



Draft Stormwater Management Plan

Town of Carolina Beach

NCS000394

March 14, 2023

DRAFT

PREPARED FOR:

Town of Carolina Beach
1121 N. Lake Park Blvd.
Carolina Beach, NC 28428

PREPARED BY:

WithersRavenel
115 MacKenan Dr
Cary, NC 27511
License No. F-1479

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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 Town of Carolina Beach 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 Town of Carolina Beach 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 NCS000394, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the Town of Carolina Beach and located within the corporate limits of the Town of Carolina Beach.

In preparing this SWMP, the Town of Carolina Beach 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:	Signed copy is attached. Original has been mailed.
Print Name:	Bruce Oakley
Title:	Town Manager
Signed this 14 day of March 15, 2023.	

Part 3: MS4 information

3.1 Permitted MS4 Area

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

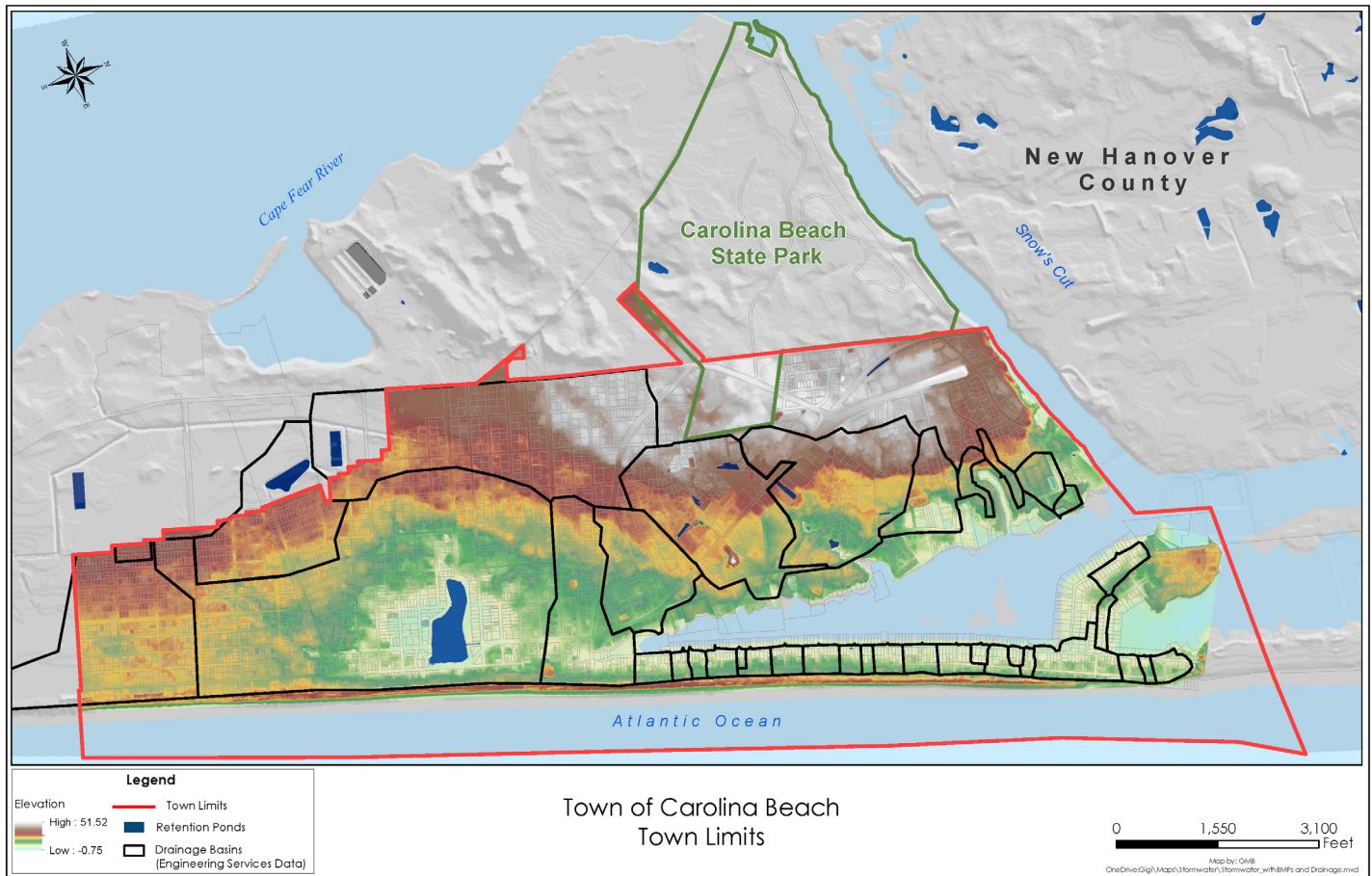


Figure 1: Town of Carolina Beach Limits

3.2 Existing MS4 Mapping

The current MS4 mapping includes drainage basins, retention ponds, inlets, catch basins, utility access holes, outfalls and outfall diameters, pipe diameters and lengths, and stormwater pump station locations.

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	100	%
No. of Major Outfalls* Mapped	1	total
Total No. Outfalls Mapped	44	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.

