

Draft Stormwater Management Plan
City of Concord
NCS000423

August 25, 2021



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PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the City of Concord will comply with its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit and the applicable provisions of the Clean Water Act to meet the federal standard of reducing pollutants in stormwater runoff to the maximum extent practicable.

This SWMP identifies the specific elements and minimum measures that the City of Concord will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR) in order to comply with the MS4 Permit number NCS000423, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the City of Concord and located within the corporate limits of the City of Concord.

In preparing this SWMP, the City of Concord has evaluated its MS4 and the permit requirements to develop a comprehensive 5-year SWMP that will meet the community's needs, address local water quality issues and provide the minimum measures necessary to comply with the permit. The SWMP will be evaluated and updated annually to ensure that the elements and minimum measures it contains continue to adequately provide for permit compliance and the community's needs.

Once the SWMP is approved by NCDEQ, all provisions contained and referenced in this SWMP, along with any approved modifications of the SWMP, are incorporated by reference into the permit and become enforceable parts of the permit. Any major changes to the approved SWMP will require resubmittal, review and approval by NCDEQ, and may require a new public comment period depending on the nature of the changes.

PART 2: CERTIFICATION

By my signature below I hereby certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

I am also aware that the contents of this document shall become an enforceable part of the NPDES MS4 Permit, and that both the Division and the Environmental Protection Agency have NPDES MS4 Permit compliance and enforcement authority.

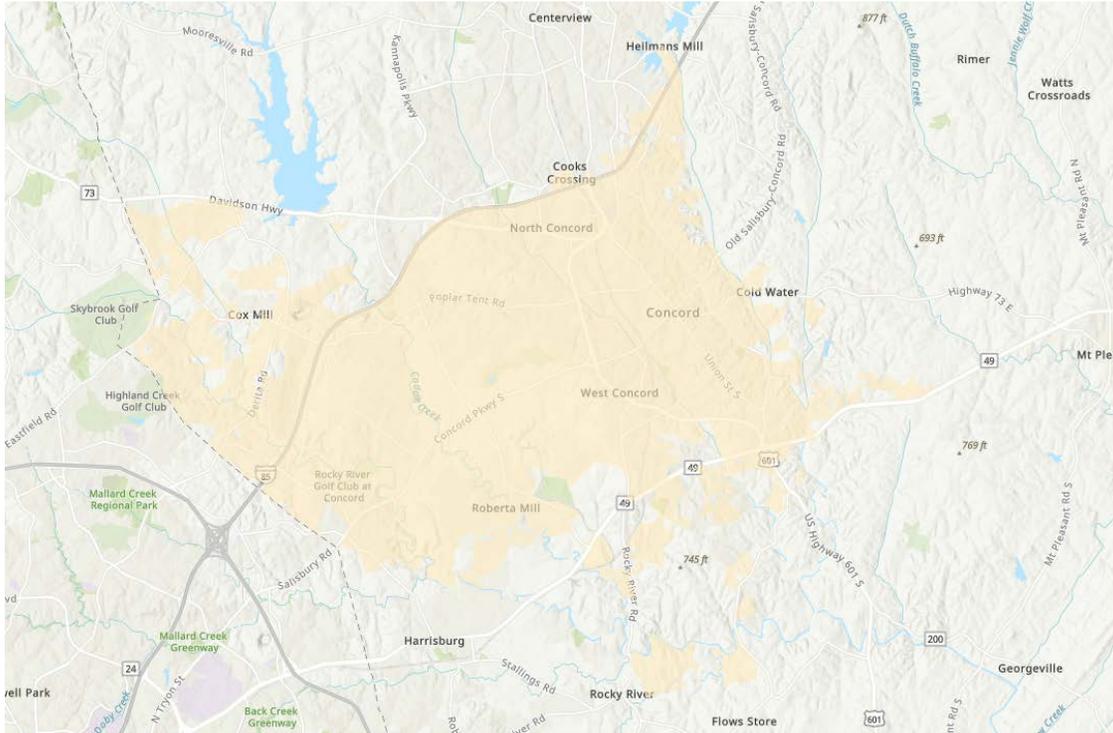
- I am a ranking elected official.
- I am a principal executive officer for the permitted MS4.
- I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):
 - A specific individual having overall responsibility for stormwater matters.
 - A specific position having overall responsibility for stormwater matters.

Signature:	
Print Name:	Lloyd Wm. Payne, Jr.
Title:	City Manager
Signed this 26 th day of 20 21.	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

This SWMP applies throughout the corporate limits of the City of Concord, including all regulated activities associated with the discharge of stormwater from the MS4. The map below shows the corporate limits of City of Concord as of the date of this document.



3.2 Existing MS4 Mapping

The current MS4 mapping includes pipes, driveway pipes, inlets, catch basins, manholes, ditches, and receiving waters.

<https://cnc.maps.arcgis.com/apps/webappviewer/index.html?id=4cd53261cb7842eea15beed2477b8633>

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	90	%
No. of Major Outfalls* Mapped	67	total

**An outfall is a point where the MS4 discharges from a pipe or other conveyance (e.g. a ditch) directly into surface waters. Major outfalls are required to be mapped to meet permit requirements. A major outfall is a 36-inch diameter pipe or discharge from a drainage area > 50-acres; and for industrial zoned areas a 12-inch diameter pipe or a drainage area ≥ 2-acres.*

3.3 Receiving Waters

The City of Concord MS4 is located within the Yadkin – Pee Dee River Basin and discharges directly into receiving waters as listed in Table 2 below. Applicable water quality standards listed below are compiled from the following NCDEQ sources:

- [Waterbody Classification Map](#)
- [Impaired Waters and TMDL Map](#)
- Most recent NCDEQ Final [303\(d\) List](#)

Table 2: Summary of MS4 Receiving Waters

Receiving Water Name	Stream Index / AU Number	Water Quality Classification	303(d) Listed Parameter(s) of Interest
Rocky River	13-17a 13-17b1 13-17b2 13-17b3 13-17c1	C	Source to Reedy Creek: Benthos (Nar, AL, FW) Clarke Creek to Mallard Creek: Benthos (Nar, AL, FW); Turbidity (50 NTU, AL, FW miles) Mallard Creek to Reedy Creek: Copper (7 µg/l, AL, FW); Turbidity (50 NTU, AL, FW miles) Reedy Creek to Irish Buffalo Creek: Benthos (Nar, AL, FW); Turbidity (50 NTU, AL, FW miles) Irish Buffalo Creek to Hamby Branch: Benthos (Nar, AL, FW); Copper (7 µg/l, AL, FW); Turbidity (50 NTU, AL, FW miles)
Coddle Creek	13-17-6-(5.5)	C	pH (9.0, AL, FW) Fish Community (Nar, AL, FW) Benthos (Nar, AL, FW) Turbidity (50 NTU, AL, FW miles)
Irish Buffalo Creek	13-17-9-(2)	C	Fecal Coliform (GM 200/400, REC, FW)
Threemile Branch	13-17-9-4-5	C	N/A
Afton Run	13-17-6-6	C	N/A
Wolf Meadow Branch	13-17-6-7	C	N/A
Cold Water Creek	13-17-9-4-(1.5)	C	N/A
Unnamed Tributary to Cold Water Creek	13-17-9-4-2-(3)	C	Chlorophyll a (40 µg/l, AL, NC)
Funderburks Lake	13-17-9-3	C	N/A

