

**Stormwater Management Plan**  
**Town of Carrboro**  
**NCS000450**

10/4/2021



# Table of Contents

PART 1: INTRODUCTION .....	1
PART 2: CERTIFICATION .....	2
PART 3: MS4 INFORMATION .....	3
3.1 Permitted MS4 Area .....	3
3.2 Existing MS4 Mapping .....	4
3.3 Receiving Waters .....	5
3.4 MS4 Interconnection.....	6
3.5 Total Maximum Daily Loads (TMDLs) .....	7
3.6 Endangered and Threatened Species and Critical Habitat .....	7
3.7 Industrial Facility Discharges .....	8
3.8 Non-Stormwater Discharges .....	8
3.9 Target Pollutants and Sources.....	10
PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION.....	12
4.1 Organizational Structure .....	12
4.2 Program Funding and Budget .....	16
4.3 Shared Responsibility .....	17
4.4 Co-Permittees.....	18
4.5 Measurable Goals for Program Administration .....	18
PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM .....	21
PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM.....	26
PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM.....	28
PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM .....	34
PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM .....	36
PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS.....	43

## **List of Tables**

- Table 1: Summary of MS4 Mapping
- Table 2: Summary of MS4 Receiving Waters
- Table 3: Summary of Approved TMDLs
- Table 4: Summary of Federally Listed Species/Habitat Impacted by Surface Water Quality
- Table 5: NPDES Stormwater Permitted Industrial Facilities
- Table 6: Non-Stormwater Discharges
- Table 7: Summary of Target Pollutants and Sources
- Table 8: Summary of Responsible Parties
- Table 9: Shared Responsibilities
- Table 10: Co-Permittee Contact Information
- Table 11: Program Administration BMPs
- Table 12: Summary of Target Pollutants & Audiences
- Table 13: Public Education and Outreach BMPs
- Table 14: Public Involvement and Participation BMPs
- Table 15: Illicit Discharge Detection and Elimination BMPs
- Table 16: Qualifying Alternative Program Components for Construction Site Runoff Control Program
- Table 17: Construction Site Runoff Control BMPs
- Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program
- Table 19: Summary of Existing Post-Construction Program Elements
- Table 20: Post Construction Site Runoff Control BMPs
- Table 21: Pollution Prevention and Good Housekeeping BMPs

## **PART 1: INTRODUCTION**

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the Town of Carrboro 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 Carrboro 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 NCS000450, 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 Carrboro and located within the corporate limits of the Town of Carrboro.

In preparing this SWMP, the Town of Carrboro 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.

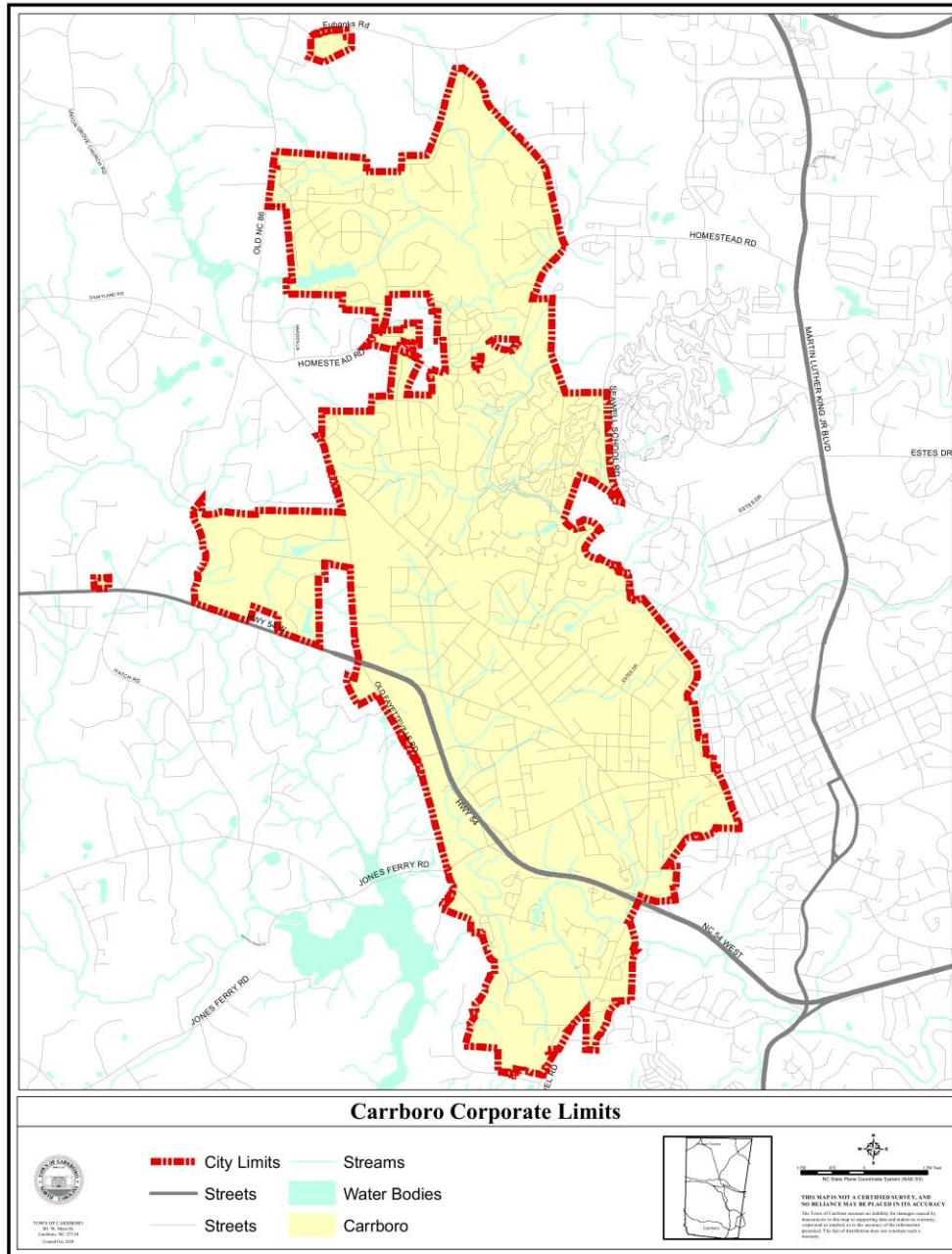
- I am a ranking elected official.
- I am a principal executive officer for the permitted MS4.
- I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):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

<i>Signature:</i>	
<i>Print Name:</i>	Richard J. White III
<i>Title:</i>	Town Manager
Signed this <u>12</u> day of October 20 <u>21</u> .	

## **PART 3: MS4 INFORMATION**

### **3.1 Permitted MS4 Area**

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



### 3.2 Existing MS4 Mapping

The current MS4 mapping includes these layers: inlets, outlets (outfalls), junctions/manholes, clean outs, pipes, culverts, open channels, and SCMs. Attributes are provided for owner (some non-Town owned/maintained assets are mapped) sizes, materials, inverts, and more. Carrboro footnote: all drainage features with drainage areas > 50 acres are regulated streams and not considered to be part of the MS4 in Carrboro. (Carrboro regulates ephemeral streams with > 5 acres of drainage areas in addition to intermittent and perennial streams.) Major outfalls are therefore defined in the above table based on pipe size alone. Note that for illicit discharge purposes, Carrboro has also included smaller pipe sizes as priority outfalls for illicit discharge purpose. With the exception of the Town’s Public Works (with a Vehicle Maintenance Area general permit), the one industrial site in Carrboro’s municipal limits that meets the definition provided above is a cement plant on State (UNC) property that is regulated through UNC’s MS4 and a State industrial permit.

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	100	%
No. of Major Outfalls* Mapped	18	total

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

### 3.3 Receiving Waters

The Town of Carrboro 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 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; Integrated Report Classification; Listing Date
<u>Within MS4</u>			
Bolin Creek	16-41-1-15-1-(0.5)a	WS-V-NSW	Mercury/fish tissue; 4t; 2012 (Jordan Lake)
Bolin Creek	16-41-1-15-1-(0.5)b	WS-V-NSW	Mercury/fish tissue; 4t; 2012; Benthos/aquatic life; 5; 2009; (Jordan Lake)
Morgan Creek	16-41-2-(5)	WS-V; NSW	(Jordan Lake)
Morgan Creek	16-41-2-(1)	WS-II; HQW;NSW	Mercury/fish tissue; 4t; 2012 (Jordan Lake)
Morgan Creek (University Lake)	16-41-2-(1.5)	WS-II; HQW;NSW	Chlorophyll a, nitrogen, phosphorus; Mercury/fish tissue; 4t; 2012 (Jordan Lake)
Jones Creek	16-41-1-15-1-1	WS-V; NSW	(Jordan Lake)
Buckhorn Branch	16-41-1-15-1-1-1	WS-V; NSW	(Jordan Lake)
Jolly Branch	16-41-1-15-1-2	WS-V; NSW	(Jordan Lake)
Tanbark Branch	16-41-1-15-1-3	WS-V; NSW	(Jordan Lake)
<u>Immediately Downstream of MS4</u>			
Bolin Creek	16-41-1-15-1-(4)	WS-IV-NSW	Mercury/fish tissue; 4t; 2012; Benthos/aquatic life; 5 ; (Jordan Lake)
Morgan Creek	16-41-2-(5.5)a*	WS-IV-NSW	Mercury/fish tissue; 4t; 2012 (Jordan Lake)

Note for all Jordan Lake listings: the parameters of interest include Chlorophyll a, nitrogen, phosphorus, total suspended solids, turbidity, and mercury (fish tissue). Note that the source of mercury is atmospheric emissions; the MS4 program therefore does not identify it as a priority pollutant.