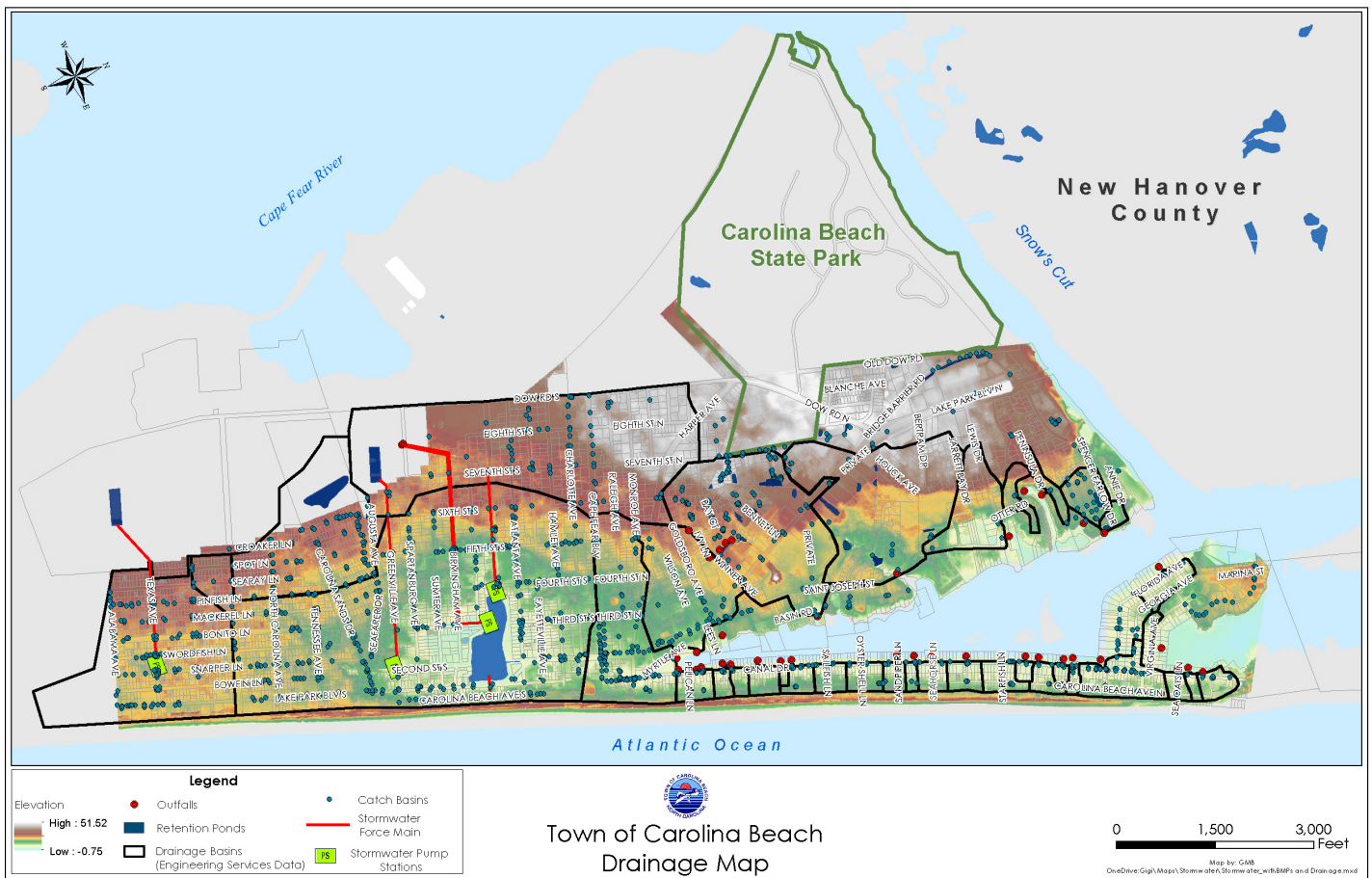


Figure 2: Town of Carolina Beach Existing MS4 Map

3.3 Receiving Waters

The Town of Carolina Beach MS4 is located within the Cape Fear 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 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
Carolina Beach Yacht Basin	18-87-31.2	SB	Fish Tissue Mercury (NAR, FC, NC)
Cape Fear River	18-(71)b	SC	pH (8.5, AL, SW)
Atlantic Ocean (Emergency Discharge Option)	99-(3)c	SB	Fish Tissue Mercury (NAR, FC, NC)

SB – Primary recreation, saltwater

SC – Aquatic life, saltwater

Fish Tissue Mercury (NAR, FC, NC) – Narrative standard, fish consumption advisory, North Carolina standard

pH (8.5, AL, SW) – Aquatic life impairment, saltwater

The above Data is from 2022 NC Category 5 Assessments [“2022 Final 303\(d\) List”](#) and NC Surface Water Classifications Map. From the 2022 303(d) Listing and Delisting Methodology for fish Consumption: “Fish consumption was assessed based on site-specific fish consumption advisories developed using fish tissue data. Advisories and advice are developed by DHHS using fish tissue data collected by DWR and others. See <http://epi.publichealth.nc.gov/fish/current.html> for all advice and advisories.”

The Town of Carolina Beach utilizes Public Education and Outreach BMPs 5-8 to provide information on water quality impairments in the Cape Fear River Basin.

3.4 MS4 Interconnection

The Town of Carolina Beach MS4 is interconnected with another regulated MS4 and directly discharges stormwater into the Town of Kure Beach MS4 during emergency overflow situations. The number of interconnections leaving the Town of Carolina Beach MS4 to the Town of Kure Beach is one.

The MS4 does not interconnect with the statewide NCDOT MS4.

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. Currently there are no approved TMDLs within the MS4 area.

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)
Statewide	Mercury	N	N

The Statewide TMDL for mercury does not require any actions by the NPDES Stormwater Permittee because most mercury in stormwater comes from atmospheric deposition, but the Town utilizes BMPs 5-8 to provide information on water quality impairments in the Cape Fear River Basin.