3.4 MS4 Interconnection

The City of Concord MS4 is interconnected with other regulated MS4 and directly receives stormwater from the Kannapolis and Charlotte MS4s. The exact number of interconnections entering the City of Concord MS4 from the listed MS4s is unknown, but the City has an understanding of where these interconnections occur based on our existing infrastructure map and plans to work on determining an exact number in the future.

The City of Concord MS4 is interconnected with another regulated MS4 and directly discharges stormwater into the Harrisburg and Charlotte MS4s. The number of interconnections leaving the City of Concord MS4 to listed MS4s is unknown, but the City has an understanding of where these interconnections occur based on our existing infrastructure map and plans to work on determining an exact number in the future.

The MS4 does interconnect with the statewide NCDOT MS4 and includes:

- a. The interconnection is receiving stormwater from the NCDOT MS4. The number of interconnections is unknown. Quantity: N/A. The City plans to update the MS4 map to denote interconnections that receive stormwater from the NCDOT MS4.
- b. The interconnection is discharging stormwater into the NCDOT MS4. The number of interconnections is unknown. Quantity: N/A. The City plans to update the MS4 map to denote interconnections that discharge into the NCDOT MS4.
- c. The City of Concord MS4 mapping does identify some interconnections with the NCDOT MS4.
- d. The City of Concord MS4 mapping does include some NCDOT MS4 outfalls.

3.5 Total Maximum Daily Loads (TMDLs)

The City of Concord currently has no TMDLs.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
N/A			

3.6 Endangered and Threatened Species and Critical Habitat

Significant populations of threatened or endangered species and/or critical habitat are identified within the regulated MS4 urbanized area. Based upon a review of the [Endangered and Threatened Species and Species of Concern by County for North Carolina Map](#) and [Listed species believe to or known to occur in North Carolina map](#) as provided by the [U.S. Fish and Wildlife Service](#), the species listed in Table 4 have the potential to occur within the regulated MS4 urbanized area. Of those species listed, Table 4 summarizes the species that may be significantly impacted by the quality of surface waters within their habitat.

Table 4: Potential Federally Listed Species/Habitat Impacted by Surface Water Quality

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Myotis septentrionalis</i>	Northern long-eared bat	Mammals	Threatened
<i>Lasmigona decorata</i>	Carolina heelsplitter	Mollusks	Endangered
<i>Helianthus schweinitzii</i>	Schweinitz's sunflower	Flowering Plants	Endangered

3.7 Industrial Facility Discharges

The City of Concord MS4 jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the [NCDEQ Maps & Permit Data web page](#).

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
NCG020075	Martin Marietta-Bonds Quarry
NCG020172	Vulcan Construction Materials – Cabarrus Quarry
NCG020656	Ervin Materials of Concord
NCG020760	Mugho Processing and Stock Pile
NCG050202	Southeastern Packaging Company
NCG050381	Commercial Vehicle Group
NCG050396	Celgard Concord Plant
NCG050409	DNP Imagingcomm America Corporation
NCG050440	Atlas Sign Industries of NC, LLC
NCG060189	Perdue Foods Concord
NCG060352	S&D Coffee and Tea, Inc.
NCG060396	Amazon.com.DEDC, LLC (CLT3)
NCG060413	Amazon.com Services LLC – DLT3
NCG070109	Johnson Concrete Co-Piedmont
NCG070132	Oldcastle Precast Inc – Concord
NCG070208	Precast Supply Company
NCG080078	Propst Brothers Distributors
NCG080467	Concord, NC Terminal
NCG080751	Concord Bins
NCG080763	J. B. Hunt-Concord Terminal
NCG080841	Kannapolis Booster Station
NCG080951	Concord Kannapolis Area Transit
NCG080954	Sysco Charlotte, LLC
NCG080961	FedEx Ground – Concord
NCG110069	Rocky River WWTP
NCG120053	BFI Waste Systems of NA dba Charlotte Motor Speedway Landfill
NCG120086	Cabarrus County C&D Landfill
NCG120104	Highway 49 C&D Landfill
NCG130040	U S Tire Recycling LP
NCG130073	Affordable Concrete Service
NCG140040	Concrete Supply Co- Concord
NCG140255	Southern Concrete Materials - Concord
NCG140283	Thomas Concrete Of Carolina, Inc - Concord
NCG140389	Utility Precast, Inc.
NCG140459	Stevenson-Weir, Inc.
NCG150030	Concord Regional Airport
NCG160001	Blythe Brothers Asphalt-Concord Plant
NCG160172	Ferebee Corporation-Concord
NCG160235	Reeves Construction Co - Bonds Asphalt Plant
NCS000390	Heritage-Crystal Clean, LLC (Charlotte Facility)
NCS000576	Overcash Gravel and Grading

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Concord as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The City of Concord evaluated residential and charity car washing for possible significant water quality impacts. It has been determined that wash water from these activities does not significantly impact stormwater quality, as long as they do not become regular, routine occurrences. Stormwater quality issues associated with vehicle washing are addressed in the Public Education and Outreach program.

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental
Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	Incidental
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	Incidental
Flows from firefighting activities	Incidental

3.9 Target Pollutants and Sources

In addition to those target pollutants identified above, the City of Concord is not aware of other significant water quality issues within the permitted MS4 area.

Table 7 below summarizes the water quality pollutants identified throughout Part 3 of this SWMP, the likely activities/sources/targeted audiences attributed to each pollutant, and identifies the associated SWMP program(s) that address each. In addition, the City of Concord has evaluated schools, homeowners, and businesses as target audiences that are likely to have significant stormwater impacts.

Schools provide the platform for educational and involvement opportunities to create stormwater pollution awareness early on. Homeowners, as part of the general public, and businesses were also

evaluated as target audiences due to their likelihood of being responsible for non-point source pollution. Each of these target audiences are likely to negatively impact stormwater quality through litter, pet waste, yard waste, and illicit discharges.