\*The next most downstream segment below the shown AU of Morgan Creek is also listed for benthos/aquatic life.

### 3.4 MS4 Interconnection

The Town of Carrboro MS4 is interconnected with another regulated MS4 and directly receives stormwater from the Town of Chapel Hill MS4. The number of interconnections entering the Town of Carrboro MS4 from the Town of Chapel Hill is 5, as determined by GIS analysis of MS4 data

The Town of Carrboro MS4 is interconnected with another regulated MS4 and directly discharges stormwater into the Town of Chapel Hill MS4. The number of interconnections leaving the Town of Carrboro MS4 to the Town of Chapel Hill is 6, as determined by GIS analysis of MS4 data.

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

- a. The interconnection is receiving stormwater from the NCDOT TS4. The number of interconnections is unknown.
- b. The interconnection is discharging stormwater into the NCDOT TS4. The number of interconnections is unknown.
- c. The Carrboro MS4 mapping does not identify interconnections with the NCDOT TS4.
- d. The Carrboro MS4 mapping does not include NCDOT TS4 outfalls.

### 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)
Jordan Lake	Chlorophyll a, nitrogen, phosphorus, total suspended solids, turbidity	N	N

While the TMDL for chlorophyll a in Jordan Lake has not yet resulted in load allocations, a nitrogen load reduction goal of 35% and phosphorus load reduction goal of 5% for the Upper New Hope Arm has been identified. The Town has included post construction requirements for nitrogen and phosphorus to prevent increases since 2007 under a state Nutrient Sensitive Waters Strategy. The Jordan Lake TMDL was amended in 2014, and includes a TMDL for turbidity in the Upper New Hope arm, but, associated load reductions have not been assigned.

Carrboro has developed regulations and completed annual reporting to comply with the Jordan Lake Rules and will continue to track ongoing implementation of the Jordan Lake Rules during this permit cycle. Carrboro also is a participant in the Bolin Creek Watershed Restoration Team, supported the development of a 9-step watershed restoration plan for Bolin Creek under the Use Restoration Waters program, and will continue to pursue watershed restoration activities as presented in the plan.

### 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
Fusconaia masoni	Atlantic pigtoe	Clam	Proposed threatened At Risk Species (ARS)
Lasmigona subviridis	Green floater	Clam	Under review

### 3.7 Industrial Facility Discharges

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

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
NCG080676	Town of Carrboro-Public Works
NCG140126	Southern Equipment Company-Chapel Hill Plant #16

Note that NCG210452 (JV Brockwell Trucking) is in Carrboro’s Planning Jurisdiction (Transition Area) and NCG020749 (Tony Merritt Gravel Pit) is in the ETJ, but neither is in the municipal limits.

### 3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the Town of Carrboro as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality.

Street washing discharges are addressed under the Pavement Management Program in Part 10 of this SWMP. Street cleaning is performed with a vacuum street sweeping process that removes excess debris/sediment/solids and reduces pollutants associated with street washing. The Division has not required that other non-stormwater flows be specifically controlled by the Town of Carrboro.

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 or do discharge to the MS4 have been evaluated by the Town of Carrboro to determine whether they may significantly impact water quality. With some residential/charity/community car washes in Carrboro, some of the discharged soapy water may make its way to a storm drain, however in many cases of the runoff either flows to a vegetated area or there is some kind of containment or at least a means of blocking the suds from entering the drain, but allowing the water to flow through. Also, the Town of Carrboro is aware that mobile car washing is a significant source of metals. Car washing has therefore been determined to be a possible cause of water quality impact and will be addressed through public education efforts as well as enforcement on reoccurring situations. Water from water lines and fire hydrants is also a possible source if not dechlorinated. HVAC cleaning operations, and particularly commercial and higher density sites with directly connected drains, are typically performed with caustic chemicals and pose a pollution risk.

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	<b>Possible</b>
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	<b>Possible</b>
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	Incidental
Flows from firefighting activities	Incidental
HVAC cleaning	<b>Possible</b>

### 3.9 Target Pollutants and Sources

In addition to those target discharges identified above, the Town of Carrboro is aware of other significant water quality issues and pollutants within the permitted MS4 area. These include sediment, nitrogen, phosphorus, bacteria such as fecal coliform and trash/litter. These acknowledgements come from daily inspections of the municipality and public participation events such as annual cleanups. Sediment is attributed to development and construction as well as landscaping practices and gully and stream bank erosion. Carrboro’s soils are inherently subject to erosion.

While litter is a general issue, there are “hot spots” near a relatively small subset of neighborhoods and commercial developments. Pet wastes, leaking sewers, sanitary sewer overflows, and improper leaf collection practices by residents have been a contributor of nitrogen, phosphorus, and bacteria in the Town of Carrboro. The Town of Carrboro has implemented public participation and education as discussed in the following sections of this plan, and installed pet waste stations throughout Carrboro to educate residents about the importance of picking up their pet’s waste. The Town of Carrboro will continue to educate the public and enforce, as needed, for these target pollutants and sources.

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 Carrboro has evaluated schools, homeowners and businesses as target audiences that are likely to have significant stormwater impacts.

There are three elementary schools, a middle school, and a high school in Carrboro. These schools are a priority audience because of the degree of development with these large sites, the ability to reach a large portion of the population through the schools, and the shared public purpose. One (Carrboro Elementary, with the smallest footprint) was built before the Town had adopted a Land Use Ordinance; it has no required stormwater management facilities. Erosion and nutrients are priority pollutants at these sites; stormwater volume reduction is also a point of emphasis, although more difficult to regulate. Because of the large amount of Carrboro dedicated to residential land use, homeowners are also a priority audience, with all target pollutants being relevant. Businesses are an important audience especially in areas with commercial development near downtown and in several largely retail and office/institutional land uses. All target pollutants are relevant, with an emphasis on volume and associated erosion and nutrients.

Table 7: Summary of Target Pollutants and Sources

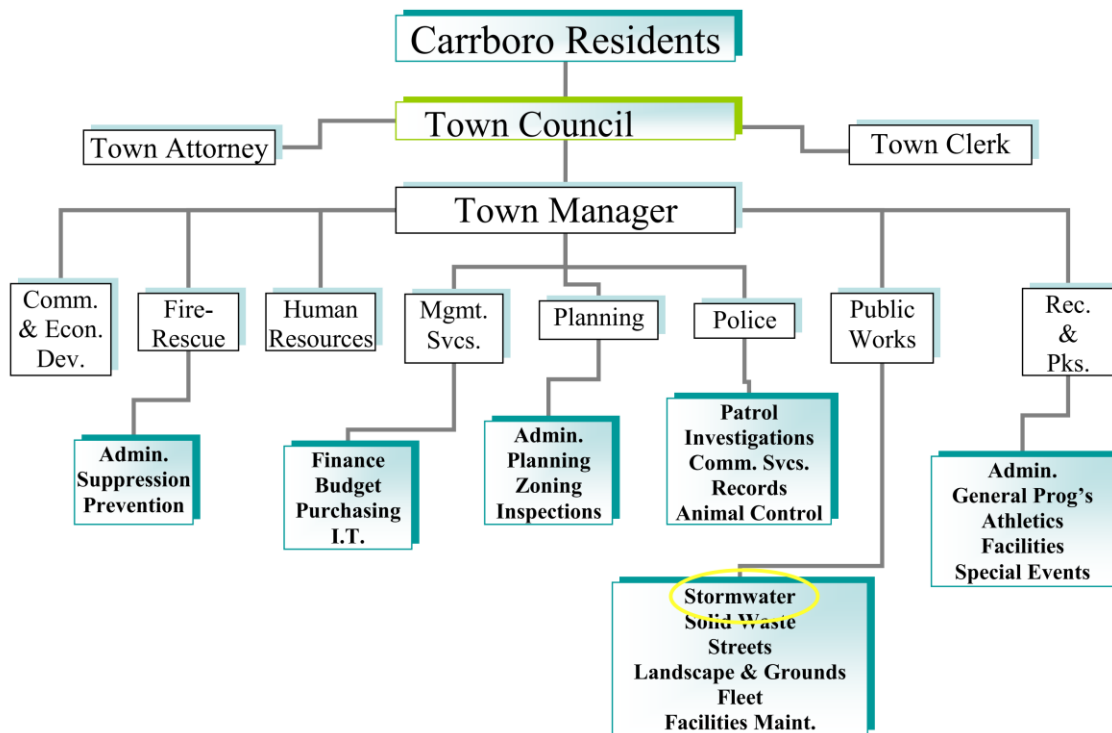
Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Sediment	Construction, landscaping, channels, streams; Developers, landscapers, homeowners	Construction Site Runoff Control Illicit Discharge Detection and Elimination Public Education and Outreach
Nitrogen, phosphorus	Leaking sewer, septic, fertilizer, leaf collection, pet wastes; OWASA, homeowners, landscapers	Illicit Discharge Detection and Elimination Public Education and Outreach
Fecal coliform	Leaking sewer, septic, pet waste; OWASA, homeowners, landscapers	Illicit Discharge Detection and Elimination Public Education and Outreach
Illicit discharges	Residential, utility, commercial; OWASA, homeowners, businesses	Illicit Discharge Detection and Elimination Public Education and Outreach
Litter, illegal dumping	Residential, commercial; Homeowners, businesses,	Public Education and Outreach Public Participation Pollution Prevention and Good Housekeeping
Yard waste	Residential, commercial; Homeowners, landscapers, businesses	Public Education and Outreach Pollution Prevention and Good Housekeeping

**PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION**

**4.1 Organizational Structure**

The figures below show the overall and departmental organization of the key staff involved in the Town’s stormwater program. The Stormwater Division is housed in the Public Works Department. Other Public Works Divisions and staff along with Planning Department staff, contract engineering support from Sungate Design, and Orange County Erosion Control provide important support to the MS4 program.

