

Draft Stormwater Management Plan
Town of China Grove
NCS000515

XXX XX, 20XX



CHINA GROVE
STORMWATER

An original town.

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STORMWATER PERMITTING

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Table of Contents

PART 1: INTRODUCTION.....	1
PART 2: CERTIFICATION.....	2
PART 3: MS4 INFORMATION	3
3.1 Permitted MS4 Area.....	3
3.2 Existing MS4 Mapping.....	3
3.3 Receiving Waters.....	4
3.4 MS4 Interconnection	5
3.5 Total Maximum Daily Loads (TMDLs).....	5
3.6 Endangered and Threatened Species and Critical Habitat.....	6
3.7 Industrial Facility Discharges.....	6
3.8 Non-Stormwater Discharges	6
3.9 Target Pollutants and Sources	7
PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION.....	9
4.1 Organizational Structure.....	9
4.2 Program Funding and Budget.....	11
4.3 Shared Responsibility	11
4.4 Co-Permittees	12
4.5 Measurable Goals for Program Administration.....	12
PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM.....	14
PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM	18
PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM	20
PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM.....	25
PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM	27
PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS	34

List of Tables

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

PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the Town of China Grove 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 China Grove 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 NCS000515, 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 China Grove and located within the corporate limits of the Town of China Grove.

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

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


PART 2: CERTIFICATION

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

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

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

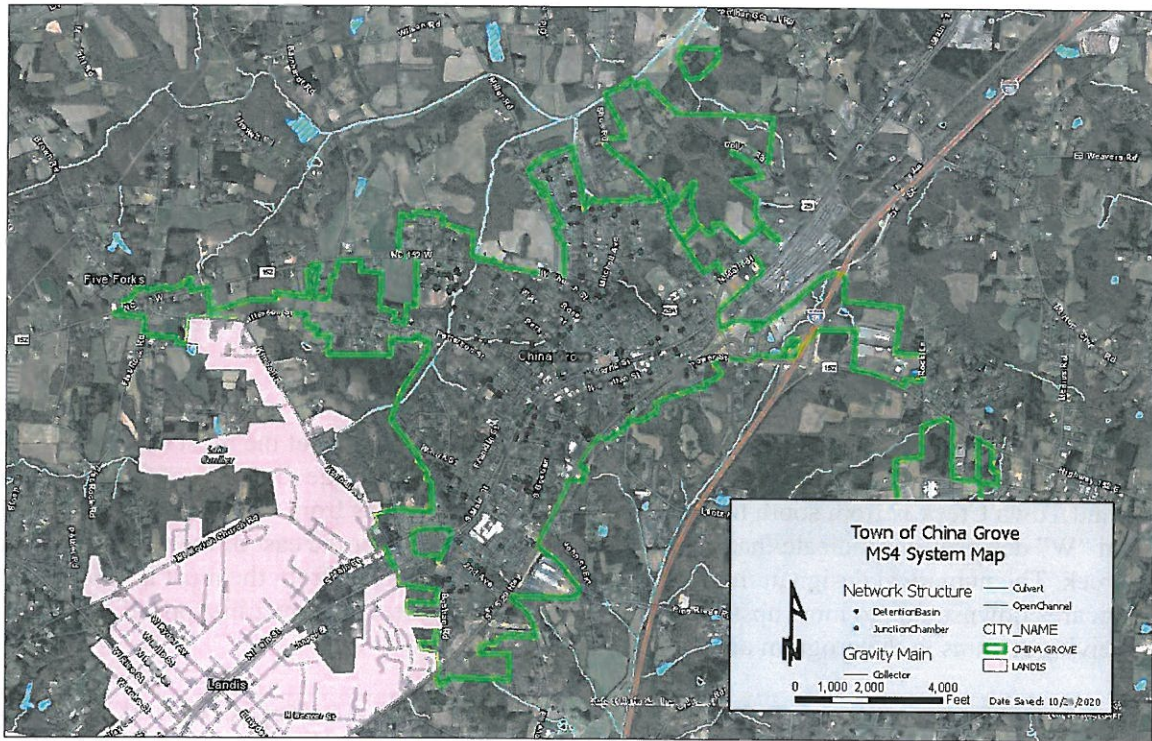
- I am a ranking elected official.
- I am a principal executive officer for the permitted MS4.
- I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):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

Signature:	
Print Name:	Ken Deal
Title:	Town Manager
Signed this [] day of 20 21 [] .	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

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



3.2 Existing MS4 Mapping

Storm drainage within the Town of China Grove consists of a network of pipes, ditches and open channels, which were installed at different times by many different entities. The flow of storm water travels through both public and privately maintained areas, and the level of improvements installed are the option of the property owner. The overall drainage area is relatively small and is served by three major creeks and numerous tributary streams. Therefore, the typical drainage path from overland flow to the outfall is short.

The Town recently inventoried the conveyance system and prepared detailed maps of the entire system within the Town's municipal boundary limits.

Existing stormwater piping: +24,000 feet of 8" to 48" diameter piping
Stormwater inlets: +276 inlets
Outfalls or discharge points: +60 (size from 12" to 60" diameter)

Figure 3 of Appendix A is a location map of all inventoried outfalls within the Town’s municipal boundaries. Appendix M includes detailed system maps showing the location of all inlets, piping and outfalls.

Table 1: Summary of Current MS4 Mapping

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

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

***Outfalls have been mapped but the classification of the specific outfalls as major outfalls has not occurred, therefore the number of major outfalls is unknown at this time (See BMP No. 16).*

3.3 Receiving Waters

The tributary streams are listed in the order in which they occur beginning at the most downstream point of the named Creek within the program area and proceeding upstream. The direction of flow of Grants Creek and Town Creek is from south to north. Cold Water Creek flows from the north to the south. The “E” and “W” designations indicate that the tributary is located to either the east or the west side of the main creek. The numerical designation indicates the order of occurrence from the most far point in the program area downstream to most upstream point in the program area. Figure 2 in Appendix A illustrates the receiving streams in the program area.

Major Receiving Stream Name	Stream Index	Water Quality Classification	Use Support Rating	Water Quality Issues
Grants Creek	12-110	C	O	Fecal Coliform, Turbidity, Sediment
Town Creek	12-112-3	C	O	DO, Turbidity
Cold Water Creek	13-17-9-4(.05)	WS-IV	O	Fecal Coliform

Cold Water Creek — Beginning north of intersection SR 1243 and 1-85 and ending north of NC 152 and south of intersection of 1-85 and 29/601.