Table 7: Summary of Target Pollutants and Sources

Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Litter	General Public, Businesses, Schools	Public Education & Outreach
Pet Waste	General Public, Parks	Public Education & Outreach
Sediment	Contractors, Construction Erosion, Stream Bank Erosion	Public Education & Outreach, Construction Site Runoff Control
Yard Waste	General Public, Businesses, Municipal Staff, Schools	Public Education & Outreach, Pollution Prevention & Good Housekeeping
Illicit Discharges	General Public, Businesses, Municipal Staff, Schools	Public Education & Outreach, Illicit Discharge Detection & Elimination, Public Involvement
Illegal Dumping	General Public, Businesses, Municipal Staff, Schools	Public Education & Outreach, Illicit Discharge Detection & Elimination, Public Involvement
Improper Disposal of Waste	General Public, Businesses, Municipal Staff, Schools	Public Education & Outreach, Illicit Discharge Detection & Elimination, Public Involvement

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

The City of Concord stormwater program is primarily implemented by the Water Resources department, which includes divisions for stormwater, potable water, and wastewater. The department shares some responsibilities with the City’s Engineering department, including plan reviews, and construction and post-construction items. The Water Resources Director is designated as the Stormwater Program Administrator.

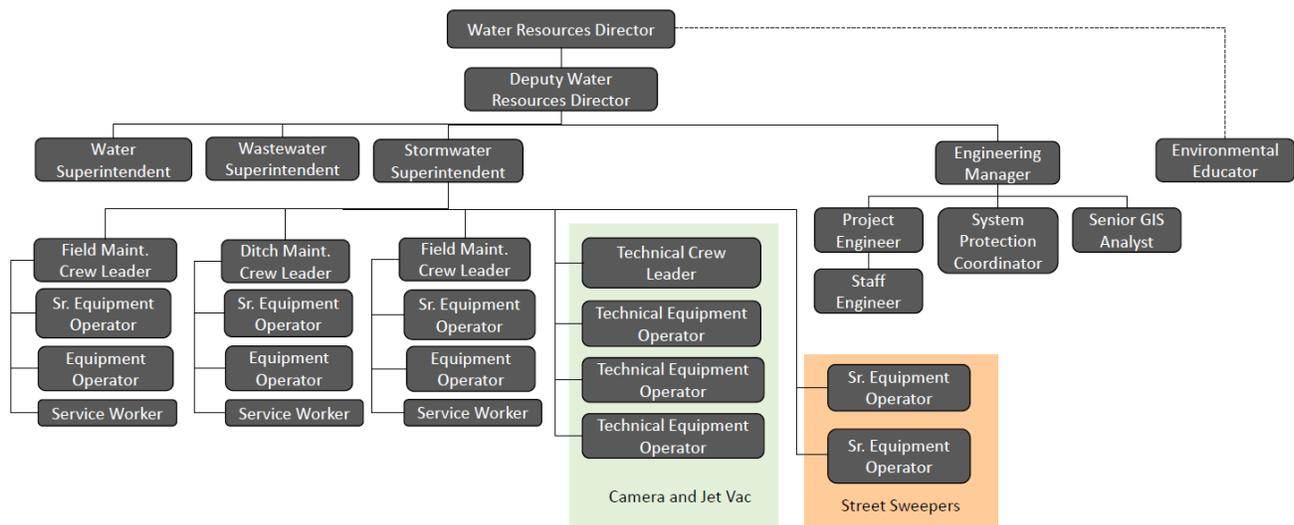


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Water Resources Director	Jeff Corley	Water
	Project Manager	Crystal Scheip	Stormwater
SWMP Management	Staff Engineer	Juliana Lima	Stormwater
Public Education & Outreach	Project Manager	Crystal Scheip	Stormwater
	Staff Engineer	Juliana Lima	Stormwater
Public Involvement & Participation	Staff Engineer	Juliana Lima	Stormwater
Illicit Discharge Detection & Elimination	System Protection Superintendent	Josh Legg	Wastewater
Construction Site Runoff Control	Construction Coordinator	Sean Radford	Engineering
	Construction Manager	Gary Stansbury	Engineering
Post-Construction Stormwater Management	Project Manager	Crystal Scheip	Stormwater
	Engineering Manager	Tom Bach	Water

Pollution Prevention/Good Housekeeping for Municipal Operations	System Protection Superintendent	Josh Legg	Wastewater
Municipal Facilities Operation & Maintenance Program	Engineering Manager	Tom Bach	Water
Spill Response Program	Water Resources Director	Jeff Corley	Water
MS4 Operation & Maintenance Program	Water Resources Director	Jeff Corley	Water
	Water Resources Deputy Director	Rusty Campbell	Stormwater
Municipal SCM Operation & Maintenance Program	Project Manager	Crystal Scheip	Stormwater
	Engineering Manager	Clint Shoaf	Engineering
Pesticide, Herbicide & Fertilizer Management Program	Buildings & Grounds Deputy Director	Joel White	Buildings & Grounds
Vehicle & Equipment Cleaning Program	Engineering Manager	Tom Bach	Water
Pavement Management Program	Water Resources Deputy Director	Rusty Campbell	Stormwater
Total Maximum Daily Load (TMDL) Requirements	Water Resources Director	Jeff Corley	Water

4.2 Program Funding and Budget

General

In accordance with the issued permit, the City of Concord shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit. The budget includes the permit administering and compliance fee, which is billed by the Division annually.

The annual program funding and budgeting of the City's Stormwater Section within the Water Resources Department is based on revenue projections from stormwater utility service charges/fees that are assessed to and collected from customers located within the existing Concord City limits.

Establishment of Stormwater Utility

As noted in Section 60-20 of the City Code of Ordinances, the stormwater utility (enterprise fund) was established to support management programs in order to protect water quality by controlling the level of pollutants in and the quantity and flow of stormwater, as well as stormwater structures and natural stormwater drainage systems. In addition, the City manages a Capital Improvement Program (CIP) within the Stormwater Section of the Water Resources Department in an effort to plan for future projects as part of the City’s stormwater management system.

Basis for Stormwater Utility Service Charges/Fees

As noted in Section 60-21 of the City Code of Ordinances, collected stormwater utility service charges/fees are solely used by the department for funding the operational costs, maintenance costs, management costs, indirect costs, capital improvements, debt principal and debt service payments, and establishment of a reserve fund for stormwater services. In recent years, the annual Stormwater Section budget ranged between \$5,000,000 and \$7,000,000, with approximately \$2,000,000 being allocated to fund Stormwater Section Capital Improvement Program (CIP) projects. As noted in the Stormwater Services section of the City’s FY 2020-2021 Fees, Rates and Charges Schedule, the current monthly stormwater equivalent runoff unit (ERU) rate is \$5.16/ERU. This particular rate is projected to be the same within the City’s FY 2021-2022 Fees, Rates and Charges Schedule. Similarly, residential homes are charged as follows:

Single-Family Residential Lot Total Impervious Surfaces	Percentage of ERU (1 ERU = 3,120 sq. ft.)	Amount Added to Utility Bill
Small (401 to 1,899 sq. ft.)	0.6 (60%)	\$3.10
Medium (1,890 to 5,507 sq. ft.)	1.0 (100%)	\$5.16
Large (Greater than 5,507 sq. ft.)	1.8 (180%)	\$9.29

Table 1. Breakdown of the City of Concord stormwater residential home fee.