# Organization Chart - Town of Carrboro



# TOWN OF CARRBORO PUBLIC WORKS

## CENTRAL SERVICES



**Building Maintenance Supervisor**  
Gary Watkins



**Building Maintenance Specialist**  
Keith Berger



**Custodian**  
Doris Hartenfels

## FLEET MAINTENANCE



**Fleet Maintenance Supervisor**  
Dustin Cook



**Mechanic II**  
Ronald Eddins



**Mechanic I**  
Joseph Harris

## ADMINISTRATION

**Public Works Director**  
Vacant



**Asst. to Public Works Director**  
Kristen Benoit



**Interim Public Works Director**  
Daniel Snipes



**Admin. Assistant**  
Lakisha White-Kelly

## SOLID WASTE



**Solid Waste Supervisor**  
Chris Clark



**Crew Leader/SW Equipment Operator II**  
Sherman Bradsher



**SW Equipment Operator I**  
Maurice Moore



**SW Equipment Operator I**  
Tony Legette



**Crew Leader/SW Equipment Operator II**  
Brian Griffith



**SW Equipment Operator II**  
Lee Barrett



**SW Equipment Operator I**  
Ellis Kennedy

**SW Equipment Operator I**  
Vacant

## ENGINEERING



**Capital Projects Manager**  
Ben Schmadeke



**Engineer I**  
Max Randall



**Construction Engineer**  
Mike Thompson

## STORMWATER



**Stormwater Utility Manager**  
Randy Dodd



**Stormwater Specialist**  
Heather Holley



**Stormwater Administrator**  
Emily Cochran

## STREETS & GROUNDS



**Street Maint. Supervisor**  
Dillion Dispennette



**Horticulturalist/Crew Leader**  
Weldon Jenkins



**Crew Leader**  
Bobby Horton



**Crew Leader**  
Greg Carver



**Crew Leader**  
Trey Edwards



**Maint/Const Worker III**  
Raid Wahieb



**Maint/Const Worker I**  
Floyd Alston



**Maint/Const Worker I**  
John Garland



**Maint/Const Worker I**  
Wesley Winslow



**Maint./Const. Worker**  
Jonathan Stewart



**Maint/Const Worker I**  
Jay Nickelson



**Maint/Const Worker I**  
Michael Horton

**Maint/Const Worker I**  
Vacant

**Maint/Const Worker I**  
Vacant



**MISSION:** Promote a healthier, more aesthetically pleasing environment and community through ever progressing projects, programs, and services.



# PLANNING DEPARTMENT

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**13.5 FTE**

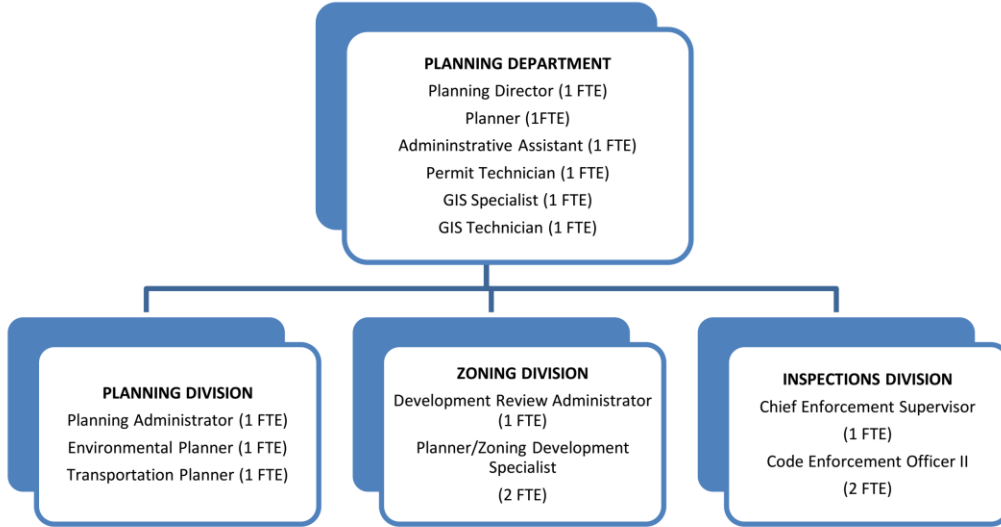


Table 8: Summary of Responsible Parties-Town of Carrboro

<b>SWMP Component</b>	<b>Responsible Position</b>	<b>Name</b>	<b>Department</b>
Stormwater Program Administration	<b>Stormwater Utility Manager</b> Stormwater Administrator	Randy Dodd Emily Cochran	Public Works
SWMP Management	<b>Stormwater Administrator</b>	Emily Cochran	Public Works
Public Education & Outreach	<b>Stormwater Specialist</b> Communications Manager	Heather Holley Catherine Lazorko	Public Works Manager's Office
Public Involvement & Participation	<b>Stormwater Utility Manager</b> Stormwater Specialist Stormwater Administrator	Randy Dodd Heather Holley Emily Cochran	Public Works
Illicit Discharge Detection & Elimination	<b>Stormwater Administrator</b> Stormwater Specialist	Emily Cochran Heather Holley	Public Works
Construction Site Runoff Control	<b>Development Review Administrator</b> Engineer 1	Marty Roupe Khadijah Hasan	Planning Public Works
Post-Construction Stormwater Management	<i>Pre-Construction, Construction:</i> <b>Development Review Administrator</b> <b>Town Engineer</b> <b>Stormwater Utility Manager</b>	Marty Roupe Josh Dalton Randy Dodd	Planning Sungate Design Public Works
	<i>Post-Construction SCM M&amp;I:</i> <b>Stormwater Administrator</b> Stormwater Specialist	Emily Cochran Heather Holley	Public Works
Pollution Prevention/Good Housekeeping for Municipal Operations	<b>Public Works Director</b> <b>Stormwater Specialist</b> Assistant to Public Works Director Engineer 1 Construction Engineer	Daniel Snipes Heather Holley Kristen Benoit Max Randall Mike Thompson	Public Works
Municipal Facilities Operation & Maintenance Program	<b>Public Works Director</b> <b>Stormwater Utility Manager</b> <b>Engineer 1</b> Stormwater Specialist Construction Engineer	Daniel Snipes Randy Dodd Max Randall Heather Holley Mike Thompson	Public Works
Spill Response Program	<b>Fire Marshal</b> <b>Public Works Director</b>	Ray Enoch Daniel Snipes	Fire and Rescue Public Works
MS4 Operation & Maintenance Program	<b>Public Works Director</b>	Daniel Snipes	Public Works

	<b>Stormwater Utility Manager Engineer 1</b> Stormwater Specialist Construction Engineer	Randy Dodd Max Randall Heather Holley Mike Thompson	
Municipal SCM Operation & Maintenance Program	<b>Stormwater Utility Manager</b> Stormwater Specialist Engineer 1 Construction Engineer	Randy Dodd Heather Holley Max Randall Mike Thompson	Public Works
Pesticide, Herbicide & Fertilizer Management Program	<b>Streets/Grounds Supervisor</b>	Dillon Dispennette	Public Works
Vehicle & Equipment Maintenance Program	<b>Public Works Director Fleet Maintenance Supervisor</b> Stormwater Specialist	Daniel Snipes Dustin Cook Heather Holley	Public Works
Pavement Management Program	<b>Public Works Director</b> Streets/Grounds Supervisor  Solid Waste Supervisor	Daniel Snipes Dillon Dispennette Chris Clark	Public Works
Total Maximum Daily Load (TMDL) Requirements	<b>Stormwater Utility Manager</b>	Randy Dodd	Public Works

Positions shown in bold have primary responsibility. Other key staff are also shown.

#### 4.2 Program Funding and Budget

In accordance with the issued permit, the Town of Carrboro 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 Town of Carrboro created a Stormwater Utility and Stormwater Enterprise Fund in 2017. The Utility collects revenue through a rate structure approved by the Town Council. All revenue collected is dedicated to the stormwater program. In FY 20/21, the rate structure has resulted in \$1.0M in projected revenue. This revenue supports both operating and capital program needs; about half of the annual revenue is budgeted for operating expenses, including personnel, and about half is budgeted for capital projects and reserves for future stormwater program needs. An analysis was performed in 2019 to determine program needs, and a rate structure amendment was adopted in 2020 to raise additional revenue. A Stormwater Utility Manager was hired in late 2017, a Stormwater Specialist in 2018, and a Stormwater Administrator in 2020 to provide the necessary staffing to implement this SWMP. These staff

are supported by other staff and additional contractual support and other operating and capital funds as a result of the revenue being received through the Stormwater Enterprise Fund.

