). In this permit year, NCDOT continued to provide training on identifying and reporting illicit discharges and illegal dumping and reporting them to NCDEQ or other appropriate local government agencies for enforcement.
- **TS4 Mapping Program** – New for the Term V permit, is a requirement to map the components of the Department’s drainage system in select areas of the state. The required components to be mapped include pipes, catch basins, open channels, outfalls, and flow direction. Mapping is required in the Phase I municipalities which include: Charlotte, Winston-Salem, Greensboro, Durham, Raleigh, and Fayetteville. During this permit year NCDOT initiated the first stage of the TS4 Mapping Project. The project is being implemented in stages and in partnership with the aforementioned municipalities to minimize duplicative data collection. In PY2, the TS4 Mapping Project team coordinated and collected existing geospatial mapping data of stormwater conveyance assets, including those that may be owned by NCDOT, from the six Phase I municipalities; began evaluating the data; prepared a Data Summary Report; developed a TS4 Mapping Project Plan to provide the framework for the management and execution of the TS4 Mapping Project goals; and prepared a Data Gap Report to identify missing data and determine where additional data collection and/or field work may be needed. Additionally, using internal forces, NCDOT made significant progress identifying bridges which directly discharge to waterbodies within the six Phase I municipalities. The bridge outfall identification initiative is approximately 45% complete. The TS4 Mapping Project has completed the required BMPs for PY2 and has begun work on PY3 BMPs.

- Construction Site Runoff Control Program – NCDOT continues to operate under its delegated authority granted by the NC Sedimentation Control Committee. NCDOT’s Construction Program continues to review and approve erosion & sediment control (ESC) plans, implement and maintain standard specifications and project special provisions, provide guidance on ESC/stormwater issues, perform inspections and monitoring of construction projects, maintain NCDOT’s reclamation process, and provide ESC/stormwater training materials to contractors/ consultants. The following inspections were performed by Roadside Environmental Unit (REU) Field Operations staff in calendar year 2023 for each category of land disturbing activity: 3,469 contract construction projects, 94 maintenance projects, 6 vertical construction projects, 328 bridge maintenance projects, and 66 resurfacing/ shoulder reconstruction projects. During this permit year, NCDEQ initiated its reoccurring annual review of the program with approval of continued program delegation anticipated in PY3.
- Post-Construction Controls
 - BMP Retrofit Program – NCDOT maintains its Retrofit Opportunity Site Selection (ROSS) database of potential stormwater retrofit locations which is integrated within the Department’s ArcGIS Online portal. In this permit year, NCDOT performed the following reviews: seven HUC-12s completely reviewed, 530 Retrofit Investigation Areas (RIAs) desktop reviewed, and 160 ROSS sites identified for field review. The total number of Retrofit Opportunity Areas statewide maintained in ROSS is 78,665. In addition, 23 BMP retrofit credits were completed in PY2, with highlights (and partnerships) being the infiltration chambers in Division 3 (Town of Surf City), permeable pavement installations in Division 2 (Town of Beaufort), and land conservation in the City of Durham to protect Falls Lake from additional nutrient loading.
 - BMP Toolbox – In this permit year, NCDOT continued work on a major update to the Department’s Stormwater Best Management Practices Toolbox design manual and associated training materials. Following NCDEQ approval of the updated BMP Toolbox, the manual will be released for use by the Department and its consulting partners for project development and permit compliance.
 - Post-Construction Stormwater Program – The Department continues to implement the stormwater treatment requirements outlined in the Post-Construction Stormwater Program (PCSP) which was updated and approved by NCDEQ in 2022. The PCSP integrates state and federal stormwater requirements into a single document thereby serving as a convenient resource for design teams. Also, as required by the permit, NCDOT developed a standard policy for preparing structural stormwater control measure (SCM) construction drawings and as-built plans, and maintaining them on file on its Construction SharePoint site. This new policy will be implemented in the next permit year.

- Pollution Prevention and Good Housekeeping Programs
 - Facilities Operation and Maintenance Program – NCDOT continues to implement and maintain site-specific Stormwater Pollution Prevention Plans (SPPPs) for non-roadway facilities. NCDOT staff conducted 30 internal site reviews, provided online and in-person training to Division staff and contractors, and continued to assist Divisions with SPPP implementation. Note: New for the Term V permit starting next year (PY3), it is a requirement to begin analytical monitoring of stormwater discharges at outfalls from two industrial facilities (North Carolina Global TransPark and the asphalt plant located at the Washington County Creswell Maintenance Yard).
 - Spill Response Program – The permit requires NCDOT to maintain and implement spill response procedures for its non-roadway facilities. In this permit term, NCDOT continued to implement its spill prevention and response program and to provide annual spill response training at its non-roadway facilities. NCDOT continued to maintain its site-specific Spill Prevention Control and Countermeasure (SPCC) Plans which are integrated into its SPPPs for its maintenance facilities with bulk oil storage.
 - TS4 Operation and Maintenance Program – The permit requires NCDOT to develop and implement a TS4 operations & maintenance (O&M) program designed to reduce the discharge of pollutants including particulates, sediment, litter, and debris from the stormwater conveyance system. In addition to performing inspections and maintenance of the TS4 during normal operations, NCDOT also performed significant litter and debris removal activities (see Litter Management) and road sweeping activities. NCDOT performed roadway sweeping in each Division in PY2, utilizing both NCDOT Forces and contractors, which resulted in a total of 17,675 lane miles swept. During this permit year, NCDOT began coordination with Division staff to develop written protocols and to identify high priority areas within the TS4 O&M program for implementation of BMPs to reduce pollutants. The protocols will be initiated in phases over the remainder of this permit term in accordance with the scheduled outlined in NCDOT's TS4SMP. Documentation by Divisions of TS4 O&M will continue to be important in maintaining permit compliance.
 - SCM Inspection and Maintenance Program – In this permit year, NCDOT continued to implement its SCM Inspection and Maintenance (I&M) program. This includes REU staff coordinating with consultants and Division staff in performing SCM inspections, preparing SCM repair and rehab scopes of work and cost estimate bid packets, conducting post-repair assessments of SCMs, and providing training to Division staff. REU and Division Roadside Environmental staff coordinated with contractors and other Division staff to complete non-routine SCM repairs.

- Vegetation Management Program – REU continued to coordinate and hold vegetation management training sessions for Division staff. Throughout the permit year, Division staff attended various other trainings that offered pesticide recertification credits. REU also provided NCDA&CS-approved pesticide recertification training, which included instruction on pesticide recertification requirements, applications, methods, aquatic subcategory, pesticide handling, and compliance with NPDES pesticide storage facilities.
- Vehicle and Equipment Maintenance Program – NCDOT maintains a well-established vehicle and equipment preventative maintenance (PM) program for its fleet, which includes routine PM inspections and service of the Department’s facilities, vehicles, and equipment. Repairs are performed as needed. NCDOT performs the PM inspections and maintenance based on specific frequencies and schedules for each vehicle/equipment to maintain them in good operating condition and to prevent and minimize vehicle/equipment leaks and drips to the ground surface.
- Litter Management Program – NCDOT continues its litter pickup activities including Adopt-A-Highway, Sponsor-A-Highway, Contract Litter Removal, Litter Sweep, and Swat-A-Litterbug programs. The Department documents the efforts of its partners, volunteers, and internal staff on litter collection. The Term V permit requires new actions such as litter inspections, identification of litter hotspots, and implementation of BMPs to prevent the discharge of litter at hotspots. These will be focus areas in the remaining years of this permit term. In CY 2023, and for the consecutive year, NCDOT and our partner organizations picked up over 11.5 million pounds of litter.
- Fecal Coliform Reduction Program – The permit requires NCDOT to take specific actions at its non-roadway facilities including connecting on-site wastewater systems to publicly owned treatment works where feasible, stormwater pollution prevention training of wastewater facility operators, and maintaining pet waste stations. NCDOT continued to maintain Pet Waste Stations at its Rest Area/Welcome Center facilities and its Ferry Terminals. NCDOT also continued to operate and maintain its on-site domestic wastewater treatment systems at two Rest Areas (I-77 Surry County and I-40 Haywood County) in accordance with the manufacturer’s and state guidance. Septic systems located at other NCDOT non-roadway facilities continue to be maintained and evaluated for connections to public systems.
- TMDL Program – In PY2, there were no new EPA approved TMDLs anywhere in the state, therefore NCDOT focused its attention on watersheds with existing established TMDLs. The TMDL Program is supported by a variety of NCDOT programs, each contributing in specific ways to address the pollutants of concern in TMDL watersheds. For example, the BMP Retrofit Program plays a crucial role by identifying and implementing retrofit opportunities in TMDL watersheds. The Facilities Operation and Maintenance Program ensures that appropriate BMPs and relevant training are in place at NCDOT facilities, specifically targeting the pollutants identified in TMDLs. The Fecal Coliform Reduction Program focuses on

managing septic systems and pet waste, particularly at ferry terminals and rest areas, to reduce fecal coliform levels in the watershed. The IDDEP supports the TMDL Program by identifying and reporting illicit discharges at non-roadway facilities, thereby reducing potential sources of pollution. Similarly, the Litter Management Program coordinates ongoing litter collection efforts within the watershed, which is critical for minimizing trash-related pollutants. The PCSP implements stormwater management practices in TMDL watersheds, following a detailed decision support matrix that ensures actions are tailored to specific needs. The Public Education and Outreach Program and the Public Involvement and Participation Program enhance the TMDL Program by expanding educational efforts and increasing public engagement within TMDL watersheds, which helps address potential pollutant sources. The SCM I&M Program is vital for ensuring that SCMs are maintained to operate at optimal performance levels. Finally, the TS4 Mapping and Operation and Maintenance Program supports TMDL compliance by compiling mapping data and evaluating operational strategies within the watershed. This information is used by the TMDL program manager to make informed decisions regarding whether additional, targeted actions are warranted or practicable within TMDL watersheds.

- Research Program – NCDOT completed three stormwater research projects during this permit term: RP 2019-02 *Protocol for Outlet Analysis at Highway Sites*, RP 2020-01 *Reducing the Environmental Impact of Road Construction*, and RP 2021-04 *Evaluating Biochar as a Multi-Beneficial and Cost-Effective Soil Amendment Option for Maximal Stormwater Infiltration*. NCDOT Hydraulics Unit and REU staff continue to assist with the coordination of multiple ongoing research projects that support NCDOT’s Highway Stormwater Program and its permit requirements. The following are active research projects: RP 2019-07 *Evaluating and Optimization of Engineered Media Amendments for Contaminant Removal in Stormwater Runoff Filtration Systems*, RP 2021-02 *Evaluating Maintenance Requirements and Water Quality Benefits of Alternative Vegetated and Non-Vegetated Linings in Roadside Swales*, RP 2022-04 *Low-Cost Sensing of Stormwater Outlet Flow*, RP 2023-15 *Predicting Resilience and Reducing Failure of SCMs to Extreme Storm Events*, and RP 2024-18 *DeepPipe: Spatially Explicit Deep Learning-based Underground Pipe Prediction for Urban Stormwater Management*; RP 2018-34 *Updates and Maintenance of the Precipitation Alert and Visualization Tool in Support of NCDOT Stormwater Quality Monitoring*; RP 2022-03 *Optimizing Pesticide Applications along North Carolina Roadsides*; RP 2023-13 *Management of Mud and Diamond Grinding Slurry during Highway Construction and Maintenance*; and RP 2021-01 *Zoysiagrass Expansion on Roadsides*.

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Appendix

Appendix A I-77 Mobility Partners Stormwater Management Program Report

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AAH	Adopt-A-Highway
ADME	Assistant Division Maintenance Engineer
ADT	Average Daily Traffic
AGOL	ArcGIS Online
ATLAS	Advancing Transportation through Linkages Automation and Screening
BMP	Best Management Practice
CY	Calendar Year
DME	Division Maintenance Engineer
EAU	Environmental Analysis Unit
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
ERCON	Erosion Control REU Field Operations Database Application
ESC	Erosion and Sediment Control
ESM	Environmental Sensitivity Map
GH&PP	Good Housekeeping & Pollution Prevention
GIS	Geospatial Information System
Go!NC	NCDOT's Web Mapping Portal
GREEN	Guided Reduction of Excess Environmental Nutrients
HSP	Highway Stormwater Program
HU	Hydraulics Unit
HUC	Hydraulic Unit Code
I&M	Inspection and Maintenance
IDDEP	Illicit Discharge Detection and Elimination Program
IRMA	Industrial Roadway Maintenance Activities
JLOW	Jordan Lake One Water
LID	Low Impact Development
LM	Litter Management
LMS	Learning Management System
LOS	Level of Service
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NA	Not Applicable
NBSS	Nature-based Stormwater Solutions
NC	North Carolina
NCAC	North Carolina Administration Code
NCDA&CS	North Carolina Department of Agriculture & Customer Services
NCDEQ	North Carolina Department of Environmental Quality
NCDOT	North Carolina Department of Transportation
NCDOT-JLSLAT	NCDOT Jordan Lake Stormwater Nutrient Loading Accounting Tool
NCDWR	North Carolina Department of Water Resources

NCSU	North Carolina State University
NCTA	North Carolina Turnpike Authority
NPDES	National Pollutant Discharge Elimination System
NSAB	Nutrient Science Advisory Board
O&M	Operations and Maintenance
ORC	Operator in Responsible Charge
PCSP	Post Construction Stormwater Program
PDN	Project Development Network
PM	Preventative Maintenance
POTW	Publicly Owned Treatment Works
PY	Permit Year
R&D	Research & Development
REU	Roadside Environmental Unit
RIA	Retrofit Investigation Area
ROSS	Retrofit Opportunity Site Selection
ROW	Right-of-Way
RP	Research Project
SAH	Sponsor-A-Highway
SAP	Systems Applications and Products
SCM	Stormwater Control Measure
SCMS	Stormwater Control Management System
SNAP	NC Stormwater Nitrogen and Phosphorus Tool
SOP	Standard Operating Procedure
SP	SharePoint
SPCA	Sedimentation Pollution Control Act
SPCC	Spill Prevention Control and Countermeasure
SPPP	Stormwater Pollution Prevention Plan
SPR	Spill Prevention and Response
STIP	State Transportation Improvement Projects
TMDL	Total Maximum Daily Load
TS4	Transportation Separate Storm Sewer System
TS4SMP	Transportation Separate Storm Sewer System Stormwater Management Plan
USEPA	United States Environmental Protection Agency
VM	Vegetation Management
WLA	Waste Load Allocation

1.0 Introduction

Purpose

This Annual Report was prepared and submitted in compliance with the North Carolina Department of Transportation's (NCDOT's) statewide National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit (NCS000250) requirement under Part 4.2 of the permit issued May 1, 2022 (Term V permit). This Annual Report includes an assessment of the various achievements and compliance activities performed under the permit for the fiscal year (July 1, 2023 – June 30, 2024), also referred to herein as Term V Permit Year 2 (or PY2).

The Report format mimics the general guidance provided by North Carolina Department of the Environment Quality (NCDEQ) and includes appropriate information to accurately describe the progress, status, and results of the Department's permitted programs. This Annual Report includes specific annual reporting metrics identified in NCDOT's updated Transportation Separate Storm Sewer System - Stormwater Management Plan (TS4SMP), which was submitted to NCDEQ on November 3, 2023, and approved by NCDEQ on December 18, 2023. This Annual Report assesses the Department's compliance with our permit, provides information on the establishment of appropriate legal authorities, inspections, and enforcement actions where applicable, and includes specific annual reporting metrics identified in NCDOT's TS4SMP for each permitted program area. The TS4SMP effectively serves as NCDOT's five-year business plan outlining the major activities to be performed to comply with the permit along with annual reporting metrics. It is the intent of NCDEQ that the reporting metrics contained in this Annual Report serve as the basis of future annual reports. Hence, this Annual Report contains a brief introduction (Section 1) which is then followed by the detailed TS4SMP tabular summary (Section 2) of the Department's Highway Stormwater Program best management practices (BMPs), measurable goals, schedule for implementation, and reporting metrics for this permit year, as well as anticipated/ planned program activities for remaining years of this permit term. NCDOT's self-assessment for PY2 indicated that the Department was in compliance with the requirements of the TS4SMP.

Permit Coverage

The Highway Stormwater Program (HSP) was established in 1998 to manage NCDOT's compliance with its NPDES stormwater permit. Under this NPDES permit NCDOT is authorized to discharge stormwater from NCDOT's transportation separate storm sewer system (TS4) to surface waters statewide. The Term V NPDES permit, effective through April 30, 2027, specifically authorizes NCDOT to discharge stormwater runoff from the following activities:

- General roadway including weigh stations and tolling facilities
- General railway
- Construction activities disturbing one acre or more
- Borrow pits/waste piles including mines
- Non-roadway facilities with the following TS4 operations:
 - Road and bridge maintenance
 - Vehicle and equipment maintenance

- Pesticide and fertilizer storage
- Salt and deicing chemical storage
- Traffic services
- Material storage areas
- Ferry terminals and maintenance areas
- Rail maintenance
- Rest areas
- Administrative buildings
- Non-roadway industrial activities, including:
 - NC Global TransPark (airport activities)
 - Asphalt plants owned and operated by NCDOT
 - NCDOT Mann's Harbor State Shipyard (boat repair activities)
 - NCDOT Railcar & Locomotive Maintenance Facilities (railcar repair activities)

This permit also covers the following sub-organizations:

- All similar activities of the North Carolina Turnpike Authority (NCTA), for all NCTA projects across the state.
- All similar activities of the I-77 Mobility Partners, for the I-77 corridor.

This permit does not cover the activities of the NC Ports Authority which holds separate NPDES stormwater permits.