Currently, there is a total of 21.26 full-time equivalent (FTE) staff within the City’s Stormwater Section for providing the following services:

- A. Program administration.
- B. Response to customer service inquiries related to drainage and stormwater quality.
- C. Drainage system maintenance within City maintained street right-of-ways.
- D. Compliance with the City’s NPDES Phase II Stormwater Permit.
- E. Review of development plans to ensure compliance with City ordinances.
- F. Capital engineering and planning.
- G. Inspections and enforcement of stormwater infrastructure.

Stormwater Section 5-Year Capital Improvements Program (CIP) Planning, Funding and Budgeting

The City of Concord’s 5-Year Stormwater Section CIP planning documents are refined and include a list of future capital projects that have mainly been identified in a completed master plan report, long range and facility studies, or similar planning documents. These projects are included in the 5-Year CIP listing in order to provide satisfactory services to the community, as well as meet future needs, goals and policies of the City. Other planning documents within the CIP include project descriptions and corresponding justifications/impacts, status (i.e. new, revised, returning), priority numbers, as well as projected project costs

for each of the planned phases (i.e. preliminary design, final design, environmental assessment, easement or right-of-way acquisition, construction). In addition, cost estimates and corresponding budgets are completed and/or revised on all 5-Year CIP projects on an annual basis, and include all costs associated with the engineering, environmental assessment, easement or right-of-way acquisition, and construction phases.

4.3 Shared Responsibility

The City of Concord will share the responsibility to implement the following minimum control measures, which are at least as stringent as the corresponding NPDES MS4 Permit requirement. The City of Concord remains responsible for compliance if the other entity fails to perform the permit obligation, and may be subject to enforcement action if neither the City of Concord nor the other entity fully performs the permit obligation. Table 9 below summarizes who will be implementing the component, what the component program is called, the specific SWMP BMP or permit requirement that is being met by the shared responsibility, and whether or not a legal agreement to share responsibility is in place.

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
SWMP Part 8 – Construction Site Runoff Controls	NC Division of Energy, Mineral, and Land Resources Erosion and Sediment Control Program	N

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000423 for the City of Concord.

4.5 Measurable Goals for Program Administration

The City of Concord will manage and report the following Best Management Practices (BMPs) for the administration of the Stormwater Management Program.

Table 11: Program Administration BMPs				
Permit Ref.	2.1.2 and Part 4: Annual Self-Assessment			
	Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#1.	Annual Self-Assessment			

Table 11: Program Administration BMPs

	Perform an annual evaluation of SWMP implementation, suitability of SWMP commitments and any proposed changes to the SWMP utilizing the NCDEQ Annual Self-Assessment Template.	1. Prepare, certify and submit the Annual Self-Assessment to NCDEQ prior to August 31 each year.	1. Annually Permit Years 1 – 4	1. Y/N
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#2.	Permit Renewal Application			
	Audit stormwater program implementation for compliance with the permit and approved SWMP; and utilize the results to prepare and submit a permit renewal application package.	1. Participate in an NPDES MS4 Permit Compliance Audit, as scheduled and performed by EPA or NCDEQ.	1. TBD – Typically Permit Year 4	1. Y/N
		2. Self-audit and document any stormwater program components not audited by EPA or NCDEQ utilizing the DEQ Audit Template. Submit Self-Audit to DEMLR (required component of permit renewal application package).	2. Permit Year 5	2. Y/N/Partial
		3. Certify the stormwater permit renewal application (Permit renewal application form, Self-Audit, and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	3. Permit Year 5	3. Date of permit renewal application submittal

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The City of Concord will implement a Public Education and Outreach Program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.

The target audiences and identified pollutants listed in Part 3.9 of this SWMP, which will be addressed by the Public Education and Outreach Program, are summarized in Table 12 below. In addition, the City of Concord is required to inform businesses and the general public of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)
Litter	General Public, Businesses, Schools
Pet Waste	General Public
Sediment	Contractors
Yard Waste	General Public, Businesses, Municipal Staff
Car Washing	General Public, Businesses
Illicit Discharges	General Public, Businesses, Municipal Staff
Illegal Dumping	General Public, Businesses, Municipal Staff
Improper Disposal of Waste	General Public, Businesses, Municipal Staff

The City of Concord will manage, implement and report the following public education and outreach BMPs.

Table 13: Public Education and Outreach BMPs				
Permit Ref.	3.2.2 and 3.2.4: Outreach to Targeted Audiences Measures to identify the specific elements and implementation of a Public Education and Outreach Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff. The permittee shall provide educational information to identified target audiences on pollutants/sources identified in table 12 above; and shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#3.	Public Education Materials			

Table 13: Public Education and Outreach BMPs

	The City shall distribute stormwater educational material to appropriate target groups. Instead of developing its own materials, the City may rely on Public Education and Outreach materials supplied by the state, and/or other entities through a cooperative agreement, as available, when implementing its own program.	1. Prepare and distribute general stormwater educational materials through such means as documents/brochures available at community events/sites and direct delivery/ mailing to specific target groups.	1. Continuously Permit Years 1-5	1. Number of materials distributed. Record counts by topic, target audience, and type of media.
		2. Utilize services of the Regional Stormwater Partnership to provide supplementary educational materials.	2. Continuously Permit Years 1-5	2. Number of materials distributed. Record counts by topic, target audience, and type of media.
		3. Use City staff to operate an informational booth at a community event to distribute materials on general stormwater issues such as improper disposal of waste and illicit discharges	3. Continuously Permit Years 1-5	3. Number of materials distributed. Record counts by topic, target audience, and type of media.
		4. Maintain records of the number of all educational materials utilized for future compliance audits	4. Continuously Permit Years 1-5	4. Y/N status
		5.	5.	5.
#4.	Public Education and Outreach Program			
The City's outreach program, including those elements implemented locally or through a cooperative agreement, shall include a combination of approaches designed to reach the target audiences. For each media, event or activity, including those elements implemented locally or through a cooperative agreement the permittee shall estimate and record the extent of exposure. The City shall describe issues, such as pollutants, likely sources of those pollutants, impacts, and the physical attributes of stormwater runoff, in their education/outreach program.	1. Maintain and update, as needed, the current Public Education and Outreach Program	1. Continuously Permit Years 1-5	1. Y/N status. Record changes and date of implementation	
	2. Create and/or redistribute previous materials that describe issues such as, pollutants, sources, impacts, and physical attributes of stormwater runoff	2. Continuously Permit Years 1-5	2. Number of materials created and/or redistributed. Record counts by topic, target audience, and type of media.	
	3.	3.	3.	
	4.	4.	4.	
	5.	5.	5.	

