

Draft Stormwater Management Plan
City of Wilmington
NCS000406

August 4, 2022



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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 Wilmington 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 Wilmington 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 NCS000406, 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 Wilmington and located within the corporate limits of the City of Wilmington.

In preparing this SWMP, the City of Wilmington 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.

*In the last year and a half, the City's Stormwater Services initiated a review of its MS4 program to achieve the following goals:

1. Prepare the City for the future DEQ audit and in understanding potential compliance issues (i.e., become "audit ready"),
2. Prepare for the re-permitting of the program and support development of what is needed for this SWMP submittal, pursuant to the reformatted version by DEQ and new permit requirements, and
3. Identify areas where improvements can be made to enhance program implementation.

Using the information gathered during the review through site visits, interviews, and program documentation, the City's consultant developed a report that summarizes the program elements (6Minimum Measures) and documents how the City is meeting its permit requirements.

A series of recommendations were developed for each permit area to address any potential issues or gaps with compliance as well as overall program enhancement and audit preparation. Each recommendation is accompanied by an assessment of priority status, a qualitative assessment of budget implications, and a recommended implementation schedule.


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.

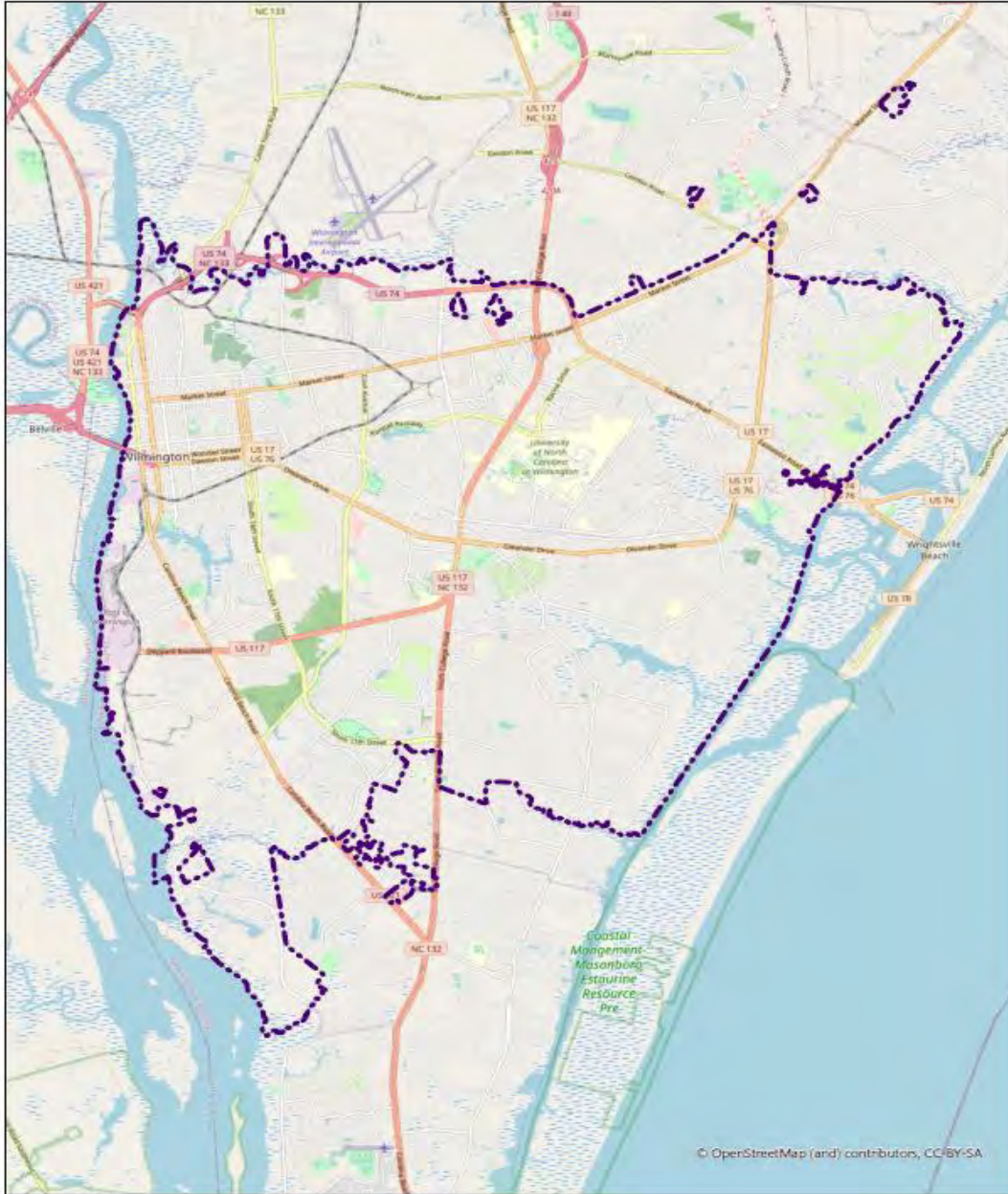
- I am a ranking elected official.
- I am a principal executive officer for the permitted MS4.
- I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):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

Signature:*	
Print Name:	ANTHONY N. CANDLER
Title:	CITY MANAGER
Signed this 30 TH day of 20 22	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

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



3.2 Existing MS4 Mapping

The current MS4 mapping includes open drainage (channel types with flow direction) and closed drainage (pipe -size, type, elevations and flow direction; stormwater structures – type, condition, elevations), outfalls, SCMs (type, ownership, features, permit types), drainage easements (map book/page, responsibility rights), watershed boundaries, and stormwater mapping areas.

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	97.5*	%
No. of Major Outfalls** Mapped	135	total

**The 2.5% unmapped consists of a large, newly annexed area that is currently being developed and under construction. Mapping will be updated as sections are completed and then finalized after being built out in the next several years.*

***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 \geq 2-acres.*

3.3 Receiving Waters

The City of Wilmington MS4 is located within the Cape Fear and White Oak River Basins 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
Barnards Creek	18-80	C;Sw	
Smith Creek	18-74-63	C;Sw	
Burnt Mill Creek	18-74-63-2	C;Sw	Benthos
Greenfield Lake	18-76-1	C;Sw	Chlorophyll a
Bradley Creek	18-87-24-4-(2)	SC, HQW	
Howe Creek	18-87-23	SA;ORW	Fecal Coliform, DO
Hewletts Creek	18-87-23	SA;HQW	Fecal Coliform
Whiskey Creek	18-87-28	SA;HQW	Fecal Coliform
Motts Creek	18-82	C;Sw	

3.4 MS4 Interconnection

The City of Wilmington MS4 is not interconnected with another regulated MS4 and directly discharges to the receiving waters as listed in Table 2 above.

3.5 Total Maximum Daily Loads (TMDLs)

The TMDL(s) listed in Table 3 below have been approved within the MS4 area, as determined by the map and list provided on the [NCDEQ Modeling & Assessment Unit web page](#). The table also indicates whether the approved TMDL has a specific stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4, and whether a Water Quality Recovery Program has been implemented to address the WLA.