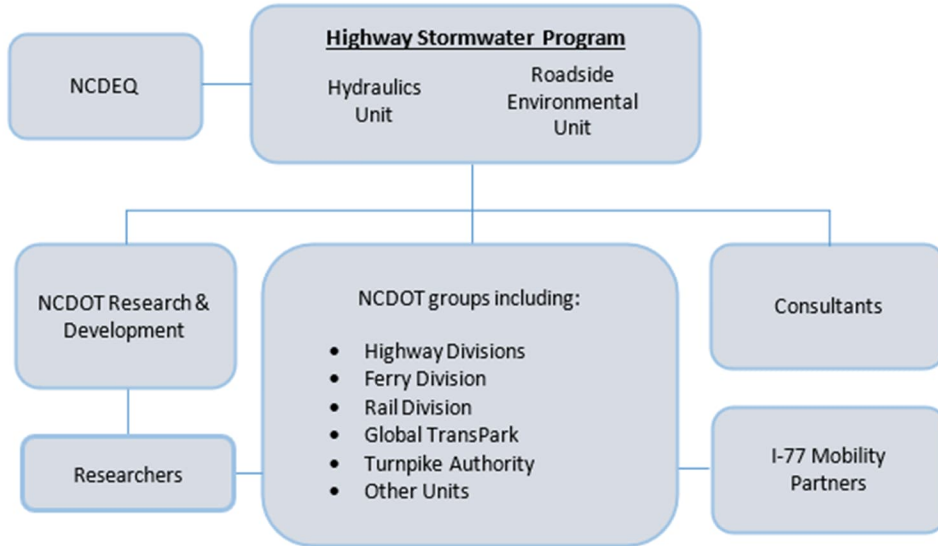
NCDOT's TS4 is distributed across the entire state of North Carolina including within all 17 major NC River Basins. The NCDOT TS4 is interconnected with other regulated municipal separate storm sewer systems (MS4s) and directly receives and discharges stormwater from and to these systems.

Additional Non-NPDES Stormwater Regulations

The HSP also manages NCDOT's implementation of the stormwater requirements in the Jordan and Falls Reservoir watersheds in compliance with state nutrient load reduction rules for state and federal entities. Annual reporting requirements for these two watersheds can be found in Section 3 of this report and is allowed by 15A North Carolina Administration Code (NCAC) 02B .0271 (8)(c) and 15A NCAC 02B .0281 (11)(d).

Highway Stormwater Program Organization

To implement its NPDES permit, NCDOT has organized the HSP into specific program areas to follow United States Environmental Protection Agency (USEPA) and North Carolina Department of Environmental Quality (NCDEQ) guidance and to effectively address the permit. NCDOT's HSP is collaboratively managed by NCDOT's Hydraulics Unit (HU) and Roadside Environmental Unit (REU) with support from others including NCDOT's consultant partners, Division personnel, and Research & Development staff and researchers (see HSP Organization below).



Shared Compliance Responsibility

NCDOT will share the responsibility to implement its permit requirements with I-77 Mobility Partners for the specified areas of NCDOT’s TS4, which are at least as stringent as the corresponding NPDES TS4 Permit requirement. NCDOT remains responsible for compliance if the other entity fails to perform the permit obligation and may be subject to enforcement action if neither NCDOT nor the other entity fully performs the permit obligation. I-77 MP is responsible for implementing specific BMPs or permit requirements. A legal agreement to share responsibility is in place.

There are no other entities applying for co-permittee status under the NPDES TS4 permit number NCS000250 for NCDOT.