Table 13: Public Education and Outreach BMPs

#5.	Describe Target Pollutants and/or Stressors			
	The City shall maintain a description of the target pollutants and/or stressors and likely sources.	1. Update, as needed, the list of target pollutants/stressors and their likely sources as listed in Table 12.	1. Continuously Permit Years 1-5	1. Y/N status
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#6.	Describe Target Audiences			
	The City shall maintain a description of the target audiences likely to have significant storm water impacts and why they were selected.	1. Update, as needed, a list of the target audiences, as listed in Table 12, likely to experience stormwater impacts. This list shall describe the reasons for each target audience being selected.	1. Continuously Permit Years 1-5	1. Y/N status
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site designed to convey the program’s message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#7.	Informational Web Site			

Table 13: Public Education and Outreach BMPs

	The City shall promote and maintain, an internet web site designed to convey the program’s message.	1. Maintain and update the web site, uploading new education materials, relevant ordinances, the most recent SWMP, and other pertinent documents, including post-construction resources for developers.	1. Continuously Permit Years 1-5	1. Y/N status
		2. Continue to advertise the web site on educational materials, presentations, and the street sweeper vehicle.	2. Continuously Permit Years 1-5	2. Y/N status
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#8.	Maintain Hotline/Help line			
	The City shall promote and maintain a stormwater hotline/helpline for the purpose of public education and outreach.	1. Maintain a stormwater hotline phone number and responsible party for the purpose of public education and outreach.	1. Continuously Permit Years 1-5	1. Y/N status. Number of calls.
		2. Continue to advertise the hotline on educational materials, presentations, and the street sweeper vehicle.	2. Continuously Permit Years 1-5	2. Y/N status
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

This SWMP identifies the minimum elements and implementation of a Public Involvement and Participation Program that complies with applicable State, Tribal and local public notice requirements. The City of Concord will manage, implement and report the following public involvement and participation BMPs.

Table 14: Public Involvement and Participation BMPs				
Permit Ref.	3.3.1: Public Input Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#9.	Mechanism for Public involvement			
	The City shall provide and promote a mechanism for public involvement that provides for input on stormwater issues and the stormwater program.	1. Maintain the City’s Stormwater Advisory Committee (SMAC), which is tasked with making recommendations to City Council on major stormwater policy issues with input from community members.	1. Continuously Permit Years 1-5	1. Y/N status. Date of meetings and topics discussed.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#10.	Hotline/Help line			
	The City shall promote and maintain a hotline/helpline for the purpose of public involvement and participation.	1. See BMP #8	1. See BMP #8	1. See BMP #8
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
	A	B	C	D

Table 14: Public Involvement and Participation BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<p>#11.</p>	<p>Volunteer Programs</p>			
	<p>The City shall include and promote volunteer opportunities designed to promote ongoing citizen participation.</p>	<p>1. Maintain and continue to promote the Adopt-A-Stream and Clean-A-Creek programs.</p>	<p>1. Continuously Permit Years 1-5</p>	<p>1. Y/N status. Number of streams adopted/cleaned.</p>
		<p>2. Maintain and continue to promote the storm drain marking program.</p>	<p>2. Continuously Permit Years 1-5</p>	<p>2. Y/N status. Number of drains marked.</p>
		<p>3. Maintain and continue to promote the Litter Sweep program.</p>	<p>3. Continuously Permit Years 1-5</p>	<p>3. Y/N status. Number of participants and amount of litter collected.</p>
		<p>4.</p>	<p>4.</p>	<p>4.</p>
	<p>5.</p>	<p>5.</p>	<p>5.</p>	

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The City of Concord will develop, manage, implement, document, report and enforce an Illicit Discharge Detection and Elimination Program which shall, at a minimum, include the following illicit discharge detection and elimination BMPs.

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	3.4.1: MS4 Map Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#12.	Storm Sewer System Map of Major Outfalls			
	The City shall maintain a current a map showing major outfalls, stormwater conveyances, flow direction, and receiving streams.	1. Finish adding major outfalls, storm sewer system components, and flow direction to existing GIS map.	1. Continuously Permit Years 1-5 until complete	1. Y/N status. Date of completion.
		2. Monitor and update MS4 map on an ongoing basis.	2. Continuously Permit Years 2-5, as needed	2. Y/N status. Type and date of additions.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.4.2: Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#13.	Maintain Adequate Legal Authorities			
	The City shall maintain an IDDE ordinance or other regulatory mechanisms that provides the legal authority to prohibit illicit connections and discharges, illegal dumping and spills.	1. Review and update IDDE ordinance if it is determined that revisions or additions are necessary to maintain or enhance legal authority.	1. Annually Permit Years 1-5	1. Y/N status. Date of adoption, if updated.
		2.	2.	2..
		3.	3.	3.
		4.	4.	4.

Table 15: Illicit Discharge Detection and Elimination BMPs

		5.	5.	5.
Permit Ref.	<p>3.4.3: IDDE Plan Measures to 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 MS4. The plan shall provide standard procedures and documentation to:</p> <ul style="list-style-type: none"> a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program. 			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#14.	Illicit Discharge Detection and Elimination Program			
	The City shall maintain a written Illicit Discharge Detection and Elimination Program, including provisions for program assessment and evaluation.	1. Submit written IDDE plan to NCDEQ for review and approval.	1. Once Permit Year 1	1. Y/N status. Dates of submission and approval.
		2. Implement approved IDDE plan, updating and revising as necessary.	2. Continuously Permit Years 2-5	2. Y/N status. Date and type of revisions or additions.
		3. Locate priority areas to be monitored throughout the City.	3. Once Permit Year 2	3. Y/N status. Location of priority areas.
		4. Continue to conduct IDDE investigations as issues are reported.	4. Continuously Permit Years 1-5	4. Y/N status. Number of investigations completed.
		5.	5.	5.
#15.	Dry Weather Flows Program			
	The City shall maintain a program for conducting dry weather flow field observations in accordance with written procedures.	1. In conformance with the written SOP, staff shall annually inspect 20% of all major outfalls during dry weather flow conditions (no rain exceeding 1/10" in previous 72 hours) to proactively identify and eliminate illicit discharges and illicit connections.	1. Continuously Permit Years 1-5	1. Y/N status. Number of inspections, illicit discharges detected, enforcement actions, and discharges remedied.
		2.	2.	2.

