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www.wakeforestnc.gov

Draft Stormwater Management Plan Town of Wake Forest NCS000467

12/03/2020 REV 4/16/2024

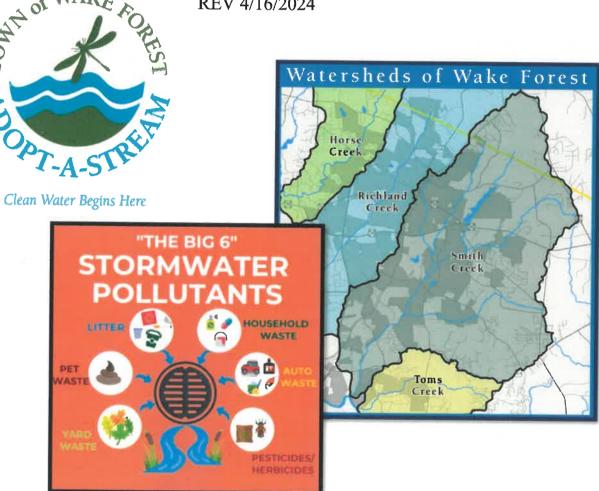


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PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the Town of Wake Forest 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 Wake Forest 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 NCS000467, 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 Wake Forest and located within the corporate limits of the Town of Wake Forest.

In preparing this SWMP, the Town of Wake Forest 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.

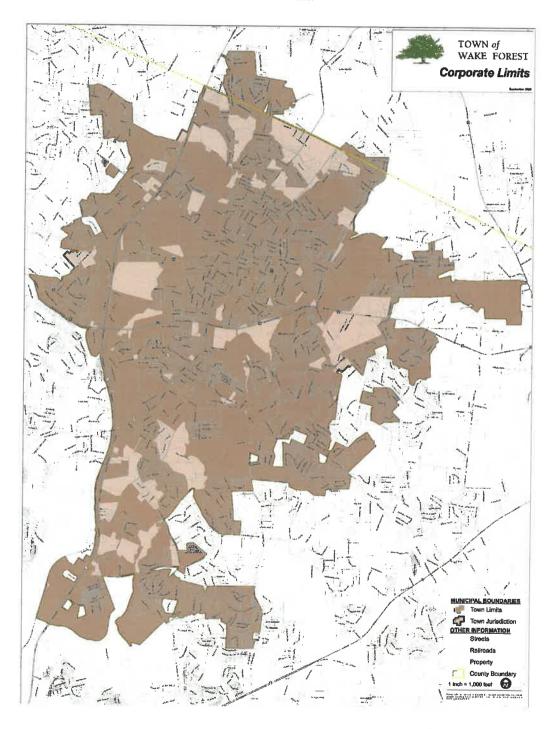
I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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 ra	anking elected official.
A	I am a p	rincipal executive officer for the permitted MS4.
	I am a di in writin	uly authorized representative for the permitted MS4 and have attached the authorization made g 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.
Si	gnature:	13st
1	rint ame:	KIP PAGGETT
Ti	tle:	TOWN MANAGER
Si	gned this	day of 2024 . MONTH OF APRIL

PART 3: MS4 INFORMATION 3.1 Permitted MS4 Area

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



3.2 Existing MS4 Mapping

The Town-owned and maintained stormwater system collects drainage from 22.72 square miles, and releases stormwater via 156 major outfalls (over 860 outfalls in total), ranging in size from 12"-13'-6" (elliptical). The Town has recently logged its entire stormwater system into a GIS database. Several areas of new construction need to be incorporated. Routine upkeep of the database will be required moving forward. The Town's GIS information can be viewed online at the following location: https://www.wakeforestnc.gov/information-technology/gis

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	95	%
No. of Major Outfalls* Mapped	156	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 \geq 2-acres.

3.3 Receiving Waters

The Town of Wake Forest MS4 is located within the Neuse 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
- o Impaired Waters and TMDL Map
- o 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*
Horse Creek	27-17-(0.7)	WS-IV; NSW	
Richland Creek	27-21-(1.5)	WS-IV; NSW	
Richland Creek	27-21-(0.5)	C; NSW	
Spring Branch	27-23-4-1	C; NSW	
Hatters Branch	27-23-4	C; NSW	
Smith Creek	27-23-(1)	WS-II; HQW, NSW	
Smith Creek	27-23-(1.5)	WS-II; HQW, NSW, CA	
Smith Creek	27-23-(2)	C; NSW	Benthos (Nar, AL, FW)
Austin Creek	27-23-3	C; NSW	(,,,
Sanford Creek	27-23-5	C; NSW	
Toms Creek	27-24	C; NSW	Benthos (Nar, AL, FW)
Neuse River	27-(22.5)	C; NSW	(122)
Neuse River	27-(20.7)	WS-IV; NSW	
Neuse River	27-(22)	WS-IV; NSW, CA	

^{*}Note that Fish Tissue Mercury is also listed as a parameter of interest for all receiving waters (see Table 3 below)

3.4 MS4 Interconnection

The Town of Wake Forest MS4 is not significantly interconnected with another regulated MS4 and directly discharges to the receiving waters as listed in Table 2 above.

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

- a) The interconnection is receiving stormwater from the NCDOT MS4. The number of interconnections is unknown. Quantity: Approximately 200 connections
- b) The interconnection is discharging stormwater into the NCDOT MS4. The number of interconnections is unknown. Quantity: Approximately 200 connections
- c) The Town of Wake Forest MS4 mapping does not identify interconnections with the NCDOT MS4.
- d) The Town of Wake Forest MS4 mapping does include NCDOT MS4 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)
Statewide	Fish Tissue Mercury (Nar, FC, NC)	N	N

The Town is cognizant of the statewide TMDL and has implemented stormwater requirements relating to water quality which should promote removal of heavy metals from stormwater (including mercury). However, progress and quantities are not being actively calculated, tracked, or recorded.

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 of 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
Haliaeetus leucocephalus	Bald eagle	Vertebrate	BGPA
Noturus furiosus	Carolina madtom	Vertebrate	ARS
Necturus lewisi	Neuse River waterdog	Vertebrate	ARS
Fusconaia masoni	Atlantic Pigtoe	Invertebrate	ARS
Alasmidonta heterodon	Dwarf wedgemussel	Invertebrate	Е
Lasmigona subviridis	Green floater	Invertebrate	ARS
Lindera subcoriacea	Bog spicebush	Vascular Plant	ARS
Rhus michauxii	Michaux's sumac	Vascular Plant	Е

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

BGPA =Bald and Golden Eagle Protection Act. See below.

ARS = At Risk Species. Species that are Petitioned, Candidates or Proposed for Listing under the Endangered Species Act. Consultation under Section 7(a)(2) of the ESA is not required for Candidate or Proposed species; although a Conference, as described under Section 7(a)(4) of the ESA is recommended for actions affecting species proposed for listing.

3.7 Industrial Facility Discharges

The Town of Wake Forest MS4 jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the NCDEQ Maps & Permit Data web page.

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name		
NCS000462	Matheson Tri-Gas Inc		
NCG140350	Thomas Concrete - Wake Forest Plant		
NCG020209	Hanson Aggregates - N Raleigh Quarry		
NCG160012	Wake Forest Asphalt Plant		
NCG140328	North Raleigh Concrete		
NCG140216	Ready Mixed Concrete Co. Plant #31		
NCG110006	Smith Creek Resource Recovery Facility		

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the Town of Wake Forest as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The Town of Wake Forest does not evaluate residential and charity car washing and street washing for possible significant water quality impacts. However, educational materials are provided online regarding best practices for car washing.

Street washing discharges are addressed under the Pavement Management Program in Part 10 of this SWMP. The Division has not required that other non-stormwater flows be specifically controlled by the Town of Wake Forest.

Wash water associated with car washing that does not contain detergents or does not discharge directly into the MS4 is considered incidental. However, these types of non-stormwater discharges that do contain detergents have been evaluated by the Town of Wake Forest to determine whether they may significantly impact water quality. The Town has determined that these impacts may be significant and has taken corrective actions to address these concerns.

Truck washing procedures have been updated at the Town-managed fire departments. Plans and procedures are being developed to ensure that vehicle washing and training activities do not discharge directly to the stormwater system. Additionally, educational material has been posted on the Town's website to help educated residents and minimize the potential for detergents entering the stormwater system. More information regarding the Town's education efforts is provided below.