The tiered rate structure is defined by impervious area, and applicable to all non-exempt properties with at least 500 square feet of impervious area. These fees are billed on the annual County Property Tax Assessment. More information on the rate structure is available at <http://www.townofcarrboro.org/1138/Stormwater-Utility-Rate-Structure> .

### 4.3 Shared Responsibility

The Town of Carrboro 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 Carrboro 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 Carrboro 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)
Erosion Control	Orange County Erosion Control	Y
Public Education and Outreach	Clean Water Education Partnership	Y
Post-construction	Sungate Design Group	Y

#### 4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000450 for the Town of Carrboro. 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)
NA	NA	NA	NA

#### 4.5 Measurable Goals for Program Administration

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

**Table 11: Program Administration BMPs**

<b>Permit Ref.</b>	<b>2.1.2 and Part 4: Annual Self-Assessment</b>			
	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).			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>1.</b>	<b>Annual Self-Assessment</b>			
	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. Submit the Annual Self-Assessment to NCDEQ prior to August 31 each year.	1. Annually Permit Years 1 – 4	1. Yes/No
<b>Permit Ref.</b>	<b>1.6: Permit Renewal Application</b>			
	Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>2.</b>	<b>Permit Renewal Application</b>			
	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

**Table 11: Program Administration BMPs**

		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
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## **PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM**

The Town of Carrboro 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 stormwater 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 Carrboro is required to inform businesses and the general public of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)
Sediment	General Public, Developers, Landscape Businesses, Municipal Employees
Nitrogen, phosphorus	General Public, OWASA, Businesses, Municipal Employees
Fecal coliform	General Public, OWASA, Businesses, Municipal Employees
Litter	General Public
Illicit discharges	General Public, OWASA, Businesses, Municipal Employees
Illegal dumping/improper disposal of waste	General Public, Businesses, Municipal Employees
Yard waste	Homeowners, HOAs, Landscape Businesses, Municipal Employees

The Town of Carrboro will manage, implement and report the following public education and outreach BMPs.



**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
<b>Permit Ref.</b>	<b>3.2.2 and 3.2.4: Outreach to Targeted Audiences</b> 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.			
<b>3.</b>	<b>Pet Owner Outreach</b>			
	Perform outreach on the interaction between stormwater and pet waste.	1. Design and distribute pet waste outreach material	1. Continuously Permit Years 1-5	1. Number of online hits on pet waste web page Number of pet waste outreach materials handed out at events
		2. Participate in the Annual Town of Carrboro Kids Dog Show	2. Annually Permit Years 1-5	2. Number of pet waste outreach materials distributed at Dog Show event Number of people engaged at Dog Show event
		3. Post outreach signs at public spaces	3. Annually Permit Years 1-5	3. Number of signs at each Town-owned property
		4. Install/update pet waste stations	4. Annually Permit Years 1-5	4. Number of Town pet waste stations Number of bags refilled
		5. Post outreach via social media	5. Quarterly Permit Years 1-5	5. Number of social media posts
<b>4.</b>	<b>Storm Drain Marking Program</b>			
	Support volunteers with placing markers on storm drains. Volunteers may include HOAs, schools, school age groups, and restaurant owners.	1. Provide online form for volunteers to mark storm drains.	1. Permit Year 1	1. Yes/No/Partial
		2. Coordinate volunteer storm drain marking events	2. Continuously Permit Years 2-5	2. Number of storm drains marked by volunteers Number of events
<b>5.</b>	<b>Landscaping Outreach</b>			

**Table 13: Public Education and Outreach BMPs**

	Perform outreach on the interaction of landscaping and stormwater. Includes yard waste, pesticides, herbicides, sediment, and landscaping features (i.e.; rain gardens, downspout disconnect, water quality buffers, trees, etc.)	1. Design landscaping outreach material for private homeowners and HOAs, landscaping professionals, and targeted retailers	1. Permit Year 1	1. Yes/No/Partial
		2. Distribute electronic mailing of targeted materials to landscaping professionals	2. Annually Permit Years 1-5	2. Number of electronic mailings
		3. Distribute landscaping materials to targeted retailers	3. Annually Permit Years 1-5	3. Number of outreach materials distributed
		4. Distribute landscaping materials at Town Events	4. Annually Permit Years 1-5	4. Number of materials handed out at events Number of online hits to landscaping web page
<b>6.</b>	<b>Outreach to Schools</b>			
	Perform outreach in cooperation with the Chapel Hill-Carrboro City School System. Town staff will coordinate with Chapel Hill Stormwater staff as the school district includes both jurisdictions.	1. Update online materials to include in curriculum	1. Annually Permit Years 1-5	1. Number of online hits for curriculum materials
		2. Provide stormwater presentations in schools	2. Annually Permit Years 1-5	2. Number of students reached
<b>7.</b>	<b>Clean Water Education Partnership</b>			
	Continue as a CWEP member. ( <i>See Appendix A - CWEP agreement</i> )	1. Pay annual dues to maintain membership	1. Annually Permit Years 1-5	1. Yes/No/Partial
		2. Actively participate in CWEP events and meetings	2. Annually Permit Years 1-5	2. Number of events, meetings
<b>Permit Ref.</b>	<b>2.1.7, 3.2.3 and 3.6.5(c): Web Site</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>8.</b>	<b>Maintain Stormwater Website</b>			
	The Stormwater Division maintains a website	1. Evaluate engagement on stormwater website	1. Annually Permit Years 1-5	1. Number of online hits on stormwater website

**Table 13: Public Education and Outreach BMPs**

	<a href="http://www.townofcarrboro.org/287/Stormwater">www.townofcarrboro.org/287/Stormwater</a> ) that provides information to educate and inform Carrboro residents regarding their responsibilities in managing stormwater, as well as the importance of protecting water quality and stream health. Pages include: Carrboro’s Creeks, Stormwater Projects, Drainage and Flooding FAQs, Outreach, Sediment and Erosion Control and many others. The Stormwater Hotline and email address is also prominently featured as well as other tools for reporting stormwater issues and contacting staff.	2. Update content on website	2. Continuously Permit Years 1-5	2. Yes/No/Partial
<b>9.</b>	<b>Watershed and Stormwater Handbook</b>			
	Carrboro has created a Watershed and Stormwater Handbook that is a central”one stop” resource for residents for all stormwater related topics.	1. Update Handbook and post on Stormwater Webpage	1. Annually Permit Years 1-5	1. Yes/No/Partial
<b>Permit Ref.</b>	<b>3.2.5: Stormwater Hotline</b> Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>10.</b>	<b>Hotline Implementation</b>			
	A specific telephone number, email address, and web address have been established where citizens can report stormwater/pollution problems and/or ask a stormwater question. Emergency response is handled through 911 and other systems.	1. Maintain Stormwater Hotline phone number, email address, and online form.	1. Continuously Permit Years 1-5	1. Number of emails to stormwater email address Number of phone calls to stormwater hotline Number of responses using online form
		2. Promote hotline at Town of Carrboro Events	2. Continuously Permit Years 1-5	2. Number of events where hotline was promoted
		3. Distribute Hotline Cards	3. Continuously Permit Years 1-5	3. Number of hotline cards distributed

**Table 13: Public Education and Outreach BMPs**

		4. Promote the hotline online (social media, newsletter)	4. Continuously Permit Years	4. Track promotion as # of social media posts, newsletters
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**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 Carrboro will manage, implement and report the following public involvement and participation BMPs.

<b>Table 14: Public Involvement and Participation BMPs</b>				
<b>Permit Ref.</b>	<b>3.3.1: Public Input</b> Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>11.</b>	<b>Town Council Meetings</b>			
	Town staff will continue to bring stormwater issues before the Town Council and community to provide information on program related to the stormwater program. Staff also regularly provide information to inform policy decisions related to stormwater.	1. Provide regular reports on stormwater activities for published Council agendas 2. Provide information to Council to inform policy decisions related to stormwater, as needed	1. Monthly when in session, and as directed by Town Manager/ Council 2. Continuously Permit Years 1-5	1. Number of reports to Council 2. Number of agenda items prepared for Town Council review
<b>12.</b>	<b>Stormwater Advisory Commission Meetings</b>			
	Town staff regularly meet with the Stormwater Advisory Commission (SWAC), the appointed citizen group charged with providing a forum for citizen participation and oversight of the stormwater program. Meetings are held monthly with a summer recess. Staff bring stormwater issues to the attention of the SWAC as well as provide technical and professional support on issues introduced by the SWAC.	1. Attend and support SWAC meetings.	1. Monthly (when in session) Permit Years 1-5	1. Number of SWAC meetings held
<b>13.</b>	<b>Stormwater Hotline</b>			
	See BMP #10	1. See BMP #10	1. See BMP #10	1. See BMP #10
<b>14.</b>	<b>Storm Drain Marking Program</b>			
	See BMP #4	1. See BMP #4	1. See BMP #4	1. See BMP #4

**Table 14: Public Involvement and Participation BMPs**

Permit Ref.	<b>3.3.2: Volunteer Opportunities</b> 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
15.	<b>Stream/Stormwater Cleanups</b>			
	Town staff will coordinate community clean up events to remove trash and debris from storm drains and streams. Some/many of these will be with Chapel Hill because the two Towns share a municipal boundary and watersheds, and this collaboration is a way to leverage resources and be more effective.	1. Identify public areas as candidates for volunteer clean-ups.	1. Annually Permit Years 1-5	1. Number of candidate areas identified
		2. Conduct volunteer clean up events	2. Annually Permit Years 1-5	2. Number of clean-up events Number of participants Number of tons picked up

**PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM**

The Town of Carrboro 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.