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 – no current TMDLs	N/A	N/A	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>Alligator mississippiensis</i>	American alligator	Vertebrate	T (S/A)
<i>Haliaeetus leucocephalus</i>	Bald eagle	Vertebrate	BGPA
<i>Laterallus jamaicensis</i>	Black rail	Vertebrate	T
<i>Myotis septentrionalis</i>	Northern long-eared bat	Vertebrate	T
<i>Picoides borealis</i>	Red-cockaded woodpecker	Vertebrate	E
<i>Heterodon simus</i>	Southern hognose snake	Vertebrate	ARS
<i>Lysimachia asperulaefolia</i>	Rough-leaved loosestrife	Vascular Plant	E

3.7 Industrial Facility Discharges

The City of Wilmington 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
NCG030323	Container Products Corporation - North College Rd
NCG060272	AAI Pharma Services Corp - N 23rd St
NCG070049	Wilmington Gypsum Plant - River Rd
NCG080161	Springer Eubank Co - Shipyard Blvd
NCG080218	S T G Transport - Shipyard Blvd
NCG080303	TForce Freight Wilmington
NCG080381	United Parcel Service - N 23rd St
NCG080918	Fleet Management Facility
NCG080960	Kinder Morgan Woodbine Street Terminal
NCG110063	Northside WWTP
NCG110073	Wilmington Southside WWTP
NCG140025	New Hanover County - Burnett Blvd Facility (2209 Monroe St)
NCG140262	Wilmington-Sunnyvale-Plant 20017
NCG140479	Crete Solutions Wilmington
NCG190009	Creekside Yacht Club - Bradley Creek
NCG190043	The Landing Yacht Club
NCG190064	Off the Hook Yacht Service
NCG190069	Wilmington Marine Center - River Rd
NCG190109	Smith Creek Boatyard
NCG190110	Atlantic Marine Inc - Service Center
NCG200361	Southern Metals Recycling - Wright St
NCG210448	Diversified Biomass Company dba American Property Exports
NCG210467	Tima Capital Inc.
NCGNE0203	USPS Vehicle Maintenance Facility
NCGNE1032	California Cartage
NCGNE1500	FedEx Express ILMA
NCS000076	Wilmington Fiber Optic Facility
NCS000174	Port of Wilmington
NCS000530	Carolina Marine Terminal - River Rd

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Wilmington as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The City of Wilmington has evaluated residential and charity car washing and street washing for possible significant water quality impacts.

Wash water associated with car washing that does not contain detergents or does not discharge directly into the MS4 is considered incidental. However, these types of non-stormwater discharges that do contain detergents have been evaluated by the City of Wilmington to determine whether they may significantly impact water quality. These types of discharges have been determined to possibly impact

water quality and are addressed by both our educational program and by our Stormwater Compliance Officers. (BMP No. 5.2 School Programs, 5.3 Community Events, 7.2 Regulatory Mechanism).

Street washing procedures produce no runoff from its operation. City sweepers utilize dry and misting practices only. The misting of the roads just ahead of the sweeper brushes help to reduce dust and also reduces friction on the steel brushes. Street washing discharges are addressed under the Pavement Management Program in Part 10 of this SWMP. The Division has not required that other non-stormwater flows be specifically controlled by the City of Wilmington

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	Possible
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 MS4name is aware of other significant water quality issues within the permitted MS4 area.

UNC-Wilmington has contracted with the City of Wilmington to monitor surface water quality of creeks within the city limits since 1998. Based on this historical water quality monitoring data, fecal coliform has been identified as a pollutant of concern for several creeks within the city limits. Bacterial pollution has closed several creeks to commercial shellfish harvest. Fecal coliform bacterial pollution can come from uncollected pet waste, homeless encampments, wildlife/waterfowl, and episodic sewer spills. Our program focuses education primarily on pet owners and pet waste, as this is a source of pollution that can be more easily controlled Active septic systems are not an issue inside the city limits since

homes/businesses are serviced by the sanitary sewer system operated by the Cape Fear Public Utility Authority.

In addition, bacterial pollution attributed to wildlife and waterfowl is not a source that can be easily managed; however, the City and Cape Fear River Watch make efforts to educate the public about not feeding wildlife/waterfowl, particularly at Greenfield Lake. Feeding wildlife habituates them to stay in a localized area if there is a regular source of external food, adding both bacteria and nutrients to a waterbody.

The City of Wilmington City Council approved the voluntary “Bradley and Hewletts Creeks Watershed Restoration Plan” in September 2012, which focuses on reducing the volume of stormwater that can transport fecal coliform to Bradley Creek & Hewletts Creek. This program is branded as the “Heal Our Waterways” (HOW) Program. The metric used to reduce this pollutant of concern is the volume of stormwater reduced, with the goal of reaching the 2006 hydrograph levels for each creek. The program is voluntary and targets property owners within the Bradley and Hewletts Creeks Watersheds to install SCMs that achieve volume reduction. There is dedicated annual funding in the Stormwater Services budget to help private property owners fund SCM installations on their properties.

In addition, litter is noted as a pervasive source of stormwater pollution in local watersheds based on the amount of litter collected during volunteer cleanups, as well as during stormwater maintenance activities. Our program also educates the community about other pollutants including nutrients, yard waste, sediment, and chemical pollution/HHW, and illicit discharges.

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 Wilmington has determined the target audiences, sources, messages and outreach techniques for each noted pollutant that are likely to have significant stormwater impacts. A comprehensive description is included in our Outreach/Education & Participation/Involvement Plan.

Education about these target pollutants is also included in school curriculum for New Hanover County Schools 8th grade science classes, in mass media campaigns, on our stormwater website, in print collateral, and more.

The HOW Program also focuses on educating watershed residents and property owners within the Bradley and Hewletts Creeks Watersheds. SCM/BMP installations on these properties are vital to reducing the volume of stormwater transporting fecal coliform and other stormwater pollutants to these specific creeks.

Finally, our Compliance Officers devote a significant amount of time on public education and outreach to address documented incidents and prevent future/potential incidents of stormwater pollution in the community.

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)
Fecal Coliform Bacteria	<ul style="list-style-type: none"> Residential Commercial Wildlife/Waterfowl Sources Illicit Discharges (IDDE) Sewer Overflows (CFPUA) Bradley and Hewletts Creek Private Property Owners 	<ul style="list-style-type: none"> Public Education & Outreach Public Involvement & Participation HOW/Watershed Coordinator IDDE/Stormwater Compliance
Litter	<ul style="list-style-type: none"> Residential Commercial Schools 	<ul style="list-style-type: none"> Public Education & Outreach Public Involvement & Participation HOW/Watershed Coordinator IDDE/Stormwater Compliance
Nutrients	<ul style="list-style-type: none"> Sewer overflows (CFPUA) Residential Commercial/Developers Urbanization 	<ul style="list-style-type: none"> Public Education & Outreach HOW/Watershed Coordinator IDDE/Stormwater Compliance Pollution Prevention/Good Housekeeping
Yard Waste (leaves, grass clippings, pine straw)	<ul style="list-style-type: none"> Residential Commercial/Landscapers Municipal Operations 	<ul style="list-style-type: none"> Public Education & Outreach HOW/Watershed Coordinator IDDE / Stormwater Compliance Pollution Prevention/Good Housekeeping
Sediment	<ul style="list-style-type: none"> Construction 	<ul style="list-style-type: none"> Construction Site Runoff Control
Improper Disposal of Waste / Chemicals	<ul style="list-style-type: none"> Residential Commercial Industry Municipal Operations 	<ul style="list-style-type: none"> IDDE / Stormwater Compliance Pollution Prevention/Good Housekeeping Public Education & Outreach Public Involvement & Participation
Illicit Discharge	<ul style="list-style-type: none"> Residential Commercial Industry Municipal Operations 	<ul style="list-style-type: none"> IDDE / Stormwater Compliance Pollution Prevention/Good Housekeeping Public Education & Outreach Public Involvement & Participation
Illegal dumping	<ul style="list-style-type: none"> Residential Commercial Industry Municipal Operations 	<ul style="list-style-type: none"> IDDE / Stormwater Compliance Public Education & Outreach Public Involvement & Participation
General non- point source pollution	<ul style="list-style-type: none"> Residential Commercial Schools 	<ul style="list-style-type: none"> Public Education & Outreach Public Involvement & Participation IDDE / Stormwater Compliance Pollution Prevention/Good Housekeeping

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

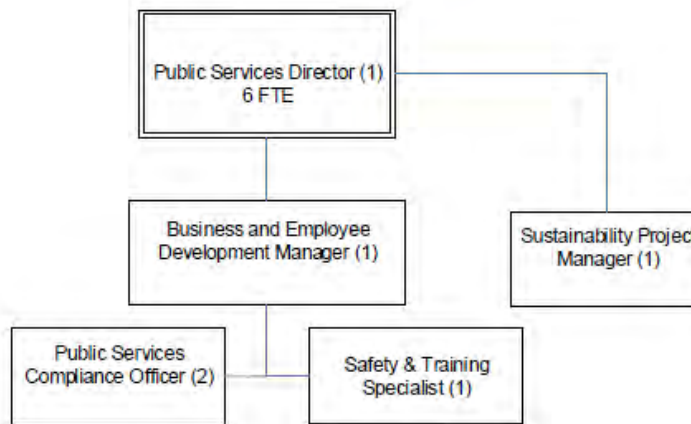
The City of Wilmington Stormwater and Streets Management Division falls under the Public Services (PS) Department. The Public Services Department falls under the supervision of one of the City’s Deputy City Managers. The Stormwater and Streets Management Division is responsible for overseeing the NPDES permit requirement programs of Education and Outreach, IDDE, Post-Construction Site Runoff and Pollution Prevention/Good Housekeeping and is responsible for managing and planning city stormwater in-house and capital improvement projects.