- Unnamed Tributary W-1 Cold Water Creek
- Unnamed Tributary W-2 Cold Water Creek
- Unnamed Tributary W-3 Cold Water Creek at SR 1232
- Unnamed Tributary E-1 Cold Water Creek at SR 1339
- Unnamed Tributary W-4 Cold Water Creek Unnamed Tributary W-5 Cold Water Creek at SR 1337
- Unnamed Tributary E-2 Cold Water Creek at SR 1337
- Unnamed Tributary E-3 Cold Water Creek at NC 152

Grants Creek — Beginning southwest of SR1505 and ending at SR1211

- Unnamed Tributary E-1 to Grants Creek
 - Unnamed Tributary E-1A
- Unnamed Tributary E-2 to Grants Creek
 - Unnamed Tributary E-2A
- Unnamed Tributary E-3 to Grants Creek
- Unnamed Tributary W-1 to Grants Creek
 - Unnamed Tributary W-1A
- Unnamed Tributary W-2 to Grants Creek
- Unnamed Tributary W-3 to Grants Creek
- Unnamed Tributary E-4 to Grants Creek at SR 1225
- Unnamed Tributary W-4 to Grants Creek
- Unnamed Tributary E-5 to Grants Creek
- Unnamed Tributary W-5 to Grants Creek
- Unnamed Tributary E-6 to Grants Creek

Town Creek — Beginning at headwaters east of SR 2553 and ending at intersection SR 1505 and 1-85. No tributary streams are included in the program area.

3.4 MS4 Interconnection

The Town of China Grove MS4 is not interconnected with another regulated MS4 and directly discharges to the receiving waters as listed in Table 2 above. The MS4 does not interconnect with the statewide NCDOT TS4 and includes:

- a. The interconnection is not receiving stormwater from the NCDOT TS4. The number of interconnections is unknown. Quantity: N/A
- b. The interconnection is not discharging stormwater into the NCDOT TS4. The number of interconnections is unknown. Quantity: N/A
- c. The Town of China Grove MS4 mapping does/does not identify interconnections with the NCDOT TS4.
- d. The Town of China Grove MS4 mapping does not include NCDOT TS4 outfalls.

3.5 Total Maximum Daily Loads (TMDLs)

The USEPA developed an approach called total maximum daily loads (TMDL) for determining the total waste (pollutant) loading from point and nonpoint sources that a stream or other water body can assimilate and maintain its designated uses. With the TMDL approach streams, which do not meet water quality standards, are identified and the State establishes priorities for actions needed to meet water quality goals. 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.

Water Body Name	TMDL Pollutant(s)	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Statewide	Mercury	N	N
Grants Creek	Fecal Coliform, Turbidity		

The Statewide TMDL for mercury does not require any actions by the NPDES stormwater permittees because most mercury in stormwater comes from atmospheric deposition.

3.6 Endangered and Threatened Species and Critical Habitat

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

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

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Vertebrate	BGPA*
<i>Myotis septentrionalis</i>	Northern long-eared bat	Vertebrate	Threatened
<i>Helianthus schweinitzii</i>	<u>Schweinitz's sunflower</u>	Vascular Plant	Endangered

*BGPA- Bald Eagle Protection Act

3.7 Industrial Facility Discharges

The Town of China Grove 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
NCG070057	Hitachi Metals North Carolina
NCG080909	R&L Carriers

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the Town of China Grove as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do

not significantly impact water quality. The Town of China Grove has evaluated residential and charity car washing and street washing for possible significant water quality impacts. 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 China Grove. 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 China Grove to determine whether they may significantly impact water quality.

Table 6: Non-Stormwater Discharges

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

3.9 Target Pollutants and Sources

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

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

Table 7: Summary of Target Pollutants and Sources

Target Pollutants/Sources	Target Audience(s)	Education Programs
General Non-point source pollution	General Public, Businesses, Municipal Employees	Website, Mailed Information, Social Media, Posters
Used Motor Oil	General Public, Businesses, Municipal Employees	Website, Mailed Information
Kitchen Fats, Oils, and Grease, Dumpster leaks	Restaurants, Grocery Stores, Commercial Businesses, Municipal Employees, General Public	Website, Mailed Information, Posters, Inspections
Yard Waste and Fertilizer	General Public, Businesses, Municipal Employees	Website, Mailed Information, Posters, Inspections
Illicit Discharges	General Public, Businesses, Municipal Employees	Website, Mailed Information, Posters, Inspections
Illegal Dumping	General Public, Businesses, Municipal Employees	Website, Mailed Information, Posters, Inspections
Improper Disposal of Waste, Litter	General Public, Businesses, Municipal Employees	Website, Mailed Information, Posters, Inspections
Sediment	Construction Sector	Construction Site Run-off Control
Mercury/Statewide TMDL	Atmospheric Disposition	Public Education and Outreach (fish consumption advisory)
Nutrients, Fecal Coliform	Sewer overflows, failing septic systems, urbanization	Public Education & Outreach, Illicit Discharge Detection & Elimination, Construction Site Runoff Control, Post Construction Site Runoff Control, Pollution Prevention & Good Housekeeping

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

The Assistant Town Manager is responsible for the administration of the Stormwater Management Program.