3.6 Endangered and Threatened Species and Critical Habitat

Significant populations of threatened or endangered species and/or critical habitat may be 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 (no longer available online) and [Listed species believe to or known to occur in North Carolina list](#) 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>Rana capito capito</i>	Carolina Gopher Frog	Vertebrate	ARS
<i>Chelonia mydas</i>	Green Sea Turtle	Vertebrate	T
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	Vertebrate	E
<i>Lepidochelys kempii</i>	Kemp's Ridley Sea Turtle	Vertebrate	E
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	Vertebrate	E
<i>Caretta caretta</i>	Loggerhead Sea Turtle	Vertebrate	T
<i>Charadrius melodus</i>	Piping Plover	Vertebrate	T
<i>Calidris canutus rufa</i>	Red Knot	Vertebrate	T
<i>Trichechus manatus</i>	West Indian Manatee	Vertebrate	E

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Planorbella magnifica</i>	Magnificent Rams-Horn	Invertebrate	ARS
<i>Carex lutea</i>	Golden Sedge	Vascular Plant	E
<i>Ludwigia ravenii</i>	Raven's Seedbox	Vascular Plant	ARS
<i>Dionaea muscipula</i>	Venus Flytrap	Vascular Plant	ARS

ARS – At risk species

T – Threatened

E – Endangered

3.7 Industrial Facility Discharges

The Town of Carolina Beach 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
NCG190099	Carolina Beach Marina, LLC
NCGNE0638	Joyner Marina, LLC
NCGNE0668	Carolina Beach WWTP
NCGNE0891	Town of Carolina Beach Town Marina

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the Town of Carolina Beach as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The Town of Carolina Beach 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 Town of Carolina Beach to determine whether they may significantly impact water quality. The Town has determined that it is unlikely that car washing discharges will enter the MS4 as there is minimal curb and gutter throughout the Town unless it is on a DOT road. Therefore, all car washing is considered incidental.

Dechlorinated swimming pool discharges have been evaluated by the Town and are considered possible non-stormwater discharges. Therefore, the Town utilizes Public Education and Outreach BMPs 5-8 to educate residents and businesses about these potential water quality impacts.

Materials collected in the Town’s wet street sweeper are disposed of at the waste treatment plant. Street washing discharges are addressed under BMP 38 as part of the Pavement Management Program in Part 10 of this SWMP.

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	Possible
Street wash water	Possible
Flows from firefighting activities	Incidental

3.9 Target Pollutants and Sources

In addition to those potential water quality impacts identified above, the Town of Carolina Beach is aware of other significant water quality issues within the permitted MS4 area, which are described below.

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 Town of Carolina Beach has evaluated homeowners and businesses as target audiences that are likely to have significant stormwater impacts. Target pollutants include excess nutrients and fecal coliform from pet waste, lawn and garden fertilizers, and septic system leakages.

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/ Yard Waste	Residential, Commercial/ Industrial, Schools, Municipal Operations	Public Education & Outreach, Public Involvement & Participation, Pollution Prevention and Good Housekeeping
pH	Residential, Commercial/ Industrial	Public Education & Outreach, Illicit Discharge Detection and Elimination
Mercury	Residential, Commercial/ Industrial, Municipal Operations	Public Education & Outreach, Public Involvement & Participation, Pollution Prevention and Good Housekeeping
Dechlorinated Swimming Pool Discharges	Residential, Commercial	Public Education & Outreach, Illicit Discharge Detection and Elimination
Street Wash Water	Municipal Operations	Pollution Prevention and Good Housekeeping
Sediment	Construction, Commercial/ Industrial, Municipal Operations	Public Education & Outreach, Construction Site Runoff Control, Post-Construction Site Runoff Control, Pollution Prevention and Good Housekeeping
Fecal Coliform	Sewer Leaks, Failing Septic Systems, Pet Waste	Public Education & Outreach, Illicit Discharge Detection and Elimination
Fertilizer/ Pesticides/ Herbicides	Residential, Commercial/ Industrial, Municipal Operations	Public Education & Outreach, Pollution Prevention and Good Housekeeping
Illicit Discharge/ Illegal Dumping/ Improper Disposal of Waste	Residential, Commercial/ Industrial, Municipal Operations	Public Education & Outreach, Illicit Discharge Detection and Elimination, Pollution Prevention and Good Housekeeping

Part 4: Stormwater Management Program Administration

4.1 Organizational Structure

The Operations Department within the Town of Carolina Beach is the party responsible for administration of this SWMP. The Public Works Director oversees the implementation and compliance of this SWMP with seven additional stormwater dedicated staff members. The Stormwater System Manager maintains compliance. The Stormwater Construction Supervisor enforces the Town’s post-construction ordinances and the Public Works Supervisor performs inspections and water sampling and responds to drainage concerns. Table 8 provides a summary of the responsible parties for specific SWMP components.