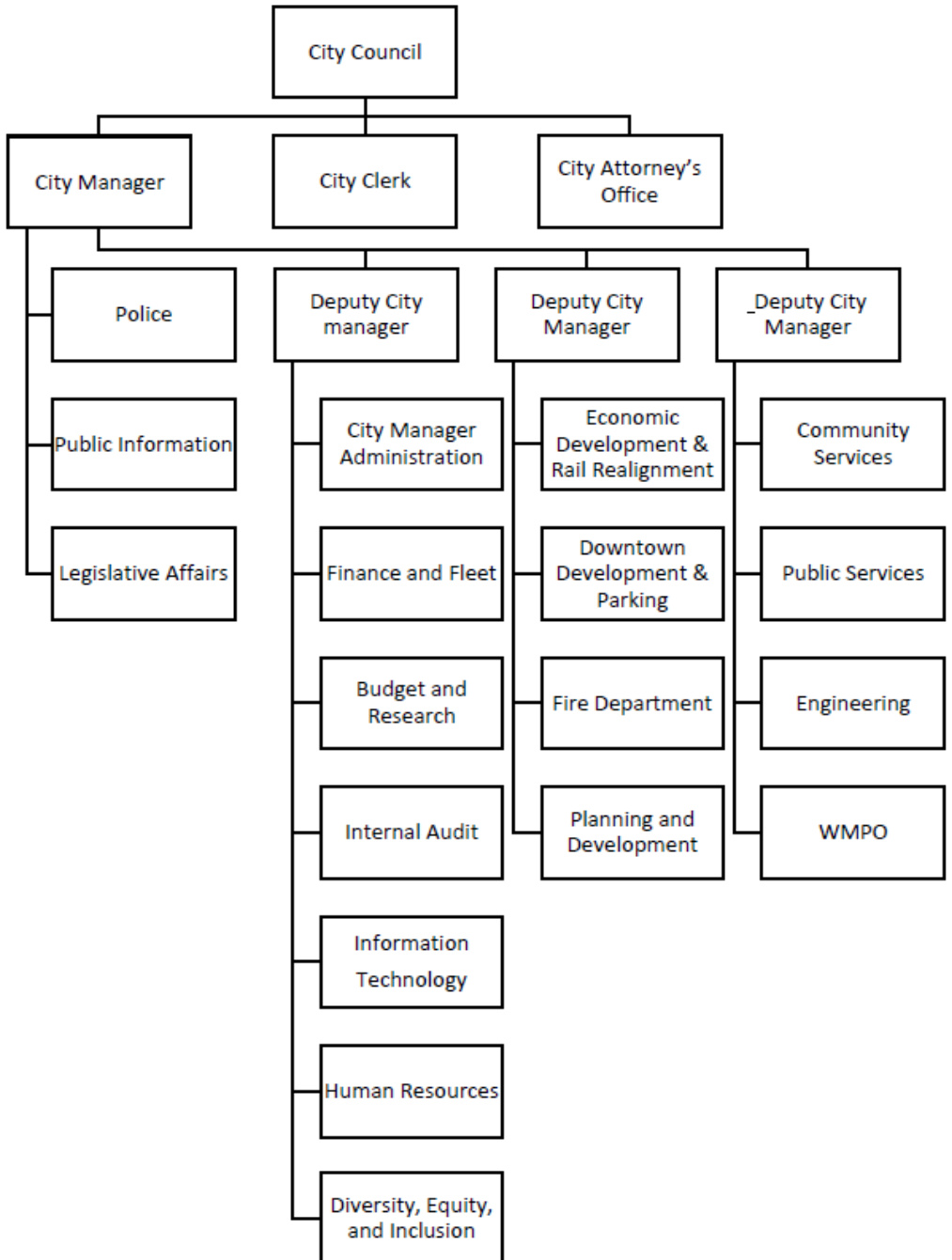
Public Services Administration/Business and Employee Development Manger supervises the Compliance Officer positions and the Safety & Training Specialist.

Public Services Operations Division is responsible for the operation and maintenance of the City’s MS4, SCMs and Streets.

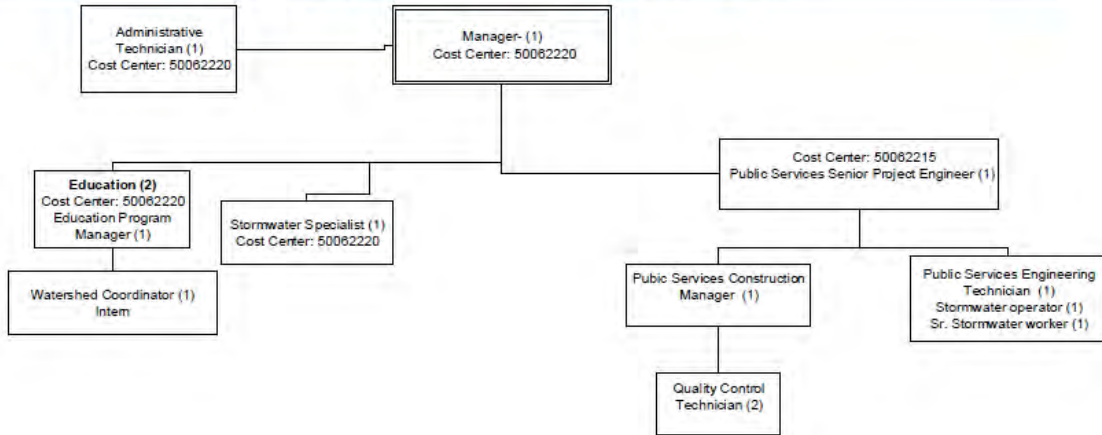
The City’s Engineering Department’s Plan Review help to manage portions of the Post-Construction permit requirements.