Table 15: Illicit Discharge Detection and Elimination BMPs

		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#16.	Investigate Sources of Identified Illicit Discharges			
	The City shall maintain written procedures for conducting investigations of identified illicit discharges, including tracing and eliminating the source.	1. Prepare written procedures to conduct investigations according to current protocols.	1. Once Permit Year 1	1. Y/N status
		2. Utilize the written procedures to conduct investigations and eliminate sources of illicit discharges.	2. Continuously Permit Years 1-5	2. Y/N status
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.4.4: IDDE Tracking Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#17.	Documentation of Illicit Discharge Investigations			
	For each case, the City shall track and document 1) the date(s) the illicit discharge, illicit connection, or illegal dumping was observed; 2) the results of the investigation; 3) any follow-up of the investigation; and 4) the date the investigation was closed.	1. Develop a web-based Illicit Discharge Report form, based on the current paper version, to include observed illicit discharge indicators, date, location, and follow-up contacts.	1. Once Permit Year 1	1. Y/N status. Date of completion.
		2. Develop a mechanism to consolidate and monitor the data collected from the Illicit Discharge Report forms. The method should also include the results of each investigation, any follow-up actions, NOVs, enforcement actions taken, and date of closure.	2. Once Permit Year 1	2. Y/N status. Date of completion.

Table 15: Illicit Discharge Detection and Elimination BMPs

		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#18.	Tracking Illicit Discharge Investigations			
	The City shall implement a mechanism to track the issuance of notices of violation and enforcement actions as administered by the permittee. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.	1. Finalize web-based IDDE inspection form.	1. Once Permit Year 1	1. See BMP No. 17
		2. Utilize the format of this form to maintain a mechanism to track the issuance of NOVs and other enforcement actions.	2. Continuously Permit Years 1-5	2. Number and date of issued NOVs and enforcement actions.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.4.5: Staff IDDE Training Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#19.	Employee Training			
	The City shall implement and document a training program for appropriate municipal staff, who as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge or illicit connection.	1. Provide training for municipal staff who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge or illicit connection.	1. Annually Permit Years 1-5	1. Y/N status. Number of staff trained and date of training sessions.
		2. Require annual training for City staff.	2. Annually Permit Years 1-5	2. Y/N status. Number of staff trained and date of training sessions
		3. Require training for new hires.	3. Continuously Permit Years 1-5	3. Y/N status. Number of staff trained and date of training sessions
		4.	4.	4.
		5.	5.	5.

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	3.4.6: IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#20.	Public Reporting Mechanism			
	The City shall promote, publicize, and facilitate a reporting mechanism for the public and staff to report illicit discharges and establish and implement citizen request response procedures.	1. See BMP #8	1. See BMP #8	1. See BMP #8
		2. Ensure procedures are established to provide rapid response to reported issues.	2. Continuously Permit Years 1-5	2. Y/N status
		3.	3.	3.

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the City of Concord relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 as a qualifying alternative program to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre, and includes any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

Table 16: Qualifying Alternative Program Components for Construction Site Runoff Control Program

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ

The City of Concord also implements the following BMPs to meet NPDES MS4 Permit requirements.

Table 17: Construction Site Runoff Control BMPs				
Permit Ref.	3.5.6: Public Input Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#21.	Municipal Staff Training			
	The City shall ensure municipal staff who receive calls from the public regarding erosion and sedimentation problems follow proper protocols for referral and tracking of complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Years 1-5	1. Y/N status. Number of staff trained.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
5.		5.	5.	
#22.	Stormwater Hotline			
	The City shall provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems through the City’s stormwater hotlines and the North Carolina	1. See BMP #8	1. See BMP #8	1. See BMP #8
		2. Continue to promote and advertise the 1-866-STOPMUD hotline.	2. Continuously Permit Years 1-5	2. Y/N status
3.		3.	3.	

Table 17: Construction Site Runoff Control BMPs

	Department of Environmental Quality's (NCDEQ or DEQ) 1-866-STOPMUD hotline.	4.	4.	4.
		5.	5.	5.
Permit Ref.	3.5.5: Waste Management Measures to require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#23.	Contractor Education			
	The City shall provide construction site operators with educational materials regarding construction waste management.	1. Develop fact sheet to share with contractors	1. Once Permit Year 1	1. Y/N status
		2. Distribute fact sheet at pre-construction meetings.	2. Continuously Permit Years 1-5	2. Y/N status. Number of fact sheets distributed.
		3.	3.	3.
		4.	4.	4.

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

This SWMP identifies the minimum elements to develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that are located within the City of Concord and discharge into the MS4. These elements are designed to minimize water quality impacts utilizing a combination of structural Stormwater Control Measures (SCMs) and/or non-structural BMPs appropriate for the community, and ensure adequate long-term operation and maintenance of SCMs.

In accordance with 15A NCAC 02H .0153 and .1017, the City of Concord implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
None	N/A	N/A

The City of Concord has existing requirements other than Qualifying Alternative Program(s) for implementation of the NPDES Phase II MS4 post-construction program requirements. These existing requirements are codified in local ordinance(s), and implementation is further defined in guidance, manuals and/or standard operating procedure(s) as summarized in Table 19 below.

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	Concord Code of Ordinances – Chapter 60	12/01/2007
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	Concord Code of Ordinances – Sec. 60-3	12/01/2007
3.6.3(b) Plan Review	Concord Development Ordinance – Sec. 4.4.4.	11/16/2018
3.6.3(c) O&M Agreement	Concord Development Ordinance – Sec. 4.4.6.	11/16/2018
	Technical Standards Manual 1.3.10	1/10/2008
3.6.3(d) O&M Plan	Concord Development Ordinance – Sec. 4.4.6.	11/16/2018
	Technical Standards Manual 1.3.10	1/10/2008
3.6.3(e) Deed Restrictions/Covenants	Concord Development Ordinance – Sec. 4.4.3 A (4) and B (6)	11/16/2018
3.6.3(f) Access Easements	Concord Development Ordinance – Sec. 4.4.6. B	11/16/2018
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	-	
3.6.2(c) Right of Entry	Concord Code of Ordinances – Sec. 60-48(a)	12/13/2007
3.6.4(a) Pre-CO Inspections	-	
3.6.4(b) Compliance with Plans	Concord Code of Ordinances – Sec. 60-83(c)	12/13/2007
3.6.4(c) Annual SCM Inspections	Concord Development Ordinance – Sec. 4.4.7.	11/16/2018
3.6.4(d) Low Density Inspections	-	
3.6.4(e) Qualified Professional	Concord Development Ordinance – Sec. 4.4.7.	11/16/2018
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	-	
3.6.6(b) On-Site Domestic Wastewater Treatment	N/A	

The annual reporting metrics for the post construction program are provided in Table 20: Post Construction Site Runoff Control BMPs below.