2.0 Program Summaries

This section summarizes NCDOT’s TS4SMP Program Area BMPs, measurable goals, scheduled for implementation, annual reporting metrics, and related reporting comments. References below to specific permit years (PY) 1-5 are for Term V. For PY2, NCDOT’s self-assessment indicated that the Department was in compliance with the requirements of the TS4SMP. BMPs for PY 3-5 are included herein; however, their Annual Reporting Metric Outputs and Reporting Comments are listed as “not applicable” for this 2024 Annual Report. Completed BMPs for PY1 are documented in the 2023 Annual Report.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
Program Administration BMPs							
1	Program Administration BMPs						
1	1.4 Pay the annual administering and compliance monitoring fee.	1. Pay within 30 (thirty) days of being billed.	1. Annually, Permit Years 1-5	1. Yes/No	2	Yes	NPDES Annual permit fee of \$4,200 (invoice number 2024PR004257, invoice date 5/1/24) for the period 2024-06-01 to 2025-05-31 was paid and received on 5/7/2024. SAP document number 1908124486.
2	Permit Renewal Application						
	Certify and submit a permit renewal application package.	1. Certify the stormwater permit renewal application and submit to NCDEQ at least 180 days prior to permit expiration.	1. Permit Year 5	1. Date of permit renewal application submittal	4	NA	Not applicable until Permit Year 4.
3	See approval of the TS4SMP and maintain a copy online						
3	2.1.4 Notify DEMLR in writing of any planned major modifications to the TS4SMP. DEMLR will inform the Permittee within 30 days if approval of the modified TS4SMP is required.	2. If major modifications are needed, notify DEMLR in writing.	2. If needed	2. Needed and submitted/ Needed but not submitted/ Not needed	2	Needed and submitted	The TS4SMP update was submitted to DEMLR on November 3, 2023. DEMLR requested a track-changes copy of the TS4SMP on December 14, 2023, which was provided on the same day.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
3	2.4.1 When specific changes to the program or TS4SMP are required by DEMLR in writing, the Permittee shall provide certification in writing to DEMLR that the changes have been made.	3. Certify that changes required in writing by DEMLR have been made.	3. If needed	3. Needed and submitted/ Needed but not submitted/ Not needed	2	Not needed	On December 18, 2023, DEMLR reviewed the updated TS4SMP submitted on November 3, 2023.
3	2.4.2 When specific changes to the program or TS4SMP are required by DEMLR, the Permittee shall submit a plan and time schedule to DEMLR for modifying the TS4SMP to meet the requirements within 90 days.	4. Modify the TS4SMP and submit within 90 days if changes are required by DEMLR.	4. If needed	4. Needed and submitted/ Needed but not submitted/ Not needed	2	Not needed	DEMLR did not request any changes to the updated TS4SMP.
3	2.1.6 Maintain an up-to-date version of the permit and the TS4SMP online in a manner that is accessible by DEMLR and the public.	5. Maintain an up-to-date version of the permit and TS4SMP on NCDOT's public facing website.	5. Continuously Permit Years 1-5	5. Yes/No	2	Yes	The TS4SMP update was submitted to DEMLR on November 3, 2023. DEMLR requested a track-changes copy of the TS4SMP on December 14, 2023 which was provided on the same day. DEMLR then sent an email to NCDOT on December 18, 2023 approving the TS4SMP. An up-to-date version of the permit and TS4SMP are maintained on NCDOT's Connect website.
4	Develop a TS4 Stormwater Management Plan						
4	3.1.1 Include specific and measurable goals that define program elements to fully implement each of the six MCMs, TMDLs and/or Research Program requirements.	1. Include specific and measurable goals in the TS4SMP for each program.	1. Upon TS4SMP development, Permit Year 1	1. Yes/No	2	Yes	The TS4SMP was prepared with specific and measurable goals for all programs. The TS4SMP update was submitted to DEMLR on November 3, 2023.
4	3.1.3 Detail the stormwater programs for five years, including funding, a narrative description of the program, specific and measurable goals for each program component, implementation schedule(s) and reporting metrics.	2. Include program details for the next five years.	2. Upon TS4SMP development, Permit Year 1	2. Yes/No	2	Yes	TS4SMP covers the 5-year permit term and includes all required information.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
4	2.3.1 Clearly identify in the TS4SMP any qualifying alternative program components that will be utilized to meet specific permit requirements.	3. If needed, include qualifying alternative program components in the TS4SMP.	3. Upon TS4SMP development, Permit Year 1	3. Needed and submitted/ Needed not submitted/ Not needed	2	Needed and submitted	The TS4SMP includes a description of qualifying alternative programs such as the NCDOT delegated erosion and sediment control program.
5	Permit Reference and Description of BMP						
5	3.1.2 Maintain a list of positions responsible for implementing the permit and TS4SMP. The list shall include specific positions and a brief description of stormwater responsibilities and/or duties for each listed position.	1. Maintain a list of roles and responsibilities for staff responsible for implementing the TS4SMP and permit.	1. Continuously, Permit Years 2-5	1. Yes/No	2	Yes	This BMP was completed. NCDOT's list of roles and responsibilities for staff responsible for implementing its TS4SMP and permit are outlined in the TS4SMP (Section 4) and persons responsible for each BMP are maintained within NCDOT's SharePoint compliance task tracker (CTT).
6	Maintain written procedures						
6	2.2.2 The Permittee shall maintain, and make available to the Division upon request, written procedures for implementing the MCMs, permit requirements, and TS4SMP. Written procedures shall identify specific action steps, schedules, resources, and responsibilities for implementing the MCMs. Written procedures can be free-standing or, where appropriate, integrated into the TS4SMP.	1. Maintain written procedures for implementing the MCMs, permit requirements, and TS4SMP. Make available upon request.	1. Per schedules established in the TS4SMP	1. Yes/No	2	Yes	NCDOT maintains written procedures for implementing MCMs, permit requirements and TS4SMP on various platforms including, but not limited to, its guidance manuals, policies, and procedures located on NCDOT's Connect site, NCDOT.gov site, its HSP SharePoint site, and other internal areas.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
7	Annual TS4SMP Review and Annual Report						
7	4.1 Perform an annual review and update of the TS4SMP.	1. Review the TS4SMP to identify compliance issues, necessary modifications, and improvements needed to maximize TS4SMP effectiveness	1. Annually Permit Years 1-5	1. Yes/No	2	Yes	Responsible, accountable, and verifier staff have reviewed the TS4SMP and compliance with the requirements as part of implementation of NCDOT's Compliance Task Tracker process.
7	4.1 Perform an annual review and update of the TS4SMP.	2. Update the TS4SMP as needed to address deficiencies	2. Annually Permit Years 1-5	2. Needed and updated/ Needed, not updated/ Not needed	2	Needed and updated	The TS4SMP update was submitted to DEMLR on November 3, 2023 and DEMLR approved the TS4SMP on December 18, 2023.
7	2.1.1 Maintain adequate funding and staffing to implement and manage the provisions of the TS4SMP and meet the requirements of this permit.	3. Assess if the program is adequately funded and staffed.	3. Annually Permit Years 1-5	3. Yes/No	2	Yes	NCDOT requires all project managers to manage and monitor monthly project/program budgets through the NC Enterprise Business Services Cost Planning Application for each active WBS element. The HSP Manager enters into the application a monthly budget for the NPDES program at the start of each fiscal year consistent with the yearly allocation in the STIP. This budget is monitored monthly in SAP and adjustments are made to the Cost Planning Application as necessary. For PY2 the NPDES budget was found to be adequate.
7	2.1.1 Maintain adequate funding and staffing to implement and manage the provisions of the TS4SMP and meet the requirements of this permit.	4. Request additional funding if needed	4. If needed	4. Needed and requested/ Needed, not requested/ Not needed	2	Needed and submitted	Funding levels were verified in December 2023 in SAP and additional funding was requested and received on March 14, 2024.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
7	4.2 The Permittee shall submit an annual report to DEMLR by August 31 of each year. When required, a permit renewal application may be submitted in lieu of the annual report.	5. Prepare, certify, and submit the annual report to DEMLR prior to August 31 each year. In year 5, a permit renewal application may be submitted in lieu of the annual report.	5. Annually Permit Years 1-4	5. Yes/No	2	Yes	NCDOT has prepared, certified, and submitted the Annual Report for Term V PY2 to DEMLR prior to August 31, 2024.
Public Education and Outreach Program							
8	Evaluate and Identify Target Pollutants, Likely Sources, and Associated Target Audiences						
8	3.2.1 Evaluate the target pollutants, likely sources, and associated target audiences likely to have significant stormwater impacts to the TS4 and receiving waters.	1. Evaluate identified targets to assess continued applicability.	1. Annually, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT has evaluated the identified targets, and they continue to be applicable. Target pollutants and sources are outlined in the TS4SMP (Section 3.7).
8	3.2.1 Evaluate the target pollutants, likely sources, and associated target audiences likely to have significant stormwater impacts to the TS4 and receiving waters.	2. Update identified targets if needed.	2. Annually, Permit Years 1-5	2. Updated/ Not Needed	2	Not Needed	Identified targets, sources, and audiences were evaluated and were found to be adequate; therefore, no updates are needed.
9	Public Education Materials on Litter to School-Aged Children						
9	3.2.1 and 3.2.2 Provide educational materials that target school-aged children.	1. Make anti-litter packages available to teachers upon request.	1. Continuously, Permit Years 1-5	1. Number provided/ None were requested	2	2,800 teacher kits provided in CY2023	NCDOT continues to provide anti-litter packages available to teachers upon request. In CY 2023, NCDOT sent out for school-aged children/ teachers a total of 2,800 individual teacher kits.
9	3.2.1 and 3.2.2 Provide educational materials that target school-aged children.	2. Make anti-litter materials targeting school-aged children available on NCDOT's website.	2. Continuously, Permit Years 1-5	2. Number of unique materials	2	33 unique materials	NCDOT maintains anti-litter materials targeting school-aged children on its website. This includes 33 unique anti-litter materials on its website.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
10	Provide Educational Materials on Litter to Traveling Public						
10	3.2.1 and 3.2.2 Provide educational materials regarding litter to users of NCDOT transportation systems.	1. Make hardcopies of anti-litter brochures available to the public.	1. Annually, Permit Years 1-5	1. Number of hardcopy brochures printed/ Additional copies not needed	2	15,000 Litter Law Inserts printed	NCDOT makes hardcopies of anti-litter materials available to the public. In CY 2023, NCDOT LM printed 15,000 Litter Law Inserts which are then made available to the public.
10	3.2.1 and 3.2.2 Provide educational materials regarding litter to users of NCDOT transportation systems.	2. Make anti-litter messaging materials for the public available on NCDOT's website.	2. Continuously, Permit Years 1-5	2. Number of unique materials	2	56 unique materials	NCDOT maintains anti-litter messaging for the public available on its website. This includes 38 unique anti-litter materials and 18 unique stormwater pollution prevention materials (litter is a stormwater pollutant) on its website. Additionally, NCDOT's home page provides regular NCDOT Now videos with anti-litter messaging (e.g., Litter Sweep, Secure Your Load).
11	Provide general stormwater quality educational materials to Traveling Public						
11	3.2.1 and 3.2.2 Provide general stormwater quality educational materials to users of NCDOT transportation systems.	1. Make stormwater quality educational materials available that discuss the pollutants of concern listed in Table 3.5.	1. Continuously, Permit Years 1-5	1. Number of unique materials	2	281 unique materials	NCDOT maintains stormwater quality educational materials that discuss the pollutants of concern (listed in TS4SMP Table 3.5) on its website which is available to the public. This includes 18 unique stormwater education materials (e.g., activity sheets, information flyer and presentation materials, educator lesson plans, and posters). In addition to its "Environmental" and "Educator Resources" subsites and anti-litter subsites which contain 38 unique anti-litter materials, NCDOT Hydraulics Unit maintains 30 unique Highway Stormwater Program materials on NCDOT Connect, and NCDOT Roadside Environmental Unit maintains 195 unique items for Construction, Erosion & Sediment Control, and Vegetation Management on NCDOT Connect, for a total of 281 unique items.
11	3.2.1 and 3.2.2 Provide general stormwater quality educational materials to users of NCDOT transportation systems.	2. Develop additional or update existing educational materials to address metals, organics, and temperature.	2. Permit Year 3	2. Yes/No	3	NA	Not applicable until Permit Year 3.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
12	Maintain Public Education and Outreach materials online						
12	3.2.3 Maintain educational materials online.	1. Maintain educational materials regarding stormwater, water quality, TS4 pollutants, and NCDOT stormwater projects and activities online.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains educational materials related to stormwater, water quality, TS4 pollutants, and NCDOT stormwater projects and activities on its website.
13	Maintain and promote reporting mechanisms for the traveling public to identify and report littering, illicit discharges, illegal dumping						
13	3.2.4 and 3.4.10 Maintain and promote reporting mechanisms for the public to identify and report littering, illicit discharge, and illegal dumping.	1. Maintain reporting mechanisms through NCDOT's Contact Us Citizen Action Request (CARs) website.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains its reporting mechanisms via Contact Us - Citizen Action Request website (https://www.ncdot.gov/contact/Pages/default.aspx).
13	3.2.4 and 3.4.10 Maintain and promote reporting mechanisms for the public to identify and report littering, illicit discharge, and illegal dumping.	2. Maintain reporting mechanisms via telephone by maintaining contact information on NCDOT's website.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT maintains its reporting mechanisms via telephone by maintaining contact information on NCDOT's website https://www.ncdot.gov/contact/Pages/default.aspx , and https://apps.ncdot.gov/dot/directory/authenticated/UnitPage.aspx .
13	3.2.4 and 3.4.10 Maintain and promote reporting mechanisms for the public to identify and report littering, illicit discharge, and illegal dumping.	3. Maintain reporting mechanisms via telephone through printed materials.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT maintains its reporting mechanisms via telephone through printed materials.
13	3.2.4 and 3.4.10 Maintain and promote reporting mechanisms for the public to identify and report littering, illicit discharge, and illegal dumping.	4. Promote multiple reporting mechanisms.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT continues to promote multiple reporting mechanisms for the public to identify and report littering, illicit discharges, and illegal dumping.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
Public Involvement and Participation Program							
14	Mechanisms for public input on stormwater issues and stormwater program						
14	3.3.1 Provide mechanisms for public input on stormwater issues and the stormwater program.	1. Provide opportunities to comment on stormwater during project-specific public meetings.	1. Continuously, Permit Years 1-5	1. Number of public meetings held	2	42 public meetings/ public hearings held	NCDOT has provided opportunities to comment on stormwater during 42 project-specific public meetings/ public hearings.
14	3.3.1 Provide mechanisms for public input on stormwater issues and the stormwater program.	2. Maintain NCDOT's Contact Us Citizen Action Request (CARs) website.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT continues to maintain Contact Us - Citizen Action Request website (https://www.ncdot.gov/contact/Pages/default.aspx).
14	3.3.1 Provide mechanisms for public input on stormwater issues and the stormwater program.	3. Maintain contact information on NCDOT's website.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT continues to maintain contact information on NCDOT's website (https://www.ncdot.gov/contact/Pages/default.aspx).
14	3.3.1 Provide mechanisms for public input on stormwater issues and the stormwater program.	4. Publish the monthly CARs report on NCDOT's website.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT continues to publish the monthly CARs reports on NCDOT's website: https://www.ncdot.gov/about-us/our-mission/Performance/Pages/citizen-action-request-report.aspx
15	Accept interns to participate in NCDOT's Highway Stormwater Program						
15	Accept interns to participate in NCDOT's Highway Stormwater Program.	1. Accept interns as feasible to participate in NCDOT's Highway Stormwater Program.	1. Annually, Permit Years 1-5	1. Number of interns/ Reason not feasible	2	In CY 2023, HU had 5 summer interns and REU had 3 summer interns for a total of 8 interns. Additionally, HU had 12 TEAs and REU had 5 TEAs for a total of 17 TEAs.	NCDOT continues to maintain a College Programs & Internship program. The program specifies eligibility requirements and the application process which is through the North Carolina State Government employment website. A total of 8 interns and 17 Transportation Engineering Associates (TEAs) had involvement with the Highway Stormwater Program between the Hydraulics and Roadside Environmental units. The number of interns included those employed during CY 2023.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
Public Involvement and Participation Program							
16	Continue Adopt-A-Highway Program						
16	3.3.2 Manage the ongoing Adopt-A-Highway Program.	1. Encourage public participation in the Adopt-A-Highway (AAH) Program.	1. Continuously, Permit Years 1-5	1. Number of groups participating in the program	2	5,028 AAH volunteer groups	NCDOT continues to encourage public participation in its AAH Program through use of its website (https://www.ncdot.gov/initiatives-policies/environmental/adoptahighway/Pages/default.aspx), public meetings and public outreach efforts, public service announcements, anti-litter campaigns, and various social media platforms. NCDOT's AAH Program has more than 120,000 participants across the state — civic and community groups, including schools, religious, professional and social organizations, as well as individuals and families.
16	3.3.2 Manage the ongoing Adopt-A-Highway Program.	2. Dispose of litter collected through the AAH Program.	2. Continuously, Permit Years 1-5	2. Quantity of litter collected	2	1,025,445 pounds of litter collected by AAH volunteers	NCDOT continues to maintain its AAH Program. NCDOT LM tracks AAH litter collections through use of its LM website. AAH volunteers submit their litter collections and disposal by submitting a Pickup Report for AAH using NCDOT's online reporting mechanism, which is found at: https://apps.ncdot.gov/LM/Home/Navigation?program=AAHVolunteers .
16	3.3.2 Manage the ongoing Adopt-A-Highway Program.	3. Continue to recognize long term AAH volunteer groups.	3. Continuously, Permit Years 1-5	3. Number of recognitions made	2	363 recognitions to AAH volunteer groups made	NCDOT continues to recognize AAH volunteer groups for their litter collection efforts. In CY 2023, NCDOT LM gave out 332 AAH awards for reaching milestones of 10, 15, 20, 25, 30 and 35 years. Additionally, NCDOT LM coordinates internally with Communications Office to recognize groups or individuals involved in litter collection. Typically, if NCDOT sees that one of our AAH group has posted about their pickup, then the Department shares that or if photos have been shared with us via email, NCDOT drafts up a note to post on our own. Most AAH groups only have a Facebook page. In CY 2023, NCDOT shared/ made 31 posts highlighting different group efforts. Several of those posts were also shared on other platforms (e.g., Twitter, Instagram). In total, NCDOT made 363 recognitions to AAH volunteer groups.
16	3.3.2 Manage the ongoing Adopt-A-Highway Program.	4. Maintain list of Litter Management Coordinators.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT LM maintains a list of LM Coordinators. These local coordinators are responsible for managing anti-litter programs, such as AAH and Litter Sweep, in their assigned counties. LM Coordinators work directly with volunteers to select an available stretch of state-maintained highway and help answer questions about NCDOT's anti-litter programs.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
17	Continue the Statewide Litter Sweep Program						
17	3.3.2 Continue the Statewide Litter Sweep Program.	1. Continue public participation in litter pickup, including the biannual Litter Sweep Program.	1. Continuously, Permit Years 1-5	1. Report the number of volunteers	2	58,208 volunteers	NCDOT continues public participation in litter pickup, including the biannual Litter Sweep Program. In CY 2023, NCDOT had 58,208 volunteers (including 54,851 AAH volunteers and 3,357 Other Volunteers) participate in its Litter Sweep Program.
17	3.3.2 Continue the Statewide Litter Sweep Program.	2. Track the quantity of litter collected by volunteers.	2. Continuously, Permit Years 1-5	2. Document the quantity of litter collected	2	180,945 pounds of litter collected by AAH and Other Volunteers during Litter Sweep	The litter collected by AAH and Other Volunteers during Litter Sweep periods include 75,540 lbs (fall) + 105,405 lbs (spring) = 180,945 lbs (total). Note: these totals are for AAH and Other Volunteers only; NCDOT normally includes ALL programs in the yearly Interagency Litter Report.
18	Continue the Statewide Swat-A-Litterbug Program						
18	Continue the Statewide Swat-A-Litterbug Program.	1. Encourage the public to report littering through the Swat-A-Litterbug Program.	1. Continuously, Permit Years 1-5	1. Number of Swat-A-Litterbug reports submitted	2	5,558 reports submitted	NCDOT continues to encourage the public to report littering through its Swat-A-Litterbug program. NCDOT LM maintains the Swat-A-Litterbug program which includes receiving reports and mailing letters to reported litterers. NCDOT LM system tracks the # reports, but not specific personal information. In CY 2023, NCDOT mailed 5,558 Swat-A-Litterbug letters out to individuals that were reported as littering.
TS4 Mapping (within the IDDE Program)							
19	Maintain a GIS-based implicit stormwater outfall inventory						
19	3.4.1 Maintain a GIS-based implicit stormwater outfall inventory which includes implicit outfalls from primary and secondary roadways.	1. Maintain a process for deriving a GIS-based implicit stormwater outfall inventory.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains a process for deriving its GIS-based implicit stormwater outfall inventory. The implicit inventory is maintained in ESM which can be accessed via NCDOT's Connect site.
19	3.4.1 Maintain a GIS-based implicit stormwater outfall inventory which includes implicit outfalls from primary and secondary roadways.	2. Implement the protocol to update the GIS-based implicit stormwater outfall inventory.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT implemented the protocol and updated the implicit stormwater outfall inventory in PY2.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
20	Maintain a Statewide Base Map of the TS4						
20	3.4.2 Develop and maintain a statewide base map of Permittee owned and operated primary routes, secondary roads, surface waters, and bridge and roadway crossings of surface waters.	2. Maintain a process for deriving a GIS-based statewide base map of Permittee owned and operated primary routes, secondary roads, surface waters, and bridge and roadway crossings of surface waters.	2. Continuously, Permit Years 2-5	2. Yes/No	2	Yes	NCDIT Transportation GIS Group maintains GIS standards and practices for deriving statewide base map data.
20	3.4.2 Develop and maintain a statewide base map of Permittee owned and operated primary routes, secondary roads, surface waters, and bridge and roadway crossings of surface waters.	3. Implement the process to update the GIS-based base-map.	3. Annually, Permit Years 2-5	3. Yes/No	2	Yes	NCDOT GIS implements the process quarterly.
21	Develop and implement a program for mapping TS4 conveyances and outfalls on primary routes in Phase I MS4 permitted areas						
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	1. Collaborate with Phase I MS4s to aggregate existing mapped/ inspected data.	1. Permit Years 1-2	1. Yes/No	2	Yes	In PY2, NCDOT collaborated with Phase I MS4s (City of Raleigh, City of Durham, City of Charlotte, City of Fayetteville, City of Greensboro, and the City of Winston-Salem) via meetings and formal requests and obtained and aggregated existing mapped/ inspected stormwater conveyance data. The TS4 Mapping Project team began evaluating the Phase I MS4 geospatial stormwater conveyance data; prepared a Data Summary Report; developed a TS4 Mapping Project Plan to provide the framework for the management and execution of the TS4 Mapping Project goals; and prepared a Data Gap Report to identify missing data and determine where additional data collection and/or field work may be needed. Additionally, since Phase I MS4s do not have bridge outfall data, NCDOT staff initiated a separate effort to identify and map NCDOT bridge outfalls discharging directly to surface waters in PY2.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	2. Develop a new geodatabase structure to include major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	2. Permit Year 2	2. Yes/No	2	Yes	NCDOT has developed a geodatabase structure for TS4 Mapping to include major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	3. Integrate Phase I MS4 aggregated data and NCDOT existing data into the geodatabase.	3. Permit Year 3	3. Yes/No	3	NA	Not applicable until Permit Year 3.
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	4. Identify gaps in the assets, attributes, and footprint of available data and prioritize areas of TS4 field mapping in Phase I MS4 areas.	4. Permit Year 3	4. Yes/No	3	NA	Not applicable until Permit Year 3.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	5. Update existing field inventory protocols and data collection application.	5. Permit Year 4	5. Yes/No	4	NA	Not applicable until Permit Year 4.
21	3.4.3 Develop and implement a program for mapping TS4 conveyances and outfalls associated with primary routes which are located within Phase I MS4 permitted areas. The program, at a minimum, shall include mapping of major outfalls, bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions.	6. Develop or update training materials regarding TS4 Mapping Program for NCDOT staff and contractors.	6. Permit Year 4	6. Yes/No	4	NA	Not applicable until Permit Year 4.
22	Implement field data collection for TS4 Mapping Program						
22	Collect field data for priority areas.	1. Perform training for NCDOT Staff and Contractors performing field data collection.	1. Permit Year 5	1. Yes/No	5	NA	Not applicable until Permit Year 5.
22	Collect field data for priority areas.	2. Initiate field data collection in current Phase I MS4 permitted areas.	2. Permit Year 5	2. Yes/No	5	NA	Not applicable until Permit Year 5.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
23	Establish a statewide TS4 mapping inventory						
23	3.4.5 Establish a statewide TS4 mapping inventory to, at a minimum, include major outfalls and bridge outfalls discharging directly to surface waters, and associated inlets, catch basins, conveyances, and flow directions associated with primary routes which are located within Phase I MS4 permitted areas.	1. Maintain the data collected in an inventory geodatabase.	1. Permit Year 5	1. Yes/No	5	NA	Not applicable until Permit Year 5.
24	Modify the TS4SMP to include a process and schedule for the TS4 Mapping Program						
24	3.4.4 Modify the TS4SMP to include a process and schedule for the TS4 Mapping Program.	1. If the process or schedule above requires major updates, modify the TS4SMP to include a process and schedule for the TS4 Mapping Program.	1. As needed	1. Needed and modified/ Needed and not modified/ Not needed	2	Not needed	For the initial steps of the TS4 Mapping program no adjustments to the schedule as outlined in the TS4SMP are needed.
Illicit Discharge Detection and Elimination (IDDE) Program							
25	Maintain a written IDDE Plan						
25	3.4.7 Maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the TS4. The plan will address the required components.	1. Update written [MM1] IDDE Plan.	1. Permit Year 2	1. Yes/No/Partial	2	Yes	NCDOT maintains its IDDE Plan.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
25	3.4.7 Maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the TS4. The plan will address the required components.	2. Develop protocols to implement new procedures included in the updated IDDE Plan.	2. Permit Year 3	2. Yes/ No/ Partial	3	NA	Not applicable until Permit Year 3.
25	3.4.7 Maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the TS4. The plan will address the required components.	3. Update list of priority areas likely to have illicit discharges.	3. Permit Year 3	3. Yes/ No/ Partial	3	NA	Not applicable until Permit Year 3.
25	3.4.7 Maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the TS4. The plan will address the required components.	4. Continue to evaluate and assess the IDDE Program.	4. Annually, Permit Years 1-5	4. Yes/No/Partial	2	Yes	NCDOT assessed the IDDE Program and found no changes were needed.
26	Implement the IDDE Plan						
26	Implement the IDDE Plan	1. Identify illicit discharge and illegal dumping when performing other work on the NCDOT ROW.	1. Ongoing, Permit Year 1-5	1. Yes/No/Partial	2	Yes	Illicit discharges and illegal dumping are identified by NCDOT staff and contractors when working on NCDOT ROW.
26	Implement the IDDE Plan	2. Verify illicit discharges and illegal dumps reported by NCDOT staff or the public.	2. As needed, Permit Years 1-5	2. Number of verified illicit discharges and illegal dumps	2	6	NCDOT identified and field verified 6 illicit discharges that were reported. NCDOT also field verified 1 other potential illicit discharges that were resolved or determined to not need reporting.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
26	Implement the IDDE Plan	3. Report verified discharges/ illegal dumping to appropriate NCDEQ Regional Office.	3. Ongoing as needed, Permit Years 1-5	3. Number of illicit discharges/ illegal dumping reports to NCDEQ	2	6	NCDOT identified and field verified two illicit discharges that were reported to NCDEQ and 4 that were reported to the local government
26	Implement the IDDE Plan	4. Conduct dry weather outfall inspections.	4. As needed, Permit Years 2-5	4. Report number of outfalls inspected	2	92	92 dry weather outfall inspections were conducted during PY2 in association with the bridge outfall inventory project.
26	Implement the IDDE Plan	5. Eliminate the source(s) of an illicit discharge from NCDOT non-roadway facilities.	5. As needed, Permit Years 1-5	5. Number of illicit discharges from NCDOT non-roadway facilities eliminated/ None found	2	None found	NCDOT performs non-stormwater discharge assessments of its non-roadway facilities and documents if any illicit discharges are found so that they can be properly eliminated. No new illicit discharges were found at NCDOT non-roadway facilities during this permit year.
27	Maintain IDDE reporting procedure						
27	3.4.6 Maintain and implement standardized procedures and documentation for reporting illicit discharges and illegal dumping to the appropriate NCDOT staff for verification.	1. Maintain a process for NCDOT staff and contractors to report observed IDDEs to appropriately trained NCDOT staff for verification.	1. Ongoing, Permit Year 1-5	1. Yes/No	2	Yes	IDDEP process is maintained for NCDOT staff and contractors to report illicit discharges and illegal dumping incidents.
27	3.4.6 Maintain and implement standardized procedures and documentation for reporting illicit discharges and illegal dumping to the appropriate NCDOT staff for verification.	2. Maintain a process for IDDEs reported by the public to be submitted to appropriately trained NCDOT staff for verification.	2. Ongoing, Permit Year 1-5	2. Yes/No/Partial	2	Yes	IDDEP process is maintained for public to report illicit discharges and illegal dumping incidents.
27	3.4.6 Maintain and implement standardized procedures and documentation for reporting illicit discharges and illegal dumping to the appropriate NCDOT staff for verification.	3. Appropriately trained NCDOT staff to verify reported IDDEs in a timely manner.	3. Ongoing, Permit Year 1-5	3. Yes/No/Partial	2	Yes	IDDEs are verified within NCDOT IDDE program criteria by appropriately trained staff.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
27	3.4.6 Maintain and implement standardized procedures and documentation for reporting illicit discharges and illegal dumping to the appropriate NCDOT staff for verification.	4. Appropriately trained NCDOT staff to report verified IDDEs to NCDEQ Regional Office and/or local government(s) having jurisdictional authority in a timely manner.	4. Ongoing, Permit Year 1-5	4. Yes/No/Partial	2	Yes	Verified IDDEs are reported per NCDOT IDDEP criteria by appropriately trained staff.
28	Maintain IDDE tracking procedure						
28	3.4.8 Maintain a standard IDDE tracking and documentation procedure for verified IDDE including date observed/ reported, reporting source (staff, public, contractor, etc.), the results of the investigation/ verification, and the date any verified event was reported to appropriate NCDOT staff, NCDEQ and/or local government having authority to resolve the event.	2. Maintain database of verified illicit discharges or illegal dumping.	2. Ongoing, Permit Year 1-5	2. Yes/No	2	Yes	NCDOT has evaluated and updated its existing tracking database of verified illicit discharges or illegal dumping incidents.
29	Publicize reporting mechanism to NCDOT Staff and contractors						
29	3.4.10 Publicize reporting mechanism to NCDOT staff and contractors.	1. Publicize the reporting mechanism to NCDOT staff and contractors.	1. Ongoing, Permit Year 1-5	1. Yes/No	2	Yes	NCDOT publicizes its IDDEP reporting mechanism on NCDOT.gov and NCDOT Connect webpages and via NCDOT posters and brochure handouts.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
30	Maintain IDDE training materials						
30	3.4.9 Maintain training materials on how to identify, report and document illicit discharges, illegal dumping.	1. Maintain training materials on how to identify, report and document illicit discharges, illegal dumping.	1. Annually, Permit Years 1-5	1. Yes/No/ Partial	2	Yes	NCDOT maintains training materials on how to identify, report and document illicit discharges and illegal dumping.
30	3.4.9 Maintain training materials on how to identify, report and document illicit discharges, illegal dumping.	2. Update training materials as necessary.	2. As needed, Permit Years 1-5	2. Need and updated/ Needed but not updated/ Not needed	2	Need and updated	NCDOT reviewed IDDEP training materials and updated them accordingly.
31	Provide IDDE training for appropriate staff						
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	1. Maintain “train the trainer” and staff training materials.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT reviewed IDDEP training materials and updated training materials accordingly.
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	2. Provide “train the trainer” instruction to appropriate staff.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	“Train the trainer” instruction is provided to appropriate staff.
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	3. Distribute materials for local trainers to train local staff.	3. Annually, Permit Years 1-5	3. Yes/No	2	Yes	Training materials are distributed to local trainers to train local staff.
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	4. Maintain a tracking mechanism to document the “train the trainer” instruction, including the agenda/materials, date.	4. Annually, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT maintains a tracking log to document the “train the trainer” instruction, including the agenda/materials, date.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	5. Document date of "train the trainer" instruction and agenda.	5. Continuously, Permit Years 1-5	5. Number of training events	2	20	Following the train-the-trainer approach, NCDOT HSP staff performed various training sessions that covered illicit discharges and illegal dumping. The IDDEP training sessions cover identification of non-stormwater discharges and IDDEP reporting procedures.
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	6. Make training materials available to contractors if needed.	6. Continuously, Permit Years 1-5	6. Yes/No/Not needed	2	Yes	Training materials are made available to contractors, as needed.
31	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	7. Evaluate if an update to or additional training resources is needed.	7. Annually, Permit Year 1-5	7. Yes/No/Not needed	2	Yes	NCDOT performed an evaluation of IDDEP training resources in April 2024. REU's IDDEP training PPT was updated to include new content. REU also updated contractor training by incorporating new IDDEP content into NCSU's Level I & II ESC training courses.
32	Provide IDDE training for appropriate contractors						
32	3.4.9 Train NCDOT staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge or illegal dumping.	1. Provide training to appropriate contractors through the Level I or Level II ESC training.	1. Permit Year 2-3	1. Yes/No/NA	2	Yes	While training of contractors is not required until PY3, the development of training is to occur in PY2-3. This BMP was initiated early in PY2, and the training of contractors was also started early in PY2. REU provided training materials to NCSU for incorporation into the Level I and Level II ESC training for contractors in August 2023. New IDDEP training materials were fully incorporated into the Level I and Level II ESC training modules by NCSU in October 2023.
Construction Site Runoff Control Program							
33	Implement Delegated Program						
33	3.5.1 Implement the NCDEQ Erosion and Sediment Control Program as delegated to NCDOT.	1. Seek re-delegation of the program.	1. Annually, Permit Years 1-5	1. Application submitted/ application not submitted	2	Application submitted	NCDOT has the following documents: 2023 ESC SCC Audit Decision Memo (filename: 2023 NCDOT Audit Decision Memo 120_08_2023 and NCDEQ's Annual ESC Program Review (2023 Annual NCDOT Audit Report to the SCC_20231116pdf)
33	3.5.1 Implement the NCDEQ Erosion and Sediment Control Program as delegated to NCDOT.	2. Continue delegation of the program.	2. Annually, Permit Years 1-5	2. Program delegated/ Program not delegated	2	Program delegated	NCDOT received continuation of program delegation from NC SCC on November 16, 2023 (filename: SCC Minutes 11.16.23 FINAL & 2023 NCDOT Audit Decision Memo 12_08_2023).