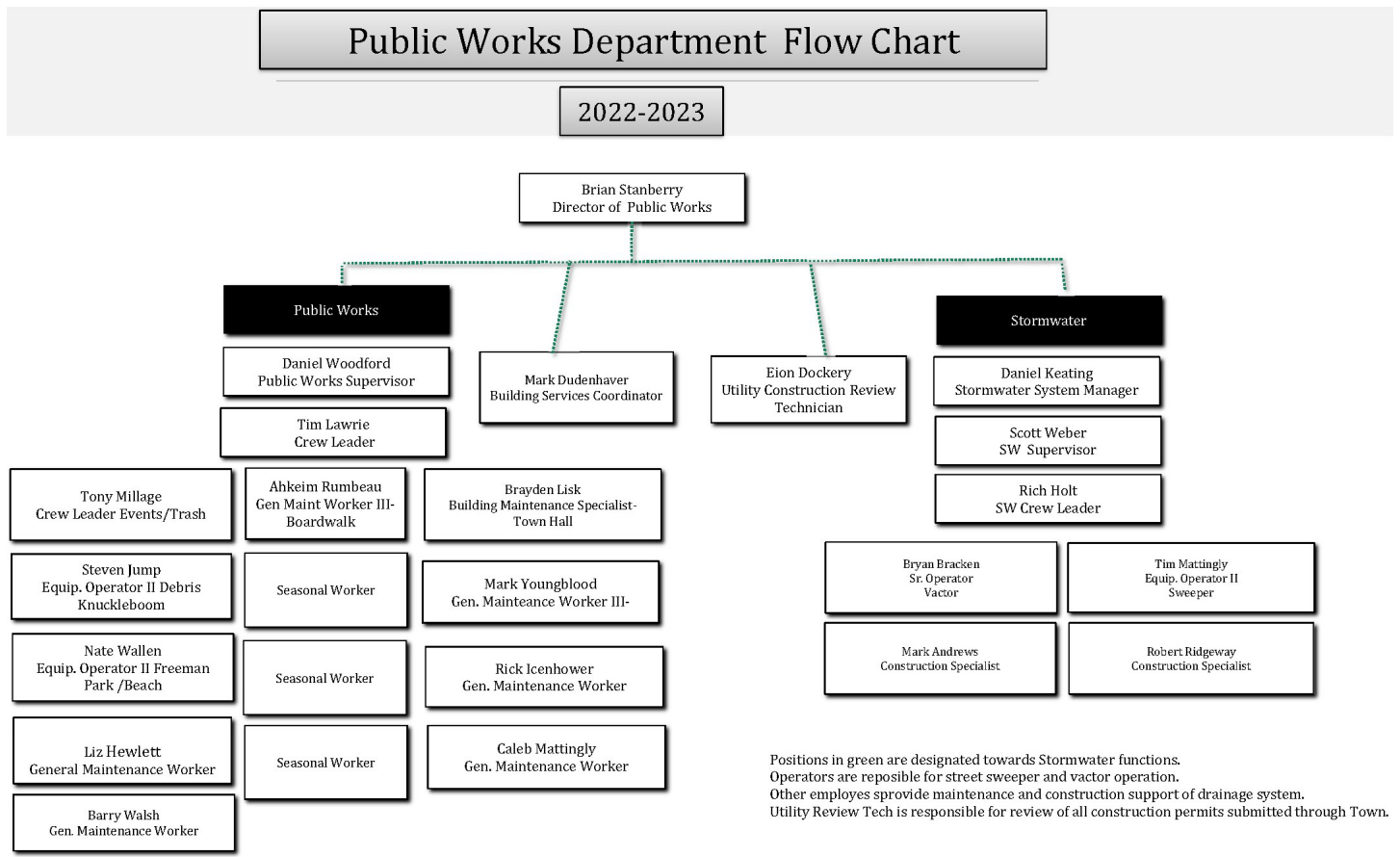


Figure 3: Town Organizational Structure

Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Stormwater System Manager	Daniel Keating	Operations
SWMP Management	Stormwater System Manager	Daniel Keating	Operations
Public Education & Outreach	Stormwater System Manager	Daniel Keating	Operations
Public Involvement & Participation	Stormwater System Manager	Daniel Keating	Operations
Illicit Discharge Detection & Elimination	Stormwater System Manager	Daniel Keating	Operations
Construction Site Runoff Control	Stormwater Construction Supervisor	Scott Weber	Operations
Post-Construction Stormwater Management	Utility Construction Review Technician	Eion Dockery	Operations
Pollution Prevention/ Good Housekeeping for Municipal Operations	Stormwater System Manager	Daniel Keating	Operations
Municipal Facilities Operation & Maintenance Program	Stormwater System Manager	Daniel Keating	Operations
Spill Response Program	Stormwater System Manager	Daniel Keating	Operations
MS4 Operation & Maintenance Program	Stormwater Construction Supervisor	Scott Weber	Operations
Municipal SCM Operation & Maintenance Program	Stormwater Construction Supervisor	Scott Weber	Operations
Pesticide, Herbicide & Fertilizer Management Program	Stormwater System Manager	Daniel Keating	Operations
Vehicle & Equipment Cleaning Program	Stormwater System Manager	Daniel Keating	Operations
Pavement Management Program	Stormwater System Manager	Daniel Keating	Operations
Total Maximum Daily Load (TMDL) Requirements	N/A	N/A	N/A

4.2 Program Funding and Budget

In accordance with the issued permit, the Town of Carolina Beach 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 administration and compliance fee, which is billed by the Division annually.

The total stormwater budget for the 2022-23 fiscal year, including salaries for personal, was \$1,446,149 apportioned through the enterprise fund. The Town of Carolina Beach has a 5-year CIP with \$255,000 allocated to stormwater improvements.

4.3 Shared Responsibility

The Town of Carolina Beach 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 Town of Carolina Beach remains responsible for compliance if the other entity fails to perform the permit obligation and may be subject to enforcement action if neither the Town of Carolina Beach 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 and Program Name	Legal Agreement (Y/N)
3.3.2 Volunteer Opportunities	Surfrider Foundation – <i>Beach Sweeps</i>	N

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000394 for the Town of Carolina Beach. Table 10 summarizes contact information for each co-permittee.