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental

Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	Possible
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Possible
Street wash water	Possible
Flows from firefighting activities	Incidental

3.9 Target Pollutants and Sources

In addition to those target pollutants identified above, the Town of Wake Forest is aware of other significant water quality issues within the permitted MS4 area. These include sediment runoff from active construction sites. Due to the significant amount of proposed development occurring within the Town of Wake Forest, sediment is likely the number one pollutant. Our erosion and sediment control program actively addresses this concern. Our construction inspectors regularly inspect active construction sites to ensure compliance and administer enforcement.

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 Wake Forest has evaluated schools, homeowners and businesses as target audiences that are likely to have significant stormwater impacts. Public outreach in schools brings opportunity for education and involvement among students and their families. Similarly, outreach to the target audiences of businesses and homeowners increases awareness to stormwater best management practices of target pollutants.

The Town of Wake Forest has evaluated our land use percentages to determine the best approach for target audiences. Currently 70% of our land use is residential, which leads us to believe targeting homeowners and schools may have the biggest impact. An annual evaluation of our evolving land usage will help us determine where we should focus our stormwater education and outreach.

Table 7: Summary of Target Pollutants and Sources

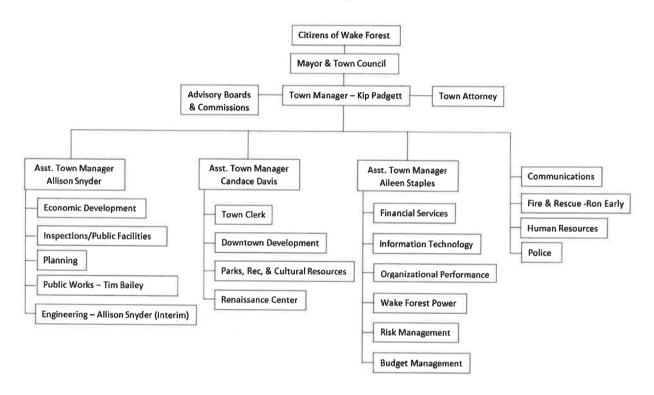
Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Litter	Residents, Businesses, Schools, Construction Sites	Public Education & Outreach, Construction Site Runoff, Good Housekeeping
Sediment	Construction Sites	Construction Site Runoff
Household Wastes	Residents	Public Education & Outreach
Auto Wastes	Residents, Business	Public Education & Outreach, IDDE, Good Housekeeping
Pesticides/Herbicides	Residents, Business, Schools	Public Education & Outreach, Good Housekeeping
Yard Wastes	Residents, Business, Schools	Public Education & Outreach, Good Housekeeping
Pet Waste/Fecal coliform	Residents, Septic Systems	Public Education & Outreach, Good Housekeeping
Illicit Discharges	Business, Septic Systems	Public Education & Outreach, IDDE,
Nitrogen	Residents, Business	Public Education & Outreach, IDDE, Good Housekeeping
Phosphorus	Residents, Business	Public Education & Outreach, IDDE, Good Housekeeping

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION 4.1 Organizational Structure

Nick Nolte, EI, is the Town's Assistant Stormwater Engineer, and is responsible for the day-to-day oversight of the MS4 program. Contact information for Monica, as well as other key staff are provided below. Additional staff responsibilities are highlighted in Table 8.

Name	Title	Email	Phone
Kip Padgett	Town Manager	kpadgett@wakeforestnc.gov	919-435-9411
Allison Snyder	Asst. Town Manager & Interim Engineering Director	asnyder@wakeforestnc.gov	919-435-9412
Tim Bailey	Director of Public Works	tbailey@wakeforestnc.gov	919-435-9578
Nick Nolte	Asst. Stormwater Engineer	nnolte@wakeforestnc.gov	919-435-9449
Kevin Kirsch	Stormwater Specialist	kkirsch@wakeforestnc.gov	919-435-9439
Lamar Minter	Construction Inspector Supervisor	lminter@wakeforestnc.gov	919-435-9448

A snapshot of the Town's full organization chart is also provided below.



A snapshot of the MS4 Supporting positions organization chart is also provided below.

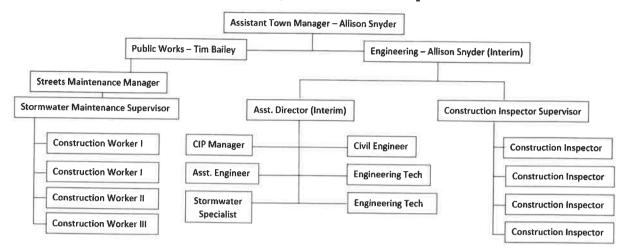


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Asst. Stormwater Engineer	Nick Nolte	Engineering
SWMP Management	Asst. Stormwater Engineer	Nick Nolte	Engineering
Public Education & Outreach	Asst. Stormwater Engineer / Communications Director	Nick Nolte/Bill Crabtree	Engineering/ Communications
Public Involvement & Participation	Asst. Stormwater Engineer	Nick Nolte	Engineering
Illicit Discharge Detection & Elimination	Asst. Stormwater Engineer/ Stormwater Specialist	Nick Nolte/ Kevin Kirsch	Engineering
Construction Site Runoff Control	Asst. Stormwater Engineer	Nick Nolte	Engineering
Post-Construction Stormwater Management	Asst. Stormwater Engineer/ Stormwater Specialist	Nick Nolte/ Kevin Kirsch	Engineering
Pollution Prevention/Good Housekeeping for Municipal Operations	Facilities Director	Mickey Rochelle	Facilities
Municipal Facilities Operation & Maintenance Program	Asst. Stormwater Engineer/ Facilities Director	Nick Nolte/ Mickey Rochelle	Engineering/ Facilities
Spill Response Program	Fire Chief	Ron Early	Fire Department

MS4 Operation & Maintenance Program	Asst. Stormwater Engineer/ Public Works Director	Nick Nolte/ Tim Bailey	Engineering/ Public Works
Municipal SCM Operation & Maintenance Program	Asst. Stormwater Engineer/ Stormwater Specialist	Nick Nolte/ Kevin Kirsch	Engineering
Pesticide, Herbicide & Fertilizer Management Program	Park Maintenance Manager	Randy Hoyle	Parks Recreation & Cultural Resources
Vehicle & Equipment Cleaning Program	Fleet Manager	Brent Drendall	Public Works > Fleet
Pavement Management Program	Streets Maintenance Manager	Joe Medlin	Public Works > Streets
Total Maximum Daily Load (TMDL) Requirements	Asst. Stormwater Engineer	Nick Nolte	Engineering

4.2 Program Funding and Budget

In accordance with the issued permit, the Town of Wake Forest 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 2024-2025 budget for the Town's stormwater department is approximately \$3 million. Of this budget, \$1.5 million is set aside for existing services (maintenance, equipment, salaries, etc.), \$500,000 for new services, and the rest is allocated for new projects/initiatives on our Stormwater Capital Improvements List. This funding is substantially higher than previous years due to a newly approved Stormwater Utility, which goes into effect this fiscal year.

Within the Town's 2025-2029 CIP, several projects are listed that address water quality and overall stormwater infrastructure improvements. These projects include two neighborhood studies to address drainage concerns, a SCM rehabilitation and potential redesign, stream restoration projects in Tom's Creek, a Downtown stormwater analysis, and a culvert repair that's also paired with stream restoration. In addition, we have a project that has been split into two phases: Phase I is getting completed in calendar year 2024 from American Rescue Plan Act funding, and Phase II will be funded through the stormwater utility budget in 2024-2025. The Town's CIP is available to the general public online.

The stormwater program is overseen by 1 fully dedicated staff member (Nick Nolte), assistance from 3 other full-time staff members (Kevin Kirsch and Jessica Watkins), as well as 5 full-time construction inspectors, and other maintenance staff. One additional position was requested to manage the new Stormwater Utility.

The Town is aware of MS4 program requirements and has shown a willingness to support as needed. Responsible positions have been made aware of permit obligations and actively coordinate with the Stormwater Administrator to ensure those best management practices described in Tables 11-21 below are being met.

4.3 Shared Responsibility

The Town of Wake Forest 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 Wake Forest 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 Wake Forest nor the other entity fully performs the permit obligation. Table 9 below summarizes who will be implementing the component, what the component program is called, the specific SWMP BMP or permit requirement that is being met by the shared responsibility, and whether or not a legal agreement to share responsibility is in place.

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
Public Education (partial)	Clean Water Education Partnership (TJCOG)	Y
Spill Response (partial)	City of Raleigh	Y
Public Education (partial)	Wake County - Septic System Permitting	N

4.4 Co-Permittees

The are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000467 for the Town of Wake Forest. Table 10 summarizes contact information for each co-permittee.

