

Final Stormwater Management Plan
Town of Hudson
NCS000605

April 19, 2021



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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 Hudson 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 Hudson 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 NCS000605, 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 Hudson and located within the corporate limits of the Town of Hudson.

In preparing this SWMP, the Town of Hudson 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.

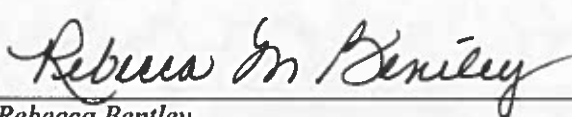
PART 2: CERTIFICATION

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.

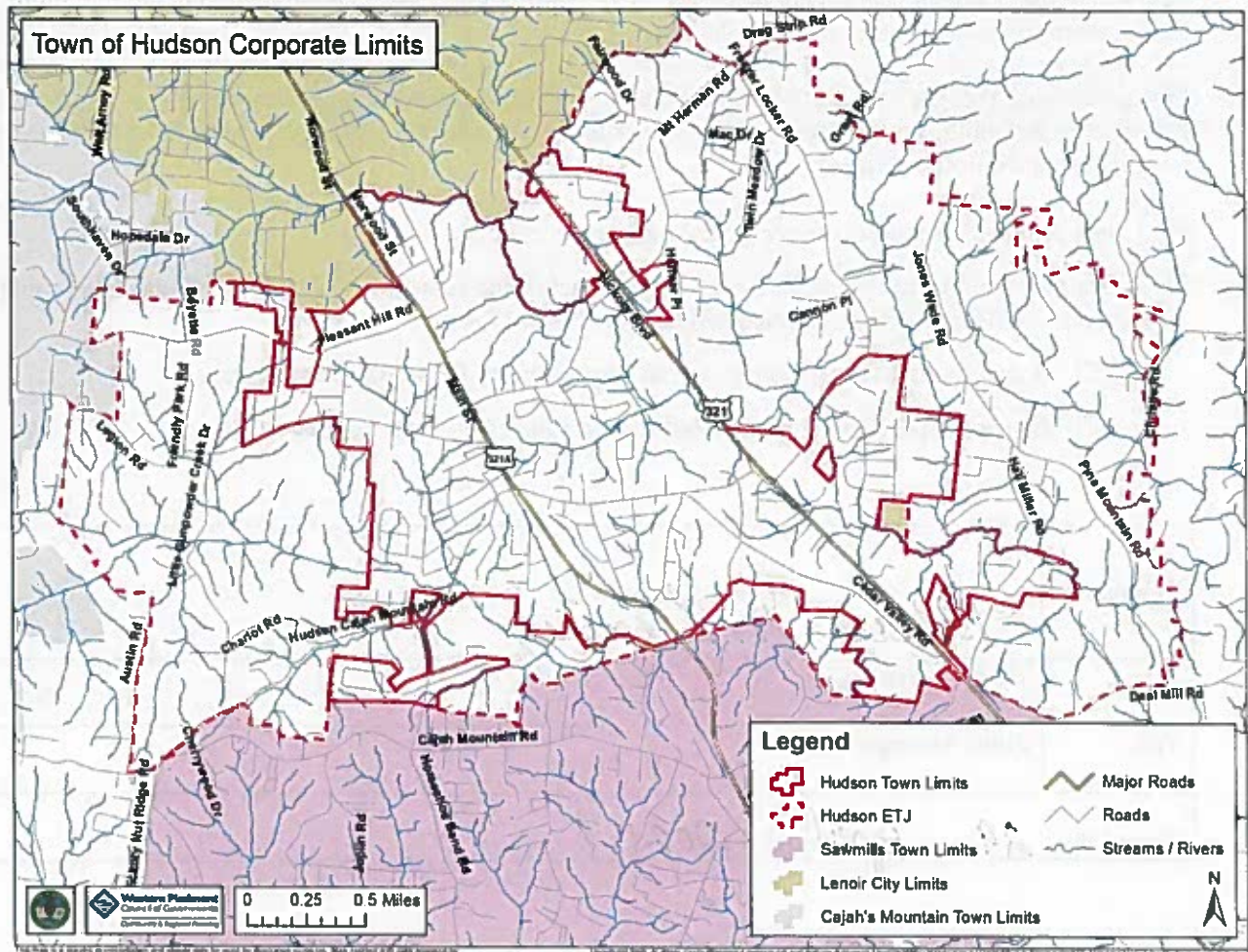
- ☒ I am a principal executive officer or ranking elected official.
- ☐ I am a duly authorized representative and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as:
- ☐ A specific individual having overall responsibility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