Table 10: Co-Permittee Contact Information

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

4.5 Measurable Goals for Program Administration

The Town of Carolina Beach 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			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
1.	Annual Self-Assessment			
	Evaluate the performance and effectiveness of the program components at least annually. Results shall be used to modify the program components as necessary to accomplish the intent of the Stormwater Program	1. Prepare, conduct, and document an annual evaluation of the program components	1. Annually – Permit Years 1 – 5	1. Yes/ No
Permit Ref.	1.6: Permit Renewal Application			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
2.	Permit Renewal Application			
	Submit a permit renewal application package and Draft SWMP-NMS no later than 180 days prior to permit expiration	1. Draft SWMP-NMS applicable to the proceeding 5 years following permit re-issuance	1. Permit Year 5	1. Yes/ No
		2. Certify the stormwater permit renewal application (permit renewal application form and Draft SWMP-NMS for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration	2. Permit Year 5	2. Date of permit renewal application submittal

Table 11: Program Administration BMPs

Permit Ref.	2.1.1: Adequate Funding and Staffing The permittee shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and meet all requirements of this permit.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
3.	Program Funding Review			
	Annually review stormwater program budget to determine if changes are needed to adequately fund the BMPs or program components	1. Complete a fiscal gap analysis and determine if the program is adequately funded for the remainder of the permit	1. Annually – Permit Years 1 – 5	1. Adequate/ Inadequate
Permit Ref.	2.2.2: Record Keeping Requirements and Multiple Minimum Measure Documentation Requirements			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
4.	Documentation			
	Evaluate existing documentation methods to determine how annual reporting metrics will be tracked	1. Review existing documentation methods to determine if all reporting metrics in the SWMP are included	1. Permit Year 1	1. Yes/No
		2. Create a method for documenting each BMP	2. Permit Year 1	2. Yes/No
		3. Annually review documentation methods and written programs and update if needed	3. Annually – Permit Years 2 – 5	3. Yes/No

Part 5: Public Education and Outreach Program

The Town of Carolina Beach 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 Town of Carolina Beach 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 and Audiences

Target Pollutants/ Sources	Target Audience(s)
Litter/ Yard Waste	Residential, Commercial/ Industrial, Schools, Municipal Operations
pH	Residential, Commercial/ Industrial
Mercury	Residential, Commercial/ Industrial, Municipal Operations
Dechlorinated Swimming Pool Discharges	Residential, Commercial
Sediment	Construction, Commercial/ Industrial, Municipal Operations
Fecal Coliform	Sewer Leaks, Failing Septic Systems, Pet Waste
Fertilizer/ Pesticides/ Herbicides	Residential, Commercial/ Industrial, Municipal Operations
Illicit Discharge/ Illegal Dumping/ Improper Disposal of Waste	Residential, Commercial/ Industrial, Municipal Operations

Table 13: Public Education and Outreach BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
5.	Distribute Educational Materials			
	Continue distribution of informational publications such as <i>Smart Yards</i> , published by North Carolina Coastal Federation, to residential, school, and commercial/ industrial audiences	1. Develop or identify informational publication/ handout for residential audiences	1. Annually – Permit Years 1-2	1. Yes/ No
2. Develop or identify informational publication/ handout for commercial/ industrial audiences		2. Annually – Permit Years 3-5	2. Yes/ No	
3. Monitor distribution of publications and document		3. Annually – Permit Years 1 – 5	3. Number of publications distributed	
6.	Social Media Campaign			
	The Town’s existing Facebook account will be used to reach residential and commercial target audiences and share educational information related to stormwater issues	1. Develop a method to track social media posts and outreach	1. Permit Year 1	1. Yes/ No
		2. Post about pH, sediment, and nutrients as pollutants	2. Permit Year 1	2. Yes/ No
		3. Post about mercury target pollutant and fish tissue advisory	3. Permit Year 2	3. Yes/ No
		4. Post about dechlorinated swimming pool discharges	4. Permit Year 3	4. Yes/ No

Table 13: Public Education and Outreach BMPs

		5. Post about illicit discharge and fecal coliform	5. Permit Year 4	5. Yes/ No
		6. Post about controlling vehicle leaks	6. Permit Year 5	6. Yes/ No
7.	Maintain Presence at Town Events			
	Continue stormwater staff attendance at local events such as the Farmer’s Market to educate and answer questions of residents and/or visitors. Attend at least one event per year and distribute information to target residential and commercial audiences	1. Develop or identify educational materials for target audiences to distribute or present	1. Annually – Permit Years 1 – 5	1. Yes/ No
		2. Staff a booth at the one event/ festival chosen and present/ distribute the information	2. Annually – Permit Years 1 – 5	2. Contact hours and number of materials distributed
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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
8.	Stormwater Page on Town Website			
	Develop stormwater-specific webpage(s) with information regarding relevant ordinances, post-construction requirements, design standards, and resident-specific resources/ programs. Provide a link to the MS4 permit and SWMP. The Town stormwater hotline as well as the State “Stop Mud” hotline will be advertised	1. Establish stormwater webpage(s)	1. Permit Year 1	1. Yes/ No
		2. Maintain the webpage – update any broken links, upload new educational material, and volunteer opportunities, upload most recent SWMP	2. Annually – Permit Years 2-5	2. Yes/ No

Table 13: Public Education and Outreach BMPs

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
9.	Stormwater Hotline			
	A hotline will be maintained for citizens to ask stormwater questions and report stormwater issues and the number will be listed on the stormwater web page	1. Establish and maintain hotline phone number or identify an existing number to utilize as the hotline	1. Permit Year 1	1. Yes/No
		2. Establish a responsible party to answer the hotline	2. Permit Year 1	2. Yes/No
		3. Train responsible parties in general stormwater knowledge, appropriate contacts for stormwater questions, and citizen opportunities within the stormwater program	3. Permit Year 1, and as required by staffing changes	3. Yes/No
		4. Establish a tracking mechanism to document the number and type of calls received	4. Permit Year 1	4. Yes/No
		5. Publicize hotline in materials developed for the stormwater program and posting on stormwater web page	5. Permit Year 1	5. Yes/No
6. Document the number and type of calls and follow up		6. Annually – Permit Years 1-5	6. Number and type of calls	