Table 10: Co-Permittee Contact Information

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

4.5 Measurable Goals for Program Administration

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

Table 11: Program Administration BMPs						
Permit Ref.	2.1.2 Program Implementation 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.					

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
1.	Annual Self-Assessment		8	
	Evaluate the performance and effectiveness of the program components at least annually. Results shall be used to modify the program components as necessary to accomplish the intent of the Stormwater Program.	1. Prepare, conduct and document an annual evaluation of the program components.	1. Annually Permit Years 1 – 5	1. Yes/No
2.	Shared Responsibility (Permit Ref. 1	.4)	I.	
	Agreements with entities operating on behalf of the Town of Wake Forest will be reviewed to confirm that the entity has agreed to implement part of the program on the municipalities behalf and that all required documentation will be submitted to the municipality for documentation and reporting purposes.	1. Review all agreements and confirm that they meet all requirements outlined in 1.4 of the MS4 permit.	1. Permit Year 1	1. Yes/No
3.	Minimum Control Measures (Permi	Ref. 2.2.2)	h	
	Written programs will be created to assure compliance with part 2.2.2 of the MS4 Permit. Written programs shall be reviewed on an annual basis and modified if needed to best outline the program and needs of the	Develop and maintain written programs for all minimum control measures. Review written programs and	Permit Year 1 Annually	1. Yes/No 2. Yes/No
4.	municipality. Funding and Staffing (Permit Ref. 2.	modify/update.		
		1. Review and analyze the current funding and staffing of the program.	1. Annually	1. Adequate/inadequate

Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.				
ВМР	A	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
5.	Permit Renewal Application				
	Submit a permit renewal application and Draft SWMP no later than 180 prior to permit expiration.	1. Draft SWMP applicable to the proceeding 5 years following permit reissuance.	1. Permit Year 5	1. Yes/No	
		2. Certify the stormwater permit renewal application (Permit renewal application form and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	2. Permit Year 5	2. Date of permit renews application submittal	

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

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

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

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)	
Litter	Residents, Businesses, Schools, Construction Sites (developers)	
Sediment	Constructions Sites (developers)	
Household Wastes	Residents	
Auto Wastes	Residents, Business	
Pesticides/Herbicides	Residents, Business, Schools	
Yard Wastes	Residents, Business, Schools	
Pet Waste/Fecal coliform	Residents, Septic Systems	
Illicit Discharges	General Public, Businesses, Municipal Employees	
Illegal Dumping	General Public, Businesses, Municipal Employees	
Improper Disposal of Waste	General Public, Businesses, Municipal Employees	
Non-Point Source Pollution	Residents, Business, Agriculture, Schools	

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

Involvement with the Clean Water Education Partnership (CWEP) has played a consistent role in the Town's outreach and education process. This partnership influences the focus of the program regarding target audiences and pollutants. CWEP has facilitated active collaboration between participating entities, and tailors their outreach according to input from these entities.

Aside from educational events supported by CWEP, Wake Forest's stormwater group will continue being involved in Town events including Meet in the Street and Dirt Day. Educational material from the Town's current repository, as well as material made available or referenced by CWEP will be available for participants in each event.

Permit	3.2.2 and 3.2.4: Outreach to Targeted Audiences					
Ref.	Measures to identify the specific elements and implementation of a Public Education and Outreach Prograshare educational materials to the community or conduct equivalent outreach activities about the impacts 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 12 above, and shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.					
BMP	A	В	C	D		
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric		
6.	CWEP Involvement					
	A representative from the Town will continue to attend the quarterly	1. Determine goals for CWEP involvement	1. Permit Year 1-2	1. Yes/No		
	steering CWEP committee meetings and provide an opinion on the direction of the partnership. The partnership will continue to develop and advertise material geared toward target pollutants, as well as the relevant target audiences (landscapers, homeowners, and students.	2. Attend CWEP meetings when possible and provide input.	2. Permit Year 1-5	2. Yes/No		
<i>7</i> .	CWEP Educational Events					
	Utilize the relationship with CWEP to support 2 in-person events each year, typically at a local elementary	1. Establish location and topics for CWEP Educational Events	1. Permit Year 1-5	1. Yes/No		
	school. These events will provide the opportunity to spread awareness to students at a younger age who may not be exposed to other materials online.	2. Attend classroom sessions with CWEP	2. Annually	2. No. of Students		

8.	Wake Forest's stormwater group will	1. Attend (2) Town	1. Permit Year 1-5	1. Yes/No
	continue being involved in Town	events as mentioned.		
	events including Meet in the Street and Forest Fest. Educational material from the Town's current repository, as well as material made available or referenced by CWEP will be available for participants at each event. Additionally, the Town will continue to host a Lawncare 101 course for residents and landscapers.	2. Distribute materials which highlight target pollutants.	2. Permit Year 1-5	2. No. of items dispersed
		3. Host Lawncare 101 training for residents and landscapers	3. Permit Year 1-5	3. No. of Participants
9.	Social Media Presence			
	Aside from direct reference to CWEP's educational efforts, the Town social media will be a primary means of distributing information	1. Review social media outreach plan and determine if changes are needed	1. Permit Year 1	1. Yes/No
	relating to stormwater education. A social media outreach plan has been developed in conjunction with the	2. Implement social media plan with monthly posts	2. Permit Year 1-5	2. No. of posts annually
	Town's communication staff.	3. Document exposure statistics annually and archive post material	3. Permit Year 1-5	3. Yes/No
10.	Stormwater Material in Town Public	ations	-	
	The Town will continue to include stormwater-related articles and graphics in general Town	1. Develop and publish stormwater materials in publications	1. Permit Year 1-5	1. Yes/No
	publications.	2. Save a copy of publications on the town website/repository for public access	2. Permit Year 1-5	2. Yes/No
Permit Ref.	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site design including ordinances, or other regulate mechanisms, providing the legal aut and SWMP. The web page shall also	gned to convey the progra atory mechanisms, or a list shority necessary to imple	st identifying the ordina ment and enforce the re	ances or other regulatory equirements of the permit

ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
11.	Stormwater Education on Website	7		
	The Town's website has recently been updated to continue improving the quality and quantity of material present. The Stormwater Education 101 webpage is the primary gateway into the informational/educational material on the website. It mentions secondary Soil & Erosion 101 and Watershed Education webpages as well as a Yard Waste webpage.	1. Review website to determine if any new topics should be added. Review, maintain, and update information on website to ensure information isn't missing, links aren't broken, and new material is developed and utilized.	1. Permit Year 1-2	1. Yes/No
		is developed and dimzed.		
Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/		public education and or	ıtreach.
Ref.	3.2.5: Stormwater Hotline		Fpublic education and or	ntreach.
	3.2.5: Stormwater Hotline Measures for a stormwater hotline/	helpline for the purpose of	C Schedule for	
Ref. BMP No.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/	helpline for the purpose of B Measurable Goal(s)	C	D Annual Reporting
Ref. BMP	3.2.5: Stormwater Hotline Measures for a stormwater hotline/ A Description of BMP	helpline for the purpose of B Measurable Goal(s)	C Schedule for	D Annual Reporting

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 Wake Forest will manage, implement and report the following public involvement and participation BMPs.

Permit Ref.	3.3.1: Public Input Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.				
ВМР	A	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
<i>13</i> .	Stormwater Hotline (Program Input)			
	As mentioned in the Public Outreach and Education Plan, SeeClickFix and direct phone to the Engineering or	Advertise and maintain means of communications	1. Permit Year 1-5	1. Yes/No	
	Public Works Department are the easiest avenues for citizens to report an issue. Other avenues for citizen input include public meetings and online/virtual document review.	2. Evaluate and update mechanism for tracking citizen inquires and reports	2. Permit Year 1-5	2. No. of inquiries and reports	
14.	Solicit Feedback Online				
	Aside from soliciting feedback from the planning board, the Town will	1. Establish and maintain an online feedback form.	1. Permit year 1	1. Yes/No	
	develop and maintain an online Stormwater Program Feedback form to allow public to provide comment on standards, stormwater utility functionality, and overall MS4 requirements.	2. Evaluate feedback and update program appropriately	2. Permit year 1-5	2. No. of feedback reports submitted	

Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities	ortunities designed to pror	note ongoing citizen par	ticipation.
ВМР	A	В	С	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
15.	Adopt-a-stream Volunteer Program			1,200220
	As advertised on the Town's website the Adopt-a-stream program includes a few options for public involvement and participation. Option A: A group can volunteer to visit a stream monthly, to observe algae, insect life, stream stability, appearance of water, odor, and stream flow. All required gear and training will be provided by the Town. Option B: An adoption of this nature primarily focuses on litter collection, bagging trash, and reporting it to be collected. Stream cleanups should be conducted twice per year.	1. Identify public hydrologic features to be managed by volunteers and promote Adopt-a-Stream online, providing necessary equipment and tests for cleanup days.	1. Permit Year 1-5	1. No. of volunteers
16.	Residential WQ Improvements Prog	ram		
	The Town offers educational/technical support for installation of small water quality improvements such as rain gardens or backyard stream repair	1. Develop/review educational material and type of water quality improvements addressed. Revise program scope and topics in response to public interest.	1. Permit Year 1	Adjustments made (yes/no)
		2. Advertise the program and actively promote available guidance as well as providing supplemental technical assistance when requested.	2. Permit Year 2-5	2. No. of inquiries

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Town of Wake Forest 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.