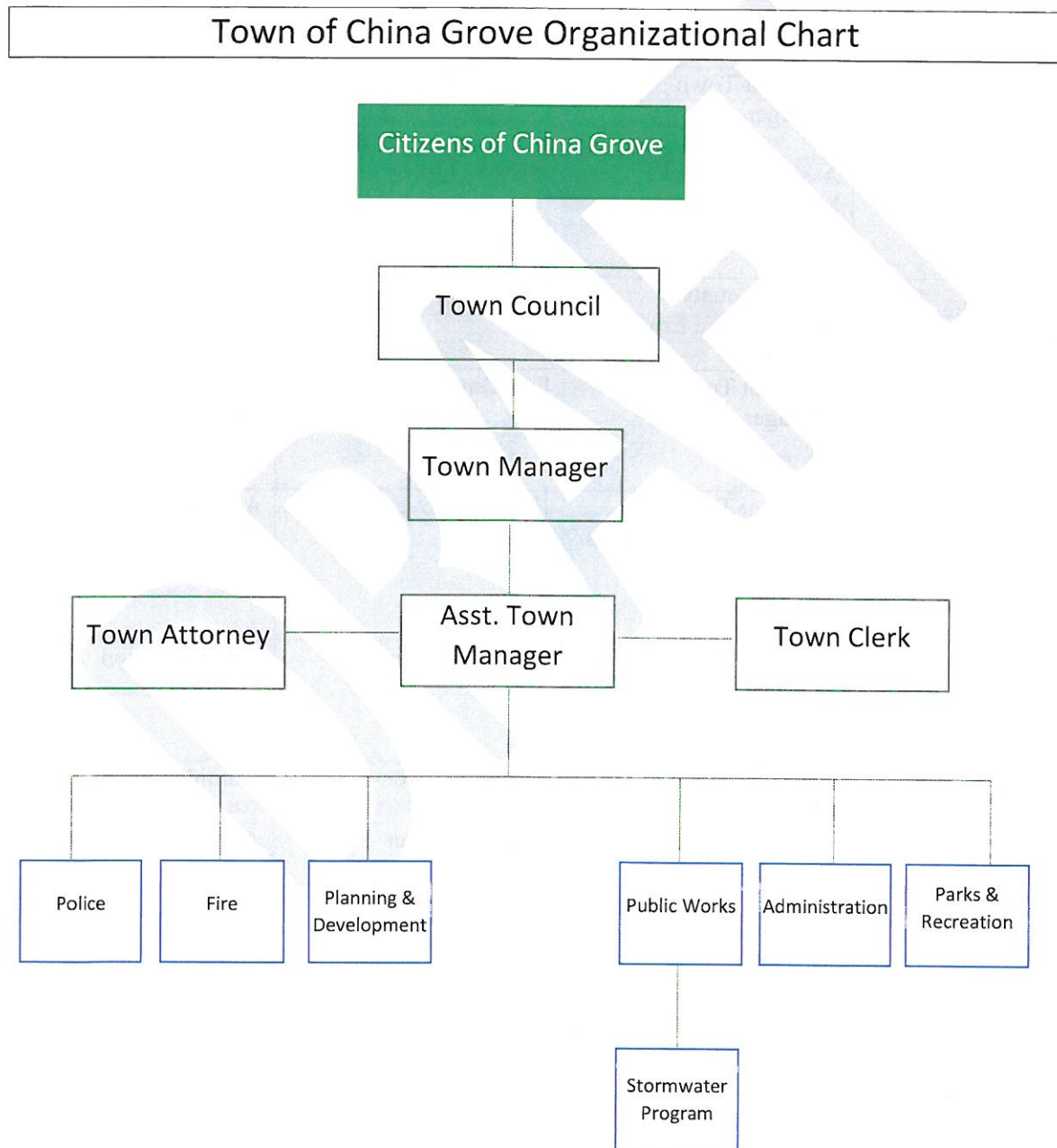


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Assistant Town Manager	Franklin Gover	Administration
SWMP Management	Assistant Town Manager	Franklin Gover	Administration
Public Education & Outreach	Assistant Town Manager	Franklin Gover	Administration
Public Involvement & Participation	Assistant Town Manager	Franklin Gover	Administration
Illicit Discharge Detection & Elimination	Assistant Town Manager	Franklin Gover	Administration
Construction Site Runoff Control	Rowan County Sediment and Erosion Control	Joshua Canup	Rowan County Planning and Development
Post-Construction Stormwater Management	Assistant Town Manager	Franklin Gover	Administration
Pollution Prevention/Good Housekeeping for Municipal Operations	Assistant Town Manager, Public Works Director	Franklin Gover, David Ketner	Administration, Public Works
Municipal Facilities Operation & Maintenance Program	Assistant Town Manager	Franklin Gover	Administration
Spill Response Program	Assistant Town Manager	Franklin Gover	Administration
MS4 Operation & Maintenance Program	Assistant Town Manager	Franklin Gover	Administration
Municipal SCM Operation & Maintenance Program	Assistant Town Manager	Franklin Gover	Administration
Pesticide, Herbicide & Fertilizer Management Program	Public Works Director	David Ketner	Public Works

Vehicle & Equipment Cleaning Program	Assistant Town Manager	Franklin Gover	Administration
Pavement Management Program	Public Works Director	David Ketner	Public Works
Total Maximum Daily Load (TMDL) Requirements	N/A		

4.2 Program Funding and Budget

In accordance with the issued permit, the Town of China Grove shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit. The budget includes the permit administering and compliance fee, which is billed by the Division annually. The stormwater program currently receives funding of approximately \$5,000 per year; this is funded through general funds. The Assistant Town Manager position is funded through the general fund. The program is currently under-funded to conduct all the proactive elements of the permit. Further fiscal analysis and investigation of funding options (such as additional general fund allocation or a stormwater fee) will be conducted as indicated in BMP No. 3 in order to fully fund the program by Permit year three.

4.3 Shared Responsibility

The Town of China Grove 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 China Grove 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 China Grove 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.

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
Public Outreach	Regional Stormwater Partnership of the Carolinas	Y
Construction Runoff	Rowan County Sediment and Erosion Control	Y
Post Construction Runoff Plan Review	McGill and Associates	Y

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permits number NCS000515 for the Town of China Grove. 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	

4.5 Measurable Goals for Program Administration

China Grove will manage and report the following Best Management Practices (BMPs) for the administration of the Stormwater Management Program.

Table 11: Program Administration BMPs				
Permit Ref.	2.1.2 and Part 4: Annual Self-Assessment Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
1.	Annual Self-Assessment			
	Perform an annual evaluation of SWMP implementation, suitability of SWMP commitments and any proposed changes to the SWMP utilizing the NCDEQ Annual Self-Assessment Template.	1. Prepare, certify and submit the Annual Self-Assessment to NCDEQ prior to August 31 each year.	1. Annually for permit years 1-4	1. Yes/No
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
2.	Permit Renewal Application			

Table 11: Program Administration BMPs

	Audit stormwater program implementation for compliance with the permit and approved SWMP, and utilize the results to prepare and submit a permit renewal application package.	1. Participate in an NPDES MS4 Permit Compliance Audit, as scheduled and performed by EPA or NCDEQ.	1 Permit Year 5	1. Yes/No
		2. Self-audit and document any stormwater program components not audited by EPA or NCDEQ utilizing the DEQ Audit Template. Submit Self-Audit to DEMLR (required component of permit renewal application package).	2. Permit Year 5	2. Yes/No/Partial
		3. Certify the stormwater permit renewal application (Permit renewal application form, Self-Audit, and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	3. Permit Year 5	3. Date of permit renewal application submittal
Permit Ref.	2.1.1: Adequate Funding and Staffing The permittee shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and meet all requirements of this permit.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
3.	Adequate Funding			
	Perform a fiscal analysis and explore options to obtain adequate program funding to fully fund the stormwater program and meet all requirements of the permit. Select and implement a funding strategy for the Phase II Stormwater Program.	1. Complete a fiscal gap analysis	1. Permit Year 1	1. Yes/No/Partial, Report monetary value gap
		2. Determine available funding mechanisms and evaluate options	2. Permit Year 1	2. Yes/No/Partial
		3. Select a funding mechanism	3. Permit year 1-2	3. Yes/No/Partial, Report selected mechanism
		4. Implement Funding Mechanism	4. Permit Year 2-5	4. Yes/No/Partial, Report Implementation status