Administration Division
Organizational Chart FY23 (Proposed – no changes)
Cost Center: 10062000

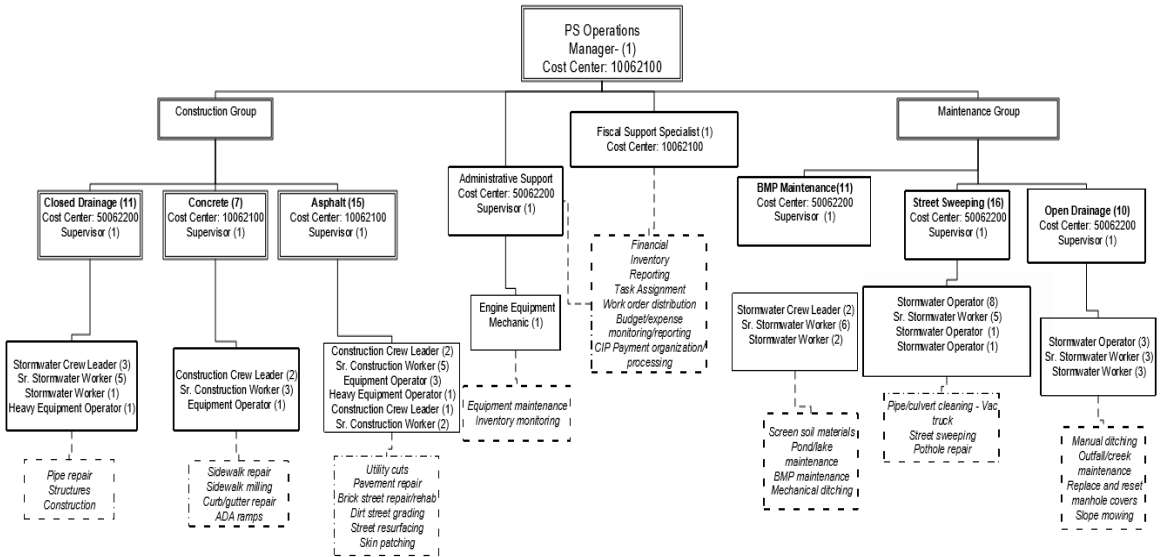




Stormwater and Streets Management Division
Cost Centers: 50062220 and 50062215
Total: 12 FTEs
FY23 (Proposed – name change only)



PS Operations Division
Cost Centers: 50062200 and 10062100
Total: 74 FTEs
FY21 Final Adopted





Engineering Department
Organizational Chart FY 2021-2022
FTE: 59
Cost Center: 6260-43

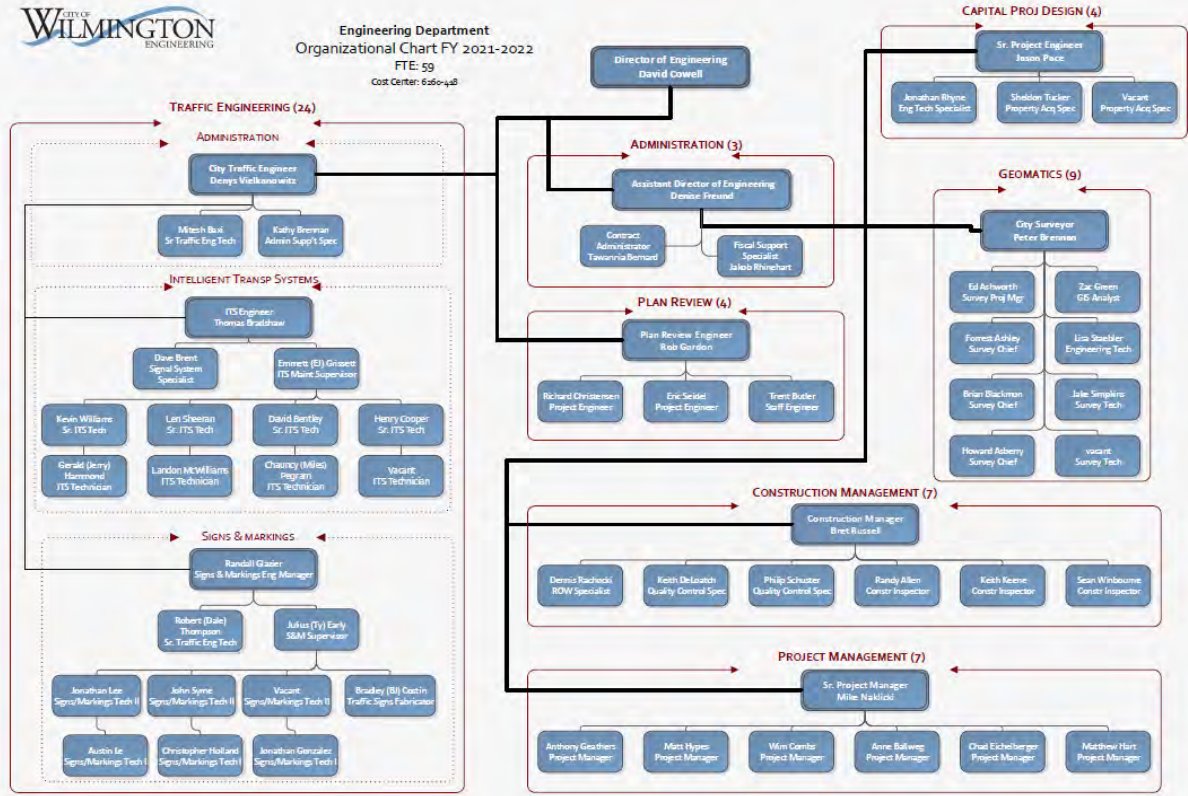


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Stormwater Services Manager	Fred Royal	Public Services
SWMP Management	-Stormwater Services Manager -Stormwater Specialist -Stormwater Education Program Manager -Plan Review Engineer	Fred Royal Jim Quinn Jennifer Butler Rob Gordon	Public Services
Public Education & Outreach	-Stormwater Education Program Manager -Watershed Coordinator	Jennifer Butler Anna Reh-Gingerich	Public Services Public Services
Public Involvement & Participation	-Stormwater Education Program Manager -Watershed Coordinator	Jennifer Butler Anna Reh-Gingerich	Public Services Public Services

Illicit Discharge Detection & Elimination	-Compliance Officers -Stormwater Specialist	Brian Rostholder, Vacant Position Jim Quinn	Public Services
Construction Site Runoff Control	Engineering Specialist	Beth Wetherill	NHCo Engineering
Post-Construction Stormwater Management	-Plan Review Engineer -Project Engineer -Project Engineer -Stormwater Specialist	Rob Gordon Rich Christenson Eric Seidel Jim Quinn	Engineering Engineering Engineering Public Services
Pollution Prevention/Good Housekeeping for Municipal Operations	Stormwater Specialist	Jim Quinn	Public Services
Municipal Facilities Operation & Maintenance Program	-Stormwater Services Manager -Streets Manager	Fred Royal Jay Carter	Public Services
Spill Response Program	-Public Services Safety & Training Specialist -Stormwater Specialist	Mark Cox Jim Quinn	Public Services
MS4 Operation & Maintenance Program	-Stormwater Services Manager -Streets Manager	Fred Royal Jay Carter	Public Services
Municipal SCM Operation & Maintenance Program	-Streets Manager -Stormwater Supervisor -Stormwater Specialist	Jay Carter Lauris Belle Jim Quinn	Public Services
Pesticide, Herbicide & Fertilizer Management Program	-Streets Manager -Landscape Supervisor	Jay Carter Sam Lee	Public Services Parks and Recreation
Vehicle & Equipment Cleaning Program	Fleet Manager	John Fortuin	Finance
Pavement Management Program	Streets Manager	Jay Carter	Public Services
Total Maximum Daily Load (TMDL) Requirements	N/A		

4.2 Program Funding and Budget

In accordance with the issued permit, the City of Wilmington 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 stormwater program currently receives funding entirely through the City's stormwater utility fee. The stormwater fee is an enterprise fund with revenues generated to support its program efforts.

	FY 23 <u>Adopted</u>
<u>REVENUES</u>	
Storm Water Utility Fees	\$ 10,157,052
City Streets Storm Water Fees	\$ 3,150,000
Storm Water Discharge permits	\$ 51,000
NCDOT Drainage Maintenance	\$ 37,000
Interest Earnings	\$ 65,000
Appropriated Fund Balance	<u>\$ 1,269,987</u>
TOTAL REVENUES	\$ 14,730,039
<u>EXPENDITURES</u>	
Public Services	\$ 6,710,640
Non-departmental	\$ 1,552,083
Debt Service	\$ 1,637,466
Contingency	\$ -
Transfer to Capital Project Fund	<u>\$ 4,829,850</u>
TOTAL EXPENDITURES	\$ 14,730,039

4.3 Shared Responsibility

The City of Wilmington 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 Wilmington 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 Wilmington 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)
Public Outreach & Education Public Involvement/Participation	Cape Fear River Watch (CFRW) – Professional Services Contract (5 year permit term)	Yes
Public Outreach/Education Public Involvement/Participation	New Hanover Soil & Water Conservation District – Interlocal Agreement Contract (5 year permit term)	Yes
Construction Site Runoff Controls	New Hanover County	Yes

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000406 for the City of Wilmington. Table 10 summarizes contact information for each co-permittee.