Permit Ref.	3.4.1: MS4 Map Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.				
BMP	A	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
<i>17</i> .	MS4 Map and List of Outfalls		,		
	The Town maintains and updates the Stormwater System Map using GIS.	1. Maintain up-to-date GIS database	1. Permit Year 1-5	1. Data up to date (yes/no)	
	Using the GIS database, the number of major outfalls can be provided as well as their characteristics, such as	2. Maintain list of outfalls, particularly "major" outfalls	2. Permit Year 1-5	2. No. of outfalls	
	outfall structure type, receiving streams, and drainage areas.	3. Add supplemental information including DA and receiving stream name	3. Permit Year 1-5	3. Revisions made (yes/no)	
18.	MS4 Mapping Updates – New Data l	Incorporation			
	Additional updates will be implemented to facilitate inspections, tracking, and site assessment. Updates to standard procedures will also facilitate incorporation of new as-built information.	1. Evaluate inspection system and improve connectivity to GIS data for efficiency and accuracy of reporting. In addition, revise internal procedures for contractors to submit asbuilt data for incorporation.	1. Permit Year 1-3	System/inspection process updates (yes/no)	

Permit Ref.	3.4.2: Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.				
	A	and actions.	C	D	
BMP No.			Schedule for	Annual Reporting	
	Description of BMP	Measurable Goal(s)	Implementation	Metric	
19.	IDDE Regulatory Mechanisms				
	The Town maintains IDDE regulatory mechanisms and enforcement starting in Section 32-444. The Town continues to utilize and enforce the existing ordinances as part of the NPDES MS4 permit and stormwater management plan.	Review and update UDO and Code of Ordinances as needed to continue efficient enforcement	1. Permit Year 2	1. UDO reviewed (yes/no)	
	dumping and any non-stormwater of	lischarges identified as sig	gnificant contributors of parto:	pollutants to the MS4.	
	The plan shall provide standard pro a) Locate priority b) Conduct routin c) Identify illicit	discharges identified as sign seedures and documentation areas likely to have illicine the dry weather outfall inspections discharges and trace sources source(s) of an illicit discharges	on to: t discharges, ections, es,	pollutants to the MS4.	
	The plan shall provide standard provide a) Locate priority b) Conduct routing c) Identify illicit d) Eliminate the s	redures and documentation rareas likely to have illicing the dry weather outfall inspections discharges and trace source	on to: t discharges, ections, es,	pollutants to the MS4.	
ВМР	The plan shall provide standard provide a) Locate priority b) Conduct routing c) Identify illicit d) Eliminate the s	redures and documentation rareas likely to have illicing the dry weather outfall inspections discharges and trace sources source(s) of an illicit discharges	on to: t discharges, ections, es,	pollutants to the MS4.	
No.	The plan shall provide standard provide a) a) Locate priority b) Conduct routing c) Identify illicit d) Eliminate the se e) Evaluate and a A Description of BMP	recedures and documentation areas likely to have illicing the dry weather outfall inspection discharges and trace source source(s) of an illicit discharges the IDDE Program.	on to: t discharges, ections, es, arge, and		
	The plan shall provide standard pro a) Locate priority b) Conduct routin c) Identify illicit d) Eliminate the s e) Evaluate and a	recedures and documentation areas likely to have illicing the dry weather outfall inspection discharges and trace sources ource(s) of an illicit discharges the IDDE Program. B	on to: t discharges, sections, ses, sarge, and C Schedule for	D Annual Reporting Metric	
No.	a) Locate priority b) Conduct routin c) Identify illicit d) Eliminate the s e) Evaluate and a A Description of BMP IDDE Monitoring Plan Review and update the IDDE plan as needed. The plan includes an explanation of the inspection process which utilizes New World inspection	areas likely to have illicitude dry weather outfall inspection of an illicit discharges and trace source source(s) of an illicit discharges the IDDE Program. B Measurable Goal(s) 1. Annually assess program efficacy, obstacles, and update IDDE plan as needed.	on to: t discharges, sections, ses, sarge, and C Schedule for Implementation	D Annual Reporting Metric 1. Program assessment	

	present, water quality will be sampled	2. Train staff as needed	2. Permit Year 1-5	2. No. of participants
	if there is an indication of illicit discharge (color, odor, volume). All major outfalls will be inspected at	to ensure procedures are properly and consistently implemented		
	least once within the 5-year permit term.	3. Ensure new as-built data is collected and new outfalls are added to inspection schedule	3. As needed	3. New as-built data incorporated into GIS database out inspection list (yes/no)
<i>22</i> .	IDDE Priority Areas List			
	Priority areas will also be inspected frequently for first time or repeat illicit discharges. Priority areas present higher potential for spills,	Update and maintain list of priority outfalls based on land use and prior findings	1. Permit Year 1-5	1. Yes/No
	leaks, or illicit discharges. Priority areas that fit that description, and are currently monitored, include but are not limited to transportation facilities, commercial facilities, industrial facilities, institutional facilities, municipal operations, areas with	2. Inspect a point along the system in priority areas at least twice per permit period.	2. Permit Year 1-5	2. No. of inspections performed
	older sewer infrastructure, and areas previously identified with illicit discharges.			
	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and document observed, the results of the investigation.	ation, any follow-up of th	e investigation, the date	the investigation was
Permit Ref.	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and document	ation, any follow-up of th	e investigation, the date	the investigation was
BMP No.	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement A Description of BMP	ation, any follow-up of th actions, and the ability to	e investigation, the date identify chronic violate	the investigation was
BMP No.	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement	ation, any follow-up of the actions, and the ability to B	e investigation, the date identify chronic violate C Schedule for	the investigation was ors. D Annual Reporting
Ref. BMP No.	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement A Description of BMP IDDE Tracking and Documentation The Town utilizes SeeClickFix in order to track external reports of nonstormwater discharges. Prior/past occurrences are currently	ation, any follow-up of the actions, and the ability to B	e investigation, the date identify chronic violate C Schedule for	the investigation was ors. D Annual Reporting Metric
Ref. BMP No.	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement A Description of BMP IDDE Tracking and Documentation The Town utilizes SeeClickFix in order to track external reports of nonstormwater discharges. Prior/past occurrences are currently documented in a standard folder structure. A dashboard is being	B Measurable Goal(s) 1. Develop dashboard to document IDDE occurrences with	e investigation, the date identify chronic violate C Schedule for Implementation	the investigation was ors. D Annual Reporting Metric 1. Dashboard created and
BMP	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement A Description of BMP IDDE Tracking and Documentation The Town utilizes SeeClickFix in order to track external reports of nonstormwater discharges. Prior/past occurrences are currently documented in a standard folder structure. A dashboard is being developed to track violations along with location data. This will	ation, any follow-up of the actions, and the ability to B Measurable Goal(s) 1. Develop dashboard to document IDDE occurrences with associated spatial data 2. Track IDDE Reports	e investigation, the date identify chronic violate C Schedule for Implementation 1. Permit Year 1 & 2	D Annual Reporting Metric 1. Dashboard created and implemented (yes/no)
	older sewer infrastructure, and areas previously identified with illicit discharges. 3.4.4: IDDE Tracking Measures for tracking and documer observed, the results of the investig closed, the issuance of enforcement A Description of BMP IDDE Tracking and Documentation The Town utilizes SeeClickFix in order to track external reports of nonstormwater discharges. Prior/past occurrences are currently documented in a standard folder structure. A dashboard is being developed to track violations along	Action, any follow-up of the actions, and the ability to B Measurable Goal(s) 1. Develop dashboard to document IDDE occurrences with associated spatial data 2. Track IDDE Reports Received/ Discovered 3. Track IDDE Reports	e investigation, the date identify chronic violate C Schedule for Implementation 1. Permit Year 1 & 2 2. Permit Year 1-5	the investigation was ors. D Annual Reporting Metric 1. Dashboard created and implemented (yes/no) 2. No. of Investigations