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The Town of China Grove implements 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, China Grove 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)
Household Chemicals	General Public, Businesses, Municipal Employees
Used Motor Oil	General Public, Businesses, Municipal Employees
Litter	Restaurants, Grocery Stores, Commercial Businesses, Municipal Employees, General Public
Kitchen Fats, Oils, and Grease	Restaurants, Grocery Stores, Commercial Businesses, Municipal Employees, General Public
Dumpster leaks	Restaurants, Grocery Stores, Commercial Businesses, Municipal Employees, General Public
Yard Waste and Fertilizer	General Public, Businesses, Municipal Employees
Illicit Discharges	General Public, Businesses, Municipal Employees
Illegal Dumping	General Public, Businesses, Municipal Employees
Improper Disposal of Waste	General Public, Businesses, Municipal Employees
Sediment and Waste Management	Construction Sector

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

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

Table 13: Public Education and Outreach BMPs

	Distribute stormwater educational materials to appropriate target groups which include hotline contact information to report pollution. We may also use Public Education & Outreach materials supplied by the state when available.	1. Review and update Table 12 maintaining a description of the target pollutants and/or stressors and likely sources. Maintain a description of the target audiences likely to have significant stormwater impacts and why they were selected.	1. Permit Year 1	1. Yes/No/Partial
		2. Develop brochures, handouts, and flyers for residential, and industry specific uses identified as target audiences in Table 12 and one general stormwater awareness brochure for all audiences.	2. Permit Year 1	2. Yes/No/Partial
		3. Distribute brochures to target audiences, a minimum of one specific audience each year. Distribute the general stormwater awareness brochure.	3. Continuously Permit Years 2-5	3. Yes/No/Partial; report number of educational items distributed
		4. Display flyers for illicit discharge, illegal dumping, and general awareness at Town Hall kiosk	4. Continuously Permit Years 2-5	4. Yes/No/Partial; Report number of materials distributed
		5. Attend all town events with booth and SW truck	5. Continuously Permit Years 2-5	5. Yes/No/Partial; Report how many events?
		6. Provide handouts, coloring books, activity books, and prizes at all town events.	6. Continuously Permit Years 2-5	6. Yes/No/Partial; Report how many promotional/educational items are given out
		7. Evaluate educational materials	7. Annually Permit Years 2-5	7. Yes/No/Partial Materials updated?
	Permit Ref.	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site designed to convey the program’s message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials.		
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

Table 13: Public Education and Outreach BMPs

5.	Town Stormwater Website			
	The China Grove web page will provide information on the town's stormwater program, including the permit, SWMP, applicable ordinances, and annual reports. The web page will also include a stormwater issue reporting mechanism, educational materials developed by the town, and links to additional stormwater educational resources. The web page will also serve to advertise the stormwater hotline, and opportunities for involvement.	1. Establish and maintain Town Stormwater web page with up to date information	1. Permit Year 1	1. Yes/No/Partial
		2. Include information on program	2. Permit Year 1	2. Yes/No/Partial
		3. Include information for developers	3. Permit Year 1	3. Yes/No/Partial
		4. Monitor website traffic	4. Annually beginning Permit Year 1	4. How many visits?
		5. Evaluate website	5. Annually beginning Permit Year 1	5. Yes/No/Partial;
Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
6.	Stormwater Hotline			
	Establish a stormwater hotline line for the purpose of public outreach and education	1. Establish Hotline and email for public use	1. Permit Year 1	1. Yes/No/Partial
		2. Establish specific staff member who will serve as stormwater education and hotline contact	2. Permit Year 1	2. Yes/No/Status
		3. Publicize contact information on the town website	3. Continuously beginning Permit Year 1	3. Yes/No/Partial Document & report a summary of the number of inquiries received, general type of inquiry, and the contact mechanism used
		4. Employee training - stormwater education and hotline contact in general stormwater awareness, complaint call protocols and appropriate contacts for referral of stormwater issues	4. Annually beginning Permit Year 1	4. Yes/No/Status; number trained

Table 13: Public Education and Outreach BMPs

7.	Implement Media Program			
	Traditional and Social Media Campaign with Staff and Regional Stormwater Partnership of the Carolinas.	1. TV Ads	1. Annually beginning Permit Year 1	1. Yes/No/Status Number of viewers
		2. Radio Ads	2. Annually beginning Permit Year 1	2. Yes/No/Status Number of Ads
		3. Website	3. Annually beginning Permit Year 1	3. See BMP 5
		4. Promote the RSPC Website	4. Annually beginning Permit Year 1	4. Yes/No/Status
5. Social Media - The town's existing Facebook account will be used to reach the residential target audience and share information related to stormwater issues		Annually beginning Permit Year 1	5. Yes/No/Status; Document Number of Posts	

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PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

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

Table 14: Public Involvement and Participation BMPs				
Permit Ref.	3.3.1: Public Input Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
8.	Stormwater Public Input Email			
	Establish a Stormwater Email	1. Establish an email for stormwater input	1. Permit Year 1	1. See BMP 6
		2. Promote on all educational materials	2. Permit Year 1	2. See BMP 6
		3. Maintained by Stormwater Administrator	3. Permit Year 1	3. See BMP 6
		4.	4.	4.
		5.	5.	5.
9.	Hotline/Help Line			
	The Town promotes its phone number a hotline for public involvement	1. See BMP No. 6	1. See BMP No. 6	1. See BMP No. 6
		2.	2.	2.
		3.	3.	3.
10.	Town Stormwater Webpage			
	The web page will provide links to information on the City's stormwater program, including the permit, SWMP, applicable ordinances, and annual reports.	1. See BMP No. 5	1. See BMP No. 5	1. See BMP No. 5
		2.	2.	2.
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
11.	Drain Marking Volunteer Program			

Table 14: Public Involvement and Participation BMPs

	Volunteer program aimed at Boy Scouts, or youth organization, to mark and inspect catch basins, limited opportunity	1. Partner with local organizations to complete drain marking programs	1. Permit Years 1-5	1. Yes/No/Status; Report number of events and participants
		2. Mark and inspect drains	2. Permit Years 1-5	2. Yes/No/Status; Report Number of Inlets Marked,
12.	Social Media Programs			
	Volunteer program for residents to report stream conditions, pollution, wildlife, and activities near creeks and streams.	1. Start social media marketing for stormwater program	1. Permit Year 1	1. Yes/No/Status, Document Social Media Campaigns
		2. Develop Social Media materials for new stream monitoring program	2. Permit year 2	2. Yes/No/Status, Document new advertisements and materials
		3. Implement new monitoring program	3. Permit year 3	3. Yes/No/Status, Document Program Participants
		4. Evaluate Program	4. Annually, Permit Year 3-5	4. Yes/No/Status Report Program achievements
13	Curb Clean Up Weekend			
	A town wide effort to clean curbs and curb lines. Residents can document their efforts through social media tags such as #cleanupgrantscreek	1. Develop bi-annual curb clean-up program	1. Bi-annually, beginning Permit Year 1	1. Yes/No/Status; Report program policy and details
		2. Implement the program	2. Bi-annually, Permit Years 2-5	2. Yes/No/Status; Report Program Implementation Status
		3. Social media post with event highlights	3. Annually, Permit Year 2-5	3. Yes/No/Status; Report Participation Numbers
		4. Evaluate Program	4. Annually, Permit Year 2-5	4. Yes/No/Status Report program achievements