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 Town of Carolina Beach 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
10.	Stormwater Pages on Town Website			
	Develop stormwater-specific webpage(s) with information regarding relevant ordinances, post-construction requirements, design standards, and resident-specific resources/ programs. Provide a link to the MS4 permit and SWMP. The Town stormwater hotline as well as the State “Stop Mud” hotline will be advertised	1. Maintain the webpage – update any broken links, upload new educational material, and volunteer opportunities, upload most recent SWMP	1. Annually – Permit Years 2-5	1. Yes/No
11.	Stormwater Hotline			
	A hotline will be maintained for citizens to ask stormwater questions and report stormwater issues and the number will be listed on the stormwater web page	1. Document the number and type of calls and follow up	1. Annually – Permit Years 1-5	1. Number and type of calls
12.	Town Council Meetings			
	Town staff will bring an annual stormwater agenda item for public input to Town Council Meetings following the annual self-assessment	1. Schedule an annual stormwater agenda item for the Town Council meeting to allow for public input	1. Annually – Permit Years 1-5, following submission of annual self-assessment	1. Yes/No

Table 14: Public Involvement and Participation BMPs

Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
13.	Promote Volunteer Opportunities			
	Plan and implement one Town-sponsored volunteer opportunity (in person or virtually) such as beach sweeps per year. Continue to work with volunteer organizations and help promote their events	1. Develop or identify one volunteer activity that addresses a target pollutant or pollutants	1. Annually – Permit Years 1 – 5	1. Yes/No
		2. Coordinate and host the activity	2. Annually – Permit Years 1 – 5	2. Number of events, participants, and how many bags of waste collected (if applicable)
		3. Promote volunteer opportunities on Town website and Facebook page	3. Annually – Permit Years 1 – 5	3. Yes/No

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Part 7: Illicit Discharge Detection and Elimination Program

The Town of Carolina Beach 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
	Updates to MS4 Map			
14.	Continue to maintain the MS4 map with information including stormwater conveyances, outfalls, and receiving waters. Update the map annually with newly identified or constructed stormwater infrastructure. Update the map with Local Neuse Program requirements	1. Maintain a current map showing major outfalls and receiving streams	1. Annually – Permit Years 1 – 5	1. Yes/No
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
	Maintain IDDE Legal Authority			
15.	Review and maintain the Town’s stormwater ordinance (Article IX of Ordinance No. 17-1054) provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping, and spills into the MS4, including enforcement procedures and actions	1. Maintain and review IDDE ordinance	1. Annually – Permit Years 1 – 5	1. Yes/No

Table 15: Illicit Discharge Detection and Elimination BMPs

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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation
16.	IDDE Plan Document			
	Update the written IDDE plan to include inspection requirements, priority areas and inspection frequencies, illicit discharge identification and tracking SOPs, methods to resolve discharges and follow-up, and evaluation and assessment criteria. Identify responsible parties for performing each portion of the plan and date the plan	1. Develop criteria for identifying chronic violators and “hot spots” by owner/operator	1. Permit Year 1	1. Yes/No
		2. Identify priority areas for inspections	2. Permit Year 1	2. Yes/No
		3. Revise and maintain a standard operating procedure (SOP) for investigation of potential illicit discharges, illicit connections, and illegal dumping	3. Permit Year 1	3. Yes/No
		4. Create the comprehensive document that includes the above and existing SOPs as well as inspection frequencies	4. Permit Year 1	4. Yes/No
		5. Identify responsible parties for each portion of the plan and date the plan	5. Permit Year 1	5. Yes/No

Table 15: Illicit Discharge Detection and Elimination BMPs

Table 15: Illicit Discharge Detection and Elimination BMPs				
17.	Outfall Inspections			
	Perform regular dry weather (no rain in previous 72 hours) outfall inspections to proactively identify illicit discharges and illicit connections. As there is only one major outfall within the Town and many are underwater during the day, determine a schedule for inspections of all outfalls	1. Perform inspections according to IDDE plan	1. Annually – Permit Years 1 – 5	1. Number and percent of outfalls inspected (%/ # completed)
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
18.	Annual IDDE Program Evaluation			
	A tracking system for observed IDDE violations and follow-on actions will be developed and implemented in Cityworks to identify “hot-spot” areas, chronic violators, and recurring issues. Issues will be tracked by owner/ operator as well as location. An annual evaluation of IDDE Plan implementation and effectiveness and review to identify chronic violators will be performed	1. Track the number of IDDE investigations	1. Continuously	1. Total number of IDDE investigations performed
		2. Review of IDDE reports in Cityworks for identification of chronic violators, issues, and/or “hot-spot” areas	2. Annually – Permit Years 1-5	2. Yes/No

Table 15: Illicit Discharge Detection and Elimination BMPs

		3. Host evaluation meeting with IDDE program stakeholders; to include at minimum director and supervisors	3. Annually – Permit Years 1-5	3. Yes/No
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.	Staff Training			
	Develop a program to educate Town staff of indicators of potential illicit discharges/ connections and illegal dumping and the appropriate avenues through which to report suspected illicit discharge. Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints vs. illicit discharge reporting	1. Identify or develop staff training program for public works employees	1. Permit Year 1	1. Yes/No
2. Train staff with IDDE responsibilities or the potential to discover an illicit discharge during routine work activities		2. Annually – Permit Years 1 – 5 and during new staff on-boarding	2. Training date and number of attendees	
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.	Stormwater Pages on Town Website			