Permit	5: Illicit Discharge Detection and 3.4.5: Staff IDDE Training					
Ref.	Measures to provide training for m responsibilities, may observe an ill include how to identify and report training event shall be documented	icit discharge, illicit conne illicit discharges, illicit co	ection, illegal dumping o	or spills. Training shall		
ВМР	A	В	C	D		
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting		
24.	General Staff Training – IDDE/Spill	Response	тшртешентацоп	Metric		
	Public works employees will be trained to identify and report potential illicit discharges as well as for spill response. Each of the Spill Response Plans will be referenced during training so that staff will become familiar with its procedures prior to utilizing the plan in a real scenario.	1. Semi-annually train staff regarding IDDE/Spill response, tracking, and documentation and at onboarding	1. Permit Year 2 & 4	1. No. of staff trained		
25.	Stormwater Staff Training – IDDE/S	pill Response				
	Stormwater employees will be trained to respond to illicit discharge or spill reports. Training will occur twice per permit period and will cover the basics of how to recognize and report an illicit discharge.	1. Semi-annually train staff regarding IDDE/Spill response, tracking, and documentation and at on- boarding	1. Permit Year 2 & 4	1. No. of staff trained		
Permit	3.4.6: IDDE Reporting	Oditalis				
Ref.	Measures for the public and staff to publicized to facilitate reporting and personnel.	report illicit discharges, il I shall be managed to prov	llegal dumping and spills ride rapid response by ap	s. The mechanism shall lopropriately trained		
BMP	A	В	C	D		
No.	Description of BMP	Measurable Goal(s)	Schedule for	Annual Reporting		
<i>26.</i>	IDDE Educational Material Implementation Metric					
	An Illicit discharge detection and spill response handout has been created to inform citizens and employees on the differences between illicit discharges, illicit connections, and spills.	Advertise and distribute material developed regarding IDDE	1. Permit Year 1-5	1.Yes/No		

<i>27</i> .	Public Reporting - IDDE				
	The Town utilizes SeeClickFix on their website and mobile app to receive information from the public	Train to provide accurate information and responses annually	1. Permit Year 1-5	1. No. of staff trained	
	about a variety of concerns, including illicit discharge and spills. As a secondary option, citizens can contact the Town's Stormwater staff directly.	2. Document all reports via SeeClickFix, New World or Email archives	2. Permit Year 1-5	2. Yes/No	
28.	Public Reporting – IDDE (Social Media Ad)				
	Social media will also be used to promote SeeClickFix and teach citizens how to report non-stormwater discharges.	1. Respond to comments and inquiries to promote interaction between the town community and stormwater staff	1. Permit Year 1-5	1. No of interactions	

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the Town of Wake Forest 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.

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	Town of Wake Forest Delegated SPCA Program*	15A NCAC Chapter 04	Town of Wake Forest	Whole
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ	Whole

^{*} The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: https://www.wakeforestnc.gov/sites/default/files/uploads/planning/udo/ch_12-erosion_flood_stormwater_watershed_amended_05-21-2019.pdf

The Town of Wake Forest also implements the following BMPs to meet NPDES MS4 Permit requirements.

Permit Ref.	3.5.5: Public Input Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.				
ВМР	A	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
<i>29</i> .	Public Reporting – EC Issues				
	In conjunction with the Town's Public Outreach and Education strategy, two options will be maintained and advertised for citizens	1. Advertise both SeeClickFix and direct phone options for reporting	1. Permit Years 1-5	1. No. of posts advertising SeeClickFix	
	to report observations relating to sediment control issues. Listed on	2.Receive and document phone calls and reports	2. Permit Years 1-5	2. No. of Citizen reports	
	the Town's website under the heading "What should I do if I see sediment", is a phone number for Carrie Mitchell (Environmental Engineer) as well as the Town's	3. Evaluate and update system for receiving citizen reports to improve efficiency and efficacy	3. Permit Years 3-4	3. Changes to reporting/documentation procedures (yes/no)	

	SeeClickFix website. SeeClickFix can be viewed by internal staff via the software portal.	4. Manage and document development occurring in the Town	4. Permit Years 1-5	4. No. of active construction sites
	· · · · · · · · · · · · · · · · · · ·	5. Inspect active construction sites monthly to ensure E&SC compliance	5. Permit Years 1-5	5. No. of inspections performed
<i>30.</i>	Staff Training – EC Report Response	e	***	·
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints annually	1. Permit Year 1-5	1. No. of staff trained
		2. Evaluate opportunities for contractor education if handling of wastes is a	2. Permit Year 3-4	2. Training material developed and distributed (yes/no)
		significant/common issue		distributed (Jessino)
Permit Ref.	3.5.6: Waste Management Measures to require construction sit truck washout, chemicals, litter, and water quality.	significant/common issue te operators to control was I sanitary waste at the con	struction site that may o	ilding materials, concrete cause adverse impact to
	Measures to require construction sit truck washout, chemicals, litter, and	significant/common issue	struction site that may o	ilding materials, concrete cause adverse impact to
Ref.	Measures to require construction sit truck washout, chemicals, litter, and water quality.	significant/common issue te operators to control was I sanitary waste at the con	struction site that may of C Schedule for	ilding materials, concrete cause adverse impact to D Annual Reporting
Ref.	Measures to require construction sit truck washout, chemicals, litter, and water quality.	significant/common issue te operators to control was d sanitary waste at the con B Measurable Goal(s)	struction site that may o	ilding materials, concrete cause adverse impact to
Ref. BMP No.	Measures to require construction sit truck washout, chemicals, litter, and water quality. A Description of BMP	significant/common issue te operators to control was d sanitary waste at the con B Measurable Goal(s)	struction site that may of C Schedule for	ilding materials, concrete cause adverse impact to D Annual Reporting

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 Wake Forest 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 Wake Forest 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
Water Supply Watershed (WS-II)	15A NCAC 2B .06200624	TofWF UDO: 12.6
Water Supply Watershed (WS-IV)	15A NCAC 2B .06200624	TofWF UDO: 12.6
Neuse River Basin Nutrient Sensitive (NSW) Management Strategy	15A NCAC 2B .0235	TofWF UDO: 12.5 & 12.7
Neuse River Basin Nutrient Management Strategy (NMS) (Future)	15A NCAC 02B .0711	Future Updates to TofWF UDO: 12
Universal Stormwater Management Program	15A NCAC 2H .1020	TofWF UDO: 12.5
Falls Reservoir Water Supply Nutrient Strategy: Stormwater Management for New Development	15A NCAC 02B .0277	TofWF UDO: 12.5 - 12.6
High Quality Waters (HQW) in Non- Coastal Counties	15A NCAC 02H .1021	TofWF UDO: 12.5 - 12.6

A map highlighting the extents of the Smith Creek Water Supply Watershed (WS-II) as well as the Neuse River, Falls Lake, Horse Creek and Richland Creek Water Supply Watersheds (WS-IV) is too large for inclusion in the body of this report, but is attached as Appendix A. Note that the map includes other overlay districts and references requirements beyond the Water Supply Watersheds. The map is managed and updated with the Town's UDO, prior to review and approval by the State.

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

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for	Municipal Ordinance/Code Reference(s)	Date Adopted
Plan Review and Approval	and/or Document Title(s)	
3.6.2(a) Authority	TofWF UDO: 1.1	7/16/2013
3.6.3(a) & 15A NCAC	TofWF UDO: 12.5	7/16/2013
02H.0153(c) Federal, State & Local		
Projects		
3.6.3(b) Plan Review	TofWF MSSD: 2.2	7/16/2013
3.6.3(c) O&M Agreement	TofWF UDO: 12.5.6, MSSD 2.9, "O&M	12/3/2020 &
	Legal Agreement"	3/27/14
3.6.3(d) O&M Plan	TofWF UDO: 12.5.6, MSSD 2.9	7/16/2013 &
3.6.3(e) Deed	To SWE LIDO: 12.5.6 MSSD 2.0 %O.8.M	3/27/14
Restrictions/Covenants	TofWF UDO: 12.5.6, MSSD 2.9, "O&M Legal Agreement"	7/16/2013 & 3/27/14
3.6.3(f) Access Easements	TofWF UDO: 12.5.6, MSSD 2.9	7/16/2013 & 3/27/14
Nutrient Calculation	(To be added in the future)	TBD
Nutrient Offset	(To be added in the future)	TBD
Permit Requirements for	Municipal Ordinance/Code Reference(s)	Date Adopted
Inspections and Enforcement	and/or Document Title(s)	
3.6.2(b) Documentation	TofWF UDO: 12.5.6	7/16/2013
3.6.2(c) Right of Entry	TofWF UDO: 12.5.6	7/16/2013
3.6.4(a) Pre-CO Inspections	TofWF UDO: 12.5.6, MSSD 2.9, "O&M	7/16/2013 &
	Legal Agreement"	3/27/14
3.6.4(b) Compliance with Plans	TofWF UDO: 12.5.6, MSSD 2.9	7/16/2013 &
		3/27/14
3.6.4(c) Annual SCM Inspections	TofWF UDO: 12.5.6, MSSD 2.9, "O&M	7/16/2013 &
	Legal Agreement"	3/27/14
3.6.4(d) Low Density Inspections	(To be added in the future)	TBD
3.6.4(e) Qualified Professional	TofWF UDO: 12.5.6, MSSD 2.9, "O&M	7/16/2013 &
	Legal Agreement"	3/27/14
Permit Requirements for	Municipal Ordinance/Code Reference(s)	Date Adopted
Fecal Coliform Reduction	and/or Document Title(s)	
3.6.6(a) Pet Waste	TofWF Municode: 32-434, website	5/23/2012
3.6.6(b) On-Site Domestic	TofWF Municode: 32-434, website	5/23/2012
Wastewater Treatment		