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

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

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	3.4.1: MS4 Map Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
14.	Maintain Storm Sewer System Base Map of Major Outfalls			
	The MS4 map will be completed through GIS analysis of existing data. Major outfalls will be identified and numbered, and flow directions and receiving waters will be added.	1. Add a layer identifying major outfalls to the map and number	1. Permit Year 1	1. Yes/No/Partial; Report number of major outfalls identified
		2. Add flow directions to the map	2. Permit Year 2	2. Yes/No/Status; Report map updates
		3. Highlight receiving waters	3. Permit Year 2	3. Yes/No/Status; Update map
15.	Continual Updates to MS4 Map			
	The MS4 map will be continuously updated for completeness.	1. When new conveyances and outfalls are located or constructed add them to the map	1. Continuously	1. Yes/No/Status; Report Number of Outfalls Added
Permit Ref.	3.4.2: Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
16.	Maintain Adequate Legal Authorities			
	Review annually the IDDE ordinances or other regulatory mechanisms, or adopt any new ordinances or other regulatory mechanisms that provide the Town of China Grove with adequate legal authority to prohibit illicit connections and discharges and enforce the approved IDDE Program.	1. Review ordinance and update if revision is required to maintain legal authority	1. Permit years 1-5	1. Yes/No/Partial; Report if a revision is required and if a revision is made
		2.	2.	2.

Table 15: Illicit Discharge Detection and Elimination BMPs

17.	Enforcement			
	Implement a mechanism to track the issuance of notices of violation and enforcement actions as administered by the town. This will include the ability to identify chronic violators for initiation of actions to reduce noncompliance.	1. Implemented IWORQ software to issue and track violations	1. Permit Year 1	1. Yes/No/Status; Annual IWORQ reporting
		2. Code Enforcement Officer & Stormwater Administrator issue violations	2. Permit Year 2-5	2. Yes/No/Status, Report Number of Violations issued
		3.	3.	3.
Permit Ref.	<p>3.4.3: IDDE Plan Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to:</p> <ul style="list-style-type: none"> a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program. 			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
18.	Observe Dry Weather Flows			
	Maintain a program for conducting dry weather flow field observations in accordance with a written procedure for detecting and removing the sources of illicit discharges	1. Develop a written IDDE Program	1. Permit Year 1	1. Yes/No/Partial; Policy Adopted
		2. Submit IDDE Program for NCDEQ review and Approval	2. Permit Year 1	2. Yes/No/Partial; Report Date Submitted to NCDEQ
		3. Train Staff to perform dry weather flow inspections and all field staff that may encounter illicit discharges	3. Permit Years 2-5	3. Yes/No/Partial; Number of staff trained
		4. Implement written IDDE Program	4. Permit Years 2-5	4. Yes/No/Status
		5. Perform dry weather major outfall inspections	5. Annually beginning permit year 2	5. Yes/No/Partial; Number of inspections completed
19.	Investigate sources of identified illicit discharges			
	Develop and maintain a standard operating procedure (SOP) for investigation of potential illicit	1. Implement illicit discharge investigation SOP portion of IDDE Program	1. Permit Years 2-5	1. Yes/No/Status;

Table 15: Illicit Discharge Detection and Elimination BMPs

	discharges, illicit connections, and illegal dumping.	2. Investigate reported illicit discharges	2. Permit Years 2-5	2. Yes/No/Status; Report the number of found/reported, investigated, confirmed as illicit discharge and resolved/eliminated
20	IDDE Program Evaluation			
	Evaluate and assess the Town of China Grove IDDE Program.	1. Review the annual results of dry weather flow observations and NOVs issued	1. Permit Years 2-5	1. Yes/No/Status
		2. Document any pollutant trends	2. Permit Years 2-5	2. Yes/No/Status
		3. Revise program SOP to address trends and concerns	3. Annually, Beginning permit year 2	3. Yes/No/Status
		4. Focus outreach on identified trends	4. Annually, Beginning permit year 2	4. Yes/No/Status
Permit Ref.	3.4.4: IDDE Tracking Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
21.	Track and document investigations of illicit discharges			
	China Grove will track all investigations and document the date the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.	1. Develop procedures for inspections in the IDDE Program	1. Permit Year 1	1. Yes/No/Status
		2. Develop an inspection template for iWorq software to track cases	2. Permit Year 1	2. Yes/No/Status
		3. Identify case trends to help guide education	3. Permit Years 2-5	3. Yes/No/Status; Report Trends
Permit Ref.	3.4.5: Staff IDDE Training Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
	A	B	C	D

Table 15: Illicit Discharge Detection and Elimination BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
22.	Employee Training			
	Develop a program to educate town staff of indicators of potential illicit discharges/connections and illegal dumping and the appropriate avenues through which to report suspected illicit discharge. (See BMP No. 20 for SOPs by which to train staff)	1. Develop staff training program for all employees	1. Permit Year 1	1. Yes/No/Partial
		2. Train all staff to recognize and report an illicit discharge	2. Permit Year 2	2. See BMP 18
		3. Train new staff that will be part of the IDDE program	3. Annually, beginning in permit year 3	3. Yes/No/Partial; Report topics, training date, and number of attendees
		4.	4.	4.
23.	Provide Public Education			
	Inform employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste	1. Create seasonal IDDE flyers for municipal facilities, website	1. Permit Year 1	1. See BMPs 8-10
		2. Display IDDE flyer at municipal facilities, website	2. Permit Year 1	2. See BMPs 8-10
		3. Distribute Illicit Discharge Brochure to residents	3. Permit Year 1	3. See BMPs 8-10
Permit Ref.	3.4.6: IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
24.	Stormwater Hotline			
	A hotline will be maintained for citizens to ask stormwater questions and report stormwater issues. (See BMP No. 6)	1. See BMP No. 6	1. See BMP No. 6	1. See BMP No. 6
25.	Stormwater Website			
	The web page will provide links to information on the City’s stormwater program, including the permit, SWMP, applicable ordinances, and annual reports. The web page will also include a stormwater issue reporting mechanism, educational materials developed by the City, and links to additional stormwater educational resources	1. See BMP No. 5	1. See BMP No. 5	1. See BMP No. 5

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PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the MS4name relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 as a qualifying alternative program to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre, and includes any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

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

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity	Meets Whole or Part of Requirement
3.5.1 - 3.5.4	Rowan County Delegated SPCA Program*	15A NCAC Chapter 04 NCDEQ Approved Delegation Interlocal Agreement	Rowan County	Whole

* The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: https://library.municode.com/nc/rowan_county/codes/code_of_ordinances?nodeId=COOR_CH18SOE_RSE

The Town of China Grove also implements the following BMPs to meet NPDES MS4 Permit requirements.