<b>Table 15: Illicit Discharge Detection and Elimination BMPs</b>				
<b>Permit Ref.</b>	<b>3.4.1: MS4 Map</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>16.</b>	<b>Continuously update stormwater system map</b>			
	The Town shall maintain a stormwater system map and GIS database based on field work to locate infrastructure and devices, and continuously updated as infrastructure changes. The map includes all above and below ground Town owned and maintained stormwater infrastructure along with key attribute information.	1. Add new infrastructure as it is constructed.	1. Continuously Permit Years 1-5	1. Total number of outfalls mapped Number of outfalls added during permit year Total miles of above ground infrastructure Total miles of below ground infrastructure
<b>17.</b>	<b>Maintain Stormwater Control Measure inventory and map</b>			
	The Town shall identify and maintain a database of Stormwater Control Measures (SCMs), integrated into existing stormwater system map. The map shall distinguish between privately/non-Town-owned and Town-owned SCMs.	1. Add new SCMs as they are constructed.	1. Continuously Permit Years 1-5	1. Total number of SCMs mapped Number of SCMs added during permit year
<b>Permit Ref.</b>	<b>3.4.2: Regulatory Mechanism</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>

**Table 15: Illicit Discharge Detection and Elimination BMPs**

<b>18.</b>	<b>Update the Illicit Discharge Ordinance as necessary to maintain legal authority.</b>			
	The Town shall ensure the continued applicability, accuracy and legal standing of the IDDE provisions in the Town Code.	1. Coordinate with Town Attorney to conduct review of Illicit Discharge Ordinance.	1. Permit Year 1	1. Yes/No/Status
		2. Update Illicit Discharge Ordinance	2. Permit Year 1	2. Yes/No/Status
<b>Permit Ref.</b>	<p><b>3.4.3: IDDE Plan</b>  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"> <li>a) Locate priority areas likely to have illicit discharges,</li> <li>b) Conduct routine dry weather outfall inspections,</li> <li>c) Identify illicit discharges and trace sources,</li> <li>d) Eliminate the source(s) of an illicit discharge, and</li> <li>e) Evaluate and assess the IDDE Program.</li> </ul>			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>19.</b>	<b>Maintain a written IDDE Plan</b>			
	The Town shall maintain a written IDDE plan to detect and address illicit discharges, illegal dumping and non-stormwater discharges identified as significant contributors of pollutants to the MS4, including provisions for program assessment and evaluation and associated documents.	1. Conduct comprehensive initial review of current plan and revise accordingly.	1. Permit Year 1	1. Yes/No/Partial
		2. Submit new plan to DEQ for review and approval.	2. Permit Year 1	2. Date submitted
		3. Implement written IDDE Plan.	3. Continuously Permit Years 2 - 5	3. Yes/No/Partial
4. Conduct review of plan, standard documentation, forms, procedures and SOPs; make changes as necessary.		4. Annually Permit Years 1-5	4. Yes/No/Partial	
<b>20.</b>	<b>Locate priority areas most likely to have illicit discharges</b>			



**Table 15: Illicit Discharge Detection and Elimination BMPs**

	The Town shall identify areas with high Illicit Discharge Potential (IDP) based on physical factors, historical problems, and surrounding land use. The Town has developed an Illicit Discharge Potential matrix and scored subwatersheds and identified priority outfalls for illicit discharge investigations.	1. Review/update MS4 inspection areas using Illicit Discharge Potential matrix.	1. Annually Permit Years 1-5	1. Review conducted: Yes/No/Partial Number of high priority subwatersheds
<b>21.</b>	<b>Conduct routine dry weather outfall inspections</b>			
	The Town shall implement a program of conducting and tracking dry weather outfall inspections. The Town's Illicit Discharge Program Plan includes a program for conducting dry weather flow field observations, prioritizing outfalls by subwatershed and their respective illicit discharge potential. Inspections utilize the written Outfall Inspection SOP, Outfall Inspection Field Sheet, and the IDDE Documentation SOP.	1. Establish Outfall Reconnaissance Inventory inspection schedule, with minimum of 20% inspected annually	1. Permit Year 1	1. Yes/No/Partial
		2. Develop ORI inspection procedure, standard documentation and forms	2. Permit Year 1	2. Yes/No/Partial
		3. Inspect minimum of 20% MS4 per year (100% every 5 years)	3. Continuously Permit Years 1-5	3. Number of outfalls inspected Number of illicit discharges identified as a result of outfall inspections
<b>22.</b>	<b>Identify illicit discharges and connections, trace and eliminate sources</b>			
	The Town's Illicit Discharge Program Plan includes a program of identifying and eliminating illicit discharges by tracing their sources and pursuing enforcement as necessary. The program includes procedures for responding to reports of illicit discharges, conducting various types of inspections to determine sources, eliminating illicit discharges and connections, and issuing enforcement as necessary.	1. Investigate reports of illicit discharges to determine sources.	1. Continuously Permit Years 1-5	1. Number of potential illicit discharges reported Number of verified illicit discharges
		2. Halt illicit discharges and remedy illicit connections as necessary	2. Continuously Permit Years 1-5	2. Number of illicit connections and discharges remedied
		3. Issue verbal and written enforcement, including Notices of Violation and penalties as appropriate	3. Continuously Permit Years 1-5	3. Number of enforcement actions issued for illicit discharges or connections
<b>23.</b>	<b>Evaluate and assess the IDDE program at least annually</b>			

**Table 15: Illicit Discharge Detection and Elimination BMPs**

	The Town shall evaluate the IDDE program at least annually and incorporate changes as necessary. Assessment will utilize number of stormwater hotline emails and voicemail messages, illicit discharge investigations conducted, outcomes of investigations, enforcement issued, chronic violators, and areas of improvement.	1. Review program implementation and IDDE metrics at least annually.	1. Annually Permit Years 1-5	1. Yes/No/Status
<b>Permit Ref.</b>	<b>3.4.4: IDDE Tracking</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>24.</b>	<b>Monitor illicit discharges, investigations and enforcement actions</b>			
	The Town shall maintain an “Event Tracking” spreadsheet of reported illicit discharges including location, type, enforcement actions, and outcomes. The spreadsheet	1. Document illicit discharges in accordance with the Illicit Discharge Documentation SOP, including the Event Tracking spreadsheet and CityWorks.	1. Continuously Permit Years 1-5	1. Number of entries in Event Tracking spreadsheet per permit year

**Table 15: Illicit Discharge Detection and Elimination BMPs**

	documents the following: date reported, date closed, investigation ID #, location, hotline report (Y/N), confirmed illicit discharge (Y/N), nature of discharge, results of investigation, actions taken to remedy illicit discharge, enforcement actions issued, file folder name, reporting party (staff/public), investigator, subwatershed, receiving stream. The Town utilizes the CityWorks platform for storing and sharing details, photos and comments. Staff shall follow the Illicit Discharge Documentation SOP.	2. Review illicit discharge database for potential chronic violators at least annually	2. Annually Permit Years 1-5	2. Number of established chronic violators
<b>Permit Ref.</b>	<b>3.4.5: Staff IDDE Training</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>25.</b>	<b>Train municipal staff to identify illicit discharges</b>			
	The Town shall train relevant personnel on methods of identifying illicit discharges, connections, dumping or spills. Personnel will take exams before and after training to evaluate comprehension.	1. Develop written training plan and presentations for Town employees, first responders, and contractors likely to encounter illicit discharges	1. Permit Year 1	1. Yes/No/Partial
		2. Train municipal staff to identify and report potential illicit discharges	2. Annually Permit Years 1-5	2. Number of staff members trained Percent of exams with passing score
		3. Evaluate effectiveness of training by analyzing illicit discharges identified by Town personnel	3. Annually Permit Years 2 – 5	3. Percent illicit discharges identified by staff

**Table 15: Illicit Discharge Detection and Elimination BMPs**

Permit Ref.	<b>3.4.6: IDDE Reporting</b> 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
26.	<b>Monitor hotline and other reporting mechanisms for public and staff to report illicit discharges</b>			
	The Town shall monitor the stormwater hotline (phone and email) for reports of illicit discharges. IDDE reporting shall follow the IDDE Documentation SOP.	1. Develop written procedure for documenting and communicating hotline reports to relevant personnel, reporting tracking system and relevant forms	1. Permit Year 1	1. Yes/No/Partial
		2. Distribute flyers and educational materials with reporting information to Town personnel and public	2. Continuously Permit Years 1 – 5	2. Number of educational materials distributed
		3. Track hotline and email communications	3. Continuously Permit Years 1 – 5	3. Number of hotline emails and phone calls Number of inquiries leading to confirmed illicit discharges
		4. Review efficacy of stormwater email and hotline in identifying illicit discharges with Town personnel at least annually	4. Annually Permit Years 1 – 5	4. Yes/No/Partial

**PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM**

In accordance with 15A NCAC 02H .0153, the MS4name 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	Meets Whole or Part of Requirement
3.5.1 - 3.5.4	Orange County Delegated SPCA Program*	15A NCAC Chapter 04 Orange County UDO 1.11, 2.18, 2.19, 2.26, 6.15, 9.8 Carrboro LUO Article XVI, Sections 15-251.3 and 15-264	Orange County Erosion Control	Whole

\* The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: <https://www.co.orange.nc.us/DocumentCenter/View/8305/Unified-Development-Ordinance-PDF> , Section 2-19, p 2-65.