Table 15: Illicit Discharge Detection and Elimination BMPs

	Develop stormwater-specific webpage(s) with information regarding relevant ordinances, post-construction requirements, design standards, and resident-specific resources/programs. Provide a link to the MS4 permit and SWMP. The Town stormwater hotline as well as the State “Stop Mud” hotline will be advertised	1. Maintain the webpage – update any broken links, upload new educational material and volunteer opportunities, upload most recent SWMP	1. Annually – Permit Years 2-5	1. Yes/No
	Stormwater Hotline			
21.	A hotline will be maintained for citizens to ask stormwater questions and report stormwater issues and the number will be listed on the stormwater web page	1. Document the number and type of calls and follow up	1. Annually – Permit Years 1-5	1. Number and type of calls

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Part 8: Construction Site Runoff Control Program

In accordance with 15A NCAC 02H .0153, the Town of Carolina Beach 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 Town of Carolina Beach 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
22.	Staff Training			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints vs. illicit discharge reporting	1. Train stormwater staff on proper handling of construction site runoff control complaints vs. illicit discharge reporting	1. Annually – Permit Years 1 – 5 and during new staff on-boarding	1. Training date and number of attendees
23.	Stormwater Hotline and Alternative Reporting Methods			
	Provide and promote the Stormwater Hotline and link to the State “Stop Mud” hotline to provide a method to notify the appropriate authorities of observed erosion and sedimentation problems	1. Document the number and type of calls and follow up 2. Document the number of violations identified and referred to NCDEQ	1. Annually – Permit Years 1-5 2. Annually – Permit Years 1 – 5	1. Number and type of calls 2. Number of violations referred

Table 17: Construction Site Runoff Control BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
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.			
24.	Establish and Maintain Legal Authority for Construction Site Waste Management			
	Develop and implement an ordinance to require construction site operators to control waste	1. Pass code	1. Permit Year 1	1. Yes/No
		2. Maintain legal authority	2. Continuously, after ordinance is adopted	2. Yes/No
25.	Contractor Education			
	Communicate new waste management requirements to construction site operators	1. Identify/develop fact sheet to share at pre-construction meetings	1. Permit Year 2	1. Yes/No
		2. Add fact sheet to website	2. Permit Year 2	2. Yes/No
2. Distribute fact sheet at pre-construction meetings		2. Continuously, after fact sheet is developed	2. Number of fact sheets distributed	



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 Town of Carolina Beach 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 Town of Carolina Beach 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 Town of Carolina Beach 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	Code of Ordinances Town of Carolina Beach, NC – §32-7	7/11/2017
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	Code of Ordinances Town of Carolina Beach, NC – §32-4	7/11/2017
3.6.3(b) Plan Review	Code of Ordinances Town of Carolina Beach, NC – §32-9	7/11/2017
3.6.3(c) O&M Agreement	Code of Ordinances Town of Carolina Beach, NC – §32-161	7/11/2017
3.6.3(d) O&M Plan	Code of Ordinances Town of Carolina Beach, NC – §32-161(a)(2)	7/11/2017
3.6.3(e) Deed Restrictions/ Covenants	Code of Ordinances Town of Carolina Beach, NC – §32-98(d)	7/11/2017
3.6.3(f) Access Easements	Code of Ordinances Town of Carolina Beach, NC – §32-36(c)(2), §32-98(a)(8)	7/11/2017
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/ Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	Code of Ordinances Town of Carolina Beach, NC – §32-67, §32-160(c), §32-161	7/11/2017
3.6.2(c) Right of Entry	Code of Ordinances Town of Carolina Beach, NC – §32-161(a)(2), §32-161(b)(2)	7/11/2017
3.6.4(a) Pre-CO Inspections	Code of Ordinances Town of Carolina Beach, NC – §32-37(2), §32-100(c)	7/11/2017
3.6.4(b) Compliance with Plans	Code of Ordinances Town of Carolina Beach, NC – §32-39(c), §32-40(c), §32-162(c)	7/11/2017
3.6.4(c) Annual SCM Inspections	Code of Ordinances Town of Carolina Beach, NC – §32-160(c)(5)	7/11/2017
3.6.4(d) Low Density Inspections	BMP 27	BMP 27
3.6.4(e) Qualified Professional	Code of Ordinances Town of Carolina Beach, NC – §32-160(c)	7/11/2017
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/ Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	Code of Ordinances Town of Carolina Beach, NC – §32-106	7/11/2017
3.6.6(b) On-Site Domestic Wastewater Treatment	NCGS 130A-335(e)	7/1/1982

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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
26.	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 low-density plan reviews performed	1. Continuously – Permit Years 1 – 5	1. Number of plan reviews performed for low density
		2. Track number of low-density plans approved	2. Continuously – Permit Years 1 – 5	2. Number of plan approvals issued for low density
		3. Maintain a current inventory of projects and constructed SCMs including SCM type, location, and last inspection date	3. Continuously – Permit Years 1 – 5	3. Number and type of SCMs added to the inventory
		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 of low-density enforcement actions taken	6. Continuously – Permit Years 1 – 5	6. 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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 18				

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	<p>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.</p>			
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BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

This permit requirement is fully met by the existing post-construction program, 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>			
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BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

This permit requirement is fully met by the existing post-construction program, see references provided in Table 19

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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
27.	Inspection of Low-Density Projects			
	Revise existing ordinance to specifically require inspection of low-density projects and develop an inventory of low-density projects to be utilized for inspections and tracking	1. Revise code to require inspection of low-density projects at least once during the permit term by a qualified professional	1. Permit Year 1	1. Yes/ No
		2. Establish list of existing low-density projects and update when new projects are approved	2. Permit Year 1, and annually thereafter	2. Yes/ No
		3. Conduct inspection of 20% of low-density projects each year and document any follow-up	3. Permit Year 5	3. Number and percent inspected (%/ # completed)
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
This permit requirement is fully met by the existing post-construction program, 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 Town of Carolina Beach 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 O&M Program
2. Spill Response Program
3. MS4 O&M Program
4. Municipal SCM O&M Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The Town of Carolina Beach 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