Table 17: Construction Site Runoff Control BMPs				
Permit Ref.	3.5.6: Public Input Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
26.	Municipal Staff Training			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Year 1 (FY20/21)	1. Number of staff trained
		2.	2.	2.
27.	Stormwater Hotline			
		1. See BMP No. 6	1. See BMP No. 6	1. See BMP No. 6

Table 17: Construction Site Runoff Control BMPs

	A hotline will be maintained for citizens to ask stormwater questions and report stormwater issues (See BMP No. 6).	2.	2.	2.
		3.	3.	3.
Permit Ref.	3.5.5: Waste Management Measures to require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
28.	Establish and Maintain Legal Authority			
	Develop and implement an ordinance to require construction site operators to control waste.	1. Adopt ordinance	1. Permit Year 1	1. Yes/No/Partial; Document and report
		2. Maintain legal authority	2. Permit Year 1 - 5	2. Yes/No/Status; Assess and report annually
		3. Implement and Enforce Ordinance	3. Permit Years 2-5	3. See BMP 19
29.	Contractor Education			
	Make available through paper and electronic means materials appropriate for developers concerning construction site solid waste management.	1. Create brochure to share at preconstruction meetings	1. Permit Year 1	1. Yes/No/Status
		2. Add brochure to website	2. Permit Year 1	2. Yes/No/Status
		3. Distribute brochure at preconstruction meetings	3. Permit Years 2-5	3. Yes/No/Status; Number of sheets distributed

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

This SWMP identifies the minimum elements to develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that are located within the Town of China Grove 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 China Grove implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

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

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
None	N/A	N/A
Water Supply Watershed (WS-IV)	15A NCAC 2B .0620 - .0624	China Grove Unified Development Ordinance Chapter 3

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	Town of China Grove Code of Ordinances Section 54-332	8-2-2011
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	Unified Development Ordinance 8.11.8	9-24-2019
3.6.3(b) Plan Review	Unified Development Ordinance 8.11.9	9-24-2019
3.6.3(c) O&M Agreement	Unified Development Ordinance 8.11.11	9-24-2019
3.6.3(d) O&M Plan	Unified Development Ordinance 8.11.11	9-24-2019
3.6.3(e) Deed Restrictions/Covenants	Unified Development Ordinance 8.11.10 & 8.11.11	9-24-2019
3.6.3(f) Access Easements	Unified Development Ordinance 8.11.10	9-24-2019
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	Unified Development Ordinance 8.11.10	9-24-2019
3.6.2(c) Right of Entry	Unified Development Ordinance 8.11.10	9-24-2019
3.6.4(a) Pre-CO Inspections	Unified Development Ordinance 8.11.11	9-24-2019
3.6.4(b) Compliance with Plans	Unified Development Ordinance 8.11.11	9-24-2019
3.6.4(c) Annual SCM Inspections	Unified Development Ordinance 8.11.11	9-24-2019
3.6.4(d) Low Density Inspections	Unified Development Ordinance 8.11.11	9-24-2019
3.6.4(e) Qualified Professional	Unified Development Ordinance 8.11.11	9-24-2019
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	Town of China Grove Code of Ordinances Section 10-24	8-2-2016
3.6.6(b) On-Site Domestic Wastewater Treatment	Unified Development Ordinance 8.10.1	8-1-2006

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

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements			
	Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
30.	Standard Reporting			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-	1. Track number of low density and high density plan reviews performed.	1. Continuously Permit Years 1-5	1. Yes/No/Partial; Number of plan reviews performed for low density and high density.

Table 20: Post Construction Site Runoff Control BMPs

	assessment process. Data shall be provided for each Post-Construction/Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	2. Track number of low density and high-density plans approved.	2. Continuously Permit Years 1-5	2. Yes/No/Partial, Number of plan approvals issued for low density and high density.
		3. Maintain a current inventory of low-density projects and constructed SCMs including SCM type or low-density acreage, location and last inspection date.	3. Continuously Permit Years 1-5	3. Yes/No/Partial; Summary of number and type of SCMs added to the inventory; and number and acreage of low-density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. Yes/No/Partial; Number of SCM inspections.
		5. Track number of low-density inspections performed.	5. Continuously Permit Years 1-5	5. Number of low density projects inspected.
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. Number of enforcement actions issued.
Permit Ref.	<p>3.6.2: Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.</p>			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
31.	Site Plan Design Review - This permit requirement is fully met by the existing post-construction program, see references provided in Table 19.			
	Maintain ordinance(s) to ensure adequate stormwater control measures will be installed, implemented and maintained	1.	1.	1.
		2.	2.	2.

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	3.6.3: Plan Review and Approval Measures to maintain plan review and approval authority, standards and procedures to: (a) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire MS4 permitted area, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program, (b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction, (c) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12), (d) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13), (e) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans, and (f) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
32.	Legal Authority			
	Maintain compliance by Federal, State, and Local government projects and revise reference to stormwater design manual to specify NCDEQ Stormwater Design manual.	1. Revise code to require Federal, State, and local government projects to comply with post construction requirements unless subject to its own NPDES MS4 permit or qualifying alternative program 2. Revise code to specify NCDEQ Stormwater Design Manual as the reference stormwater design manual	1. Permit year 1 2. Permit year 1	1. Yes/No/Partial; Review and assess effectiveness 2. Yes/No/Partial, Report code reference and date adopted
33.	Developer Resources			
	Establish a developer stormwater resources section on the city website so relevant materials are easily accessible for developers.	1. Upload links to ordinances, post construction requirements, link to design standards, and other relevant material to website 2. Update when changes to resources occur	1. Permit year 1, in conjunction with stormwater website development 2. Continuously	1. Yes/No/Partial; link to webpage 2. Yes/No/Partial; Report date of updates and changes made
34.	O&M Plan			
	Maintain an ordinance requiring each stormwater control measure to have an Operation and Maintenance Plan	1. Maintain legal authority through ordinance revisions	1. Permit Year 1	1. Yes/No/Partial; Review and assess effectiveness