Training of Orange County Erosion Control staff will be per an agreement, "Memorandum of Agreement between the NC Sedimentation Control Commission (Commission) and Orange County" The Town delegated authority to Orange County via a Board of Aldermen resolution in 1976 and amendment of the Land Use Ordinance in 1983.

During this permit cycle, the Town will increase efforts to coordinate Construction Site Runoff Control activities with the County. The Town specifically intends to coordinate with Orange County starting in the first year of the permit and continuing: to review their respective resolutions and ordinances and amend as warranted; and establish new and enhanced procedures to share information in each jurisdiction’s respective permitting systems.

Orange County Erosion Control has measures in place to review plans, perform inspections, and enforce as necessary for any and all sediment and erosion control practices for permitted development projects in Carrboro. Orange County will continue in this permit cycle to provide an annual report to the Town to support the Town’s recordkeeping for this Plan.

The Town of Carrboro will also implement the following BMPs to meet NPDES MS4 Permit requirements.

**Table 17: Construction Site Runoff Control BMPs**

<b>Permit Ref.</b>	<b>3.5.6: Public Input</b>			
	Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>27.</b>	<b>Municipal Staff Training</b>			
	Train municipal staff who receive calls from the public on the protocols for response, 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
<b>28.</b>	<b>Stormwater Hotline</b>			
	See BMP #10	1. See BMP #10	1. See BMP #10	1. See BMP #10
<b>Permit Ref.</b>	<b>3.5.5: Waste Management</b>			
	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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>29.</b>	<b>Construction Site Management-Town</b>			
	Zoning staff review and issue land use permits for new development projects including managing construction waste streams	1. Reporting on number of permitted development/ construction sites with construction waste management compliance oversight	1. Annually Permit Years 1-5	1. Number of permitted development/ construction sites

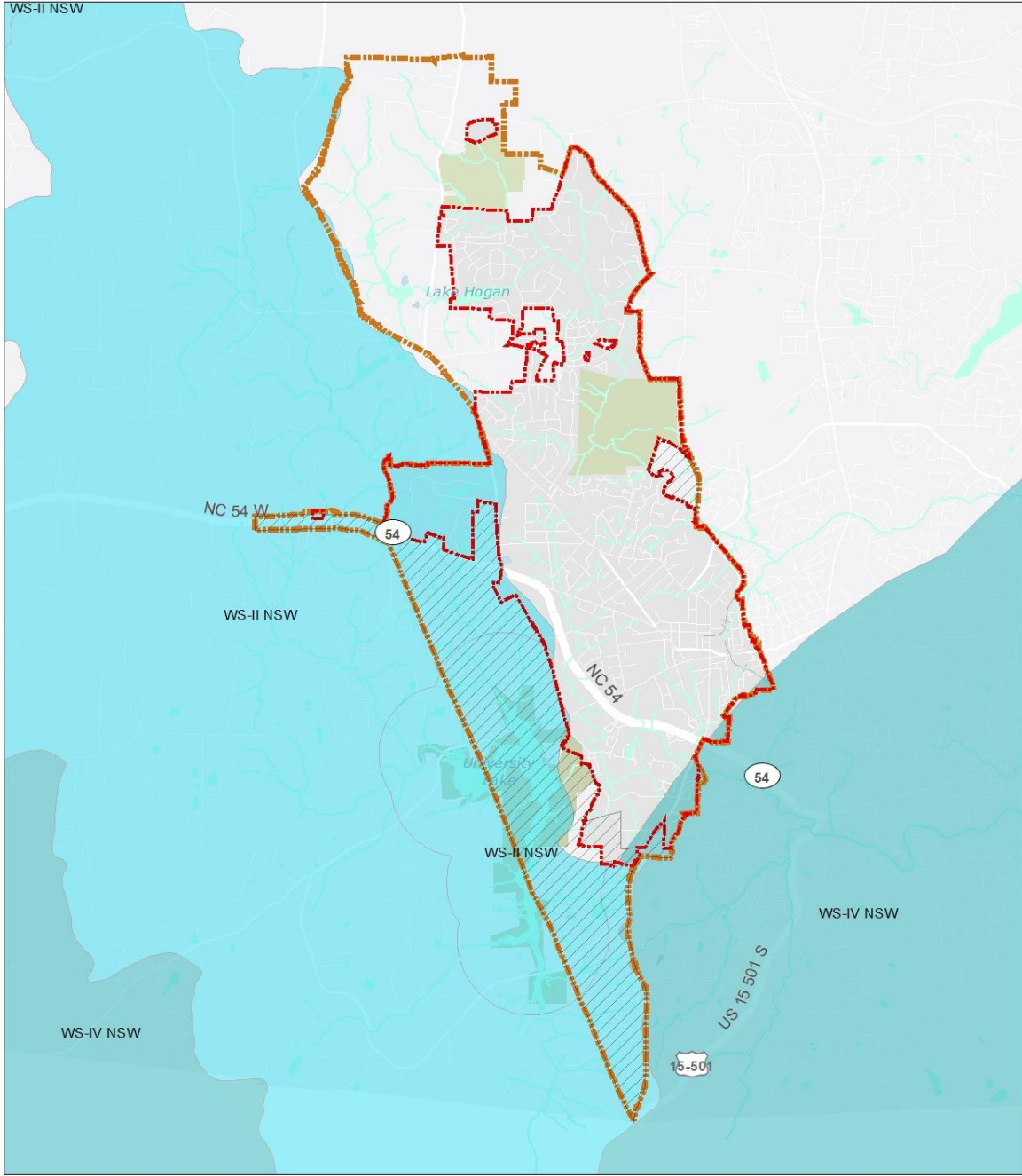
**PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM**











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 Carrboro 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 Carrboro 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
Water Supply Watershed (WS-II)	15A NCAC 2B .0620 - .0624	Article XVI, Section 15-266
Water Supply Watershed (WS-IV)	15A NCAC 2B .0620 - .0624	



 <p>         TOWN OF CARBORO          200 W. Main St.          Carboro, NC 27510          Phone: 919.487.2000          Website: www.carboro.gov       </p>	 Carboro Extra-Territorial Jurisdiction	 WS-II	 WS-IV
	 City Limits	 WS-II NSW	 WS-IV NSW
	 Planning Jurisdiction	 WS-III NSW	 WS_IV

**THIS MAP IS NOT A CERTIFIED SURVEY, AND NO RELIANCE MAY BE PLACED IN ITS ACCURACY.**  

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Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for <b>Plan Review and Approval</b>	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	LUO Article I Section 15-2	4/1982
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	LUO Article I Section 15-2, 15-3	4/1982
3.6.3(b) Plan Review	LUO Article IV	Various
3.6.3(c) O&M Agreement	LUO Article XVI Section 15-263.1	6/2007, amended 6/2012
3.6.3(d) O&M Plan	LUO Article XVI Section 15-263.1	6/2007, amended 6/2012
3.6.3(e) Deed Restrictions/Covenants	LUO Article XVI Section 15-263.1(f)	6/2007
3.6.3(f) Access Easements	LUO Article XVI Section 15-263.1	6/2007, amended 6/2012
Permit Requirements for <b>Inspections and Enforcement</b>	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	LUO Article XVI Section 15-263.1(c)	6/2007
3.6.2(c) Right of Entry	LUO Article XVI Section 15-263.1.(e)(2)	6/2007
3.6.4(a) Pre-CO Inspections	LUO Article XVI Section 15-263.1(e)	6/2007
3.6.4(b) Compliance with Plans	LUO Article IV	Various
3.6.4(c) Annual SCM Inspections	LUO Article XVI Section 15-263.1(c)	6/2007
3.6.4(d) Low Density Inspections	1: LUO Article XVI Section 15-263.1(e) & 2: Section 15-266(e)	1: 6/2007 & 2: 11/1980, amended 10/1996
3.6.4(e) Qualified Professional	LUO Article XVI Section 15-263.1(c)	6/2007
Permit Requirements for <b>Fecal Coliform Reduction</b>	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	Town Code Article IV, Section 10.5.1	2/2017
3.6.6(b) On-Site Domestic Wastewater Treatment	1: LUO Article XI, Section 15-267 & 2: LUO Article XV Section 15-238 & 3: LUO Article XI, Section 15-239 & 4: Orange County Regulations for Wastewater Treatment and Disposal Systems Section .1900	1: 5/1990 & 2: 11/1980 & 3: 11/1980 & 4: 2/2015

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.	<b>3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements</b> 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
30.	<b>Standard Reporting</b>			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	1. Track number of low density and high density plan reviews performed.	1. Continuously Permit Years 1-5	1. Number of plan reviews performed for low density and high density
		2. Track number of low density and high density plans approved.	2. Continuously Permit Years 1-5	2. Number of plan approvals for low density and high density
		3. Maintain a current inventory of low density projects and constructed SCMs including SCM type or low density acreage, location and last inspection date.	3. Continuously Permit Years 1-5	3. Summary of number and type of SCMs added to the inventory; and number and acreage of low density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. Number of SCM inspections
		5. Track number of low density inspections performed.	5. Continuously Permit Years 1-5	5. Number of low density projects inspected
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. Number of enforcement actions issued
31.	<b>Post-Construction Maintenance Program Outreach</b>			
	Create and maintain web content related to the Post-Construction Program including regulatory requirements, owner responsibility, design standards, and information on SCMs including maintenance and inspections.	1. Evaluate engagement on post-construction website	1. Annually Permit Years 1-5	1. Number of online hits on post-construction web page

**Table 20: Post Construction Site Runoff Control BMPs**

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<b>Permit Ref.</b>	<b>2.3 and 3.6: Qualifying Alternative Program(s)</b> Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
<b>32.</b>	<b>The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 18.</b>			
	The QAP requirements are fully met by the existing QAP for post-construction, see references provided in Table 18.	1. See Table 18.	1. See Table 18.	1. See Table 18.
<b>Permit Ref.</b>	<b>3.6.2: Legal Authority</b> Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<b>33.</b>	<b>This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.</b>			
	This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.	1. See Table 19.	1. See Table 19.	1. See Table 19.