Table 10: Co-Permittee Contact Information

Co-Permittee MS4 Name	Contact Person	Phone & E-Mail	Interlocal Agreement (Y/N)
N/A			

4.5 Measurable Goals for Program Administration

The City of Wilmington 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
4.1	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. Yes/No
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
4.2	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. Yes/No
		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. Yes/No/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 Wilmington 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 Wilmington is required to inform businesses and the general public of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

The city’s outreach/education and participation goals can be summarized by the following:

- Raise awareness and educate the community about the impacts of polluted stormwater runoff on local waterways, including simple and attainable solutions to stormwater pollution
- Promote ongoing citizen participation/involvement by including the public in community activities aimed at cleaning up, reducing, and preventing stormwater pollution.

Two outside agency service contracts with Cape Fear River Watch and New Hanover Soil & Water Conservation District enable the city to meet and exceed permit requirements and bolster our reach and impact in the community. These contracts focus on outreach/education and involvement/participation activities and can be viewed in the Appendix. The legal service contracts generally align with the timeframe of our stormwater permit 5-year timeframe. *(*Please Note: These contracts will be re-negotiated at the start of our new permit and fiscal year in July 2023. This will begin the new 5-year contract terms which may differ from what is included in this draft SWMP).*

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)
Fecal Coliform Bacteria	Residential, Commercial, Sewer Overflows (CFPUA), Schools, Bradley & Hewletts Creek Property Owners (HOW Program)
Litter	Residential, Commercial, Schools
Nutrients	Residential, Commercial, Sewer Overflows (CFPUA)
Yard Waste	Residential, Commercial, Municipal Operations
Sediment	Construction
Improper Disposal of Waste / Chemicals	Residential, Commercial, Industry, Municipal Operations
Illicit Discharge	Residential, Commercial, Industry, Municipal Operations
Illegal dumping	Residential, Commercial, Industry, Municipal Operations
General Non-Point Source Pollution	Residential, Commercial, Schools, General Public

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
5.1	Contracts with Outside Agencies			
	The City contracts with outside agencies to implement Public Education/Outreach and Public Involvement/Participation activities focusing on residential, commercial, schools, and general audiences within the city limits. These agencies are: <ul style="list-style-type: none"> • Cape Fear River Watch • New Hanover Soil & Water Conservation District *See the Appendix for full legal contracts and deliverables.	1. Establish outside agency contracts to coincide with the city’s fiscal year and NPDES permit 5-year timeframe 2. Monitor agency deliverables via cumulative Quarterly Reports submitted to city to ensure deliverables are being adequately met 3. At end of each fiscal year, each agency provides a tally of contracted deliverables /metrics	1. Year 1 2. Quarterly (Permit Year 1-5) 3. Annually (Permit Year 1-5)	1. Yes/No/Partial New contracts established in Year 1 2. Yes/No/Partial Agency submits Quarterly Reports that sufficiently meet contract deliverables 3. Yes/No/Partial Final report submitted at the end of fiscal year with totals of deliverables conducted annually
5.2	School Programs - 8th Grade Science Classes			
	Deliver water quality education programs for New Hanover County Schools 8 th grade science classes, in partnership with contract agencies. Our program is currently integrated into the 8th grade science curriculum for New Hanover County Schools. Programming format can include live classroom Envirocape presentations, instructional videos, zoom presentations, providing resources,	1. Deliver watershed education programs and/or resources to 8 th grade science classes in New Hanover County Schools. 2. Hold a meeting/ training with all program instructors for curriculum updates, scheduling, etc.	1. Annually (Permit Year 1-5) 2. Annually (Permit Year 1-5)	1. Document the format and # of presentations or resources delivered 2. Document date of meeting/training

Table 13: Public Education and Outreach BMPs

	etc. The NHCS school system (and current health protocols) and may dictate the format and number of programs each year. www.wilmingtonnc.gov/Enviroscape	3. Provide the Enviroscope Program resource weblink to all 8 th grade science teachers each year	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Weblink provided to teachers
		4. Ask for programming feedback/assessment from 8 th grade science teachers and/or the NHCS 8 th Grade Science Lead Teacher Liaison	4. Permit Year 2 & 5	4. Yes/No/Partial Feedback received from teachers/liaison
5.3	Community Events/Programs/ Workshops			
	Participate in community events and programming to educate the public about stormwater runoff pollution and solutions and distribute stormwater materials to the public with a focus on fecal bacterial pollution/pet waste and other pollutants of concern. Examples of local events may include Canines for Clean Water events, SCM Workshops, LakeFest, Farmers Markets, Earth Day Festival, virtual presentations, etc.	1. Participate in at least 3 community events/programs/workshops	1. Annually (Permit Year 1-5)	1. Yes/No/Partial Participated in 3 community events/programs
		2. Distribute stormwater educational print materials and brochures at events/programming	2. Annually (Permit Year 1-5)	2. Yes/No/Partial Distributed stormwater print materials at each event/programming
		3. Distribute stormwater educational messaging promo items (i.e takeaways, etc) at events/programming	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Distributed stormwater promo items at each event/program
5.4	Mass Media & Social Media Campaigns			
	The City of Wilmington recognizes the impact that paid media campaigns have in getting stormwater messages out to the public. Social media is also an effective means to reach the public with stormwater messages.	1. Establish a paid Fall media campaign targeting a specific stormwater pollutant of concern or general stormwater awareness.	1. Annually (Permit Year 1-5)	1. Document the media platform and campaign topic
		2. Establish a Spring media campaign targeting a specific stormwater pollutant of concern or general stormwater awareness.	2. Annually (Permit Year 1-5)	2. Document the media platform and campaign topic

Table 13: Public Education and Outreach BMPs

		3. Post relevant stormwater info on city social media outlets at least 4x per year	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Stormwater content posted on city social platforms 4x annually
5.5	Stormwater Content in Citywide Newsletter			
	Each spring, stormwater content and local/state water quality information is included in the citywide newsletter that is mailed to residents/businesses via the City’s Public Information Office. Current newsletter distribution is approximately 45,000 recipients.	1. Develop water quality report including annual monitoring data from UNCW, NC status and classification of each creek with associated water quality/ descriptions, and timely stormwater content/ articles.	1. Annually; each Spring (Permit Year 1-5)	1. Yes/No/Partial Content developed and published annually
		2. Newsletter mailed to City residents	2. Annually (Permit Year 1-5)	2. # of citywide newsletters mailed
		3. Newsletter posted on City of Wilmington and Stormwater Services websites	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Posted on website?
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
5.6	Stormwater Services Website			
	The website provides information on the city’s stormwater program including the MS4 permit, SWMP, stormwater regulations/ordinances, annual reports, capital projects, volunteer programs, educational content, timely news, and methods of contacting Stormwater staff. The robust website also includes a mechanism for reporting stormwater pollution anonymously.	1. Maintain and update the City of Wilmington’s Stormwater Services website throughout the year – update links, add new materials, update CIP projects, etc	1. Annually, as needed (Permit Year 1-5)	1. Yes/No/Partial Website updated?
		2. Post the NPDES Annual Report on the website	2. Annually (Permit Year 1-5)	2. Yes/No/Partial Report posted on website?
		3. Post a minimum of 3 stormwater news items	3. Annually (Permit Year 3-5)	3. Yes/No/Partial Three news items posted?