Table 20: Post Construction Site Runoff Control BMPs

	that complies with 15A NCAC 02H .1050(13)	2. Enforcement of new code by requiring approval of O&M Plan by Stormwater Administrator prior to plan approval	2. Continuously, after ordinance is adopted.	2. Yes/No/Partial; Number of O&M plans approved
Permit Ref.	<p>3.6.4: Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low density projects at least once during the permit term, and (e) Require that inspections be conducted by a qualified professional.</p>			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
35.	Inspection of low-density projects			
	Establish the legal authority for inspection of low-density projects at least once during the permit term; and carry out the inspections.	1. Establish legal authority through code revision	1. Permit year 2	1. Yes/No/Partial; Report code reference and date adopted
		2. Conduct inspection of 20% of low-density projects each year (See BMP No. 30.5)	2. Permit Year 2	2. Yes/No/Partial
36.	Inspection Tracking			
	Track the results of regular postconstruction SCM and low-density inspections to provide documentation and the ability to identify chronic violators.	1. Establish inspection tracking mechanism to meet all requirements of	1. Permit year 2	1. Yes/No/Status
		2. Implement Inspection tracking	2. Continuously Permit Years 3-5	2. Yes/No/Status
37.	Inventory of SCM and low-density projects			
	Develop a comprehensive inventory of permitted post-construction SCMs and low-density projects to be utilized for inspections and tracking.	1. Establish list of existing structural SCMs and low-density projects	1. Permit year 1	1. Yes/No/Status, Number of SCMs and low-density projects inventoried
		2. Develop a low-density inspection and enforcement SOP to standardize and consistently manage process	2. Permit year 1	2. Yes/No/Status

Table 20: Post Construction Site Runoff Control BMPs

		3. Issue letter of notification to owners making them aware of upcoming inspections	3. Permit year 1	3. Yes/No/Status; Number of letters sent
		4. Add SCMs and low-density projects to inventory list when project as-builts are approved	4. Permit year 1	4. Yes/No/Partial
Permit Ref.	3.6.6: Fecal Coliform Reduction Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
38.	Pet Waste Litter Program			
	Review the Town of China Grove pet Waste disposal ordinance	1. Review ordinance for Pet Waste disposal requirements and Update	1. Permit Year 1	1. Yes/No/Status
		2. Include pet waste disposal information on social media and website	2. Permit Year 1	2. Yes/No/Status; Report number of posts/views
		3. Maintain current town owned Pet Waste Stations	3. Permit Year 1	3. Yes/No/Status; Number of bags replaced
		4. Review Pet Waste Station Locations	4. Continuously Permit Years 2-5	4. Yes/No/Partial; New stations required? Relocations?
		5.	5.	5.
39.	Septic System Education Program			
	Provide Educational Brochures to town residents who have private septic systems regarding operation and maintenance	1. Develop brochure addressing the operation and maintenance of private septic systems	1. Permit Year 2	1. Yes/No/Status
		2. Identify parcels using private septic systems and distribute educational brochure annually	2. Permit Years 3-5	2. Yes/No/Status, Report number of brochures mailed
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.

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PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

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

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.1: Municipal Facilities Operation and Maintenance Program			
	Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
40.	Inventory of Municipal Facilities			
	Develop and maintain an up-to-date inventory of municipal facilities with potential to generate polluted runoff.	1. Compile list of existing City-owned facilities	1. Permit Year 1	1. Yes/No/Partial; Number of facilities inventoried; date list is completed
		2. Perform initial inspection of facilities for potential to generate polluted runoff or requiring spill response procedures. Classify facilities as having high or low potential for stormwater pollution	2. Permit year 2	2. Yes/No/Partial; Number of inspections performed and number of facilities classified as high potential and low potential

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3. Determine which facilities require a SPCC Plan	3. Permit year 2	3. Yes/No/Partial; Number of SPCC Plans required
		4. Determine which facilities require a NPDES Industrial permit (See BMP No. 50)	4. See BMP No. 50	4. See BMP No. 50
		5. Update inventory as needed when facilities are added or closed	5. As required	5. Yes/No/Partial; Number of facilities added/revisions made
41.	Facility Inspections			
	Inspection of Town facilities to confirm good housekeeping practices are being followed	1. Establish a SOP for town facility inspections, including an inspection schedule, inspection report documentation, and tracking system	1. Permit Year 1	1. Yes/No/Partial; Number of inspections and issues corrected
		2. Implement annual facility inspections for high stormwater pollution potential facilities and once per permit term inspections for low potential facilities	2. Annually conduct inspections	2. Yes/No/Partial; Number of inspections and issues corrected
42.	Staff Training			
	Develop or identify a staff training program for general stormwater pollution prevention and provide to public works department employees (See BMP No. 45).	1. See BMP No. 45	1. See BMP No. 45	1. See BMP No. 45
Permit Ref.	3.7.2: Spill Response Program Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
43.	Inventory of facilities with Spill potential			
	Maintain a list of city facilities and operations storing materials that would be a pollutant if spilled and introduced to the stormwater system and classify by hazard and quantity (See BMP No. 40).	1. See BMP 40	1. See BMP 40	1. See BMP 40
44.	Spill Response Procedures			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Maintain spill response procedures and continue training of appropriate staff.	1. Review general spill response procedures	1. Permit year 1	1. Yes/No/Partial; Are procedures adequate? – yes/no/status
		2. Review specific spill response procedures for town facilities and operations with potential to produce high hazard spills	2. Permit year 1	2. Yes/No/Partial; Are procedures adequate? – yes/no/status
		3. Update as facilities and operations are revised	3. As required	3. Yes/No/Partial; Number of additions or revisions made
		4. Train new fire department staff in spill response procedures	4. As required	4. Yes/No/Partial; Number of new staff trained
		5. Train staff at facilities with potential for high hazard spills in first response actions and reporting procedures	5. Annually	5. Yes/No/Partial; Number of staff trained
Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
45.	Staff Training			
	Develop or identify a staff training program for general stormwater pollution prevention and provide to public works department employees	1. Develop or identify appropriate training program	1. Permit year 2	1. Yes/No/Partial
		2. Provide initial training for all employees	2. Annually, beginning in permit year 3	2. Yes/No/Partial; Number of staff members trained and topics from training
		3. Provide training for new hires	3. Annually, beginning in permit year 3, as necessitated by staffing changes	3. Yes/No/Partial; Number of new hires trained and topics from training
46.	MS4 System Inspections and Maintenance			
	A proactive plan for MS4 system maintenance, requiring regular inspections and maintenance.	1. Develop a SOP that includes proactive inspection schedules, standard documentation, staff responsibilities, and proper maintenance training	1. Permit year 2	1. Yes/no/Partial; Created?