Signature:	
Name:	Rebecca Bentley
Title:	Town Manager
Signed this <u>29</u> <u>April</u> of <u>2021</u>	

PART 3: MS4 INFORMATION

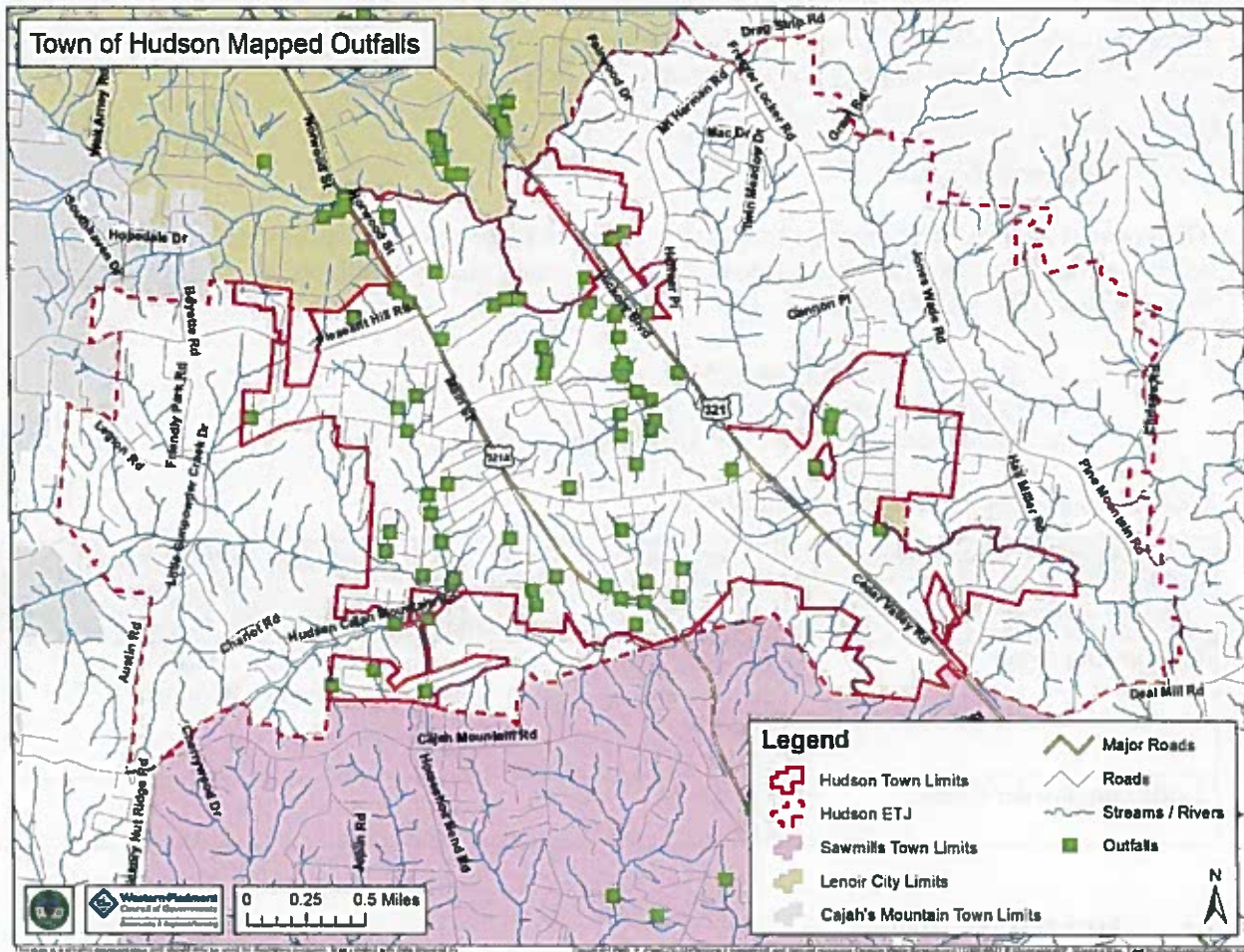
3.1 Permitted MS4 Area

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



3.2 Existing MS4 Mapping

The current MS4 mapping includes outfalls located within the Town of Hudson. In the future the Town will be adding the following elements to the map: pipe locations, flow direction, inverts, ditches, inlets, catch basins, manholes outfall, sizes and conditions (Reference BMP 20).



The Town of Hudson has a historic count of 82 outfalls per the GIS layer created; however it is not certain that all of these are major per the definition provided below. The Town will be verifying all elements as mentioned above in the completion of BMP 20.

Table 1: Summary of MS4 Mapping

Percent of MS4 Area Mapped	10	%
No. of Major Outfalls* Mapped	82	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 Hudson MS4 is located within the Catawba 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:

- o 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
Gunpowder Creek	(11-55-(0.5)) and (11-55-(1.5))	C WS-IV	11-55-(1.5) – 303(d) Impairment - Benthos
Little Gunpowder Creek	(11-55-2-(1))	C	

3.4 MS4 Interconnection

The Town of Hudson MS4 is interconnected with another regulated MS4 and directly receives stormwater from the Town of Lenoir MS4. The number of interconnections entering the Town of Hudson MS4 from the Town of Lenoir is unknown due to the storm sewer not being mapped. The Town of Hudson will be in the future mapping the storm sewer lines and water flow to help determine interconnectivity (reference BMP 20)

The Town of Hudson MS4 is interconnected with another regulated MS4 and directly discharges stormwater into the Town of Sawmills MS4. The number of interconnections receiving stormwater from the Town of Hudson MS4 is unknown due to the storm sewer not being mapped. The Town will be mapping the storm sewer lines and flow direction in the future (reference BMP 20).