Table 13: Public Education and Outreach BMPs

	www.wilmingtonnc.gov/stormwater	4. Set a hit counter for a different stormwater webpage each year	4. Annually (Permit Year 2-5)	4. Report the specific webpage being tracked and # of hits annually
Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
5.7	Stormwater Hotline & Online Reporting Webform			
	<p>Maintain, promote, and respond to the city’s hotline and online web reporting tool for pollution reports, made by citizens, employees and businesses.</p> <p>www.wilmingtonnc.gov/reportstormwaterpollution.com</p> <p>Stormwater compliance officers respond to all reports and investigate, educate, and issue applicable fines. They also receive direct reports to their dedicated phone #s.</p> <p>Citizens call our main stormwater admin # for all other inquiries, including outreach/education and public involvement requests.</p>	1. Detail stormwater staff that are responsible for responding to hotline reports and backup staff.	1. Permit Year 1	1. List specific staff positions for hotline response
		2. Conduct training and review response protocols with staff for reports to the hotline and web form.	2. Annually (Permit Year 1-5)	2. Yes/No/Partial Report date of staff training
		3. Publicize the hotline and web form on the Stormwater website	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Promoted on website
		4. Track hotline calls and online reports.	4. Annually (Permit Year 1-5)	4. Document the # and general nature of hotline/webform reports received
		5. Publicize hotline/webform in stormwater educational materials and on compliance vehicles	5. Annually (Permit Year 1-5)	5. Yes/No/Partial Publicized hotline/webform

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 Wilmington 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
6.1	Public Contact and Input on Stormwater Projects/Issues			
	Stormwater Services holds public meetings, one-on-one meetings, neighborhood/HOA meetings, and sends direct mail or doorhangers to the public, particularly for in-house and capital improvement projects. These forums provide the opportunity for citizens/businesses to connect with Stormwater staff and provide input on projects and stormwater issues that impact them.	1. Hold meetings or direct contact with the public for upcoming stormwater projects (# projects vary each year based on funding, staffing, etc)	1. Annually (Permit Year 1-5)	1. Document the # of meetings/contact with the public
		2. Provide direct mail or doorhangers for citizens/businesses about projects and methods for public input/contact	2. Annually (Permit Year 1-5)	2. Document the # of mail/doorhangers distributed to citizens
		3. Document any public comments received	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Documented comments received?
4. Update Capital Projects (CIP) Map on website. Map contains info about current projects and funding.		4. Annually (Permit Year 1-5)	4. Yes/No/Partial Updated map on website?	
6.2	Stormwater Hotline & Online Reporting Webform			
	Maintain, promote, and respond to the city’s hotline and online web reporting tool for pollution reports, made by citizens, employees and businesses. www.wilmingtonnc.gov/reportstormwaterpollution.com	1. See BMP 5.7	See BMP 5.7	1. See BMP 5.7

Table 14: Public Involvement and Participation BMPs

6.3	Community Input & Engagement - Annual Earth Day Participation			
City staff participates in the well-attended annual Wilmington Earth Day Festival held at Long Leaf Park. This is an annual opportunity for the public to learn more about stormwater services and ask questions or provide input to city staff on-site. The festival is typically held in April and has 5000+ attendees. (If event is cancelled, another “like” event will be substituted).	1. Attend Annual Earth Day Festival	1. Annually (Permit Year 1-5)	1. Yes/No/Partial Attended Earth Day Festival	
	2. Answer questions from the public about stormwater services, education/involvement opportunities, stormwater projects, etc	2. Annually (Permit Year 1-5)	2. Yes/No/Partial Provided opportunities for the public to answer questions one-on-one	
	3. Provide educational information and contact info to attendees	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Provided educational/contact information to the public	
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
6.4	Volunteer Storm Drain Marking Program			
Implement a volunteer Storm Drain (SD) Marking Program to engage and educate the community about stormwater pollution. This BMP is contracted for implementation by: <ul style="list-style-type: none"> • Cape Fear River Watch, and • New Hanover Soil & Water Conservation District. Each agency turns in a Storm Drain Tracking Card after each event, documenting: <ul style="list-style-type: none"> - Date of marking - Specific neighborhood marked - # of drains marked - # of volunteers/hours contributed - # of educational doorhangers distributed 	1. Each agency will conduct at least one volunteer storm drain marking event annually.	1. Annually (Permit Year 1-5)	1. Yes/No/Partial Each agency conducted volunteer storm drain marking annually?	
	2. Each agency will mark a minimum of 14 drains.	2. Annually (Permit Year 1-5)	2. Yes/No/Partial Each agency marked at least 14 drains?	
	3. Each agency will engage at least 5 community volunteers for each SD Marking event.	3. Annually (Permit Year 1-5)	3. Yes/No/Partial Each agency had at least 5 volunteers for marking event?	
	4. Each agency will distribute educational stormwater doorhangers to the community during SD Marking events.	4. Annual (Permit Year 1-5)	4. Yes/No/Partial Educational doorhangers distributed?	
6.5	Volunteer Watershed/Creek Cleanups			
Conduct volunteer clean-ups of city watersheds/creeks. Cleanups are focused on riverine watersheds: Greenfield Lake, Smith Creek, Burnt	1. Conduct 10 volunteer cleanups in city watersheds annually.	1. Annually (Permit Year 1-5)	1. Yes/ No/Partial 10 watershed cleanups conducted annually?	

Table 14: Public Involvement and Participation BMPs

	<p>Mill Creek, Barnards Creek, Mott Creek, Areas that drain directly to Cape Fear River, and as the need is discovered by the City. CFRW turns in a cleanup report including the # of volunteers, time committed, and photos after each cleanup event.</p> <p>This BMP is contracted for implementation by: - Cape Fear River Watch.</p>	<p>2. Recruit community volunteers for cleanup events</p>	<p>2. Annually (Permit Year 1-5)</p>	<p>2. Document total # of volunteers, and # of volunteer hours contributed annually</p>
		<p>3. Estimate the amount of trash and recycling collected during cleanup events</p>	<p>3. Annually (Permit Year 1-5)</p>	<p>3. Document the total weight in lbs. of -trash collected annually -recycling collected annually</p>
<p>6.6</p>	<p>Volunteer CreekWatchers Monitoring Program</p>			
	<p>Conduct a volunteer CreekWatchers Monitoring Program of local creeks and tributaries within the city limits. Reports include site specific documentation, findings, and photos.</p> <p>This BMP is contracted for implementation by: - Cape Fear River Watch</p>	<p>1. Volunteers will monitor high priority creeks, creek sections, or tributaries within the city limits and submit two monitoring reports every other month during the year</p>	<p>1. Every other month (Annually, Permit Year 1-5)</p>	<p>1. Yes/No/ Partial Two CreekWatcher reports submitted every other month</p>
		<p>2. CreekWatchers will contact the city's stormwater compliance officer(s) if water quality problems are discovered during monitoring. (ie. illicit discharges, illegal dumping, etc.)</p>	<p>2. Annually, as necessary (Permit Year 1-5)</p>	<p>2. Document the general nature of any reports made to the city based on volunteer observations.</p>

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The City of Wilmington 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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
7.1	Maintain MS4 Map			
	The MS4 map shows stormwater conveyances, flow direction, major outfalls, and receiving streams within city jurisdiction. The current map will be updated continuously as new information becomes available.	1. When new outfalls and conveyance data becomes available, add to the map	1. Permit years 1-5	1. Report new outfalls and conveyances over permit term
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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
7.2	Maintain legal authorities			
	Review existing ordinance in order to maintain the legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions. Update ordinance if required. Citation: City of Wilmington, Chapter 12, Utilities, Article III: Effective Date: November 1, 2009. The City also utilizes a policy for reporting SSOs.	1. Review ordinance and update if revision is required to maintain legal authority	1. Permit year 1	1. Report if a revision is required and if a revision is made
	BMP Title			