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
33	3.5.1 Implement the NCDEQ Erosion and Sediment Control Program as delegated to NCDOT.	3. Participate in an Audit of the program as directed by DEMLR.	3. Annually, Permit Years 1-5	3. Audit held/ Audit not required by DEMLR	2	Audit held	The audit was held over the course of several months starting in July 2023 and continuing through October 2023 and consisted of multiple site visits to various selected construction projects in each NCDOT Division. Audit results are incorporated into DEMLR's Final Report titled "Annual Review of the ESC Program Delegation to the NCDOT Division of Highways" dated November 16, 2023. Approved on November 16, 2023.
34	Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program						
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	1. Develop a project-specific ESC plan incorporating the requirements of NCG010000 to be reviewed and approved by NCDOT.	1. Continuously, Permit Years 1-5	1. Number of ESC plans developed	2	584	584 ESC plans were developed in PY2.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	2. Maintain ESC program guidance on NCDOT website.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	Information regarding ESC for existing NCDOT programs is maintained on NCDOT Connect site.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	3. Maintain the NCDOT Erosion and Sediment Control Design and Construction Manual.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT Erosion and Sediment Control Design and Construction Manual is maintained and available on NCDOT's Connect site. Current comprehensive revision is ongoing with expected completion date of 2024.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	4. Maintain a program of routine inspections including NPDES Self-Monitoring and SPCA Self-Inspections.	4. Weekly, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT maintains its NPDES Self-Monitoring and SPCA Self-Inspections program for construction and maintenance projects.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	5. Maintain program of compliance inspections at active construction sites.	5. Monthly, Permit Years 1-5	5. Yes/No	2	Yes	NCDOT maintains its program of compliance inspections with records at active construction sites.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	6. Maintain a database of inspections and corrective actions.	6. Continuously, Permit Years 1-5	6. Yes/No	2	Yes	NCDOT maintains its ERCON database of inspections and corrective actions.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	7. Issue corrective actions in response to inspections.	7. As Needed, Permit Years 1-5	7. Yes/No	2	Yes	NCDOT issues immediate corrective actions (ICAs) in response to inspections if needed and provides follow-up for corrective actions taken.
34	3.5.2 Incorporate the requirements of NCG010000 into NCDOT's delegated ESC Program.	8. Halt construction activities in response to inspections.	8. As Needed, Permit Years 1-5	8. Yes/No	2	Yes	NCDOT halts construction activities in response to inspections if needed. For the permit year, four ICAs were issued with two ICA Extensions issued on two of the projects.
35	Construction Site Waste Management						
35	3.5.3 Construction site operators must control waste from such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.	1. Maintain guidance on waste disposal from NCDOT construction sites.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT has reviewed existing guidance on waste disposal from NCDOT construction sites. Existing guidance is maintained on the NCDOT Connect site.
35	3.5.3 Construction site operators must control waste from such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.	2. Require construction site operators to control waste from construction sites.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	Construction site operators are required to control waste from construction sites in accordance with NCDOT contract standards and provisions and state/federal laws.
36	Provide and promote a means to notify of issues						
36	3.5.4 Provide a means for staff, contractors, and the public to report observed erosion and sedimentation problems.	1. Maintain NCDOT's Contact Us Citizen Action Request (CARs) website.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains its Contact Us CARs website (https://www.ncdot.gov/contact/Pages/default.aspx).
36	3.5.4 Provide a means for staff, contractors, and the public to report observed erosion and sedimentation problems.	2. Observations by the public are routed to trained NCDOT staff.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT maintains its reporting mechanism for staff, contractors, and the public to report observed erosion and sedimentation problems which includes routing questions to trained staff.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
36	3.5.4 Provide a means for staff, contractors, and the public to report observed erosion and sedimentation problems.	3. Train appropriate NCDOT Staff and contractors to notify site-specific staff as part of Construction Program training.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	As part of Construction Program training, NCDOT trains appropriate staff and contractors to notify the site-specific staff.
37	Manage ESC on Borrow Pits and Waste Pile Projects						
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	1. Maintain policies to implement ESC measures on non-commercial borrow pits/waste piles.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains policies to implement ESC measures on non-commercial borrow pits/waste piles and updates them as needed.
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	2. Develop and implement an approved reclamation plan on non-commercial borrow pit/waste pile projects. The reclamation measures utilized shall be in keeping with the reclamation program established by the North Carolina Mining and Energy Commission.	2. Continuously, Permit Years 1-5	2. Number of new reclamation plans implemented	2	-88	Reclamation plans are tracked by REU Field Operations staff. Values reported are from ERCON database. Total 381 reclamation plans on 151 projects as of 8/7/2024, with breakdown of 293 reclamation plans on active projects and 88 reclamation plans on projects completed during PY2.
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	3. Maintain policies to implement appropriate management measures to treat borrow pit discharges for given conditions.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	REU maintains policies for implementing ESC measures to treat borrow pit and waste site discharges on NCDOT Connect site and maintains them as needed.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	4. Inspect and maintain borrow pit sites.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	Borrow pit sites are inspected and maintained.
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	5. Maintain training material and instruct field personnel overseeing borrow pit operations.	5. Continuously, Permit Years 1-5	5. Yes/No	2	Yes	Training program material and instruction of field personnel overseeing borrow pit operations is maintained.
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	6. Evaluate and implement appropriate new/innovative technologies.	6. Continuously, Permit Years 1-5	6. Yes/No	2	Yes	NCDOT evaluates and implements new and innovative technologies for ESC as part of NCDOT's Products Evaluation Program and NCDOT's Research Program.
37	3.5.6 Manage ESC on Borrow Pits and Waste Pile Projects including activities at NCDOT ferry terminals associated with dredging activities and contractor-owned or leased borrow pits associated with NCDOT projects.	7. If a Division of Waste Management permit is required, obtain facility-specific coverage under a separate NPDES industrial stormwater permit.	7. As needed, Permit Years 1-5	7. Needed and acquired/ Needed and not acquired/ Not needed	2	Not needed	No separate DWM permits were needed in this permit year.
38	Maintain a list of projects subject to Delegated Program and NCG010000						
38	3.5.8 Maintain a current list of construction projects, borrow pits, waste piles, and dredge spoil piles subject to the delegated Erosion and Sediment Control Program and General Permit No. NCG010000 requirements	2. Maintain a list of projects subject to the delegated Erosion and Sediment Control Program and General Permit No. NCG010000 requirements.	2. Continuously, Permit Years 1-5	2. Number of projects	2	631	Borrow pits and waste piles are considered part of the associated construction source project.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
39	Provide training on erosion and sediment control (ESC) to appropriate staff						
39	3.5.9 Provide or require equivalent stormwater pollution awareness training for appropriate NCDOT personnel and contractors involved in construction activities.	1. Train NCDOT staff on implementation of appropriate ESC design and applicable components of NCG010000.	1. Continuously, Permit Years 1-5	1. Number of staff with Level III ESC/SW Certification	2	720 staff with Level III ESC/SW Certification	177 NCDOT staff with current Level 3 ESC certification, and 543 private engineering consultant staff with current Level 3 ESC certification, equals 720 total.
39	3.5.9 Provide or require equivalent stormwater pollution awareness training for appropriate NCDOT personnel and contractors involved in construction activities.	2. Require appropriate contractors to be trained on implementation of appropriate ESC design and applicable components of NCG010000.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT has specific contract language for required Level I and Level II personnel on projects.
39	3.5.9 Provide or require equivalent stormwater pollution awareness training for appropriate NCDOT personnel and contractors involved in construction activities.	3. Provide construction staff with training on general stormwater awareness, waste management identification of stormwater pollution potential, appropriate spill response actions.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT provides Level I & II training through NC State University for appropriate NCDOT personnel and contractors involved in construction activities.
39	3.5.9 Provide or require equivalent stormwater pollution awareness training for appropriate NCDOT personnel and contractors involved in construction activities.	4. Document date of training, names of staff trained, and agenda.	4. Continuously, Permit Years 1-5	4. Number of training events	2	20 total training events held	20 training events held, including 5 Level 1 Initial and 5 Level I Recertification, & 5 Level 2 Initial and 5 Level II Recertification, plus on-demand virtual courses. Training program agendas are maintained. Training event documentation includes training session dates and attendees.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
39	3.5.9 Provide or require equivalent stormwater pollution awareness training for appropriate NCDOT personnel and contractors involved in construction activities.	5. Make training materials available to contractors.	5. Continuously, Permit Years 1-5	5. Yes/No	2	Yes	NCDOT makes Level I&II training program materials available to contractors. Training materials are maintained on NCDOT Connect site and also provided during classes (maintained by NCSU), includes hardcopy of materials and flip guide.
BMP Retrofit Program							
40	Identify Potential Retrofit Locations						
40	Identify potential locations to retrofit that address pollutant loading.	1. Maintain a database of potential retrofit locations.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains the ROSS database of potential retrofit locations located within NCDOT's AGOL GO!NC portal, and also maintains a tracking system of on-going retrofit projects.
40	Identify potential locations to retrofit that address pollutant loading.	2. Add new locations identified each year to database	2. Continuously, Permit Years 1-5	2. Number of new locations added to database and total number of locations	2	7 HUC-12s completely desktop reviewed, 530 RIAs desktop reviewed, and 160 sites identified for field review; 78,665 total Retrofit Opportunity Areas statewide	NCDOT performed the following reviews in PY2: HUC-12s completely desktop reviewed = 7; RIAs desktop reviewed = 530; and ROSS sites identified for field review = 160. The total number of Retrofit Opportunity Areas statewide maintained in ROSS is 78,665.
41	Complete Retrofits						
41	3.6.1.a Complete a total of 70 retrofits over the 5-year term of this permit. Maintain a retrofit inventory tracking system.	1. Design and construct or implement retrofits appropriate for the identified pollutants of concern. More than one retrofit can be located at one location.	1. Continuously, Permit Years 1-5	1. Number of retrofits completed within the permit year and the total number of retrofits over all permit terms	2	23 retrofits completed/ awarded in this permit year. 348 total retrofits completed since Permit Term I.	NCDOT continues to design and construct retrofits appropriate for the identified pollutants of concern. BMP Retrofits are tracked on a secured online SharePoint list.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
41	3.6.1.a Complete a total of 70 retrofits over the 5-year term of this permit. Maintain a retrofit inventory tracking system.	2. Maintain a retrofit inventory tracking system. Track status of retrofits.	2. Continuously, Permit Years 1-5	2. Number of retrofits in development within the permit year	2	24 BMP retrofits in development in PY2.	NCDOT maintains a BMP retrofit inventory tracking system which includes tracking of BMP retrofits currently in development.
41	3.6.1.a Complete a total of 70 retrofits over the 5-year term of this permit. Maintain a retrofit inventory tracking system.	3. Incorporate finished SCM retrofits into the I&M program.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	BMP retrofits are tracked and when construction is completed, they are added to NCDOT's SCMS database as a new SCM.
41	3.6.1.a Complete a total of 70 retrofits over the 5-year term of this permit. Maintain a retrofit inventory tracking system.	4. Verify 70 retrofits are completed within the 5-year term of the permit.	4. Once, Permit Year 5	4. Yes/No	5	NA	Not applicable until Permit Year 5.
42	Replace Retrofits that have been removed						
42	3.6.1.b Implement a replacement retrofit for any retrofit completed after the effective date of this permit and subsequently removed from service.	1. Evaluate if any previously credited retrofits have been removed from service.	1. Annually, Permit Years 1-5	1. Number of retrofits removed within the permit year	2	0 removed	NCDOT evaluated if any previously credited retrofits have been removed from service since May 1, 2022 and none were removed.
42	3.6.1.b Implement a replacement retrofit for any retrofit completed after the effective date of this permit and subsequently removed from service.	2. Develop a procedure to identify existing retrofits that are to be removed when planning a new project.	2. Permit Years 2-3	2. Yes/No	2	Yes	Project Engineers utilize available ATLAS screening tool and complete the QC/QA Checklist as required which includes requirement to identify any existing SCM (including retrofits) that are to be impacted (e.g., removed) when planning a new project.
42	3.6.1.b Implement a replacement retrofit for any retrofit completed after the effective date of this permit and subsequently removed from service.	3. Initiate a plan for a new retrofit for each applicable retrofit removed.	3. As needed, Permit Years 1-5	3. Number of replacement retrofits initiated within the permit year	2	0 replacement retrofits in PY2.	NCDOT tracks BMP retrofits and there were no replacement retrofits needed in PY2; therefore, no plans were initiated.
42	3.6.1.b Implement a replacement retrofit for any retrofit completed after the effective date of this permit and subsequently removed from service.	4. Update retrofit inventory tracking system with replacement retrofits.	4. As needed, Permit Years 1-5	4. Needed and updated/ Needed but not updated/ Not needed	2	Not needed	NCDOT evaluated its BMP retrofit tracking system and determined that no updates were needed in PY2.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
43	Maintain approved construction drawings and as-built plans						
43	3.6.1.d Maintain approved construction drawings and as-built plans consistent with the permit requirement under 3.6.3(d) below for each structural retrofit established under this permit.	1. Maintain approved construction drawings and as-built plans consistent with the permit requirement under 3.6.3(d) for each structural retrofit established after the effective date of this permit.	1. Continuously, Permit Years 4-5	1. Yes/No	4	NA	Not applicable until Permit Year 4.
BMP Toolbox							
44	Maintain a BMP Toolbox						
44	The Toolbox will include appropriate uses/ anticipated applications and design criteria.	2. Evaluate new BMP types and design elements and recent research to assess if the existing Toolbox needs to be updated.	2. Annually, Permit Years 1-5	2. Yes/No new BMP types applicable/ New BMP types were not evaluated	2	Yes, BMP Toolbox is being updated	The BMP Toolbox is being updated.
44	The Toolbox will include appropriate uses/ anticipated applications and design criteria.	3. Update the Toolbox as necessary.	3. Periodically, when determined necessary	3. Toolbox updated/ Toolbox update underway/ Update not necessary	2	Toolbox update underway	BMP Toolbox is currently being updated. Additionally, BMP Toolbox associated training materials are also being updated.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
44	The Toolbox will include appropriate uses/ anticipated applications and design criteria.	4. Submit proposed revised or new sections of the BMP Toolbox to NCDEQ for approval prior to implementation.	4. Periodically, when update is determined necessary	4. Toolbox updated and submitted/ Toolbox update underway but not yet submitted/ No updates or submission	2	No, Toolbox update is underway	The BMP Toolbox update will be submitted to NCDEQ for approval upon completion.
Post Construction Stormwater Program							
45	Develop and provide guidance for BMP Toolbox implementation and post-construction requirements						
45	3.6.3.a Define implementation of the approved NCDOT BMP Toolbox and post-construction SCMs in the PCSP Manual.	1. The PCSP manual defines workflows for implementation of the approved NCDOT BMP Toolbox.	1. Continuously, Permit Years 1-5	1. Yes/No/Partial	2	Yes	During PY2 NCDOT staff reviewed the PCSP and confirmed that the manual adequately defines workflows for implementation of the BMP Toolbox.
45	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	2. Review PCSP to determine if updates are needed.	2. Annually, Permit Years 2-5	2. Yes/No	2	Yes	During PY2 NCDOT reviewed the PCSP and determined that no updates were needed at this time.
45	3.6.3.c Submit proposed updates to the PCSP to the Division for approval prior to implementation.	3. Submit proposed revisions to the PCSP to NCDEQ for approval prior to implementation.	3. Periodically, when updated	3. PCSP update and submitted/ PCSP update underway but not yet submitted/ No updates or submission	2	No updates or submission	2022 PCSP has been reviewed and does not need any updates at this time. The BMP Toolbox is currently being updated but will not result in revision to the PCSP.
45	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	4. Review non-PCSP post-construction guidance to determine if updates are needed.	4. Annually, Permit Years 1-5	4. Yes/No	2	Yes	Other guidance was reviewed including the Hydraulic Guidelines and the PDN. The Guidelines are regularly reviewed, and updates occur as needed. The PDN is being updated and HSP staff are working to make sure all PCSP items are properly referenced. HSP staff are working to include any Stage 5 Construction items related to new NPDES requirement (e.g. SCM as-builts).