Currently, a limited amount of data is available. Field staff will collect further data using a GIS mapping application to locate flow direction, inverts, ditches, inlets, catch basins, manholes outfall, sizes and conditions. Staff will develop a GIS mapping application off of field techniques, data recording, and pre-existing plans or blue prints from the Town of Hudson.

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.
- b. The interconnection is not discharging stormwater into the NCDOT MS4. The number of interconnections is unknown
- c. The Town of Hudson MS4 mapping does not identify interconnections with the NCDOT MS4.
- d. The Town of Hudson 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. Outreach education and stream cleanup helps with the reduction of waste load allocation within approved TMDL municipalities.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s)	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
N/A	N/A	N	N

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. 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>Glyptemys muhlenbergii</i>	Bog Turtle	Vertebrate	T (S/A)
<i>Glaucomys sabrinus coloratus</i>	Carolina northern flying squirrel	Vertebrate	E
<i>Myotis septentrionalis</i>	Northern long-eared bat	Vertebrate	T
<i>Corynorhinus townsendii virginianus</i>	Virginia big-eared bat	Vertebrate	E
<i>Alasmidonta varicosa</i>	Brook floater	Invertebrate	ARS
<i>Ophiogomphus edmunds</i>	Edmons's Snaketail	Invertebrate	ARS
<i>Macromia margarita</i>	Margarita River skimmer	Invertebrate	ARS
<i>Microhexura montivaga</i>	Spruce-fir moss spider	Invertebrate	E
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	Vascular Plant	T
<i>Liatris helleri</i>	Heller's blazing star	Vascular Plant	T
<i>Hedyotis purpurea</i> var. <i>montana</i>	Roan Mountain Bluet	Vascular Plant	E