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

Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minime Measures to document activities over information to accurately describe properties.	er the course of the fiscal	year (July 1 – June 30) i	nts ncluding appropriate
ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<i>32</i> .	Standard Reporting			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile	Track number of low density and high density plan reviews performed.	1. Continuously Permit Years 1-5	No. of plan reviews performed for low density and high density.
	appropriate data for the annual self- assessment process. Data shall be provided for each Post-Construction/	2. Track number of low density and high density plans approved.	2. Continuously Permit Years 1-5	2. No. of plan approvals issued for low density and high density.
	Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	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. No. of low density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. No. of SCM inspections.
		5. Track number of low density inspections performed.	5. Continuously Permit Years 1-5	5. No. of low density projects inspected.
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. No. of enforcement actions issued.
<i>33</i> .	Standard Nutrient Management Stra	itegy Reporting		
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-	Track number of NMS-subject plan reviews performed in the past year.	1. Permit Year 2-5	1. No. of NMS-subject plan reviews performed in the past year.
	assessment process.	2. Track number of NMS-subject plans approved in past year.	2. Permit Year 2-5	2. No. of plan approvals issued for NMS-subject developments in the past year.

Table 2	0: Post Construction Site Runoff (Control BMPs				
		3. Maintain a current inventory of developments and lots with BUA limits and constructed SCMs including SCM type or location, and last inspection date	3. Permit Year 1-5	3. No. of developments with BUA limits added to inventory in the past year.		
		4. Track number of post- construction SCM inspections performed in the past year.	4. Permit Year 2-5	4. No. of post- construction SCM inspections in the past year.		
		5. Track number and type of construction-phase stormwater inspections performed.	5. Permit Year 3-5	5. No. of construction- phase stormwater inspections.		
<i>34</i> .	Data Used in Nutrient Calculations					
	Input data used for the calculation of nutrient export and reduction by SCMs for all development sites subject to 0711 will be collected for the year and submitted as an appendix for the Local Program's Annual Report.	1. Track and compile number of NMS-subject plan reviews performed in the past year.	1. Permit Year 2-5	1. Nutrient calculation input data for all developments and expansions subject to the Neuse Stormwater Rule submitted to NCDEQ by October 30 of each year.		
Permit Ref.	2.3 and 3.6: Qualifying Alternative Program(s) Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.					
ВМР	A	В	С	D		
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric		
<i>35</i> .	QAP for WSW (WS-II and WS-IV)					
	Implement and enforce state program for Water Supply Watersheds (WS-II and WS-IV)	1. Review UDO to confirm consistency with WSW requirements	1. Permit Year 2 & 4	1. UDO reviewed (yes/no)		
		2. Denote and track number of plans reviewed in each WSW	2. Permit Year 1-5	2. Number of reviews (approved)		
<i>36.</i>	QAP for Neuse NSW Strategy					
	Implement and enforce state program for the Neuse River Basin Nutrient Sensitive (NSW) Management Strategy	1. Develop draft version of UDO to meet new requirements for the future Neuse NSW Strategy	1. Permit Year 1	1. UDO reviewed (yes/no)		
		2. Submit draft version of UDO with future Neuse NSW Strategy for review to NCDWR	2. Permit Year 1	2. Draft UDO submitted (yes/no)		

		3. Present revised UDO	3. Permit Year 2	3. Revised UDO
<i>37</i> .	QAP for Universal Stormwater Man	to BOC for approval agement		accepted (yes/no)
	Implement and enforce state program for Universal Stormwater Management	1. Review UDO to confirm consistency with universal stormwater management requirements	1. Permit Year 2 & 4	1. UDO reviewed (yes/no)
38.	QAP for Falls Reservoir			
	Implement and enforce state program for the Falls Reservoir Water Supply Nutrient Strategy for New Development	1. Review UDO to confirm consistency with universal stormwater management requirements	1. Permit Year 2 & 4	1. UDO reviewed (yes/no)
39.	QAP for High Quality Waters (Non-			
	Implement and enforce state program for non-coastal High-Quality Waters	1. Review UDO to confirm consistency with universal stormwater management requirements	1. Permit Year 2 & 4	1. UDO reviewed (yes/no)
Permit Ref.	3.6.2: Legal Authority Measures to maintain adequate legal designs and proposals for new develoration measures will be installed, in plans, inspection reports, monitoring with the Post-Construction Stormwal inspecting at reasonable times any foliocharges to determine whether the Program.	l authorities through ordin lopment and redevelopme mplemented, and maintain g results, and other inform ater Management Program acilities, equipment, pract	nt to determine whether led, (b) request informat ation deemed necessary and (c) enter private prices, or operations relate	adequate stormwater ion such as stormwater to evaluate compliance roperty for the purpose of ed to stormwater
ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

Permit	3.6.3: Plan Review and Approval				
Ref.	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 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				
ВМР	NCAC 02H 1050 (9) and (10).	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
	This permit requirement is fully met 19.]	by the existing post-constr	uction program, see refe		
Ref.	3.6.4: Inspections and Enforcement Measures to maintain inspection and construction inspections prior to iss	d enforcement authority, suing a Certificate of Occu	pancy or a Temporary C	Certificate of Occupancy.	
Ref.	Measures to maintain inspection an	d enforcement authority, so duing a Certificate of Occur by provide a surety bond to constructed in accordance to ensure compliance with of low density projects at least	pancy or a Temporary C guarantee compliance with the approved plan the approved Operation	Certificate of Occupancy. with the approved plan(s), (s), (c) Ensure annual and Maintenance	
	Measures to maintain inspection an construction inspections prior to iss Alternatively, the project owner ma (b) Ensure that the project has been inspection of each permitted SCM t Agreement, (d) Ensure inspection of	d enforcement authority, so duing a Certificate of Occur by provide a surety bond to constructed in accordance to ensure compliance with of low density projects at least	pancy or a Temporary C guarantee compliance with the approved plan the approved Operation	Certificate of Occupancy. with the approved plan(s), (s), (c) Ensure annual and Maintenance	
BMP No.	Measures to maintain inspection and construction inspections prior to iss Alternatively, the project owner material (b) Ensure that the project has been inspection of each permitted SCM to Agreement, (d) Ensure inspection of that inspections be conducted by a c	d enforcement authority, so duing a Certificate of Occupy provide a surety bond to constructed in accordance to ensure compliance with of low density projects at lequalified professional.	pancy or a Temporary Conguarantee compliance with the approved plan the approved Operation east once during the period Congueration Con	Certificate of Occupancy. with the approved plan(s), u(s), (c) Ensure annual and Maintenance mit term, and (e) Require D Annual Reporting	
ВМР	Measures to maintain inspection an construction inspections prior to iss Alternatively, the project owner ma (b) Ensure that the project has been inspection of each permitted SCM t Agreement, (d) Ensure inspection of that inspections be conducted by a conducted	d enforcement authority, so the provide a surety bond to constructed in accordance to ensure compliance with of low density projects at lequalified professional.	pancy or a Temporary Conguarantee compliance with the approved plan the approved Operation east once during the period	Certificate of Occupancy. with the approved plan(s), u(s), (c) Ensure annual and Maintenance mit term, and (e) Require	
BMP No.	Measures to maintain inspection an construction inspections prior to iss Alternatively, the project owner ma (b) Ensure that the project has been inspection of each permitted SCM to Agreement, (d) Ensure inspection of that inspections be conducted by a Conducte	d enforcement authority, so using a Certificate of Occurs provide a surety bond to constructed in accordance to ensure compliance with of low density projects at lequalified professional. B Measurable Goal(s) 1. Evaluate and revise UDO	pancy or a Temporary Conguarantee compliance with the approved plant the approved Operation east once during the period Congueration Congueration Congueration 1. Permit Year 1 & 2	Detrificate of Occupancy. With the approved plan(s), And Maintenance D Annual Reporting Metric 1. Updated UDO (yes/no)	
BMP No.	Measures to maintain inspection an construction inspections prior to iss Alternatively, the project owner ma (b) Ensure that the project has been inspection of each permitted SCM to Agreement, (d) Ensure inspection of that inspections be conducted by a conducte	d enforcement authority, so using a Certificate of Occupy provide a surety bond to constructed in accordance to ensure compliance with of low density projects at lequalified professional. B Measurable Goal(s) 1. Evaluate and revise	pancy or a Temporary Conguarantee compliance with the approved plan the approved Operation east once during the period Congueration Schedule for Implementation	Certificate of Occupancy. with the approved plan(s), (s), (c) Ensure annual and Maintenance nit term, and (e) Require D Annual Reporting Metric 1. Updated UDO	
BMP No.	Measures to maintain inspection an construction inspections prior to iss Alternatively, the project owner ma (b) Ensure that the project has been inspection of each permitted SCM to Agreement, (d) Ensure inspection of that inspections be conducted by a Conducte	d enforcement authority, so using a Certificate of Occurs provide a surety bond to constructed in accordance to ensure compliance with of low density projects at lequalified professional. B Measurable Goal(s) 1. Evaluate and revise UDO 2. Conduct inspections of low-density projects (once per permit cycle) umentation and standardizeruction SCMs and low-density and low-density projects (once per permit cycle)	pancy or a Temporary Conguarantee compliance with the approved plant the approved Operation east once during the permoderation Congueration Congueration Congueration 1. Permit Year 1 & 2 2. Permit Year 1-5 ed inspection and tracking include the ability to identify the permit of the permit Year 1-5 ed include the ability to identify the permit Year 1-5	D Annual Reporting Metric 1. Updated UDO (yes/no) 2. No. of inspection reports ng mechanisms to: (a) ment, track and maintain dentify chronic violators,	