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
45	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	5. Update non-PCSP post-construction guidance as needed.	5. Periodically, as needed	5. Need and updated/ Needed but not updated/ Not needed	2	Needed and updated	PDN updates underway but were found not to need any updates for PCSP related items; QC/QA checklists updated (for consultant and for reviewer); drainage guidelines for minor updates regularly with major updates every 2 years. Stormwater Management Plan template was updated April 2024.
46	Make guidance available						
46	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	1. Maintain a current version of the Post-Construction Stormwater Program (PCSP) Manual online.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	During PY2 NCDOT maintained a current version of the PCSP online.
46	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	2. Maintain a current version of the BMP Toolbox Manual online.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	During PY2 NCDOT maintained a current version of the BMP Toolbox online.
46	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	3. Maintain a current version of the SCM Inspection and Maintenance Manual online.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	During PY2 NCDOT maintained a current version of the SCM Inspection and Maintenance Manual online.
46	3.6.3.b Make relevant guidance, post-construction requirements, design standards, checklists, and/or other materials available to staff and contractors.	4. Maintain current versions of other stormwater-related design standards and guidance online.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	During PY2 NCDOT maintained current versions of other stormwater-related design standards and guidance online. Examples include the Guidelines for Drainage Studies and Hydraulics Design, QC/QA checklists, Outlet Analysis guidance, Permit Drawing Guidelines, and other documents.
47	Standard Policy for drawings and as-built plans						
47	3.6.3.d Define and implement a standard policy for preparing and maintaining structural stormwater control measure (SCM) construction drawings and as-built plans on file.	1. Develop the policy and process for maintaining SCM construction drawings and as-built plans on file.	1. Permit Year 2	1. Yes/No/ Partial	2	Yes	In PY2 NCDOT developed a policy and process for maintaining SCM construction drawings and as-built plans on file. The policy expands on existing as-built policies and will be recorded in the Department's Construction Manual.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
47	3.6.3.d Define and implement a standard policy for preparing and maintaining structural stormwater control measure (SCM) construction drawings and as-built plans on file.	2. Identify the database or repository for the construction drawings and as-built plans.	2. Permit Year 2	2. Yes/No	2	Yes	NCDOT has identified its Construction SharePoint site as the repository for the construction drawings and as-built plans.
47	3.6.3.d Define and implement a standard policy for preparing and maintaining structural stormwater control measure (SCM) construction drawings and as-built plans on file.	3. Provide training to NCDOT Staff on maintaining the construction drawings and as-built plans.	3. Permit Year 3	3. Yes/ No/ Partial	3	NA	Not applicable until Permit Year 3.
47	3.6.3.d Define and implement a standard policy for preparing and maintaining structural stormwater control measure (SCM) construction drawings and as-built plans on file.	4. Implement the policy and process for all new SCMs.	4. Permit Year 3	4. Yes/ No/ Partial	3	NA	Not applicable until Permit Year 3.
Facilities Operation and Maintenance Program							
48	Maintain an Inventory of Non-roadway Facilities						
48	3.7.1.a Maintain an inventory of non-roadway facilities with the potential to contribute pollution to stormwater runoff. The inventory shall also specifically identify and include each facility that is subject to NPDES industrial stormwater permitting.	2. Identify non-roadway industrial activities (as listed in paragraph 1.1.4 of the permit) which are subject to NPDES industrial stormwater permitting.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT maintains a list of its non-roadway facilities, which includes facilities that have industrial-type activities. NCDOT REU maintains the list on its server. NCDOT REU coordinates with NCDOT Division staff annually to identify any new no-roadway facilities and then determine if the non-roadway facilities would meet any industrial permit requirements. See BMP No. 52 for non-roadway industrial activities subject to NPDES industrial stormwater permitting.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
48	3.7.1.a Maintain an inventory of non-roadway facilities with the potential to contribute pollution to stormwater runoff. The inventory shall also specifically identify and include each facility that is subject to NPDES industrial stormwater permitting.	3. Review non-roadway facilities inventory to confirm its up to date.	3. Annually, Permit Years 2-5	3. Number of non-roadway facilities	2	204	NCDOT maintains a list of non-roadway facilities, including facilities that have industrial-type activities. NCDOT REU staff performed a review of facilities and determined no new facilities are subject to NPDES industrial stormwater permitting.
49	Facility Inspections and Routine Maintenance						
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	1. Establish inspection frequencies for each site in the site-specific SPPP.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	Inspection frequencies have been established for each site in NCDOT's site-specific SPPPs.
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	2. Continue the facility inspection program, including daily, monthly, semi-annual and annual inspections as included in the SPPP for each applicable facility.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT continues to implement facility inspections, which include daily, monthly, semi-annual, and annual inspections as outlined in each applicable facility SPPP.
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	3. Document semi-annual and annual compliance inspections.	3. Annually, Permit Years 1-5	3. Number of inspections	2	386 inspections	NCDOT performs semi-annual and annual inspections at its non-roadway facilities with TS4 operations. NCDOT documents facility inspections on its SPPP website and within each site-specific SPPPs located on-site at the respective facilities. NCDOT performed 386 semi-annual and annual inspections at its facilities during this permit year.
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	4. Maintain a program to perform routine maintenance of material handling areas and stormwater systems at applicable non-roadway facilities.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT continues a program to perform routine maintenance of material handling areas and stormwater systems at applicable non-roadway facilities.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	5. Maintain preventative maintenance program of facility equipment and systems.	5. Continuously, Permit Years 1-5	5. Yes/No	2	Yes	NCDOT continues to maintain a preventative maintenance program of facility equipment and systems.
49	3.7.1.b Establish and implement specific frequencies, schedules, and standard documentation for facility inspections and routine maintenance.	6. Maintain a program to perform maintenance if indicated during inspection, as needed.	6. As needed, Permit Years 1-5	6. Yes/No	2	Yes	NCDOT continues to maintain a program to perform maintenance if the need is identified during an inspection.
50	Provide training to facilities staff						
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	1. Maintain "train the trainer" and staff training materials.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	"Train the trainer" and staff training materials are maintained and available to NCDOT trainers/personnel. NCDOT site-specific SPPPs and SPPP videos are used for training at facilities. NCDOT's IRMA BMP Guidance Manual is available to NCDOT trainers. Posters, guidance documents, and various training PPTs are also provided to trainers.
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	2. Provide "train the trainer" instruction to appropriate staff.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	Train the trainer instruction is provided to NCDOT Division staff, as needed.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	3. Distribute materials for local trainers to train local staff.	3. Annually, Permit Years 1-5	3. Yes/No	2	Yes	Training materials are distributed to Division trainers so they can train local staff.
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	4. Maintain a tracking mechanism to document the "train the trainer" instruction, including the agenda/materials, date.	4. Annually, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT maintains a web-based tracking log that includes attributes (e.g., date, location, agenda, materials, attendees) to document train the trainer sessions.
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	5. Document date of "train the trainer" instruction and agenda.	5. Continuously, Permit Years 1-5	5. Number of training events	2	30	In PY2, following the train-the-trainer approach, NCDOT HSP staff performed 17 training sessions for staff to address SPPP implementation, which included GH&PP, IDDEP, PM, SPR, etc. Each training session varied in length depending on needs of the attendees. In addition, NCDOT HSP staff performed 13 training sessions to NCGTP tenants.
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	6. Make training materials available to contractors if needed.	6. Continuously, Permit Years 1-5	6. Yes/No/Not needed	2	Yes	Training materials are available to contractors, as needed.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
50	3.7.1.c Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	7. Evaluate if an update to or additional training resources is needed.	7. Annually, Permit Year 1-5	7. Yes/No/Not needed	2	Yes	NCDOT performed an evaluation of existing training materials and determined that no update was needed. NCDOT will continue to update and/or create additional training materials as needed.
51	Develop, maintain, and implement SPPPs NCDOT non-roadway facilities with TS4 operations						
51	3.7.1.d NCDOT non-roadway facilities with TS4 operations will maintain and implement a site-specific Stormwater Pollution Prevention Plan (SPPP) to address good housekeeping and pollution prevention from their operations, and should include inspections.	1. Implement SPPPs following USEPA and NCDEQ guidance for stormwater pollution prevention and BMPs.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT site-specific SPPPs are implemented for stormwater pollution prevention and BMPs.
51	3.7.1.d NCDOT non-roadway facilities with TS4 operations will maintain and implement a site-specific Stormwater Pollution Prevention Plan (SPPP) to address good housekeeping and pollution prevention from their operations, and should include inspections.	2. For new activities or facilities, the SPPP shall be developed and implemented prior to operation.	2. Continuously, Permit Years 1-5	2. Yes/No/Not needed	2	Yes	SPPPs were updated and implemented prior to operation for new activities at existing facilities. There were no new facilities in PY2.
51	Non-roadway facilities with TS4 operations are inspected as part of the SPPP and/or Paragraph 3.7.6 in lieu of NCG080000 requirements for stormwater point source discharges from like industrial activities, as deemed to be similar by DEMLR.[MM1].	3. Maintain a tracking system for SPPP implementation.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	SPPP implementation is tracked on-site at each site-specific SPPP binder located at each facility. Additionally, NCDOT REU tracks SPPP implementation. NCDOT also utilizes the SPPP website to aid in SPPP implementation.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
52	Implement General Permit Requirements for non-roadway industrial activities						
52	3.7.1.3-Develop, maintain, and implement requirements in accordance with the current NPDES industrial stormwater general permit applicable to each facility which is subject to NPDES industrial stormwater permitting. This condition supersedes the requirement to obtain an NPDES industrial stormwater general permit Certificate of Coverage for each subject facility.	2. Update the SPPP for the NC Global TransPark to include applicable requirements of NCG150000.	2. Permit Year 2	2. Yes/No	2	Yes	NCGTP SPPP/SPCC Plan updated in PY2.
52	3.7.1.3-Develop, maintain, and implement requirements in accordance with the current NPDES industrial stormwater general permit applicable to each facility which is subject to NPDES industrial stormwater permitting. This condition supersedes the requirement to obtain an NPDES industrial stormwater general permit Certificate of Coverage for each subject facility.	3. Update the SPPP for the existing asphalt plant to include applicable requirements of NCG160000.	3. Permit Year 2	3. Yes/No	2	Yes	Washington (Creswell) CMY SPPP/SPCC Plan updated in PY2.
52	3.7.1.3-Develop, maintain, and implement requirements in accordance with the current NPDES industrial stormwater general permit applicable to each facility which is subject to NPDES industrial stormwater permitting. This condition supersedes the requirement to obtain an NPDES industrial stormwater general permit Certificate of Coverage for each subject facility.	4. Update the SPPP for Manns Harbor State Shipyard to include applicable requirements of NCG190000.	4. Permit Year 3	4. Yes/No	3	NA	Not applicable until Permit Year 3.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
52	3.7.1.3-Develop, maintain, and implement requirements in accordance with the current NPDES industrial stormwater general permit applicable to each facility which is subject to NPDES industrial stormwater permitting. This condition supersedes the requirement to obtain an NPDES industrial stormwater general permit Certificate of Coverage for each subject facility.	5. Update the SPPP for Raleigh Railcar & Locomotive Maintenance Facility to include applicable requirements of NCG080000.	5. Permit Year 3	5. Yes/No	3	NA	Not applicable until Permit Year 3.
52	3.7.1.3-Develop, maintain, and implement requirements in accordance with the current NPDES industrial stormwater general permit applicable to each facility which is subject to NPDES industrial stormwater permitting. This condition supersedes the requirement to obtain an NPDES industrial stormwater general permit Certificate of Coverage for each subject facility.	6. Include applicable requirements of NCG080000 in the SPPP for Charlotte Railcar & Locomotive Maintenance Facility prior to operation.	6. As needed, prior to operation	6. Not yet needed/Yes	2	Not yet needed	NCDOT REU staff met with Rail Division to discuss status of Charlotte Rail Facility. Rail Division staff indicated that this facility was still being designed and was likely several years away from being operational.
Spill Response Program							
53	Identify and Inventory non-roadway facilities with the potential to contaminate stormwater runoff or surface waters from spills						
53	3.7.2.a Evaluate facilities to determine the potential for spills and associated impacts to the TS4 and surface waters.	1. Develop a procedure to evaluate non-roadway facilities for the potential for spills and associated impacts to the TS4 and surface waters.	1. Permit Year 2	1. Yes/No	2	Yes	REU staff reviewed its SPPP/SPCC Plan template and site review procedures in PY2. Some modifications were made to site-specific SPPP/SPCC Plans as needed.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
54	Spill Response Procedures						
54	3.7.2.c Maintain and implement written spill response procedures.	1. Maintain written spill response procedures.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	Written spill response procedures are maintained via NCDOT's SPPP/SPCC Plan Template.
54	3.7.2.c Maintain and implement written spill response procedures.	2. Evaluate the spill response procedures and update if needed.	2. Annually, Permit Years 1-5	2. Yes/No/Update not needed	2	Update not needed	REU reviewed spill response procedures and determined that an update to its SPPP/SPCC Plan template was not needed. However, REU did make updates to some site-specific SPPP/SPCC Plans as needed.
54	3.7.2.c Maintain and implement written spill response procedures.	3. Implement spill response procedures.	3. As needed, Permit Years 1-5	3. Needed and implemented / Needed by not implemented / Not needed	2	Needed and implemented	Spill response procedures implemented via SPPP/SPCC Plans at Facilities, SPPP/SPCC website, including Form 25.
55	Provide spill response training to appropriate staff						
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	1. Maintain "train the trainer" and staff training materials.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	"Train the trainer" and staff training materials are maintained and available to NCDOT trainers/personnel. NCDOT site-specific SPPPs and SPPP videos are used for training at facilities. NCDOT's IRMA BMP Guidance Manual is available to NCDOT trainers. Posters, guidance documents, and various training PPTs are also provided to trainers.
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	2. Provide "train the trainer" instruction to appropriate staff.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT provided "Train the trainer" instruction to NCDOT staff, as needed.
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	3. Distribute materials for local trainers to train local staff.	3. Annually, Permit Years 1-5	3. Yes/No	2	Yes	Training materials were distributed as requested to local trainers for use in training local staff.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	4. Maintain a tracking mechanism to document the "train the trainer" instruction, including the agenda/ materials, date.	4. Annually, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT HSP staff maintains tracking mechanisms to document train the trainer instructions. Specific training agendas, materials, and dates of training are tracked for each instruction. NCDOT utilizes a training log for scheduled training events; LMS to track online, on-demand training; and facility SPPP/SPCC Plan binders at the facilities.
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	5. Document date of "train the trainer" instruction and agenda.	5. Continuously, Permit Years 1-5	5. Number of training events	2	19	Following the train-the-trainer approach, NCDOT HSP staff conducted 17 SPPP/SPCC Plan implementation training sessions for Division staff, which included NCDOT's spill prevention and response procedures. Training sessions are documented on NCDOT's training log, and include training session dates, attendees, and agenda. Additionally, HSP staff conducted 13 SPPP/SPCC Plan implementation training sessions for NCGTP tenant staff which included spill prevention and response training.
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	6. Make training materials available to contractors if needed.	6. Continuously, Permit Years 1-5	6. Yes/No / Not needed	2	Yes	NCDOT continues to make training materials available to contractors.
55	3.7.2.d Provide annual spill response training for facility staff who will respond to facilities that store and/or use materials that have the potential to contaminate stormwater runoff or surface waters if spilled.	7. Evaluate if an update to or additional training resources are needed.	7. Annually, Permit Year 1-5	7. Yes/No/Not needed	2	Yes	NCDOT evaluated if updates were needed to training materials resources. NCDOT created some new training materials (e.g., SPPP/SPCC Plan Implementation Training at NCGTP).