3.7 Industrial Facility Discharges

The Town of Hudson 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
NCG050151	Sealed Air Corporation - Hudson
NCG170220	Sattler Corporation
NCGNE0300	Anderson Truck Line Incorporated

3.8 Non-Stormwater Discharges

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

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 Hudson to determine whether they may significantly impact water quality. The Town of Hudson will address the possibility of the below mentioned water quality impacts through public education and good housekeeping, as outlined in Part 5, BMP 3-7, and Part 10 BMP 46-48, 50, 54, 55, 57, 58 and 62 with a focus on the training of good housekeeping practices.

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
De-chlorinated swimming pool discharges	Incidental
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 Hudson 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. In addition, the Town of Hudson has evaluated schools, homeowners and businesses as target audiences that are likely to have significant stormwater impacts.

Within the table below the following target pollutants have been commonly found to be concerns within the community.

Litter: Illegal dumping has occurred and been noted by code enforcement officers within the Town.

Cases of both illegal construction waste dumping and general residential or school dumping have been noted by code enforcement officers. This litter poses a threat to both our water bodies and the MS4 infrastructure, as the litter can create clogs and backups that damage the pipelines leading back to the stream. Some litter even poses a threat to groundwater if chemical leaching or breakdown of components into heavy metals occurs due to weathering of the litter. The dumping has been found typically road side but also in secluded urban areas.

Sediment: Previous installed erosion control measure have been removed or fallen

Sediment buildup is largely attributed to mismanaged construction sites with fallen or incorrectly installed sediment fences. It has been noticed in both reports from citizens and by code enforcement officers that there are several cases of construction sites not maintaining their erosion control fences during work. This has led to sediment buildup near storm drains, onto down slope private properties, and in some cases causing water to build up in nearby properties as the sediment is limiting the drains ability to remove runoff. In all cases code enforcement has responded and had the issue solved, but even being down for a short time can prove to have significant effects. Erosion control fences are required for sediment control permits during construction by the DEQ throughout the entire construction process.

Gray Water: Straight piping washing machines out of the house

Residents have noted a few homes have had their washing machines straight-piped out of their homes by creating makeshift piping using water hoses exit at windows. Homes are to be connected to the appropriate sewer system. This proves to be a source of detergents/soaps entering our storm drains in residential neighborhoods. In addition: residential, charity, and municipal car washes allow for soaps or waxes to enter the storm drain when vehicles are not being cleaned in the correct areas (such as vegetated patches or in areas that do not have storm drains). This allows for toxic contaminants to enter our waterways via the storm drain system.

Fats Oils and Grease: Health Department has noted several cases where restaurants do not empty or own/rent grease traps for appropriate removal.

The Health Department has reported several restaurants in Hudson not maintaining, or even owning, grease traps. This has led to cases of the restaurants either illegally dumping the grease or allowing the grease to drip onto nearby impermeable surface – which would eventually lead to water quality issues. Overflow from a lack of maintenance or throwing out the grease with general waste contributes to this problem. This is a health violation since the grease poses a physical risk, but it also can impair water bodies with an influx of water insoluble grease going down the storm drain.

Chemicals: Totes have been noted in industrial areas not properly labeled or stored

Town staff, along with some citizens have reported that containers of unknown/unmarked chemicals are unlabeled in select industrial sites, leading to potential soil and water contamination, and/or incorrect spill cleanup procedure. In addition to not labeling the containers correctly, the Town has noted that the containers are not being correctly stored in a way to minimize risk to the water bodies from seepage, damage to the containers, or spills.

Animal Operations: A challenge to ensuring water quality for several factors.