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	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:			
	<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
7.3	Dry Weather Outfall Inspections			
	Perform inspections of priority potential pollutant sources to proactively identify illicit discharges and illicit connections.	1. Conduct dry weather flow inspections of 25% of outfalls in the City per year; all outfalls will be inspected over the permit term.	1. Permit years 1-5	1. Number of inspections per year
		2. Train staff on dry weather flow inspections and illicit discharge investigations	2. Annually	2. Number of trained staff per year
7.4	Illicit Discharge Identification Procedure			
	Revise and maintain a standard operating procedure (SOP) for investigation of potential illicit discharges, dry weather flow inspections, illicit connections, and illegal dumping.	1. Review and update the IDDE program's Manual SOP for investigating potential illicit discharges and connections; address gaps identified in self audit/ program review	1. Permit year 1	1. Completed, Yes/No Status.
		2. Maintain IDDE SOP	2. Permit years 2-5	2. Completed, Yes/No Status.
7.5	IDDE Program Evaluation			
	Yearly evaluation of IDDE program to promote continuance of effective components and improvement, as	1. Evaluation meeting with IDDE program staff	1. Annually, in conjunction with Annual Assessment	1. Report any program changes

Table 15: Illicit Discharge Detection and Elimination BMPs

	well as identification of potential "hot-spot" areas and to identify and prioritize the next year's priority pollutants and potential sources.	2. Review of IDDE incident reports and identification of chronic violators, issues, and/or "hotspot" areas	2. Annually, in conjunction with Annual Assessment	2. Report the number of potential illicit discharges found, the number of illicit discharges verified, the number of illicit discharges resolved/removed, and enforcement actions taken
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
7.6	Tracking Database			
	A tracking system for observed IDDE violations and follow-on actions will be developed and implemented in order to identify "hot-spot" areas, chronic violators, and recurring issues.	1. Maintain IDDE form to collecting information	1. Permit years 1-5	1. Yes/no/status
		2. Maintain a tracking Spreadsheet/ database to collect data from illicit discharge investigation reports as well as the results of the investigation, any follow up, date of closure, and enforcement actions taken.	2. Permit years 1-5	2. Yes/no/status
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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
7.7	Conduct IDDE Staff Training			
	Continue training program to educate City staff of indicators of potential illicit discharges/connections and illegal dumping and the appropriate avenues through which to report suspected illicit discharge.	1. Evaluate and update training program	1. Annually	1. Yes/no/status
		2. Train staff on IDDE	2. Annually, Train 5 divisions twice over permit term.	2. Number of trainings and staff trained

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
7.8	Public and staff reporting			
	Maintain hotline and website for public and staff reporting	1. See BMP 5.7	1. See BMP 5.7	1. See BMP 5.7

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the City of Wilmington 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	New Hanover County Delegated SPCA Program*	15A NCAC Chapter 04, NCDEQ Approved Delegation, Interlocal Agreement/Joint Resolution, Local Ordinance	New Hanover County

* The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: https://library.municode.com/nc/new_hanover_county/codes/code_of_ordinances?nodeId=COOR_CH23EN_ARTVIERSECO

The City of Wilmington 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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
8.1	Municipal Staff Training			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Years 1-5	1. Number of staff trained.
8.2	Stormwater hotline			
	Maintain the city’s stormwater hotline and website reporting mechanism	1. See BMP 5.7	1. See BMP 5.7	1. See BMP 5.7
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			

Table 17: Construction Site Runoff Control BMPs

BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
8.3	NCG010000 Permit			
	The NCG010000 permit administered by NCDEQ establishes requirements for construction site operators to control waste.	1. NCDEQ is the responsible party	1. NCDEQ is the responsible party	1. NCDEQ is the responsible party

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 Wilmington 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 Wilmington 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 Wilmington 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

All Code References are from [Article 4, Division 1 of the City’s Land Development Code](#) unless otherwise noted

Permit Requirements for Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	Section 18-253 A	8/17/2021
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	None (1)	8/17/2021
3.6.3(b) Plan Review	Section 18-254 B.6	8/17/2021
3.6.3(c) O&M Agreement	SWP Condition, Section 18-256 B	8/17/2021
3.6.3(d) O&M Plan	Section 18-256 B (2)	8/17/2021
3.6.3(e) Deed Restrictions/Covenants	SWP Condition, Section 18-255 D.1 (3)	8/17/2021
3.6.3(f) Access Easements	SWP Condition, Section 18-256 C	8/17/2021
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	SWP Condition, Section 18-256 G	8/17/2021
3.6.2(c) Right of Entry	SWP condition, Section 18-256 B.3, 18-256 F	8/17/2021
3.6.4(a) Pre-CO Inspections	SWP Condition, Section 18-254 C	8/17/2021
3.6.4(b) Compliance with Plans	SWP Condition, Section 18-256 A	8/17/2021
3.6.4(c) Annual SCM Inspections	O&M Agreement (4)	8/17/2021
3.6.4(d) Low Density Inspections	Section 18-256 F (5)	8/17/2021
3.6.4(e) Qualified Professional	None (6)	
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	City of Wilmington Code of Ordinances – Chapter 12, Article III, Section 12-28	9/15/2009
3.6.6(b) On-Site Domestic Wastewater Treatment	New Hanover County – Article 6, Section 6.3.3, Article 4, Section 4.3.2.A	3/21/2022

1 – Our code does not explicitly reference applicability to Federal & State projects, but we are familiar with that rule. 18-253 D specifies the ordinance would apply to “all development, redevelopment, and expansion, unless exempt ...”. We have had State/Federal entities that have challenged our jurisdiction and we have referred to that State rule as justification of authority.

2 – We do not distinguish between an O&M Plan and an O&M agreement in the code. The O&M Agreement templates reference the approved plan and maintenance requirements.

3 – Proposed deed restrictions (when applicable) are signed by the applicant and attached to the Stormwater Permit. Requirement to record prior to plat is condition of construction release.

4 – There is no City Code that requires inspections annually. City code requires the O&M agreement and the terms of the O&M template specify the annual inspections.

5 – There is a LD O&M that is attached to the Stormwater permit.

6 – There is no City Code that requires inspection by a qualified professional. 18-254C requires as-built and certification be provided by a qualified professional under seal, but nothing regarding inspections.

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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
9.1	Standard Reporting			
	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 stormwater plans approved.	1. Continuously Permit Years 1-5	1. Number of plan approvals issued for low density, high density and drainage plan.
		2. Maintain a current inventory of stormwater permits and constructed SCMs including SCM type, location, and the last inspection date.	2. Continuously Permit Years 1-5	2. Summary of number and type of stormwater permits and SCMs added to the inventory.
		3. Track number of stormwater permit inspections performed by City staff.	3. Continuously Permit Years 1-5	3. Number of SCM inspections.
		4. Track number and type of enforcement actions taken.	4. Continuously Permit Years 1-5	4. Number of enforcement actions issued.
Permit Ref.	2.3 and 3.6: Qualifying Alternative Program(s) Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
9.2	The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 19.			
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.			
	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
9.3	The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 19			
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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
9.4	The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 19			
Permit Ref.	<p>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.</p>			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
9.5	3.6.4(b) Documentation for Annual Inspections			
	Keep records that document that a project has been constructed according to approved plans.	1. Annual inspection record keeping	1. Annually	1. Yes/no/status
9.6	3.6.4(c) Annual SCM Inspections			
	Conduct annual SCM inspections by qualified City staff.	1. Review existing staff roles and responsibilities and make adjustments and recommendations	1 Staff position review Permit Year 1	1. Yes/no/status

Table 20: Post Construction Site Runoff Control BMPs

		2. Continue 30% of total SCM inspections annually for O&M requirements until a new position is funded.	2. Annually	2. Number of Inspections
9.7	3.6.4(e) Qualified Professional			
	Modify city ordinance to require annual inspections be conducted by a Qualified Professional	1. Approved ordinance change	1. Permit year 1	1. Yes/no/status
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.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
9.8	The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 19.			