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
TS4 Operation and Maintenance Program							
56	Develop and implement standard protocols for identifying and addressing high-priority areas						
56	3.7.3.a Develop and implement standard protocols for identifying and addressing high priority areas which have potential for discharge of pollutants to surface waters.	1. Develop protocols for identifying high priority areas which have potential for discharge of pollutants to surface waters.	1. Permit Year 2	1. Yes/No	2	Yes	NCDOT HSP staff developed initial draft protocols; these will be reviewed by each Division at upcoming scheduled DME/ADME meetings in PY3, and then once Division input is provided, the protocols will be finalized.
56	3.7.3.a Develop and implement standard protocols for identifying and addressing high priority areas which have potential for discharge of pollutants to surface waters.	2. Implement protocol to identify high priority areas.	2. Permit Year 3	2. Yes/No	3	NA	Not applicable until Permit Year 3.
56	3.7.3.a Develop and implement standard protocols for identifying and addressing high priority areas which have potential for discharge of pollutants to surface waters.	3. Develop protocols for selecting BMPs to address high priority areas, including prioritizing specific areas with highest potential impacts.	3. Permit Year 3	3. Yes/No	3	NA	Not applicable until Permit Year 3.
56	3.7.3.a Develop and implement standard protocols for identifying and addressing high priority areas which have potential for discharge of pollutants to surface waters.	4. Develop training on standard protocols for identifying and addressing high priority areas.	4. Permit Year 3	4. Yes/No	3	NA	Not applicable until Permit Year 3.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
57	Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas						
57	3.7.3.b Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of pollutants into the storm sewer system; roadway sweeping; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	1. Establish a schedule to implement BMPs requiring significant design and funding for prioritized locations.	1. Permit Year 4	1. Yes/No	4	NA	Not applicable until Permit Year 4.
57	3.7.3.b Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of pollutants into the storm sewer system; roadway sweeping; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	2. Perform road sweeping activities in selected areas	2. Continuously, Permit Years 1-5	2. Documented lane miles swept	2	17,675 lane miles swept	NCDOT Divisions 1-14 perform road sweeping activities in selected areas. NCDOT Divisions utilize both NCDOT Forces and Contractors to perform road sweeping activities. NCDOT REU maintains a Division Sweeping tracking spreadsheet on REU's server.
57	3.7.3.b Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of pollutants into the storm sewer system; roadway sweeping; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	3. Perform litter and debris removal activities in selected areas.	3. Continuously, Permit Years 1-5	3. Yes /No (pounds of litter to be included in total amount collected)	2	Yes (11,510,880 pounds of litter collected in CY 2023)	NCDOT performed litter and debris removal activities statewide in selected areas. Total pounds collected in CY 2023 is tracked in NCDOT's LM system website and published in NCDOT's "2023 NC Interagency Litter Report: Litter Cleanup, Education/Prevention and Enforcement". The report and summary table is available to the public on NCDOT's Litter Management website at https://www.ncdot.gov/initiatives-policies/environmental/litter-management/Pages/