Animal operations are agriculture operations that raise cows, pigs, chickens, or other livestock as a product, be it from meat or byproducts of the animal, the latter being more problematic as the excess nutrients will lead to eutrophication which can eventually causing hypoxia in the water body. In a similar vein, agricultural runoff often carries excess fertilizer which also will cause eutrophication in streams with its cascading effects. Within the Catawba River Basin roughly 46 streams are/were impacted by fecal coliform, with 10 being listed on the 303(d) list. As this is a non-point source pollutant it is hard to locate the exact source of this runoff, however in much of the watershed there is agricultural zoning that makes it likely for these types of impairments to occur. Roughly 20% of land use within the basin is agricultural.

Underground storage tanks: Storage devices installed below ground that contain hazardous materials/waste.

These tanks can contain gasoline, fuels such as propane, industrial chemicals/oils, and most often human waste in areas not directly connected to the sanitary sewer. Any underground storage tank must be well maintained/monitored, and correctly installed due to the risk of them leaking. The leaks can cause whatever chemical the tank is storing to leak into the ground, harming the soil, groundwater/water table, and even surface waters as they are being fed from groundwater. If a fuel or industrial chemical tank is leaking, the chemical will leach into the soil – leading to toxic soil, contaminated groundwater, and possibly impairing a stream/water body. If a septic tank is leaking, it can overwhelm the natural processes of the soil (infiltration) leading to nutrient overload in streams fed by groundwater, or allowing pathogens to enter, increasing the risk of disease. The 10 303(d) fecal coliform impaired streams listed can have some attribution to septic tank leakage.

Illicit discharges: Originate from a variety of sources, with an equally varied number of effects dependent on the chemical that is released.

Typically, illicit discharges come from businesses, residents or municipal facilities who dump chemicals into storm drains either incidentally due to a lack of IDDE education or general carelessness. These chemicals can vary greatly, and can include grease, oils, chemicals, cleaning solutions, paints, metals, etc. This is a recognized problem as we have several 303(d) streams impaired from causes related to substances or attributions given to unclean discharges into the streams - in addition to reports generated by the municipality. Many of the 303(d) benthos impaired streams can be attributed to IDDE issues, but they are often from inexact/non-point sources that are attributed to illicit discharges

Illegal dumping: When residents, businesses, or municipal employees dump waste randomly in non-permitted dumping areas.

This waste can widely vary, causing a variety of problems. For example, citizens dumping televisions on the side of the road to avoid dumping fees, which allows for the metals or chemicals inside the tv to leach out as stormwater passes it (mercury, lead, and other metals). It can be a case of businesses dumping waste in watershed areas where runoff passes through the waste, either carrying it, or residuals of the waste into water bodies. It can also be a case of graders dumping sediment into areas without the correct allowances/precautions. The debris and chemicals accumulate over time and lead to chemical impairments, pH issues, turbidity impairments, or debris entering the stream/MS4 system.

Improper disposal of waste:

Improper disposal of waste is problematic because it allows chemicals, or difficult to manage waste, to enter the environment in ways that may be hard to track. For example; not giving a car battery to the correct waste management facility can allow for battery acid and lead to enter the soil which drains/collects in the groundwater. This problem has been noticed by municipal waste managers and is difficult to track as often the improper disposal waste is mixed in with the standard refuse. Other examples include grease going down sinks clogging MS4 systems, chemicals from batteries leaching into the groundwater, oil from oil changes not going to the correct facility, etc.

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	Public Education & Outreach Public Participation
Sediment	Construction Activity	Public Education & Outreach, Construction Program Post-construction Program
Gray water	Residential	Illicit Discharge Public Education & Outreach
Fats, Oils and Grease	Businesses (Restaurants)	Illicit Discharge Public Education & Outreach
Chemicals	Industrial, Business and Residential	Illicit Discharge Public Education & Outreach Good Housekeeping
Animal Operations	Commercial/Bona fide Farms	Illicit Discharge Public Education & Outreach

Underground Storage Tanks	Business and Residents	Illicit Discharge Public Education & Outreach
Illicit Discharges	General Public, Businesses, Municipal Employees	Illicit Discharge Public Education & Outreach Good Housekeeping
Illegal Dumping and Improper Disposal of Waste	General Public, Businesses, Municipal Employees	Illicit Discharge Public Education & Outreach Good Housekeeping