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2. Perform regular inspections in accordance with the SOP (See BMPs No. 44.1 and 44.4)	2. Continuously Permit Years 3-5	2. Yes/No/Status; Number of inspections documented
		3. Verify, document, and prioritize maintenance activities identified by inspections or citizen reports	3. Continuously, as potential maintenance activities are identified	3. Yes/No/Partial; Number of maintenance activities performed
		4. Develop an inspection and maintenance tracking system to be used in accordance with the SOP and to identify “hot spot” locations for system maintenance	4. Permit year 2	4. Yes/No/Partial;
Permit Ref.	3.7.4: Municipal SCM Operation and Maintenance Program Measures to manage municipally-owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee’s post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
47.	Inventory of Municipal structural SCMs			
	Development and maintain of a current inventory of municipally owned structural SCMs.	1. Create an inventory of existing City-owned SCMs with information including type, year built, date of last inspection, and maintenance actions	1. Permit year 1	1. Yes/No/Partial; Number of municipal structural SCMs
		2. Compile, and develop as needed, Operation and Maintenance Plans for all City-owned SCMs	2. Permit year 2	2. Yes/No/Partial;
		3. Update as necessitated by new City development	3. As required	3. Yes/No/Partial; Number of updates to list
48.	SCM Inspections and Maintenance			
	Development an SOP to inspect and maintain municipally owned structural SCMs.	1. Locate City-owned SCMs and add them to the MS4 Map with type of SCM indicated	1. Permit year 1	1. Yes/No/Partial; Report the number and type of SCMs added to the map

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2. Update the map when new City-owned SCMs are constructed	2. Annually, once BMPs No. 45.1 and 46.1 are completed	2. Yes/No/Partial; Note annually whether new City-owned SCMs were added. If any are added, note number and type added as well as number and type of SCMs mapped to date
		3. Maintain NC SCM Inspections and Maintenance Certification for appropriate personnel	3. Continuously, beginning in permit year 2	3. Yes/No/Status; Number of staff members with active certification
		4. Develop SCM inspection forms	4. Permit year 2	4. Yes/No/Partial;
		5. Inspect each device using appropriate SCM inspection form	5. Annually, beginning in permit year 3	5. Yes/No/Partial; Number of SCMs inspected, number passing inspection, number requiring maintenance
		6. Perform maintenance tasks identified in inspections	6. As required	6. Yes/No/Partial; Number of SCMs maintained
		7. Develop a tracking document (See BMP No. 46.B.4)	7. Permit year 2	7. Yes/No/Partial;
Permit Ref.	3.7.5: Pesticide, Herbicide and Fertilizer Management Program Measures to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
49.	Pesticide, Herbicide, Fertilizer Applicator Training			
	Training of town staff who apply landscape chemicals in order to minimize water quality impacts from pesticides, herbicides, and fertilizers	1. Maintain Right-of-Way Pest Control, Public Health Control, and Ornamental & Turf Pest Control applicator certifications for appropriate personnel	1. Continuously	1. Yes/No/Partial; Number of staff members with active certification
		2. Require contractors provide copies of NC Pesticide License	2. Continuously	2. Yes/No/Partial;

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3. Develop or identify pollution prevention and chemical use, storage and handling training program	3. Permit year 2	3. Yes/No/Partial;
		4. Provide staff training in pollution prevention and chemical use, storage and handling training	4. Annually, beginning in permit year 3	4. Yes/No/Partial; Number of staff trained and topics covered
Permit Ref.	3.7.6: Vehicle and Equipment Maintenance Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
50.	NPDES Industrial Permit Compliance			
	Review municipal facilities inventory to ensure NPDES Industrial Permit Compliance.	1. Review municipal facilities inventory to determine which facilities require a NPDES industrial stormwater permit	1. Permit year 1	1. Yes/No/Partial; Number of facilities determined to require a NPDES Industrial Permit
		2. Permitting of municipally owned facilities; apply for new permits and confirm that all existing permits are valid. Renew permits as required	2. Permit year 1, following review of facilities, and continuously thereafter	2. Yes/No/Partial; Report number of new permits received or renewed as well as number of active permits.
		3. Develop a municipal industrial facility inspection form	3. Permit year 1	3. Yes/No/Partial;
		4. Perform facility inspections for compliance with permit	4. Annually, after NPDES permits acquired	4. Number of inspections performed
		5. Establish NPDES Industrial Permit tracking mechanism to document list of municipally owned facilities with permit, permit expiration dates, and inspections	5. Permit year 1	5. Yes/no/status
51.	Vehicle and Equipment Cleaning and Maintenance Facility Inspection			
	Routine inspections as part of general facility inspections (See BMP No.	1. Develop an inspection checklist	1. 1. Permit year 1	1. Yes/No/Partial;

Table 21: Pollution Prevention and Good Housekeeping BMPs

	39) to ensure that vehicle and equipment facilities are following proper procedures to minimize water quality impacts from vehicle and equipment cleaning and maintenance.	2. Perform inspections using inspection checklist and notify facility manager of any corrective actions required	2. Bi-annually, beginning in permit year 1	2. Yes/No/Partial; Number of inspections
		3. Perform re-inspections of any facility that required corrective action	3. As required by corrective actions issued	3. Yes/No/Partial; Number of facilities requiring corrective action, number of resolutions
52.	Staff Training			
	Provide general stormwater awareness training and pollution prevention training to employees working in vehicle maintenance and cleaning areas (See BMP No. 44).	1. See BMP No. 44	1. See BMP No. 44	1. See BMP No. 44
Permit Ref.	3.7.7: Pavement Management Program Measures to reduce pollutants in stormwater runoff from municipally-owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
53.	Street Sweeping			
	Street sweeping following a regular schedule in order to reduce pollutants from City owned and maintained streets.	1. Develop a SOP, including a schedule and plan to document	1. Permit Year 1	1. Yes/No/Partial;
		2. Implement SOP and documentation	2. Annually beginning in permit year 2	2. Yes/No/Partial; Total number of street miles swept
		3. Identify "hot spot" areas for more frequent sweeping	3. Permit Years 3-5	3. Yes/No/Status
54.	Leaf Collection			
	Periodic collection of leaves, at least twice a year, from residential and public areas to reduce pollutants and clogging of storm system inlets.	1. Develop a SOP, including a schedule and plan to document	1. Permit year 1	1. Yes/No/Status
		2. Implement SOP and documentation	2. Regularly, beginning in permit year 2	2. Yes/No/Status;
		3. Provide periodic seasonal leaf collection	3. Permit Year 1	3. Yes/No/Status; Volume of leaves collected (tons)
		4. Evaluate seasonal leaf collection routes to identify "hot spot" areas for more frequent collection	4. Permit Years 3-5	4. Yes/No/Status; Report Results

Table 21: Pollution Prevention and Good Housekeeping BMPs

55. Vehicle Spill Cleanup				
	An organized vehicle spill cleanup response to prevent pollutants from vehicular accidents from entering the storm drain system.	1. Maintain spill response procedures	1. See BMP No. 43	1. See BMP No. 43
		2. Provide public education about stopping vehicle leaks	2. See BMP No. 7	2. See BMP No. 7
56. Litter Collection				
	Collect litter weekly in public spaces	1. Develop a SOP, including a schedule and plan to document weekly litter collection	1. Permit Year 1	1. Yes/No/Partial;
		2. Implement SOP and documentation	2. Annually beginning in permit year 2	2. Yes/No/Partial; Document collection results
		3. Identify "hot spot" areas for more frequent collection	3. Permit Years 3-5	3. Yes/No/Status

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