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
57	3.7.3.b Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of pollutants into the storm sewer system; roadway sweeping; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	4. Initiate implementation of BMPs requiring significant design and funding for prioritized locations.	4. Continuously, Permit Years 4-5	4. Yes/No	4	NA	Not applicable until Permit Year 4.
57	3.7.3.b Implement BMPs to reduce or eliminate the discharge of pollutants from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of pollutants into the storm sewer system; roadway sweeping; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	5. Implement BMPs based on an established schedule.	5. Continuously, Permit Years 4-5	5. Number of BMPs implemented	4	NA	Not applicable until Permit Year 4.
58	Maintain the TS4 collection system						
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	1. Establish specific frequencies and schedules for inspections, operation, and maintenance of the TS4, based on prioritization of roadway facility type and potential for impact to water quality.	1. Permit Year 2	1. Yes/No	2	Yes	Divisions continue to use specific frequencies and schedules of TS4 operation and maintenance activities established in their plan/ budgets. Once high priority area protocols are finalized, Divisions will move forward with incorporating them into their plan.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	2. Establish standard documentation for inspection, operation, and maintenance of the TS4.	2. Permit Year 2	2. Yes/No	2	Yes	Divisions continue to use standard documentation of their TS4 operation and maintenance activities established in their plan/ budgets. Once high priority area protocols are finalized, Divisions will move forward with incorporating them into their plan.
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	3. Update existing training on inspecting, maintaining, and documenting maintenance on the collection system including catch basins, inlets, outfalls, and conveyances.	3. Permit Years 3-5	3. Yes/ No/ Updates were not necessary	3	NA	Not applicable until Permit Year 3.
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	4. Perform current practices of scheduled maintenance on the TS4 collection system on an established schedule.	4. Continuously, Permit Years 1-3	4. Yes/No	2	Yes	NCDOT Division staff perform scheduled maintenance on the TS4 collection system on established schedules. Records of scheduled maintenance are maintained in each Division.
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	5. Integrate new practices into scheduled maintenance on the TS4 collection system on an established schedule.	5. Continuously, Permit Years 4-5	4. Yes/No	4	NA	Not applicable until Permit Year 4.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
58	3.7.3.c Establish, maintain, and implement specific frequencies, schedules, and standard documentation for inspection, operation, and maintenance of the TS4.	6. Perform unscheduled maintenance on the TS4 collection system based on maintenance needs identified after significant storm events, citizen complaints, or as identified during other operations.	6. Continuously, Permit Years 1-5	6. Yes/No	2	Yes	NCDOT Division staff perform unscheduled maintenance on the TS4 collection system based on maintenance needs identified after significant storm events, citizen complaints, or as identified during other operations. Records of unscheduled maintenance are maintained in each Division.
59	Provide operation and maintenance training						
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	1. Train appropriate staff on stormwater awareness pollution prevention training in conjunction with the facility where staff are located.	1. Annually, Permit Years 1-5	1. Yes/No	2	Yes	Appropriate NCDOT staff are trained on stormwater awareness pollution prevention training in conjunction with the facility where staff are located. Training records are maintained on site at each NCDOT facility.
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	2. Train appropriate staff on performing TS4 inspections, identifying and reporting issues.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	Appropriate NCDOT staff are trained on performing TS4 inspections, identifying and reporting issues.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	3. Train appropriate staff on maintaining the collection system including catch basins, inlets, outfalls and conveyances.	3. Annually, Permit Years 1-5	3. Yes/No	2	Yes	Appropriate NCDOT staff are trained on maintaining the collection system.
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls, and conveyances.	4. Develop a procedure to implement training requirements for applicable contractor staff.	4. Permit Year 4	4. Yes/No	4	NA	Not applicable until Permit Year 4.
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls, and conveyances.	5. Implement contractor training procedures	5. Permit Year 5	5. Yes/No	5	NA	Not applicable until Permit Year 5.
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	6. Integrate updated protocols into annual training as new protocols become available.	6. As needed	6. Yes/No/Not needed	2	Yes	NCDOT updated good housekeeping and pollution prevention and illicit discharge/illegal dumping detection training modules that were incorporated into Level I & II training for contractors in PY2.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	7. Review training materials annually	7. Annually, Permit Years 1-5	7. Yes/No	2	Yes	Training materials were reviewed by HSP staff.
59	3.7.3 d Train maintenance staff and contractors on stormwater awareness and pollution prevention, performing TS4 inspections, identifying and reporting issues, and maintaining the collection system including catch basins, inlets, outfalls and conveyances.	8. Update guidance as needed.	8. Periodically as needed	8. Need and updated/ Needed but not updated/ Not needed	2	Need and updated	NCDOT's Level I & Level II training courses provided by NCSU have been updated to incorporate new training modules for good housekeeping and pollution prevention, and illicit discharge/illegal dumping detection.
SCM Inspection and Maintenance Program							
60	Maintain an SCM Inventory						
60	3.7.4.a Maintain an SCM Inventory.	1. Maintain an SCM Inventory to include, at a minimum, the SCM location and type.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	SCM inventory maintained in SCMS (which includes SCM location and type).
60	3.7.4.a Maintain an SCM Inventory.	2. Update inventory with newly constructed SCMs as needed.	2. Continuously, Permit Years 1-5	2. Number of SCMs in inventory	2	1,495	NCDOT maintains its SCM inventory and updates its inventory by adding newly constructed SCMs and removing any SCMs taken out of service. NCDOT utilizes its web-based Stormwater Control Management System (SCMS) to track its SCM inventory.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
61	Perform inspections and maintenance on SCMs						
61	3.7.4.b Inspect and maintain each SCM in accordance with appropriate operation & maintenance criteria for the device, which shall include specific frequencies, schedules, and standard documentation	1. Maintain the SCM I&M Manual, including written procedures and criteria for the inspection and maintenance of SCMs.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	SCM I&M Manual is maintained. The manual contains detailed guidance for performing inspections and maintenance operations at NCDOT SCMs.
61	3.7.4.b Inspect and maintain each SCM in accordance with appropriate operation & maintenance criteria for the device, which shall include specific frequencies, schedules, and standard documentation	2. Evaluate if the SCM I&M Manual needs to be updated.	2. Annually, Permit Years 1-5	2. Yes and updated/ Yes but not updated / Update not needed	2	Update not needed	NCDOT continues to evaluate if the SCM I&M Manual needs to be updated.
61	3.7.4.b Inspect and maintain each SCM in accordance with appropriate operation & maintenance criteria for the device, which shall include specific frequencies, schedules, and standard documentation	3. Perform inspections and maintenance on SCMs in accordance with I&M Manual.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT performed inspections and maintenance on its SCMs in accordance with NCDOT's SCM I&M Manual. Inspections performed on 92% of subject SCMs have LOS = C or better. NCDOT performed routine maintenance on SCMs as needed throughout the permit year and completed repairs on 8 SCMs that needed non-routine maintenance.
61	3.7.4.b Inspect and maintain each SCM in accordance with appropriate operation & maintenance criteria for the device, which shall include specific frequencies, schedules, and standard documentation	4. Inspect newly constructed SCMs.	4. Continuously, Permit Years 1-5	4. Number of new projects inspected	2	12	NCDOT has processes in place to inspect newly constructed SCMs. This process involves NCDOT REU Field Operations personnel entering new SCMs in NCDOT's SCMS inventory system during closeout of construction projects, which then triggers the need for inspections by appropriate Division Roadside Environmental staff. In CY 2023, there were 23 new SCMs entered into SCMS with 12 already inspected.
61	3.7.4.b Inspect and maintain each SCM in accordance with appropriate operation & maintenance criteria for the device, which shall include specific frequencies, schedules, and standard documentation	5. Track inspections and maintenance of the SCMs in the inventory.	5. Annually, Permit Years 1-5	5. Yes /No	2	Yes	NCDOT continues to track inspections and maintenance of SCMs in its inventory. NCDOT tracks I&M activities in its web-based Stormwater Control Management System (SCMS) database and D-F tracking log.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
62	Provide training to staff performing SCM inspections						
62	3.7.4.c Train SCM inspection and maintenance staff and contractors on inspection, operation, and maintenance of SCMs.	1. Maintain training materials on the SCM I&M Program and how to perform and document inspections and operation.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains training materials on SCM I&M Program which includes how to perform and document inspections and maintenance operations.
62	3.7.4.c Train SCM inspection and maintenance staff and contractors on inspection, operation, and maintenance of SCMs.	2. Provide training on the SCM I&M Program and how to perform and document inspections and operation.	2. Annually, Permit Years 1-5	2. Number of staff trained	2	122	NCDOT provided training on SCM I&M Program at various workshop or individual settings.
62	3.7.4.c Train SCM inspection and maintenance staff and contractors on inspection, operation, and maintenance of SCMs.	3. Make training materials available to contractors if needed.	3. Continuously, Permit Years 1-5	3. Yes/No/Not needed	2	Yes	Training materials (e.g., NCDOT's SCM I&M Manual, Field Guide for Post-Construction Stormwater BMPs, and SCM I&M Program PowerPoint presentations) are provided to contractors, when needed.
62	3.7.4.c Train SCM inspection and maintenance staff and contractors on inspection, operation, and maintenance of SCMs.	4. Document date of training, names of staff trained, and agenda.	4. Continuously, Permit Years 1-5	4. Number of training events	2	8	NCDOT HSP staff provided SCM inspection and maintenance program training to NCDOT staff and contractors during several workshop or group sessions. Training included specific guidance on the inspection and documentation procedures and routine maintenance of NCDOT's SCMs. Training sessions are documented on NCDOT's training log, and include training session dates, attendees, and agenda.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
Vegetation, Pesticide and Fertilizer Management							
63	Provide training to vegetation management personnel						
63	3.7.5.a Provide annual training for vegetation management personnel, and train or require equivalent training for vegetation management contractors. Training shall consist of appropriate uses and applications of pest control products (chemical agents) and shall also cover proper mowing techniques; appropriate spill response and reporting; label-specific uses, storage and handling of landscape products, tools and equipment; and the potential for water quality impacts.	1. Staff responsible for managing the application of pesticides will maintain certification by the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) to include appropriate uses and applications of pest control products (chemical agents), label-specific uses, storage and handling of landscape products and the potential for water quality.	1 Continuously, Permit Years 1-5	1. Number of staff certified	2	514	NCDA&CS reports 514 NCDOT staff members are certified.
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	2. Maintain training materials to supplement certification training, as needed.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	Training materials have been reviewed and are in compliance with industry standards. Training materials are maintained by REU VM staff.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	3. Provide general training on pollution prevention and chemical use, storage and handling, spill response and the potential for water quality for staff involved in application of pesticides and fertilizers.	3. Annually, Permit Years 1-5	3. Number of staff trained	2	524	Training numbers: December 5, 2023 = 89, January 29, 2024 = 180, February 1, 2024 = 3, February 26, 2024 = 176, March 7, 2024 = 75, April 18, 2024 = 1 trained. Total staff = 524. See main folder (NPDES 2023 - 2024) for training records for each event.
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	4. Provide training on proper mowing techniques, tools and equipment; and the potential for water quality impacts to staff performing associated duties.	4. Annually, Permit Years 1-5	4. Number of staff trained	2	17 contractor representatives trained	There are 17 mowing contractors statewide for this permit year. NCDOT Division Roadside Environmental Engineers review contract requirements including mowing techniques and provide guidance and training to mowing contractors, as appropriate.
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	5. Make training materials available to contractors if needed.	5. Continuously, Permit Years 1-5	5. Yes/No/Not needed	2	Yes	NCDOT REU and Division Roadside Environmental Engineers make guidance and training materials available, as needed.
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	6. Document date of training, names of staff trained, and agenda.	6. Continuously, Permit Years 1-5	6. Number of training events	2	6 training events	REU Central conducted both in-person and virtual training sessions throughout the permit year. A total of 6 different training sessions were held. See main folder for individual training rosters. License holders also attended various NCD&CS approved training sessions outside of those conducted by REU.
63	3.7.5.d Maintain compliance with applicable Pesticide Applicator licensing requirements.	7. Require equivalent training for vegetation management contractors through contract language.	7. Continuously, Permit Years 2-5	7. Yes/No	2	Yes	Individual contract language and daily tailgate meetings are part of NCDOT's training program for contractors. Equivalent training for VM contractors is required via NCDOT VM contract language.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
64	Implement appropriate pest control methods and practices						
64	3.7.5.b Use biological control measures as sanctioned by North Carolina Department of Agriculture & Consumer Services (NCDA&CS).	1. Continue to consult with NCDA&CS and North Carolina State University (NCSU), as needed, in selecting appropriate pest control methods and implementation practices.	1. As Needed, Permit Years 1-5	1. Yes/No/Not needed	2	Yes	NCDOT coordinates with NCDA&CS and NCSU on NCDOT's VM program. NCDOT coordinates its VM programs with various Ph.D. level researchers at NCSU. Additionally, only products approved for use by NCDA&CS are used in the Department's VM program. NCDOT also coordinates various special use permits through both NCSU and NCDA&CS.
64	3.7.5.c Utilize only EPA and/or NCDA&CS approved pesticide and fertilizer products, and apply them in accordance with the manufacturer's directions, labels, and restrictions	2. Maintain and update the NCDOT Roadside Vegetation Management Manual as new methods and practices are adopted.	2. As Needed, Permit Years 1-5	2. Yes/No/Update not needed	2	Update not needed	NCDOT's Vegetation Management manual has been reviewed and found it corresponds to current industry standard VM practices and no additional revisions are needed at this time.
64	3.7.5.c Utilize only EPA and/or NCDA&CS approved pesticide and fertilizer products, and apply them in accordance with the manufacturer's directions, labels, and restrictions	3. Restrict pesticide and fertilizer usage to those materials approved by EPA/NCDA&CS. Pesticide and fertilizer shall be used in accordance with label restrictions.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	During this review period, NCDOT only used VM products that were approved by USEPA and NCDA&CS to maintain our ROW.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
Vehicle and Equipment Maintenance Program							
65	Conduct inspections and preventative maintenance on vehicles and equipment						
65	3.7.6.a Perform routine inspections of facilities, vehicles, and equipment, and establish specific frequencies, schedules, and documentation for inspections, and re-inspections when issues are identified.	1. Establish specific frequencies, schedules, and documentation procedures for inspections, and re-inspections of facilities, vehicles, and equipment when issues are identified.	1. Permit Year 2	1. Yes/No	2	Yes	Specific frequencies, schedules, and documentation procedures for inspections, and re-inspections of facilities, vehicles, and equipment are established.
65	3.7.6.a Perform routine inspections of facilities, vehicles, and equipment, and establish specific frequencies, schedules, and documentation for inspections, and re-inspections when issues are identified.	2. Maintain procedures to inspect active vehicles and equipment in NCDOT's fleet for maintenance needs.	2. Continuously, Permit Years 2-5	2. Yes/No	2	Yes	NCDOT maintains procedures for inspecting active vehicles and equipment in NCDOT's fleet for maintenance needs. NCDOT State Maintenance and Division Equipment Units track all inspections and maintenance performed on NCDOT vehicles and equipment.
65	3.7.6.a Perform routine inspections of facilities, vehicles, and equipment, and establish specific frequencies, schedules, and documentation for inspections, and re-inspections when issues are identified.	3. Implement documentation procedures for inspections and re-inspections.	3. Permit Year 2	3. Yes/No	2	Yes	Documentation procedures for inspections and re-inspections are implemented.
65	3.7.6.a Perform routine inspections of facilities, vehicles, and equipment, and establish specific frequencies, schedules, and documentation for inspections, and re-inspections when issues are identified.	4. Establish facility inspection frequencies and practices if not already included in SPPPs under Paragraph 3.7.1.	4. Continuously, Permit Years 1-5	4. Yes/No / All facilities covered under 3.7.1.	2	Yes	NCDOT has established facility inspection frequencies and practices.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
65	3.7.6.a Perform routine inspections of facilities, vehicles, and equipment, and establish specific frequencies, schedules, and documentation for inspections, and re-inspections when issues are identified.	5. Provide preventative maintenance on active vehicles and equipment in NCDOT's fleet.	5. Continuously, Permit Years 1-5	5. Yes/No	2	Yes	NCDOT provides preventative maintenance on active vehicles and equipment in NCDOT's fleet.
66	Provide training to staff maintaining vehicles and equipment						
66	3.7.6.b Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	1. Perform training on general stormwater awareness, implementing pollution prevention, good housekeeping practices and spill response in conjunction with training for facility staff.	1. Continuously, Permit Years 2-5	1. Yes/No	2	Yes	Training on general stormwater awareness, implementing pollution prevention, good housekeeping practices and spill response is performed in conjunction with training for facility staff.
66	3.7.6.b Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	2. Perform training on identifying and reporting illicit discharges and illegal dumping in conjunction with training for facility staff.	2. Continuously, Permit Years 2-5	2. Yes/No	2	Yes	Training on identifying and reporting illicit discharges and illegal dumping is performed in conjunction with training for facility staff.
66	3.7.6.b Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	3. Perform training on preventative maintenance.	3. Continuously, Permit Years 2-5	3. Yes/No	2	Yes	Training on preventative maintenance is performed in conjunction with training for facility staff.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
66	3.7.6.b Provide annual staff training for facility staff on general stormwater awareness, implementing pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.	4. Maintain training materials.	4. Continuously, Permit Years 2-5	4. Yes/No	2	Yes	"Train the trainer" and staff training materials are maintained and available to NCDOT trainers/personnel. NCDOT site-specific SPPPs and SPPP videos are used for training at facilities. NCDOT's IRMA BMP Guidance Manual is available to NCDOT trainers. Posters, guidance documents, and various training PPTs are also provided to trainers. These training materials include general stormwater awareness, pollution prevention and good housekeeping practices, spill response, preventative maintenance, and identifying and reporting illicit discharges and illegal dumping.
Litter Management Program							
67	Continue to implement litter management programs						
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	1. Use NCDOT Forces to collect litter/debris.	1. Continuously, Permit Years 1-5	1. Document quantity of litter/debris collected	2	1,871,925 pounds of litter/debris collected by NCDOT Forces	NCDOT continues to utilize NCDOT Forces to collect litter from NC roadways; which includes litter collections during NCDOT's semi-annual Litter Sweep events. NCDOT tracks specific quantities of litter collections by groups via online Pickup Reports and maintains this data on its LM website.
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	2. Use Contract Litter Removal services to collect litter/debris.	2. Continuously, Permit Years 1-5	2. Document quantity of litter/debris collected	2	7,570,695 pounds of litter/debris collected by NCDOT Contractors	NCDOT continues to use Contracted Litter Removal as a critical component of its Litter Management program for collecting litter/debris from NC roadways. NCDOT tracks specific quantities of litter collections by groups via online Pickup Reports and maintains this data on its LM website.
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	3. Continue Adopt-A-Highway Program.	3. Continuously, Permit Years 1-5	3. Document quantity of litter/debris collected	2	1,025,445 pounds of litter/debris collected by AAH volunteers	NCDOT continues to operate its Adopt-A-Highway (AAH) program for litter collection along NC roadways. Details of NCDOT's AAH program and instructions for volunteers is available at https://www.ncdot.gov/initiatives-policies/environmental/adoptahighway/Pages/default.aspx . NCDOT tracks specific quantities of litter collections by groups via online Pickup Reports and maintains this data on its LM website.
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	4. Continue Sponsor-A-Highway Program.	4. Continuously, Permit Years 1-5	4. Document quantity of litter/debris collected	2	916,905 pounds of litter/debris collected by SAH program	NCDOT continues to maintain its Sponsor-A-Highway (SAH) program. In CY 2023, NCDOT's SAH program recovered 916,905 pounds of litter and debris from NCDOT ROW.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	5. Continue Swat-A-Litterbug Program.	5. Continuously, Permit Years 1-5	5. Number of Swat-A-Litterbug reports mailed out	2	5,558 reports mailed out	NCDOT continues to operate its Swat-A-Litterbug program which includes mailing out notices to individuals reported using NCDOT's Swat-A-Litterbug reporting mechanisms. NCDOT LM maintains a count of reports mailed out.
67	3.7.7.a Continue to implement litter management programs to collect litter and debris and minimize discharges to surface waters.	6. Dispose of litter collected through litter management programs.	6. Continuously, Permit Years 1-5	6. Quantity of total litter/debris collected	2	125,910 pounds of litter/debris collected for all NCDOT LM program	NCDOT continues to implement LM programs to collect litter and debris and minimize discharges to surface waters. This includes NCDOT's CLR, AAH, and SAH programs, as well as use of NCDOT Forces. In addition to these LM programs, NCDOT tracks Other Volunteers (who collected 125,910 pounds of litter/debris). NCDOT tracks specific quantities of litter collections by groups via online Pickup Reports and maintains this data on its LM website.
68	Establish routine litter inspections and removal						
68	3.7.7.b Establish and implement standard processes and documentation for routine litter inspections and removal, performed at a minimum of quarterly, and including identification of high priority areas that will receive more frequent inspections, removal and/or BMPs.	3. Implement standard processes and documentation for routine litter inspections and removal, performed at a minimum of quarterly.	3. Continuously, Permit Years 1-5	3. Document quantity of litter/debris collected	2	9,513,045 pounds	NCDOT continues to implement its standard processes and documentation procedures for routine litter inspections and removal. In CY 2023, NCDOT's Contract Litter Removal (CLR) program removed 7,570,695 pounds of litter, Adopt-A-Highway (AAH) program removed 1,025,445 pounds of litter, and Sponsor-A-Highway (SAH) program removed 916,905 pounds of litter. These programs performed at least quarterly removals. NCDOT Forces and Other Volunteers removed additional quantities of litter on other frequencies.
68	3.7.7.c Utilize TS4 mapping efforts to support decisions on identification of high priority areas and implementation of BMPs to prevent the discharge of litter to surface waters.	4. Coordinate with NCDOT Division Staff to identify high priority areas where litter and debris may enter surface waters.	4. Continuously, Permit Years 1-5	4. Yes/No	2	Yes	NCDOT Division staff continue to prioritize areas where litter and debris collection is needed when directing contractor litter removal, which includes using Primary Routes, high ADT areas, historic litter/debris problem areas, and other factors unique to each Division. HSP staff continues to coordinate with Division staff to discuss identifying high priority areas where litter and debris may enter surface waters. This includes an annual briefing at REU Symposium in December 2023 and meetings with other Division staff throughout PY2.
68	3.7.7.c Utilize TS4 mapping efforts to support decisions on identification of high-priority areas and implementation of BMPs to prevent the discharge of litter to surface waters.	5. Utilize TS4 mapping efforts to support decisions on identification of high-priority areas and implementation of BMPs to prevent the discharge of litter to surface waters.	5. Permit Year 5	5. Yes/No	5	NA	Not applicable until Permit Year 5.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
68	3.7.7.c Utilize TS4 mapping efforts to support decisions on identification of high-priority areas and implementation of BMPs to prevent the discharge of litter to surface waters.	6. Implement more frequent inspections and litter removal in high-priority areas.	6. On established schedule, Permit Years 4-5	6. Yes/No	4	NA	Not applicable until Permit Year 4.
69	Implement BMPs to reduce or eliminate the discharge of litter and debris from high priority areas						
69	3.7.7.d Implement BMPs to reduce or eliminate the discharge of litter and debris from high priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of litter and debris into the storm sewer system; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	1. Establish a schedule to implement BMPs requiring significant design and funding for prioritized locations.	1. Permit Year 3	1. Yes/No	3	NA	Not applicable until Permit Year 3.
69	3.7.7.d Implement BMPs to reduce or eliminate the discharge of litter and debris from high priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of litter and debris into the storm sewer system; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	2. Perform road sweeping activities in selected areas.	2. Continuously, Permit Years 2-5	2. Document lane miles swept	2	17,675 lane miles swept	NCDOT performed roadway sweeping in each Division in PY2, utilizing both NCDOT Forces and contractors, which resulted in a total of 17,675 lane miles swept.
69	3.7.7.d Implement BMPs to reduce or eliminate the discharge of litter and debris from high priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of litter and debris into the storm sewer system; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	3. Perform litter and debris removal activities in prioritized areas.	3. Continuously, Permit Years 1-5	3. Yes /No (volume of litter to be included in total amount collected)	2	Yes (11,510,880 pounds)	NCDOT continues to perform litter and debris removal activities in prioritized areas. NCDOT LM and Division Litter Managers evaluate the prioritized areas each year for litter and debris collections for its various anti-litter programs. The total litter collected in CY 2023 was 11,510,880 pounds.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
69	3.7.7.d Implement BMPs to reduce or eliminate the discharge of litter and debris from high priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of litter and debris into the storm sewer system; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	4 Initiate implementation of BMPs requiring significant design and funding for prioritized locations.	4. Continuously, Permit Years 4-5	4. Number of BMPs implemented	4	NA	Not applicable until Permit Year 4.
69	3.7.7.d Implement BMPs to reduce or eliminate the discharge of litter and debris from high-priority areas. BMPs may include capture technologies; storm drain inlet grate design to minimize the entry of litter and debris into the storm sewer system; litter and debris removal; catch basin and inlet inspections and cleaning, or other appropriate practices.	5. Implement BMPs based on an established schedule.	5. Continuously, Permit Years 4-5	5. Yes/No	4	NA	Not applicable until Permit Year 4.
Fecal Coliform Reduction Program							
70	Maintain a pet waste management measure						
70	3.7.8.a Maintain NCDOT's pet waste management measures at Rest Areas/Welcome Centers and Ferry Terminals.	1. Post signage and make available pet waste disposal kiosks at Rest Areas/Welcome Centers and Ferry Terminals.	1. Continuously, Permit Years 1-5	1. Number of pet waste stations	2	161	NCDOT posts signage and makes available pet waste disposal kiosks at its Rest Areas/ Welcome Centers and Ferry Terminals. NCDOT maintains 161 pet waste stations across the State at these locations. NCDOT staff and contractors inspect the pet waste stations regularly to make sure the signage is legible and pet waste disposal kiosks are functional.
70	3.7.8.a Maintain NCDOT's pet waste management measures at Rest Areas/Welcome Centers and Ferry Terminals.	2. Provide public education materials about the impact of pet waste to water quality at Rest Areas/Welcome Centers and Ferry Terminals.	2. Continuously, Permit Years 1-5	2. Yes/No	2	Yes	Public education signage is provided at pet waste stations located at NCDOT Rest Areas/Welcome Centers and Ferry Terminals.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
71	Connect sanitary discharges to POTWs						
71	3.7.8.b Connect on-site septic systems at NCDOT non-roadway facilities to publicly owned treatment works (POTWs) where feasible; or properly operate and maintain the on-site septic system.	1. Operate and maintain on-site domestic wastewater treatment systems in accordance with manufacturer's and State guidance.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT operates and maintains on-site domestic wastewater treatment systems in accordance with manufacturer's and State guidance.
71	3.7.8.b Connect on-site septic systems at NCDOT non-roadway facilities to publicly owned treatment works (POTWs) where feasible; or properly operate and maintain the on-site septic system.	2. Connect existing on-site domestic wastewater treatment systems to a POTW when available.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	NCDOT connects existing on-site domestic wastewater treatment systems to a POTW when available. No new connections are being reported in PY2.
71	3.7.8.b Proper operation and maintenance for septic systems shall include staff training on general stormwater awareness, impacts of fecal coliform in receiving waters, and how to properly operate and maintain the septic system.	3. Perform training on general stormwater awareness and impacts of fecal coliform in receiving waters in conjunction with training for facility staff.	3. Continuously, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT HSP staff conducted two training sessions on NCDOT's Fecal Coliform Reduction Program - Stormwater Briefings for Division ORC Staff in Divisions 11 and 14. Also, NCDOT HSP staff provided additional training to Division staff during several SPPP implementation training sessions, which included general stormwater awareness and water quality impacts from septic waste discharges, illicit discharges and illegal dumping, and other potential stormwater pollutants.
71	3.7.8.b Proper operation and maintenance for septic systems shall include staff training on general stormwater awareness, impacts of fecal coliform in receiving waters, and how to properly operate and maintain the septic system.	4. Develop training for appropriate staff on how to properly operate and maintain the septic system.	4. Permit Year 2	4. Yes/No	2	Yes	NCDOT REU staff developed new training materials for NCDOT division staff that address its Fecal Coliform Reduction Program. The training included permit requirements for fecal coliform reduction, ORC requirements for operating on-site wastewater treatment systems, and BMPs for how to properly operate and maintain septic systems.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
71	3.7.8.b Proper operation and maintenance for septic systems shall include staff training on general stormwater awareness, impacts of fecal coliform in receiving waters, and how to properly operate and maintain the septic system.	5. Provide training for appropriate staff on how to properly operate and maintain the septic system.	5. Continuously, Permit Years 3-5	5. Yes/No	3	NA	Not applicable until Permit Year 3.
Total Maximum Daily Load Program							
72	Track EPA-approved TMDLs						
72	1. Track EPA-approved TMDLs.	1. Maintain a TMDL Tracking Database to track TMDLs that have been issued.	1. Continuously, Permit Years 1-5	1. Updated/Not updated/ Update not needed since no new TMDLs were issued	2	Update not needed since no new TMDLs were issued	There were no new EPA approved TMDLs issued in PY2 anywhere in North Carolina.
73	Address TMDLs where NCDOT is named as a significant contributor and is assigned a unique WLA						
73	3.8.1 For EPA-approved TMDLs that specifically name the Permittee as a significant contributor and assigns a unique WLA to the Permittee that is separate from other sources, develop and implement water quality improvement strategies.	1. Track the number and status of TMDLs where NCDOT is named as a significant contributor and a unique WLA is assigned to NCDOT.	1. Annually, Permit Years 1-5	1. Number of applicable TMDLs	2	2	Hills Bay Embayment (White Oak River), 20-(18)c4 and Boathouse Creek, 20-31 have been identified as the two EPA approved TMDLs which name NCDOT as a significant contributor of the pollutant of concern and assign the Department a unique WLA. These TMDLs are included in the report for the Southeast White Oak River Embayments. In 2022 EPA approved TMDLs for Turkey Ck and Virginia Ck in Carteret Co. These TMDLs did assign NCDOT a unique WLA but did not label NCDOT as a significant contributor. NCDOT agrees with this assessment as the Department's WLA is a very small fraction of the total TMDL and is also a small fraction of the Margin of Safety. So, these two 2022 TMDLs were not deemed falling under section 3.8.1 of the permit.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
73	3.8.1 For EPA-approved TMDLs that specifically name the Permittee as a significant contributor and assigns a unique WLA to the Permittee that is separate from other sources, develop and implement water quality improvement strategies.	2. Develop a site-specific water quality improvement strategy.	2. As needed, Permit Years 1-5	2. Number of new site-specific strategies developed within permit year/ New strategy in development/ Provisions for 3.8.1 were not triggered.	2	Provisions for 3.8.1 were not triggered	There were no new EPA approved TMDLs issued in PY2.
73	3.8.1 For EPA-approved TMDLs that specifically name the Permittee as a significant contributor and assigns a unique WLA to the Permittee that is separate from other sources, develop and implement water quality improvement strategies.	3. Describe implemented improvement strategies in the annual report. Implement actions described in site-specific water quality improvement strategies.	3. Annually, Permit Years 1-5	3. Number of site-specific improvement strategies under which implementation activities took place.	2	0	There were no TMDLs approved by EPA during this reporting period which trigger the development of site-specific improvement strategies.
74	Address TMDLs where NCDOT is not assigned a unique WLA						
74	3.8.2 For approved TMDLs that have no EPA-approved WLA which specifically assigns a unique WLA to the Permittee, evaluate strategies and tailor and/or expand BMPs within the scope of this permit to reduce the TMDL pollutant(s) of concern in the named watershed(s) to the maximum extent practicable (MEP).	1. For new projects, evaluate implementation of the BMP Toolbox and other design guidance tools to address water quality pollutants of concern to the MEP.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	For new projects NCDOT implements its PCSP which defines implementation of the BMP Toolbox and other design guidance tools.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
74	3.8.2 For approved TMDLs that have no EPA-approved WLA which specifically assigns a unique WLA to the Permittee, evaluate strategies and tailor and/or expand BMPs within the scope of this permit to reduce the TMDL pollutant(s) of concern in the named watershed(s) to the maximum extent practicable (MEP). (BMP 56-58).	2. To address existing assets, develop procedures to apply protocols for identifying high-priority areas under the TS4 Operation and Maintenance Program to TMDL watersheds.	2. Permit Year 4	2. Yes/No	4	NA	Not applicable until Permit Year 4.
74	3.8.2 For approved TMDLs that have no EPA-approved WLA which specifically assigns a unique WLA to the Permittee, evaluate strategies and tailor and/or expand BMPs within the scope of this permit to reduce the TMDL pollutant(s) of concern in the named watershed(s) to the maximum extent practicable (MEP).	3. Develop protocols for selecting BMPs to address high-priority areas in TMDL watersheds, including prioritizing specific areas with the highest potential impacts.	3. Permit Year 4	3. Yes/No	4	NA	Not applicable until Permit Year 4.
74	3.8.2 For approved TMDLs that have no EPA-approved WLA which specifically assigns a unique WLA to the Permittee, evaluate strategies and tailor and/or expand BMPs within the scope of this permit to reduce the TMDL pollutant(s) of concern in the named watershed(s) to the maximum extent practicable (MEP).	4. Develop training on standard protocols for identifying and addressing high-priority areas in TMDL watersheds.	4. Permit Year 4	4. Yes/No	4	NA	Not applicable until Permit Year 4.
74	3.8.2 For approved TMDLs that have no EPA-approved WLA which specifically assigns a unique WLA to the Permittee, evaluate strategies and tailor and/or expand BMPs within the scope of this permit to reduce the TMDL pollutant(s) of concern in the named watershed(s) to the maximum extent practicable (MEP).	5. Utilize TS4 mapping efforts to support decisions on the identification of high-priority areas and implementation of BMPs to prevent the discharge of litter to surface waters.	5. Permit Year 5	5. Yes/No	4	NA	Not applicable until Permit Year 4.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
75	Describe any strategies and tailored and/or expanded measures						
75	3.8.3 Describe any strategies and tailored and/or expanded measures in the TS4SMP.	1. Strategies implemented within the reporting period are described in the annual report.	1. Annually, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT outlined its strategies for the TMDL Program in Section 11 of the TS4SMP update, which was submitted to DEMLR on November 3, 2023. The TS4SMP update was approved by DEMLR on December 18, 2023. Since DEMLR's approval these strategies have been implemented.
Research Program							
76	Facilitate Research						
76	3.9.1 Implement a Research Program to facilitate research to enhance or improve existing practices or develop new methods or processes to meet TS4 permit requirements.	1. Maintain a Research Plan addressing research needs for the permit requirements.	1. Continuously, Permit Years 1-5	1. Yes/No	2	Yes	NCDOT maintains its Research Plan. The plan is located in the HSP document library on SharePoint.
76	3.9.1 Implement a Research Program to facilitate research to enhance or improve existing practices or develop new methods or processes to meet TS4 permit requirements.	2. Assess needs and identify potential research projects.	2. Annually, Permit Years 1-5	2. Yes/No	2	Yes	Internal due date is dependent on R&D Unit and varies each year. HSP staff assessed needs and identified potential research projects and submitted its research ideas (HU = 3 submittals, REU = X submittals).
76	3.9.1 Implement a Research Program to facilitate research to enhance or improve existing practices or develop new methods or processes to meet TS4 permit requirements.	3. Evaluate the Research Plan to determine if updates are needed.	3. Annually, Permit Years 1-5	3. Yes/No	2	Yes	NCDOT evaluated the Research Plan and determined that only minor updates were needed so these were addressed.
76	3.9.1 Implement a Research Program to facilitate research to enhance or improve existing practices or develop new methods or processes to meet TS4 permit requirements.	4. Update the Research Plan.	4. As needed	4. Needed and updated / Needed and not updated / Not needed.	2	Needed and Updated	NCDOT evaluated the Research Plan in May 2024 and determined that only minor updates were needed; therefore, these were addressed in PY2.