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

The Town of Hudson has contracted Western Piedmont Council of Governments (WPCOG) to coordinate Stormwater Management Plan efforts, to ensure the Town is facilitating Best Management Practices to protect water quality. While WPCOG will be the primary operator of the program the Town of Hudson staff will be training to handle internal procedures and report action/s to WPCOG. The following organizational chart is broken down by the six elements associated with Stormwater Management. Each of the positions under the elements will report back to the primary manager and then on to the Stormwater Program Administrator.

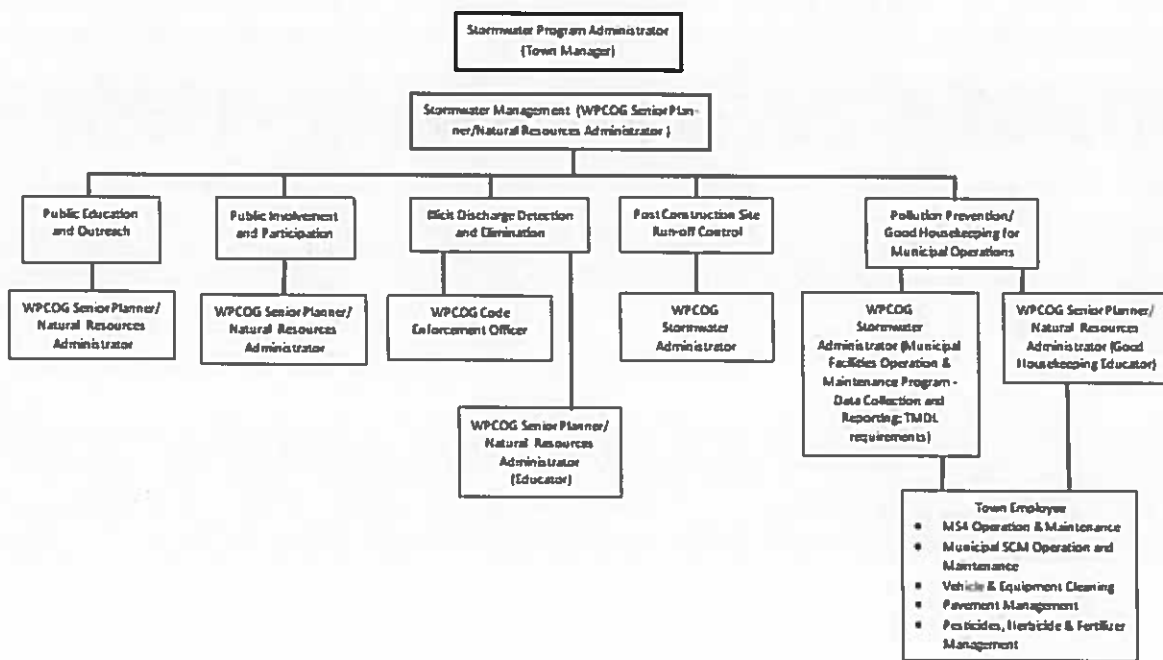


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Town Manager	Rebecca Bentley	Town of Hudson
SWMP Management	WPCOG Senior Planner/Natural Resources Administrator	Johnny Wear	WPCOG