**Table 20: Post Construction Site Runoff Control BMPs**

<b>Permit Ref.</b>	<b>3.6.3: Plan Review and Approval</b> 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).			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>34.</b>	<b>This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.</b>			
	This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.	1. See Table 19.	1. See Table 19.	1. See Table 19.
<b>Permit Ref.</b>	<b>3.6.4: Inspections and Enforcement</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>35.</b>	<b>This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.</b>			

**Table 20: Post Construction Site Runoff Control BMPs**

	This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.	1. See Table 19.	1. See Table 19.	1. See Table 19.
<b>Permit Ref.</b>	<b>3.6.6: Fecal Coliform Reduction</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>36.</b>	<b>Implement a pet waste management program</b>			
	Perform outreach on the interaction between stormwater and pet waste.	1. See BMP #3	1. See BMP #3	1. See BMP #3
<b>37.</b>	<b>Ensure proper operation and maintenance of on-site domestic wastewater treatment systems</b>			
	Coordinate with Orange County Health Department, Environmental Health Division to ensure operation and maintenance of septic systems, including reporting septic system failures to OC staff. Staff coordinate with OC staff to receive environmental surveys completed in the Carrboro jurisdiction.	1. Update inventory of properties with septic systems within jurisdiction	1. Permit Year 1	1. Number of properties with septic systems
		2. Maintain data of septic system failures and resulting actions	2. Continuously Permit Years 1-5	2. Number of septic system failures reported
		3. Maintain reports of environmental surveys conducted by OC staff in Carrboro jurisdiction	3. Continuously Permit Years 1-5	3. Number of environmental surveys conducted

**PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS**

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the Town of Carrboro 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 Town of Carrboro will manage, implement and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program.

<b>Table 21: Pollution Prevention and Good Housekeeping BMPs</b>				
<b>Permit Ref.</b>	<b>3.7.1: Municipal Facilities Operation and Maintenance Program</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
<b>38.</b>	<b>Maintain a current inventory of municipal facilities</b>			
	The Town maintains an inventory of municipal facilities including the public works building, town hall, fire	1. Update inventory of municipal facilities	1. Continuously Permit Years 1-5	1. Yes/No/Partial

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	stations, and public parks. Inventory is updated as facilities are added or changed.	2. Conduct review of facilities for stormwater pollution potential and opportunities for improvement	2. Annually Permit Years 1-5	2. Yes/No/Partial
<b>39.</b>	<b>Perform facility inspections and routine maintenance</b>			
	Inspect Town facilities for compliance with good housekeeping practices and evaluate effectiveness of documentation and reporting. Routine maintenance activities vary based on facility needs.	1. Establish specific frequencies, schedules and standard documentation for each Town facility.	1. Permit Year 1	1. Yes/No/Partial
		2. Inspect Town facilities for compliance, adherence to good housekeeping practices and adequate documentation of maintenance activity.	2. Annually Permit Years 1-5	2. Number of facilities inspected
		3. Perform routine maintenance in accordance with facility needs.	3. Continuously Permit Years 1-5	3. Yes/No/Partial
<b>40.</b>	<b>Annual Stormwater Training Program</b>			
	Provide annual training to relevant Town of Carrboro staff for general stormwater awareness, with emphasis on Pollution Prevention and Good Housekeeping for municipal facilities and the Town maintained MS4 and rights of way.	1. Develop training materials and schedule	1. Permit Year 1	1. Yes/No/Partial
		2. Conduct training for Town staff	2. Annually Permit Years 1-5	2. Number of staff trained Number of training events held
		3. Provide Hotline information cards to staff	3. Continuously Permit Years 1-5	3. Number of hotline cards distributed to staff
		4. Provide stormwater related items to internal Town newsletter	4. Quarterly Permit Years 1-5	4. Number of articles submitted to Town newsletter

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

		5. Install informational posters in Town breakrooms	5. Annually Permit Years 1-5	5. Number of pollution prevention posters hung in breakrooms
<b>Permit Ref.</b>	<b>3.7.2: Spill Response Program</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>41.</b>	<b>Spill Response Procedures</b>			
	The Town has established spill response procedures that apply to all Town facilities and operations.	1. Review spill response procedures for adequacy.	1. Annually Permit Years 1-5	1. Yes/No/Partial
		2. Install informational posters at each facility.	2. Permit Year 1	2. Number of spill response posters installed
		3. Record spills that required clean-up response	3. Continuously Permit Years 1-5	3. Number of reported spills requiring clean-up
<b>42.</b>	<b>Annual Stormwater Training Program</b>			
	See BMP #40	1. See BMP #40	1. See BMP #40	1. See BMP #40
<b>43.</b>	<b>Annual First Responders Spill Training</b>			
	Town first responders receive separate spill response training from certified third-party trainers.	1. Verify first responders training.	1. Annually Permit Years 1-5	1. Number of staff trained Number of training events held
<b>Permit Ref.</b>	<b>3.7.3: MS4 Operation and Maintenance Program</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>44.</b>	<b>Annual Stormwater Training Program</b>			



**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	See BMP #40	1. See BMP #40	1. See BMP #40	1. See BMP #40
45.	<b>Outfall Inspections Program</b>			
	See BMP #21	1. See BMP #21	1. See BMP #21	1. See BMP #21
46.	<b>Collection System Inspections and Maintenance</b>			
	Stormwater Division and Public Works Operations staff maintain oversight of the stormwater infrastructure/collection system. Operations perform as-needed and scheduled maintenance and repairs. Standard documentation is completed through the CityWorks platform; inquiries from public and staff are recorded as stormwater investigations and work performed is recorded as service requests or work orders.	1. Establish specific frequencies and schedules for inspection and maintenance of collection system.	1. Permit Year 1	1. Yes/No/Partial
		2. Investigate complaints/inquiries about drainage/collection system for Town maintained rights of way and property.	2. Continuously Permit Years 1-5	2. Number of stormwater investigations relating to collection system
		3. Inspect a minimum of 20% of the MS4 annually, with a focus on priority watersheds identified in the IDDE program	3. Annually Permit Years 1-5	3. Number of inspections conducted
		4. Maintain MS4, including routine maintenance/cleaning, repairs, improvements as needed based on inspections.	4. Continuously Permit Years 1-5	4. Number of service requests Number of work orders
<b>Permit Ref.</b>	<b>3.7.4: Municipal SCM Operation and Maintenance Program</b> 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.			
<b>BMP No.</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
	<b>Description of BMP</b>	<b>Measurable Goal(s)</b>	<b>Schedule for Implementation</b>	<b>Annual Reporting Metric</b>
47.	<b>Maintain Inventory</b>			

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	Routinely update SCM inventory data with new SCMs and attributes in GIS data	1. Add and track SCMs in GIS	1. Continuously Permit Years 1-5	1. Number of mapped municipal SCMs
<b>48.</b>	<b>Municipal SCM inspections and maintenance</b>			
	Inspect and maintain municipal SCMs, at least annually but more frequently as required by maintenance schedules.	1. Develop SCM maintenance schedules and inspection forms for all SCMs	1. Permit Year 1	1. Yes/No/Partial
		2. Conduct inspections of municipal SCMs	2. Annually Permit Years 1-5	2. Number of inspections conducted
		3. Maintain SCMs to ensure function	3. Continuously Permit Years 1-5	3. Number of work orders related to SCM maintenance
<b>Permit Ref.</b>	<b>3.7.5: Pesticide, Herbicide and Fertilizer Management Program</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>49.</b>	<b>Pesticides, Herbicide, and Fertilizer Training</b>			
	Train and certify applicable Town staff to apply landscape chemicals (pesticides, herbicides and fertilizers) in accordance with the Town Code requirements and in a manner that will minimize water quality impacts.	1. Develop landscape chemicals training plan	1. Permit Year 1	1. Yes/No/Partial
		2. Train applicable Town staff annually	2. Annually Permit Years 1-5	2. Number of personnel trained Number of training events held
		3. Maintain applicator certifications for appropriate personnel.	3. Continuously Permit Years 1-5	3. Number of certified personnel
<b>50.</b>	<b>Annual Stormwater Training Program</b>			
	See BMP #40	1. See BMP #40	1. See BMP #40	1. See BMP #40
<b>51.</b>	<b>Least Toxic Integrated Pest Management and Plant Healthcare Policy</b>			