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
41.	SCM Inventory (Private and Town-Owned)				
	Maintain an inventory of private and municipal SCMs which have been	Maintain and update inventory of SCMs	1. Permit Year 1-5	1. Updated inventory (yes/no)	
	permitted and constructed within the jurisdiction of Wake Forest. The inventory should include location and a basic facility description, as well as a link or connect to as-built information.	2. Ensure inclusion of asbuilt information or a general site description	2. Permit Year 1-5	2. Inclusion of as-built information and general site description (yes/no)	
42.	SCM Inspection and Maintenance De	ocumentation		·	
	Annual inspections and certification are required for all SCMs. Inspection	Collect and review inspections for all SCMs	1. Permit Year 1-5	1. No. of inspections reviewed	
	reports should include a statement that routine maintenance has been conducted, and any non-routine	2. Train staff to conduct inspection reviews annually	2. Permit Year 1-5	2. No. of staff trained	
	maintenance needs are listed on the inspection report. According to the template agreement, all annual reports are due to the Town by August 15. Additionally, all records of inspection, maintenance, and repairs shall be kept on file for at least 5 years, for each SCM.	3. Ensure maintenance has been completed in compliance with the relevant O&M agreement	3. Permit Year 1-5	3. No. of maintenance reports/inspection reports received	
43.	SCM Resources for Developers and C	Owners	!		
	The Town has recently created a new webpage dedicated specifically to	Update, and maintain materials provided online	1. As needed	1. Materials updated (yes/no)	
	Stormwater Control Measures (SCMs). A link has been provided to a template O&M agreement.	2. Add information as needed based on trends observed within the inspection/maintenance process	2. As needed	2. Materials added (yes/no)	
		3. Solicit feedback from developers and owners regarding process challenges	3. Permit Year 3	3. Feedback received and documented (yes/no)	
		4. Update resources to reflect revised Neuse Rules and Nutrient Accounting	4. Permit Year 2	4. Resources added (yes/no)	
Permit	3.6.6: Fecal Coliform Reduction				
Ref.	Measures to control, to the maximum .1017(7). At a minimum, the progra achieved by revising an existing little component, if applicable, which may operation and maintenance of such states.	am shall include: (a) A per er ordinance, and (b) An or y be coordinated with loc	t waste management cor on-site domestic wastew	nponent, which may be ater treatment system	

ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
44.	Pet Waste Management			
	Highlight pet waste as an illicit discharge and potential source of stormwater pollution. Promote	Maintain language in the town code regarding pet waste	1. Permit Year 1-5	1. Updated town codes (yes/no)
	proper disposal of pet waste and educational material for the general public.	2. Maintain pet waste stations at dog parks and other key locations	2. Permit Year 1-5	2. No. of waste stations and collection schedule
		3. Include material regarding pet waste on the Town's website	3. Permit Year 1-5	3. New material added to website (yes/no)
		4. Address pet waste in social media outreach	4. Permit Year 1-5	4. No. of posts
<i>45</i> .	Advertise Best Practices and County	Guidelines for Septic Syst	ems	-
	Promote Wake County's educational efforts for proper septic system maintenance and permitting. Provide links and educational information on	1. Update the Town's website with information linking to Wake County septic system permitting.	1. Permit Year 1	1. Website update (yes/no)
	the Town's website for our residents with septic systems.	2. Maintain website information to ensure no broken links occur.	2. Permit Year 2-5	2. Website maintained (yes/no)

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

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

Ref. 3.7.1: Municipal Facilities Operation and Maintenance Program Measures to manage facilities that are owned and operated by the permittee and have the stormwater runoff. The permittee shall maintain a current inventory of municipal facilities and routine maintenance; establish specific frequencies, schedules, and standard documents general stormwater awareness and implementing pollution prevention and good housek				erform facility inspections on; provide staff training on	
BMP	A	В	C	D	
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric	
46.	List of Municipal Facilities				
	Maintain a list of municipally owned facilities, which have the potential for generating polluted stormwater	1. Review list of current municipal facilities to ensure accuracy.	1. Permit Year 1	1. Reviewed list of facilities (yes/no)	
	runoff. The facilities are prioritized according the scope of the facility.	2. Update list and prioritization as facilities are added or changed.	2. Permit Year 1-5	2. No. of facilities	