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results. <i>[These BMPs, measurable goals and annual reporting metrics are required for all post-construction programs and QAPs. Do not edit this BMP.]</i>			
	A	B	C	D

Table 20: Post Construction Site Runoff Control BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#24.	Standard Reporting			
	The City shall implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	1. Track number of low density and high-density plan reviews performed.	1. Continuously Permit Years 1-5	1. Number of plan reviews performed for low density and high density.
		2. Track number of low density and high-density plans approved.	2. Continuously Permit Years 1-5	2. Number of plan approvals issued for low density and high density.
		3. Maintain a current inventory of low-density projects and constructed SCMs including SCM type or low-density acreage, location and last inspection date.	3. Continuously Permit Years 1-5	3. Summary of number and type of SCMs added to the inventory; and number and acreage of low-density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. Number of SCM inspections.
		5. Track number of low-density inspections performed.	5. Continuously Permit Years 1-5	5. Number of low-density projects inspected.
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. Number of enforcement actions issued.
Permit Ref.	3.6.2: Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#25.	Adequate Legal Authorities			

Table 20: Post Construction Site Runoff Control BMPs

	The City shall have the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program.	1. Establish legal authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program through code revision.	1. Once Permit Year 1	1. Code reference and date adopted.
		2. Maintain the current ordinance that grants the legal authorities to ensure the requirements listed in Permit Reference 3.6.2.	2. Continuously Permit Years 1-5	2. Y/N status
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	<p>3.6.3: Plan Review and Approval Measures to maintain plan review and approval authority, standards and procedures to: (a) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire MS4 permitted area, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program, (b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction, (c) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12), (d) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13), (e) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans, and (f) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).</p>			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#26.	<i>This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.</i>			

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	3.6.4: Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low-density projects at least once during the permit term, and (e) Require that inspections be conducted by a qualified professional.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#27.	Inspection of Low-Density Projects			
	The City shall ensure that all stormwater control measures are being maintained pursuant to its maintenance agreement, the permittee shall conduct and document inspections of each project site covered under performance standards, at least one time during the permit term.	1. Establish legal authority through code revision.	1. Once Permit Year 2	1. Y/N status. Code reference and date adopted.
		2. Conduct inspection of 20% of low-density projects each year.	2. Continuously, after code is adopted.	2. Y/N status. Percentage of low-density projects inspected.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#28.	Post-Construction Inspections			
	Before issuing a certificate of occupancy or temporary certificate of occupancy, the City shall conduct a post-construction inspection to verify that the permittee's performance standards have been met or a bond is in place to guarantee completion.	1. Continue to conduct post-construction inspections before accepting SCM or releasing bond.	1. Continuously Permit Years 1-5	1. Number of post-construction inspections completed.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.6.6: Fecal Coliform Reduction Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			
	A	B	C	D

Table 20: Post Construction Site Runoff Control BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<p>#29.</p>	<p>Fecal Coliform Ordinance</p>			
	<p>The City shall revise an existing litter ordinance to address fecal coliform reduction</p>	<p>1. Update and adopt an ordinance that discusses fecal coliform reduction.</p>	<p>1. Once Permit Year 1</p>	<p>1. Y/N status. Date adopted.</p>
		<p>2.</p>	<p>2.</p>	<p>2.</p>
		<p>3.</p>	<p>3.</p>	<p>3.</p>
		<p>4.</p>	<p>4.</p>	<p>4.</p>
		<p>5.</p>	<p>5.</p>	<p>5.</p>

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the City of Concord municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

Pollution prevention and good housekeeping for municipal operations includes the following programs:

1. Municipal Facilities Operation and Maintenance Program
2. Spill Response Program
3. MS4 Operation and Maintenance Program
4. Municipal SCM Operation and Maintenance Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The City of Concord will manage, implement and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program.

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.1: Municipal Facilities Operation and Maintenance Program Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#30.	Inventory of Municipally Owned or Operated Facilities			
	The City shall maintain, a current inventory of facilities and operations owned and operated by the permittee with the potential for generating polluted stormwater runoff.	1. Perform initial inspection of facilities for potential to generate polluted stormwater runoff and classify each facility as high or low potential.	1. Once Permit Year 1 for current facilities. Annually Permit Years 2-5 for facilities added to the list.	1. Number of inspections. Record by classification, location, and date.

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2. Perform annual inspection of facilities classified as having high potential for generating polluted stormwater runoff.	2. Annually Permit Years 2-5	2. Number of inspection of facilities classified as high potential. Record by location and date.
		3. Update list as facilities are added or closed	3. Annually Permit Years 1-5	3. Y/N status. Record by date of action.
		4.	4.	4.
		5.	5.	5.
#31.	Operation and Maintenance for Municipally Owned or Operated Facilities			
	The City shall maintain and implement, evaluate annually and update as necessary an Operation and Maintenance (O&M) program for municipal owned and operated facilities with the potential for generating polluted stormwater runoff. The O&M program shall specify the frequency of inspections and routine maintenance requirements.	1. Develop and implement and O&M plan for each high potential facility that includes proactive schedules, standard documentation, staff responsibilities, and proper maintenance training.	1. Once Permit Year 2	1. Number of plans developed. Record by location and date.
		2. Perform regular inspections on each high potential facility in accordance with the O&M program.	2. Annually Permit Years 2-5	2. Number of inspections. Record by location and date.
		3. Verify, document, and prioritize stormwater maintenance activities identified by inspections.	3. Annually Permit Years 2-5	3. Y/N status. Record by type and date.
		4.	4.	4.
		5.	5.	5.
#32.	Staff Training			
	The City shall implement an employee training program for employees involved in implementing pollution prevention and good housekeeping practices.	1. Continue to require employees to view training video annually	1. Annually Permit Years 1-5	1. Number of staff members trained and topics from training.
		2. Require new hires to watch the training video.	2. Continuously Permit Years 1-5	2. Number of new hires trained and topics from training.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

Table 21: Pollution Prevention and Good Housekeeping BMPs

Permit Ref.	3.7.2: Spill Response Program Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#33.	Spill Response Procedures			
	The City shall have written spill response procedures for municipal facilities that store and/or use materials that could contaminate stormwater runoff is spilled.	1. Review written spill response procedures for thoroughness.	1. Once Permit Year 1	1. Y/N status
		2. Review specific spill response procedures for facilities identified as having potential for high hazard spills.	2. Once Permit Year 1	2. Number of procedures reviewed. Record by location and date.
		3. Update written spill response procedures due to changes in facilities or operations.	3. Annually Permit Years 2-5	3. Y/N status. Record by location and date.
		4. Train appropriate staff on spill response procedures.	4. Annually Permit Years 2-5	4. Number of staff trained. Record by participants and date.
		5.	5.	5.
Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#34.	Operation and Maintenance (O&M) for Municipally Owned or Maintained Catch Basins and Conveyance Systems			
	The City shall maintain and implement an O&M program for the stormwater sewer system including catch basins and conveyance systems that it owns and maintains.	1. Develop a written O&M program for the stormwater sewer system, including catch basins and conveyance systems.	1. Once Permit Year 2	1. Y/N status. Date established.
		2. Continue to follow O&M plan, including conducting schedule inspections and maintenance activities.	2. Continuously, after program is established.	2. Y/N status