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	The Town has an adopted policy for pest management products for Town operations, which includes procedures for pollution prevention, chemical use, and storage and handling training. The stated goal of the IPM&PHC Policy is to develop a systematic course of action to prevent pest infestations, and to manage pests successfully, while minimizing adverse effects on people and the environment. The policy is maintained by the Environmental Sustainability Coordinator.	1. Conduct a joint review of the policy with the Environmental Sustainability Coordinator.	1. Permit Year 1	1. Yes/No/Partial
		2. Review products used, both in-house and via contracts, as products are purchased and/or start of new contracts, for compliance with permits, applicator certifications, and Policy.	2. Continuously Permit Years 1-5	2. Yes/No/Partial
<b>Permit Ref.</b>	<b>3.7.6: Vehicle and Equipment Maintenance Program</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>52.</b>	<b>Inspections and Recordkeeping Coordination with Vehicle Maintenance Yard SWPPP</b>			
	Inspect Public Works facility for compliance with NCG080676 permit, SWPPP and good housekeeping practices for vehicle, equipment and facility maintenance. Evaluate effectiveness of documentation and reporting.	1. Inspect Public Works facility for compliance and adherence to good housekeeping practices.	1. Quarterly Permit Years 1-5	1. Number of inspections completed
		2. Review maintenance logs/reports and quarterly inspections; prepare report on facility compliance	2. Annually Permit Years 1-5	2. Yes/No/Partial
<b>53.</b>	<b>Vehicle Washing</b>			

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	An outdoor vehicular wash area has been built at the Public Works Facility, where all municipal vehicles are washed. The Training Program will include this requirement and employee reporting of any observations of inappropriate vehicle washing	1. Communicate standard washing procedures to municipal staff during annual training and via posted material	1. Continuously Permit Years 1-5	1. Yes/No/Partial
<b>54.</b>	<b>Annual Stormwater Training Program</b>			
	See BMP #40	1. See BMP #40	1. See BMP #40	1. See BMP #40
<b>55.</b>	<b>Vehicle and Equipment Inspections</b>			
	All vehicles and equipment will be routinely inspected to prevent pollution. Inspections will include parking spots. Any spills will be addressed per PPGH/spill response procedures.	1. Maintain vehicle inspection records	1. Continuously Permit Years 1-5	1. Number of inspections completed
<b>Permit Ref.</b>	<b>3.7.7: Pavement Management Program</b> 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.			
<b>BMP No.</b>	<b>A</b> <b>Description of BMP</b>	<b>B</b> <b>Measurable Goal(s)</b>	<b>C</b> <b>Schedule for Implementation</b>	<b>D</b> <b>Annual Reporting Metric</b>
<b>56.</b>	<b>Street Sweeping Program</b>			
	The Public Works Department performs routine weekly street sweeping and on an as needed basis.	1. Review street sweeping routes and schedules	1. Annually Permit Years 1-5	1. Yes/No/Partial
		2. Perform regularly scheduled and on-request street sweeping activities	2. Continuously Permit Years 1-5	2. Miles of streets swept Tons of debris collected
<b>57.</b>	<b>Yard Debris/Leaf Program</b>			
	The Public Works Department performs yard debris/leaf pick up and leaf composting. Pick-ups occur weekly during the fall and spring as	1. Review yard debris pick up routes and schedules	1. Annually Permit Years 1-5	1. Yes/No/Partial

**Table 21: Pollution Prevention and Good Housekeeping BMPs**

	well as upon request by staff or citizens.	2. Perform seasonal and on-request yard debris/leaf collection	2. Continuously Permit Years 1-5	2. Tons of yard debris collected
<b>58.</b>	<b>Resurfacing Program</b>			
	The Public Works Department runs a street resurfacing program. The program includes pollution prevention and spill response and compliance with all federal, state, and local laws.	1. Conduct annual needs assessment to determine candidate streets for resurfacing	1. Annually Permit Years 1-5	1. Yes/No/Partial
		2. Budget, schedule and perform resurfacing for priority streets	2. Annually Permit Years 1-5	2. Square yards of priority areas resurfaced Tons of asphalt applied
		3. Spill response	3. See BMP #41	3. See BMP #41

**Membership Agreement for  
Clean Water Education Partnership (CWEP) Services  
Provided by the Triangle J Council of Governments**

This Memorandum of Understanding by and between the undersigned local government (Local Government) and the Triangle J Council of Governments (TJCOG) pertains to the services provided by TJCOG under the Clean Water Education Partnership (CWEP) program.

**WITNESSETH:**

WHEREAS, CWEP and local government stormwater programs have the same basic mission of providing stormwater outreach and education; and

WHEREAS, CWEP is a program administered by TJCOG that has excelled in providing direct education and mass media to its wide variety of partner communities;

NOW, THEREFORE, TJCOG, via CWEP, will prepare and make available to the Local Government the following direct education and mass media items:

1. CWEP will assist the Local Government with the following education/outreach tasks during the term of this MOU related to direct educational programming:
  - a. Provide physical and digital outreach materials for local governments and target audiences that describe target pollutants and their likely sources and impacts on water quality
  - b. Maintain an internet website conveying the CWEP program's messages about stormwater pollution
  - c. Make available for download via website outreach materials for target audiences, and distribute materials at in-person or digital community events
  - d. Post on social media channels to promote CWEP's key messages
  - e. Provide unlimited local use and access to original and compiled educational materials on CWEP program website, to include educational videos, printable and digital lessons, lesson plans, and other resources useful for educating a variety of ages and audiences in various settings
  - f. Coordinate annually with stormwater staff and/or relevant educational contacts (as requested by the Local Government) to schedule and conduct stormwater education activities that correlate with NC Essential Science Standards or provide opportunities for citizen participation which may include stream cleanups, citizen science activities, or similar efforts. CWEP will coordinate with the CWEP local government representative prior to contacting any formal educators in the member jurisdiction.
  - g. Provide mechanisms on CWEP program website for public input on stormwater issues

2. CWEP will assist the Local Government with the following mass media programming:
  - 1) Coordinate an annual outreach campaign in the form of Public Service Announcements (PSAs) administered by local service providers, which includes the following:
    - a. Six animated videos about common target pollutants, their likely sources, their negative impact on water quality, and best practices for target audiences likely to have significant stormwater impacts
    - b. Static and animated banner ads stating the program's message of "Clean Water Begins with You and Me" with a link to the program website
    - c. Approximately 12 weeks (as market costs allow) of digital pre-roll videos and display in-banner advertising
    - d. Approximately 12 weeks (as market costs allow) of television, cable, and radio PSAs, spread across popular stations with the aim of reaching a variety of target audiences, including Spanish-language listeners, network news, and cable entertainment. CWEP will make an effort to ensure that media reach adequately covers member's jurisdictions. Additional stations and programs may be proposed by local media placement companies and approved collectively by members.
    - e. Print and digital advertising in Spanish-language newspaper
  - 2) Provide outreach materials for target audiences that describe target pollutants and their likely sources and impacts on water quality
  - 3) Provide unlimited local use and access of digital media materials for Partner jurisdictions' use in public buildings, parks, DMV locations, outdoor movies, etc.
  - 4) Promote regional outreach and education events (such as Creek Week) through CWEP website and social media platforms

Local Governments may use the tasks above to help comply with NPDES MS4 stormwater education requirements, Jordan Lake Rules and/or Neuse and Tar-Pamlico nutrient strategy education requirements. The Local Government's signature on this MOU (and MS4 permit number if applicable) signifies an understanding that any one of the items listed above may only partially fulfill its education requirements during an audit from NC DEQ. Accordingly, the Local Government acknowledges that it is ultimately responsible for meeting all federal and state laws, rules and regulations related thereto. The Local Government and CWEP share responsibility for determining how specific objectives can be cooperatively achieved, with the understanding that CWEP supplements local efforts to comply with regulatory requirements. The Local Government is highly encouraged to send one or more representatives to CWEP's quarterly steering committee meetings to collaborate on strategies. CWEP will make every reasonable attempt, as permitted by available staffing and supplies, to independently and proactively address the objectives in the Local Government's community, and will update the CWEP Local Government representative each quarter to offer opportunities for discussion and collaboration.

The Local Government agrees to pay TJCOG for the services provided herein based on a fee schedule adopted by TJCOG, voted on by CWEP Local Governments, and incorporated herein by reference. The period of performance under, and the term of, this Membership Agreement will

begin on July 1, 2021 and will conclude on June 30, 2022. The Local Government has a unilateral right to terminate this Membership Agreement for cause or convenience, immediately, and in the case of convenience, upon thirty (30) calendar notice), whereupon CWEP and TJCOG will only be entitled to prorated compensation properly rendered up to the date of termination.

CWEP will provide an annual report by August 31 after fiscal year end, with local outreach and education numbers for both mass media and direct education. Information can be provided as needed.

IN WITNESS WHEREOF, both the Local Government and TJCOG have caused this Membership Agreement to be executed by their chief executive officers, all as set forth in the year first above written.

**Town of Carrboro**

**MS4 Permit No. NCS0004**

DocuSigned by:  
By: Cary McNallan Date: 6/23/2021  
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Cary McNallan, Acting Finance Director

This instrument has been pre-audited in the manner required by the Local Government and Fiscal Control Act

DocuSigned by:  
By: David Andrews Date: 6/23/2021  
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David Andrews, Town Manager

DocuSigned by:  
By: Catherine Dorando Date: 6/25/2021  
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Catherine Dorando, Town Clerk

**TRIANGLE J COUNCIL OF GOVERNMENTS**

DocuSigned by:  
By: [Signature] Date: 6/23/2021  
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Executive Director, TJCOG