Program Area BMPs, Measurable Goals, Schedule for Implementation, and Annual Reporting Metrics							
BMP No.	Permit Reference and Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	Permit Year	Annual Reporting Metric Output	Reporting Comment
77	Conduct Research						
77	3.9.2 Conduct research with faculty and staff at state universities or other independent institutions that result in impartial quantitative assessment of stormwater from NCDOT permitted activities and/or measure structural BMP effectiveness.	1. Perform or sponsor research in accordance with Research Plan.	1. Continuously, Permit Years 1-5	1. Number of active research projects related to the permit.	2	11	NCDOT HU has 5 active HSP research projects and REU has 4 active HSP projects and 2 Technical Assistance projects; for a total of 11 HSP related research projects. NCDOT HSP staff perform research projects in accordance with its Research Plan. Active research projects are tracked and maintained on NCDOT's R&D portal.
77	3.9.2 Conduct research with faculty and staff at state universities or other independent institutions that result in impartial quantitative assessment of stormwater from NCDOT permitted activities and/or measure structural BMP effectiveness.	2. Complete the Research and Development Close Out Implementation Plan form for NCDOT's Research and Development Program.	2. As needed, Permit Years 1-5	2. Yes, form completed / Form not completed / No new research completed this year.	2	Yes, form completed	In PY2 NCDOT completed the Research and Development Close Out Implementation Plan form for appropriate research projects.

3.0 Falls and Jordan Lake GREEN Programs

Jordan Lake Rules:

15A North Carolina Administration Code
02B .0262-.0273, .0311, and
NC Session Laws 2009-216, 2009-484

Falls Lake Rules:

15A NCAC 02B .0275—.0282

Rule Requirements

The following nutrient requirements apply within the Jordan and Falls Lake Watersheds:

1. **Outfall Identification.** Identify NCDOT stormwater outfalls from Interstate, US, and NC primary routes.
2. **Illegal Discharges.** Identify and eliminate illegal discharges into the NCDOT's stormwater conveyance system.
3. **Nutrient Education Program.** Implement a Nutrient Management Education Program for NCDOT staff and contractors engaged in the application of fertilizers on highway ROW.
4. **Riparian Buffer Protection.** Meet riparian buffer and diffuse flow requirements on new and widening road projects.
5. **Nutrient Targets on Non-Road Development.** Achieve sub-watershed specific nutrient reduction targets on new non-road development projects using the NCDOT Jordan Lake Stormwater Nutrient Loading Accounting Tool (NCDOT-JLSLAT) or through another calculation method that is acceptable to NCDWR.
6. **Plan to Offset Nutrients from Baseline to Program Implementation.** Provide an estimate of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of the new development program (stayed in the Jordan Lake Watershed).
7. **Nutrient Removal Retrofits.** Implement six stormwater retrofit BMPs per year in the Falls Lake watershed to reduce nutrient loads until NCDOT's existing development load reduction requirements are achieved, or the lake's designated uses are restored (Falls Lake Watershed only).

Program Overview

The NC Environmental Management Commission (EMC) adopted permanent nutrient management rules for Jordan Lake and Falls Lake which became effective in 2009 and 2011, respectively. In response, NCDOT initiated the Guided Reduction of Excess Environmental Nutrients (GREEN) Program to integrate

and enhance NCDOT's stormwater and nutrient management practices and to support NCDOT's compliance with the Jordan and Falls Lake Rules.

The Jordan Lake GREEN Program outlines the Department's approach to managing nutrients from new development, including new and widened roads and new non-road developments. The EMC approved the Jordan Lake GREEN Program on November 8, 2012. The Rules also include retrofit requirements to reduce nutrient loads from existing NCDOT development; however, various Session Laws have delayed this requirement.

The Falls Lake GREEN Program addresses the Department's approach to managing nutrients from new and existing developments consisting of new and widened roads, new non-road development, and existing road and non-road development. The EMC approved the Falls Lake GREEN Program on January 9, 2014. Among other things, these regulations require NCDOT to implement new training for staff and contractors, calculate nutrient loads resulting from projects and devise controls to reduce the increased loads. A notable requirement of the Falls Lake rules is the mandate for the Department to construct six retrofits per year in the watershed or implement equivalent nutrient load reduction measures.

Accomplishments

1. Outfall Identification

In previous years NCDOT completed field outfall identification within the Falls and Jordan watershed from open channel and pipe stormwater conveyances. During PY2, NCDOT added to the outfall inventory bridges which directly discharge to surface waters within the City limits of Durham and Greensboro.

2. Illegal Discharges

During PY2, NCDOT maintained and implemented a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the TS4. Additionally, NCDOT staff conducted 92 dry weather outfall screenings for illicit discharges.

NCDOT staff and contractors working within the NCDOT ROW report incidences of observed illegal discharges and NCDOT staff follow up for verification, reporting and resolution. NCDOT utilizes an IDDEP Field Report for use by Division staff to make sure that the data needed to follow up on the illicit discharge is obtained.

NCDOT held its state-wide Litter Sweep Program during the last two weeks of September and April. Residents throughout the state participate in local efforts to help clean up North Carolina's roadways. To support this effort, NCDOT maintenance crews devote one week of their time to pick up litter and collect orange bags placed on the roadsides by volunteers. The 2023 Annual Litter Report showcases the amount of litter collected in each county.

In addition to the Litter Sweeps, NCDOT continues to provide material support to the Clean Jordan Lake organization for their litter collection events for Jordan Lake.

3. Nutrient Education Program

NCDOT provides annual training for Vegetation Management personnel, and trains or requires equivalent training for Vegetation Management contractors. Training includes the following topics:

- Appropriate application of fertilizer and pest control products;
- Proper mowing techniques;
- Storage and handling of landscape material, including fertilizer and pest control products; and
- Avoiding water quality impacts associated with vegetation management.

4. Riparian Buffer Protection

NCDOT complies with all aspects of the Riparian Buffer Protection Rules on its transportation projects, and has created the following posters to support designers in compliance with both the buffer rules and NCDOT's PSCP:

1. Maximizing Shoulder Section
2. Adequate Energy Dissipation
3. Utilizing Natural Features and Drainage Pathways
4. Maximizing Vegetative Conveyances

5. Nutrient Targets on Non-Road Development

In PY2, NCDOT did not complete any new non-road projects in the Jordan Lake or Falls Lake watersheds that would be subject to NSW rules. However, NCDOT has emphasized proper inspection and maintenance of the existing SCMs on projects in the Jordan Lake and Falls Lake Watersheds (as well as state-wide). NCDOT uses its SCMS database to track inspection and maintenance of SCMs statewide, including those located within the Jordan Lake and Falls Lake watersheds. NCDOT Division Roadside Environmental Engineers maintain SCMs in the Jordan and Falls Lake watersheds.

NCDOT's SCMS database is used to track inspection and maintenance of SCMs statewide, including those located within the Jordan Lake and Falls Lake watersheds. NCDOT Division Roadside Environmental Engineers maintain SCMs in the Jordan and Falls Lake watersheds. In this permit year, there are 13 SCMs (six within Falls Lake watershed and seven within Jordan Lake watershed) that have significant rehabilitation needs. Ten of these SCMs are scheduled to be repaired and three SCMs are being evaluated by HSP staff for potential retrofit to improve performance.

For both road and non-road projects, NCDOT's SCM I&M Manual provides guidance to NCDOT staff that are involved in caring for SCMs. In addition, NCDOT utilizes a PCSP Poster to inform Division offices of the need to work with the Hydraulics Unit to create a Stormwater Management Plan.

6. Plan to Offset Nutrients from Baseline to Program Implementation

Nutrient Scientific Advisory Board – NCDOT is a member of the Nutrient Science Advisory Board (NSAB). The NSAB functions primarily as an advisory group to assist and guide NCDEQ with effective implementation of nutrient management strategies for developed areas as they relate to the Existing Development rule. The NSAB helps the agency identify management strategies that reduce nutrient loading from existing development, evaluate management strategies, develop an accounting system, and identify improvements or refinements needed to modeling and other analytical tools.

Jordan Lake One Water – Jordan Lake One Water (JLOW) is a partnership to facilitate cooperation and integrated water resource management in the Jordan Lake watershed. The group is comprised of local governments, state government, conservation groups, universities, water utilities, agriculture, and private industry stakeholders interested in sharing the cost of water quality and quantity improvements in order to realize watershed-wide social, economic, and environmental benefits. JLOW activities are presently being coordinated with the assistance of the Central Pines Regional Council (formally the Triangle J Council of Governments). NCDOT is a formal member of JLOW and serves on the Board of Directors. Also, JLOW successfully filed for incorporation as a NC non-profit organization, adopted a set of bylaws and an ethics policy. In PY2 NCDOT chaired a JLOW Rules Working Group with the goal to develop Jordan Lake nutrient management strategy rule concepts, in partnership with NCDEQ, to allow for JLOW activities to support compliance with future Jordan Lake rule requirements.

GREEN Training – NCDOT continues to offer an online training video entitled ‘NCDOT JLSLAT Intro to GREEN Program,’ first introduced in 2016, to support staff and contractors when using the NCDOT-JLSLAT, on new non-road development projects.

7. Nutrient Removal Retrofits (Falls Lake only)

Accomplishments during PY2 include:

- Implemented a 23.6-acre remnant parcel preservation project immediately south of the Beaver Marsh Nature Preserve, preventing the parcel from being acquired by an adjacent owner and converted to an industrial use. Using NCDWR’s Stormwater Nitrogen and Phosphorus Tool (SNAP) Tool, NCDOT has calculated that this project removes the equivalent of 15 times as much Total Nitrogen and Total Phosphorus as a “typical NCDOT retrofit.” A typical NCDOT retrofit is estimated as a bioretention cell with an internal water storage zone designed to treat the runoff from a one-acre parking lot. Therefore, NCDOT claims 15 Falls Lake Retrofit Credits for this practice.
- Presented the NCDOT gravel wetland constructed in 2022 at the 2023 National Low Impact Development (LID) Conference in August 2023 and at the WaterJAM Conference in September 2023.
- Refined the shoulder stabilization practice in which eroded roadside shoulder pull-off areas are stabilized with geogrids, media and grass that allows for infiltration. In support of this practice, NCDOT has evaluated available products, materials, and design standards.

- Identified ten sites for initial shoulder stabilization field evaluations. Based on the field evaluations, NCDOT will select sites for design and construction.
- Developed standards and estimated performance for implementing reforestation projects to improve nutrient uptake and reduce flooding.

Considerations for PY3

NCDOT will continue to implement the Department's GREEN Program and achieve requirements set forth for new and existing (Falls GREEN, only) road and non-road development in the Jordan Lake and Falls Lake watersheds. NCDOT plans to complete development of gravel wetland design specifications to be included in NCDOT's BMP Toolbox. NCDOT will continue to play a leadership role in JLOW as the organization develops the capabilities to serve as a nutrient rule compliance coalition. Additionally, NCDOT will continue to work cooperatively with NCDEQ as the Jordan and Falls nutrient management strategies proceed through the rule making process.

Appendix A
I-77 Mobility Partners Stormwater
Management Program Report



Stormwater System Report

Date of Report:	Scope of Report:	Area(s) Reported:
July 1, 2023 – June 30, 2024	I-77 Mobility Partners Stormwater Management Program	I-77 Mobility Partners Facility Stormwater System & I-77 Corridor

I Report

Section 1 – Overview/Summary

In accordance with I-77 Mobility Partners Stormwater Management Program and in compliance with the Comprehensive Agreement, I-77 Mobility Partners herein provides its annual report under NCDOT's NPDES permit. This report is for a 26-mile portion of the I-77 corridor and an approximately one-third mile portion of I-277 in the City of Charlotte, and in Mecklenburg and Iredell Counties, North Carolina. From MM 11 to MM 37 on I-77 both northbound and southbound. In addition, this report includes Administration & Maintenance building (Facility) which became operational on November 1, 2018, located at:

8015 W. WT Harris Blvd.
Charlotte, NC 28216

Section 2 - Illicit Discharge Detection and Elimination Plan (IDDEP)

No illicit charges were detected, and no dumping occurred during the report period July 1, 2023, to June 30, 2024.

IDDEP Training for the I-77 team was completed by NCDOT on June 18, 2024 @ 8:30 a.m. and 8:30 p.m. Completion of stormwater compliance was entered in the I77 MP training platform (KPA). A copy of the stormwater compliance training record was sent to NC DOT Roadside Environmental Unit.

Training module provided by NC DOT Roadside Environmental Unit has been loaded into I77 MP training platform to capture all new employees hired onto project and to provide annual reoccurring training to all employees.

Section 3 - Post-Construction Controls

I-77 MP has inspected all the Stormwater Controls Measures (SCMs) in the Project, as shown in the table below, and they were all working as designed and meet all requirements per the approved Stormwater Management Program (SMP) in accordance with NCDOT's NPDES permit.

Asset ID	Inspection Date	Location	Inspection Results	Description of Required Maintenance
HSB-000001	4/23/2024	MM-27.8 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000002	4/23/2024	MM-28.5 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000003	4/23/2024	MM-28.9 SB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000004	4/23/2024	MM-29.0 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000005	4/23/2024	MM-29.3 SB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000006	5/2/2024	MM-29.3 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000007	7/19/2024	MM-30.9 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed
HSB-000008	5/15/2024	MM-31.0 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.



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HSB-000009	5/2/2024	MM-31.3 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000010	5/2/2024	MM-31.5 SB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000011	5/2/2024	MM-31.7 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000012	5/16/2024	MM-32.1 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000013	5/2/2024	MM-32.5 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000014	5/2/2024	MM-32.7 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000015	5/16/2024	MM-34.0 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000016	5/15/2024	MM-34.5 NB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
HSB-000017	5/2/2024	MM-36.1 SB	Passed	Continue to monitor and remove vegetation, sediment, and debris as needed.
STR-000565	7/19/2024	MM-16.9 NB	Passed	Continue to monitor as needed.
STR-001553	7/19/2024	MM-24.5 NB	Passed	Continue to monitor as needed.
STR-001558	7/19/2024	MM-24.5 NB	Passed	Continue to monitor as needed.
STR-001559	7/19/2024	MM-24.5 NB	Passed	Continue to monitor as needed.
STR-001560	7/19/2024	MM-24.5 NB	Passed	Continue to monitor as needed.
STR-001704	7/19/2024	MM-25.0 SB	Passed	Continue to monitor as needed.
STR-001706	7/19/2024	MM-25.0 SB	Passed	Continue to monitor as needed.
RCP-000730	7/19/2024	MM-19.9 NB	Passed	Continue to monitor as needed.

Section 4– Construction Program

There are no construction activities ongoing within the Project under I-77 MP responsibility. Final Completion for the Project was achieved on August 3rd of 2021.

Section 5– Pollution Prevention and Housekeeping

I-77 Mobility Partners has developed the Stormwater Pollution Prevention Plan (SPPP) in accordance with NCDOT's NPDES permit for the Administration and Maintenance building (Facility).

I-77 Mobility Partners maintenance team successfully completed the SPPP training and training is reassigned on annual basis. In addition, the SPPP best management practices are currently being implemented.



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Reference the summary of Annual Maintenance Work Performed (see below).

Summary of Annual Maintenance Work Performed			
Element Category	Maintenance Performed	Maintenance Unit	Total Quantity between 1/01/2023 - 6/30/2024
Litter and Debris	Excessive Litter	CY	87
Litter and Debris	Sweeping	Miles	1,540

II	Conclusion
	Overall, the I-77 Mobility Partners Stormwater Management Program is implemented, and it is being inspected and maintained following all procedures as established by NCDOT Manuals and Guidelines.

III	Point of contact person
	Health, Safety & Environmental (HSE) point of contact person from I-77 Mobility Partners: Lyndi Boone lboone@i77partners.com

HSE Manager: Lyndi Boone	Signature: 	Date: 8/5/2024
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