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#35.	MS4 Collection System Inspections and Maintenance			
	The City will develop and implement a plan for ongoing MS4 system maintenance, requiring regular inspections and maintenance.	1. Develop a plan that includes inspection schedules, staff responsibilities, and proper maintenance activities.	1. Once Permit Year 1	1. Y/N status
		2. Perform regular inspections of MS4 collection system in accordance with plan.	2. Continuously Permit Years 2-5	2. Number of inspections performed. Record by system element, location and date.
		3. Perform regular maintenance of MS4 collection system in accordance with plan.	3. Continuously Permit Years 2-5	3. Number of maintenance activities performed. Record by action, location and date.
		4.	4.	4.
		5.	5.	5.
#36.	Operation and Maintenance Staff Training			
	The City shall train operation and maintenance staff on stormwater awareness and pollution prevention.	1. See BMP No. 33	1. See BMP No. 33	1. See BMP No. 33
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.7.4: Municipal SCM Operation and Maintenance Program			
	Measures to manage municipally owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee’s post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#37.	Inventory of Municipal Structural Stormwater Controls			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	The City shall maintain a current inventory of municipally-owned or operated structural stormwater controls installed for compliance with the permittee’s post-construction ordinance.	1. Update inventory as required by new development activity.	1. Continuously Permit Years 1-5 as required following completion of initial inventory.	1. Number of SCMs added to inventory. Record by type, location, and date.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
#38.	O&M for Municipally-Owned or Maintained Structural Stormwater Controls			
	The City shall maintain and implement an O&M program for municipally-owned or maintained structural stormwater controls installed for compliance with the permittee’s post-construction ordinance. The O&M program shall specify the frequency of inspections and routine maintenance requirements. The City shall inspect and maintain municipally-owned or maintained structural stormwater controls in accordance with the schedule developed by the City. The City shall document inspections and maintenance of all municipally-owned or maintained structural stormwater controls.	1. Perform regular inspections on each SCM in accordance with the O&M plan.	1. Continuously Permit Years 2-5 as called for in O&M plan.	1. Number of inspections performed. Record by SCM type and date.
		2. Verify, document, and prioritize SCM maintenance activities identified by inspections.	2. Continuously Permit Years 2-5 as called for in O&M plan.	2. Number of maintenance activities performed. Record by action, location, and date.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.7.5: Pesticide, Herbicide and Fertilizer Management Program Measures to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#39.	Pesticide, Herbicide and Fertilizer Application Management			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	The City shall ensure municipal employees and contractors are properly trained and all permits, certifications, and other measures for applicators are followed.	1. Ensure that current employees holding certifications for pesticide, herbicide, and fertilizer application attend the training required to maintain those certifications.	1. Annually Permit Year 1-5	1. Number of certified personnel. Record by certification type.
		2. Provide training opportunities for additional employees to obtain application certification as determined necessary.	2. Annually Permit Years 2-5, as necessary.	2. Number of staff trained. Record by training/certification type and date.
		3. Develop or identify pollution prevention and chemical use, storage, and handling training program.	3. Once Permit Year 2	3. Y/N status
		4. Provide staff training in pollution prevention and chemical use, storage, and handling.	4. Annually Permit Years 3-5	4. Y/N status, number of staff trained.
		5.	5.	5.
Permit Ref.	3.7.6: Vehicle and Equipment Maintenance Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
#40.	Prevent or Minimize Contamination of Stormwater Runoff from all areas used for Vehicle and Equipment Cleaning			
	The City shall describe and implement measures to prevent or minimize contamination of the stormwater runoff from all areas used for vehicle and equipment cleaning.	1. Develop an inspection checklist to ensure that vehicle and equipment facilities are following proper procedures to minimize water quality impacts from vehicle and equipment cleaning and maintenance.	1. Once Permit Year 2	1. Y/N status.

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2. Perform inspections of appropriate facilities using inspection checklist and follow-up on any corrective actions needed.	2. Bi-annually Permit Years 2-5	2. Inspections performed. Record by location and date.
		3. Perform re-inspection of any facility that required corrective action.	3. Bi-annually Permit Years 2-5 as necessary.	3. Re-inspections performed. Record by location and date.
		4. Send annual reminder to all City staff to only wash vehicles and equipment in the designated areas	4. Annually Permit Years 1-5	4. Y/N status.
		5.	5.	5.
#41.	Municipal Industrial Permitted Facilities			
	The City shall ensure NPDES industrial permit compliance at all applicable municipally owned sites.	1. Perform inspections for compliance with permit.	1. Annually Permit Years 1-5	1. Document and report the number of municipally owned facilities with industrial permits and the number of inspections performed.
		2. Train staff at facilities on requirements of permit and the facility's SPPP.	2. Annually Permit Years 1-5	2. Document and report the number of staff trained, training date(s), and topics covered.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
Permit Ref.	3.7.7: Pavement Management Program Measures to reduce pollutants in stormwater runoff from municipally owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
#42.	Streets, Roads, and Public Parking Lots Maintenance			

Table 21: Pollution Prevention and Good Housekeeping BMPs

<p>The permittee shall evaluate existing and new BMPs annually that reduce polluted stormwater runoff from municipally-owned streets, roads, and public parking lots within their corporate limits.</p>	<p>1. The City will maintain its program of regular trash and leaf/yard waste collection to reduce the amount of potential debris washed into storm drains following rain events.</p>	<p>1. Continuously Permit Years 1-5</p>	<p>1. Volume of debris and yard waste collected.</p>
	<p>2. Implement a program of regular storm drain/catch basin cleaning.</p>	<p>2. Continuously Permit Years 1-5</p>	<p>2. See BMP No.34</p>
	<p>3. Continue to publicize the schedule for trash and leaf collection and record the volumes collected.</p>	<p>3. Annually Permit Years 1-5</p>	<p>3. Y/N status.</p>
	<p>4. Continue to operate current Street Sweeping program.</p>	<p>4. Continuously Permit Years 1-5</p>	<p>4.Y/N status.</p>
	<p>5.</p>	<p>5.</p>	<p>5.</p>