47.	Develop and maintain stormwater	1. Develop new plans as	1. Permit Year 1-5	1. New plans (yes/no)
	pollution prevention plans for	needed for new or		
	municipal facilities relative to their	changed facilities, and		
	potential for generating polluted runoff.	update as needed for any changes annually		
18.	Annual Town Facility Evaluation	changes annually		
	Evaluate facilities at least once per	1. Inspect facilities	1. Permit Year 1-5	1. Inspections performed
	permit cycle to ensure compliance	annually for compliance	1 1 1 1 1 1 1 1 1 1	(yes/no)
	with their relevant stormwater plan.	with the relevant facility		,
	Train staff to conduct these	stormwater plan		
	inspections and to remedy any	2. Train staff to conduct	2. Permit Year 1-5	2. No. of staff trained
	negative observations from the annual assessment.	inspections		•
Permit	3.7.2: Spill Response Program			
Ref.	Measures for facilities and operations the runoff if spilled. The permittee shall measures.	aintain written spill response	e procedures and train staf	f on spill response
BMP	A	В	С	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<i>19</i> .	Spill Response Plan			
	Maintain a spill response plan for	1. Review annually and	1. Permit Year 1-5	1. Update plans (yes/no)
	municipal facilities which can be attached to facility stormwater plans and references staff training, safety data sheets, and onsite spill kits.	update spill response		
		plan and list of safety		
		data sheets as needed. 2. Ensure training is	2. Permit Year 1-5	2. No. of staff trained
	data sneets, and onsite spin kits.	sufficient to make	2. I cililit I cai 1-5	2. No. of staff trained
		employees aware of the		
		plan.		
		3. Ensure fire department	3. Permit Year 1-5	3. No. of staff trained
		staff are trained to		
50	Staff Training - Spill Response	staff are trained to respond to larger spills		
50.	Staff Training – Spill Response	respond to larger spills	1 Daniel Very 1 5	1 No of stoff two and
50.	Provide training for internal staff and	respond to larger spills 1. Include general spill	1. Permit Year 1-5	1. No. of staff trained
50.	Provide training for internal staff and promote awareness for the general	1. Include general spill response guidelines in	1. Permit Year 1-5	1. No. of staff trained
50.	Provide training for internal staff and	respond to larger spills 1. Include general spill	1. Permit Year 1-5	1. No. of staff trained
Permit	Provide training for internal staff and promote awareness for the general public regarding proper spill response outside of municipal facilities. 3.7.3: MS4 Operation and Maintenant and Maintenant and Maintenant are supported by the staff of the staff	1. Include general spill response guidelines in general staff training. nce Program		
Permit	Provide training for internal staff and promote awareness for the general public regarding proper spill response outside of municipal facilities. 3.7.3: MS4 Operation and Maintenan Measures to minimize pollutants in the	1. Include general spill response guidelines in general staff training. nce Program stormwater collection system	n. The permittee shall pro	ovide operation and
50. Permit Ref.	Provide training for internal staff and promote awareness for the general public regarding proper spill response outside of municipal facilities. 3.7.3: MS4 Operation and Maintenan Measures to minimize pollutants in the maintenance staff training on stormwaters.	1. Include general spill response guidelines in general staff training. nce Program stormwater collection systemer awareness and pollution p	n. The permittee shall pro revention, perform MS4 is	ovide operation and nspections, maintain the
Permit	Provide training for internal staff and promote awareness for the general public regarding proper spill response outside of municipal facilities. 3.7.3: MS4 Operation and Maintenan Measures to minimize pollutants in the	1. Include general spill response guidelines in general staff training. nce Program stormwater collection systemer awareness and pollution p	n. The permittee shall pro revention, perform MS4 is	ovide operation and nspections, maintain the
Permit	Provide training for internal staff and promote awareness for the general public regarding proper spill response outside of municipal facilities. 3.7.3: MS4 Operation and Maintenan Measures to minimize pollutants in the maintenance staff training on stormwate collection system including catch basin	1. Include general spill response guidelines in general staff training. nce Program stormwater collection systemer awareness and pollution p	n. The permittee shall pro revention, perform MS4 is	ovide operation and nspections, maintain the

<i>51</i> .	Based on citizen complaints, or staff	1. Review and update	1. Permit Year 1-2	1. % of storm maintained
71.	observations, inspect, clean, and	SOP for inspection and		1. // 01 // // // // // // // // // // // // //
	maintain the Town's stormwater	maintenance of storm		
	system. Document hot spots, and	system to include 20%		
	track progress using the Town's	annually		
	inspection system.	2. Document hot spots	2. Permit Year 1-5	2. Yes/No
	CA-SCIE TD ID 4 G4	and track history		
5 <i>2</i> .	Staff Training – ID and Report Stor	mwater System Issues		
	Train all staff to be able to identify	1. Train all staff to	1. Permit Year 1-5	1. No. of staff trained
	and report issues they might notice	identify and report		
	with the stormwater system. Train	issues.		
	specific staff to conduct regular	2. Train specialized staff	2. Permit Year 1-5	2. No. of staff trained
	inspections and maintenance.	for inspection and maintenance.		
Permit	3.7.4: Municipal SCM Operation an	W		
	are installed for compliance with the prinventory of SCMs, perform SCM inspection documentation.	pections and maintenance, an	d shall establish specific f	requencies, schedules, and
ВМР	A	В	С	D
No.	Description of BMP	Measurable Goal(s)	Schedule for	Annual Reporting
	*	1710000110010 (5)	Implementation	Metric
53.	List of SCMs (with GIS component)	Mediat able country	Implementation	Metric
53.	List of SCMs (with GIS component)	1. Maintain list of Town-	1. Permit Year 1-5	Metric 1. No. of SCMs
53.	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs.			
53.	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS	Maintain list of Townowned SCMs Incorporate SCM		
53.	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and	1. Maintain list of Townowned SCMs	1. Permit Year 1-5	1. No. of SCMs
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility.	Maintain list of Townowned SCMs Incorporate SCM locations into GIS	1. Permit Year 1-5	1. No. of SCMs
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS	1. Permit Year 1-5 2. Permit Year 1-5	1. No. of SCMs 2. Yes/No
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs	1. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections
53. 54.	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually.	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5	No. of SCMs No. of SCMs No. of inspections performed
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support	1. Permit Year 1-5 2. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5	No. of SCMs No. of SCMs No. of inspections performed
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM inspectors during	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for private facilities. Inspection staff	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM
	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for private facilities. Inspection staff	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM inspectors during onboarding and once	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM
5 <i>4</i> .	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for private facilities. Inspection staff should be trained and certified 3.7.5: Pesticide, Herbicide and Fertil	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM inspectors during onboarding and once certifications need to be renewed lizer Management Program	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5 2. Permit Year 1-5	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM inspectors
54.	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for private facilities. Inspection staff should be trained and certified 3.7.5: Pesticide, Herbicide and Fertific Measures to minimize water quality im	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM inspectors during onboarding and once certifications need to be renewed lizer Management Program pacts from the use of landsc	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5 2. Permit Year 1-5 2. Permit Year 1-5 appechemicals. The permit	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM inspectors
54. Permit	List of SCMs (with GIS component) Maintain an up-to-date list of municipally owned SCMs. Incorporate spatial data into GIS database. Document as-builts and descriptions of each facility. Inspect and Maintain Town-Owned Inspect town-owned SCMs and conduct maintenance in accordance with the same standards set for in the standard SCM O&M agreement for private facilities. Inspection staff should be trained and certified 3.7.5: Pesticide, Herbicide and Fertil	1. Maintain list of Townowned SCMs 2. Incorporate SCM locations into GIS SCMs 1. Inspect SCMs annually. 2. Ensure/support training of SCM inspectors during onboarding and once certifications need to be renewed lizer Management Program pacts from the use of landsc	1. Permit Year 1-5 2. Permit Year 1-5 1. Permit Year 1-5 2. Permit Year 1-5 2. Permit Year 1-5 appechemicals. The permit	1. No. of SCMs 2. Yes/No 1. No. of inspections performed 2. No. of certified SCM inspectors
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55.	Ensure internal staff and external suppliers are properly trained or	1. Provide training for internal staff	1. Permit Year 1 & 3	1. No. of staff trained
	licensed to utilize fertilizers and herbicides.	2. Require proof of training/certification from external and internal suppliers.	2. Continuously Permit Years 1-5	2. No. of licensed applicators
Permit	3.7.6: Vehicle and Equipment Maint	tenance Program		
Ref.	Measures to prevent and minimize con equipment maintenance and/or cleaning industrial permitting comply with those perform routine inspections, and estable	g. The permittee shall ensur e permit requirements, provi	e that municipal industrial f de routine pollution prevent	acilities subject to NPDE
ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<i>56.</i>	Vehicle Maintenance		***************************************	
	Ensure vehicle maintenance and cleaning is included in the stormwater plans for municipal facilities. Locations for maintenance activities will be reviewed during the annual assessment to ensure proper practices are in place. Train staff to implement proper procedure.	Review and updated facility plans to cover vehicle maintenance.	1. Permit Year 1-5	1. Plans up to date (yes/no)
<i>57</i> .	Spill Response Equipment Maintena	nce		
	Maintain spill kits, oil water separators, and other preventative measures as needed.	Ensure all kits and practices are in working order as part of annual assessment.	1. Permit Year 1-5	1. Yes/No
Permit	3.7.7: Pavement Management Progr	am		
Ref.	Measures to reduce pollutants in storm permittee's corporate limits. The perm pollutants associated with vehicles, and	ittee shall implement measu	res to control litter, leaves,	debris, particulate and flu
ВМР	A	В	C	D
No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<i>58</i> .	Town Streets/Parking Inventory			-d
	An inventory of all Town-owned streets and parking lots is maintained. As-built information is required for new development to ensure that the inventory is up to date.	Maintain inventory of streets and parking areas	1. Permit Year 1-5	1. Up-to-date inventory (yes/no)

59.	Town-owned streets and parking areas will be swept routinely according to the current maintenance schedule	1. Evaluate current sweeping schedule and determine a feasible interval (monthly or bimonthly)	1. Permit Year 3	1. Updated schedule (yes/no)
		2.Sweep streets annually according to SOP	2. Permit Year 1-5	2. Mileage of streets swept
60.	Leaf Collection	17.0		
	Collect leaves seasonally to prevent washing into storm drain system.	Evaluate current collection schedule and determine a feasible interval/frequency	1. Permit Year 3	1. Updated schedule (yes/no)
		2. Collect leafy debris according to the developed schedule	2. Permit Year 1-5	2. Tons of leaves collected