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the City of Wilmington 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 Wilmington 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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
10.1	Inventory of Municipal Facilities			
	Maintain an up-to-date inventory of municipal facilities with potential to generate polluted runoff.	1. Maintain list of existing City-owned facilities and classify facilities as having high or low potential for stormwater pollution	1. Permit years 1-5	1. Number of facilities inventoried and their classification
10.2	Facility Inspections			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Inspection of City facilities to confirm good housekeeping practices are being followed, including vehicle and equipment cleaning and that the City Municipal Operations Center Complex is in compliance with Industrial Stormwater Permit NCG080918.	1. Develop and maintain a program SOP for city facility inspections, including procedures, an inspection schedule, inspection form, inspection report documentation, and tracking system	1. Permit year 1	1. Yes/no/status
		2. Develop specific SOPs for high priority facilities (e.g., fire stations, Parks and Rec facilities, Police HQ refueling, etc.).	2. Permit year 2	2. Yes/no/status
		3. Update the SPCC for the Operations Complex, SPPP for the Fleet Management Building, and the SPCC for Police Headquarters	3. Permit year 1	3. Yes/no/status
		4. Inspect all inventoried municipal facilities once per permit term to determine pollution potential	4. Permit years 1-5	4. Number of facility inspections
		5. Inspect facilities with highest potential to pollute at least annually	5. Annually	5. Number of facility inspections
10.3	Staff Training			
	Maintain and update a staff training program for general stormwater pollution prevention	1. Provide training for all responsible employees	1. Annually	1. Number of staff trained
		2. Provide training for new hires	2. As needed	2. Number of staff trained
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
10.4	Inventory of Facilities with Spill Potential			
	Maintain a list of city facilities and operations storing materials that would be a pollutant if spilled and introduced to the stormwater system and classify by hazard and quantity	1. Develop and maintain a list of city facilities and operations with spill potential when facilities or operations are changed	1. Permit year 1	1. Yes/no/status

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2.Update list when appropriate	2.As needed	2. Report changes
10.5	Spill Response Procedures			
	Maintain spill response procedures and continue training of appropriate staff.	1. Develop general written spill response procedures	1. Permit year 1	1. Yes/no/status
		2. Review specific spill response procedures for City facilities and operations with potential to produce high hazard spills	2. Permit year 1	2. Yes/no/status
		3. Update as facilities and operations are revised	3. As needed	3. Number of additions or revisions made
		4. Train staff in spill response procedures	4. Annually	4. Number of staff trained
		5. Train new staff in spill response procedures	5. As needed	5. Number of staff trained
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
10.6	Staff Training			
	Maintain and update a staff training program for general stormwater pollution prevention and provide to appropriate City department employees	1. Develop/Update or identify appropriate training program	1. Annually	1. Yes/no/status
2. Provide training for all responsible employees		2. Annually	2. Number of staff trained	
10.7	MS4 System Inspections and Maintenance			
	A proactive plan for MS4 system maintenance, requiring regular inspections and maintenance.	1. Maintain a SOP that includes proactive inspection schedules, standard documentation, staff responsibilities, and proper maintenance training	1. Permit years 1-5	1. Yes/no/status
2. Perform regular inspections in accordance with the SOP		2. Following schedule established in SOP	2. Number of inspections	

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3. Verify, document, and prioritize maintenance activities identified by inspections or citizen reports	3. Permit years 1-5	3. Number of maintenance activities performed
		4. Maintain an inspection and maintenance tracking system to be used in accordance with the SOP and to identify "hot spot" locations for system maintenance	4. Permit years 1-5	4. Yes/no/status
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
10.8	Inventory of Municipal structural SCMs			
	Maintain a current inventory of municipally owned structural SCMs.	1. Maintain an inventory of existing City-owned SCMs with information including type, year built, date of last inspection, and maintenance actions	1. Permit years 1-5	1. Number of municipal structural SCMs
		2. Maintain Operation and Maintenance Plans for all City-owned SCMs where appropriate	2. Permit years 1-5	2. Yes/no/status
		3. Update inventory and plans as necessitated by new City development/SCMs	3. As needed	3. Number of updates
10.9	Municipal SCM Inspections and Maintenance			
	Performance and documentation of regular inspection and maintenance of municipally owned structural SCMs. Addition of municipally owned SCMs to MS4 map.	1. Maintain a GIS map of City-owned SCMs	1. Permit years 1-5	1. Yes/no/status
		2. Update the map when new City-owned SCMs are constructed	2. Permit years 1-5	2. Number and type added to map
		3. Maintain NC SCM Inspections and Maintenance Certification for personnel	3. Permit years 1-5	3. Number of staff members with active certification

Table 21: Pollution Prevention and Good Housekeeping BMPs

		4. Maintain/ update SCM inspection documentation system	4. Permit years 1-5	4. Yes/no/status
		5. Inspect each device using SCM inspection system	5. Annually	5. Number of SCMs inspected, number passing inspection, number requiring maintenance
		6. Perform maintenance tasks identified in inspections	6. As required	6. Number of maintenance activities performed
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
10.10	Pesticide, Herbicide, Fertilizer Applicator Training			
	Training of City staff who apply landscape chemicals in order to minimize water quality impacts from pesticides, herbicides, and fertilizers.	1. Maintain Right-of-Way Pest Control, Public Health Control, and Ornamental & Turf Pest Control applicator certifications for appropriate personnel	1. Permit years 1-5	1. Yes/no/status
		2. Develop or identify pollution prevention and chemical use, storage and handling training	2. Permit years 2-5	2. Yes/no/status
		3. Provide staff training in pollution prevention and chemical use, storage and handling training	3. Annually	3. Number of staff trained
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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
10.11	NPDES Industrial Permit Compliance			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Ensure that NPDES industrial permit compliance occurs at all applicable municipally owned sites	1. Permitting of municipally owned facilities; apply for new permits and confirm that all existing permits are valid. Renew permits as required	1. As required	1. Report number of new permits received or renewed as well as number of active permits.
		2. Maintain and update municipal industrial facility inspection form	2. Permit years 1-5	2. Yes/no/status
		3. Perform facility inspections for compliance with permit	3. As required per permits	3. Number of inspections performed, issues identified, actions taken
		4. Maintain NPDES Industrial Permit list of municipally owned facilities with permit, permit expiration dates, and inspections	4. Permit years 1-5	4. Yes/no/status
10.12	Vehicle and Equipment Cleaning and Maintenance Facility Inspection			
	Routine inspections as part of general facility inspections to ensure that vehicle and equipment facilities are following proper procedures to minimize water quality impacts from vehicle and equipment cleaning and maintenance.	1. Maintain an inspection checklist	1. Permit years 1-5	1. Yes/no/status
		2. Perform inspections using inspection checklist and notify facility manager of any corrective actions required.	2. Annually	2. Number of inspections
		3. Perform re-inspections of any facility that required corrective action.	3. As required	3. Number of facilities requiring corrective action, number of resolutions.
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
10.13	Street Sweeping			
	Street sweeping following a regular schedule in order to reduce pollutants from City owned and maintained streets.	1. Maintain and update a SOP, including a schedule and plan to document	1. Permit years 1-5	1. Yes/no/status
		2. Implement SOP and documentation	2. Per SOP	2. Total number of street miles swept
10.14	Leaf /Vegetative Debris Collection			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Periodic collection of leaves/vegetative debris from residential and public areas to reduce pollutants and clogging of storm system inlets.	1. Maintain and update a SOP, including a schedule and plan to document	1. Permit years 1-5	1. Yes/no/status
		2. Implement SOP and documentation	2. Per SOP	2. Volume of leaves collected (cubic yards)
10.15	Vehicle Spill Cleanup			
	An organized vehicle spill cleanup response to prevent pollutants from vehicular accidents from entering the storm drain system.	1. Maintain spill response procedures (see BMP 10.5)	1 See BMP 10.5	1. See BMP 10.5