Table 21: Pollution Prevention and Good Housekeeping BMPs				
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
28.	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.			
	Inventory of Municipal Facilities			
	Maintain an up-to-date inventory of municipal facilities with potential to generate polluted runoff and review every two years	1. Review inventory and update when facilities are added or closed	1. Permit Years 1, 3, and 5	1. Yes/No

Table 21: Pollution Prevention and Good Housekeeping BMPs

Table 21: Pollution Prevention and Good Housekeeping BMPs				
29.	Facility Inspections			
	Establish inspection frequencies and inspect Town-owned facilities with the potential to pollute stormwater	1. Establish a SOP/plan for facility inspections, including an inspection schedule, inspection report documentation, and tracking system	1. Permit Year 1	1. Yes/No
		2. Perform inspections according to the SOP/plan	2. Annually – Permit Years 1-5	2. Total number of inspections
		3. Track corrective actions and document resolutions when problems are identified	3. Annually – Permit Years 1-5	3. Yes/No
30.	Staff Training			
	Develop or identify a staff training program and provide to public works department employees. Ensure training targets litter/yard waste, nitrogen, sediment, car washing, fertilizer/pesticides/herbicides, illicit discharges, and spill response procedures	1. Identify or develop staff training program for public works employees	1. Permit Year 1	1. Yes/No
		2. Determine frequency required for staff training and document	2. Permit Year 1	2. Yes/No
		3. Train staff with PPGH responsibilities	1. Annually – Permit Years 1 – 5 and during new staff on-boarding	1. Training date and number of attendees

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
	Inventory of Facilities with Spill Potential			
31.	Maintain a list of Town facilities and operations storing materials that would be a pollutant if spilled and introduced to the stormwater system and classify by hazard and quantity. Review every two years	1. Review and update list of Town facilities and operations with spill potential when facilities or operations are changed	1. Permit Years 1, 3, and 5	1. Yes/No
	Spill Response Standard Operating Procedures (SOP)			
32.	Maintain spill response procedures as part of the PPGH Plan and train staff on procedures	1. Train staff at facilities with potential for high hazard spills and staff responding to vehicular accidents in first response actions and reporting procedures	1. Annually – Permit Years 1 – 5 and during new staff on-boarding	1. Training date and number of attendees
		2. Annually review and update spill response SOP to identify new polluting materials or processes	2. Annually – Permit Years 1-5	2. Yes/No

Table 21: Pollution Prevention and Good Housekeeping BMPs

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
33.	MS4 System Operation and Maintenance Plan			
	Maintain and update the plan for MS4 system maintenance, requiring regular inspections and maintenance. Track the number of inspections performed and citizen reports addressed. Review every two years	1. Review the inspection SOPs and revise as necessary	1. Permit Years 1, 3, and 5	1. Yes/No
		2. Perform regular inspections in accordance with the SOPs	2. Annually – Permit Years 1-5	2. Number of inspections performed
		3. Verify, prioritize, and track maintenance activities identified by inspections or citizen reports	3. Annually – Permit Years 1-5	3. Yes/No
		4. Develop 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 Year 1	4. Yes/No

Table 21: Pollution Prevention and Good Housekeeping BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
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.			
34.	Inventory of Municipal Structural SCMs			
	Maintain an inventory of municipally owned structural SCMs. Review every two years	1. Review and update list of Town-owned SCMs when new SCMs are constructed	1. Permit Years 1, 3, and 5	1. Yes/ No
35.	SCM Inspections and Maintenance			
	Continue to perform and document regular inspection and maintenance of municipally owned structural SCMs according to the O&M plans	1. Maintain NC SCM Inspections and Maintenance Certification for appropriate personnel	1. Continuously	1. Number of staff members with active certification
		2. Perform inspections and maintenance according to O&M plan for each SCM	2. Annually – Permit Years 1-5	2. Number of Town-owned SCMs inspected
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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
36.	Contractor Applicator Training			
	Continue to require and track contractor certifications for appropriate Town personnel	1. Maintain and update a list of certified Town staff	1. Annually – Permit Years 1-5	1. Yes/ No

Table 21: Pollution Prevention and Good Housekeeping BMPs

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
37.	Vehicle and Equipment Maintenance Facility Inspection			
	Continue to perform 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 maintenance and washing	1. Perform inspections according to the SOP/plan	1. Annually – Permit Years 1-5	1. Yes/No
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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
38.	Street Sweeping			
	Develop a street sweeping SOP following a regular schedule to reduce pollutants from Town-owned and maintained streets	1. Develop a SOP, including a schedule and plan to document	1. Permit Year 1	1. Yes/No
		2. Implement SOP and documentation	2. Annually – Permit Years 2-5	2. Total number of street miles swept
39.	Leaf Collection			
	Continue to perform periodic collection of leaves from residential and public areas to reduce pollutants and clogging of storm system inlets	1. Develop a SOP, including a schedule and plan to document	1. Permit Year 1	1. Yes/No
		2. Implement SOP and documentation	2. Annually – Permit Years 2-5	2. Weight or volume of leaves collected

Table 21: Pollution Prevention and Good Housekeeping BMPs

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40.	Vehicle Spill Cleanup			
	An organized vehicle spill cleanup response to prevent pollutants from vehicular accidents from entering the storm drain system	1. Annually review and update spill response SOP to identify new polluting materials or processes	1. Annually – Permit Years 1-5	1. Yes/No
		2. Provide public education about stopping vehicle leaks	2. Permit Year 5	2. Yes/No

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