Public Education & Outreach	WPCOG Senior Planner/Natural Resources Administrator	Johnny Wear	WPCOG
Public Involvement & Participation	WPCOG Senior Planner/Natural Resources Administrator	Johnny Wear	WPCOG
Illicit Discharge Detection & Elimination	WPCOG Code Enforcement Officer	Todd Justice	WPCOG
Construction Site Runoff Control	N/A	N/A	NCDEQ – Asheville Regional Office
Post-Construction Stormwater Management	WPCOG Stormwater Administrator	Jack Cline	WPCOG
Pollution Prevention/Good Housekeeping for Municipal Operations	WPCOG Senior Planner/Natural Resources Administrator	Johnny Wear	WPCOG
Municipal Facilities Operation & Maintenance Program	WPCOG Stormwater Administrator	Jack Cline	WPCOG
Spill Response Program	Stormwater Administrator and Volunteer Emergency Services	Jack Cline; TBD	WPCOG, Volunteer/Town Fire Department, if applicable
MS4 Operation & Maintenance Program	Town of Hudson Public Works Operator	TBD	Town of Hudson Public Works Department
Municipal SCM Operation & Maintenance Program	Town of Hudson Public Works Operator and Stormwater Administrator	TBD; Jack Cline	Town of Hudson Public Works Department and WPCOG
Pesticide, Herbicide & Fertilizer Management Program	Town of Hudson Public Works Operator and WPCOG Stormwater Administrator	TBD; Jack Cline	Town of Hudson Public Works Department and WPCOG
Vehicle & Equipment Cleaning Program	Town of Hudson Public Works Operator	TBD	Town of Hudson Public Works Department

Pavement Management Program	Town of Hudson Public Works Operator	TBD	Town of Hudson Public Works Department
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4.2 Program Funding and Budget

In accordance with the issued permit, the Town of Hudson 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 DEQ annually. Due to the increase NPDES permit mandates, the first year of the permit cycle will be used to determine a base line for the stormwater program funding needs. The funding mechanism will be analyzed through the completion of a fiscal gap analysis to determine how the stormwater program will be implemented and funding obtained.

Currently, the Town of Hudson, has a two-year contract (which will need to be modified, adopted, and signed every two years) with Western Piedmont Council of Governments for the following services: Public Education and Outreach Program, Public Involvement and Participation Program, Illicit Discharge Detection and Elimination Program, Post-Construction Site Runoff Control Program, and Pollution Prevention and Good Housekeeping Programs. The current contract amount for the 2-year period (years 1 and 2 of the NPDES permit cycle) is \$33,772.00. The Town will be responsible for the cost of the NPDES permit renewal, which is to be paid to the state. Any fees charged to the development community for BMP Inspections, Plan Review, and other associated fees will help offset cost. The Town may determine that stormwater utility fees should be implemented; these fees would be collected by the Town through tax or utility bills. The goal would be for the funds collected to support the stormwater program through mapping outfalls, stream repairs, and other water quality efforts. Revenue versus funding will be reviewed each year to determine needed changes.

Should the Town of Hudson choose not to renew the existing two-year contract, prior to the last month, a revision to the existing NPDES permit and Stormwater Management Plan would need to occur. The Town of Hudson would be required to fully carry out the 5 year NPDES permit cycle.

4.3 Shared Responsibility

Beginning July 2019, the Town of Hudson will share the responsibility, with WPCOG (referred to as entity), to implement the following minimum control measures, which are as stringent as the corresponding NPDES MS4 Permit requirement. The Town of Hudson 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 Hudson, nor the other entity fully performs the permit obligation. Table 9 below summarizes individual responsibilities for each program.

Table 9: Shared Responsibilities

SWMP BMP or Permit Reference	Implementing Entity & Program Name	Legal Agreement
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		(Y/N)
General Requirements	WPCOG Stormwater Partnership	Y
Public Education and Outreach Program	WPCOG Stormwater Partnership	Y
Public Involvement and Participation Program	WPCOG Stormwater Partnership	Y
Illicit Discharge Detection and Elimination Program	WPCOG Stormwater Partnership	Y
Construction Site Runoff Control Program	NCDEQ	N/A
Post-Construction Site Runoff Control Program	WPCOG Stormwater Partnership	Y
Pollution Prevention and Good Housekeeping Programs	WPCOG Stormwater Partnership	Y
Total Maximum Daily Load (TMDL)	N/A	N

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000605 for the Town of Hudson.

4.5 Measurable Goals for Program Administration

Referencing, MS4 Inspection Report for the Town of Hudson - Program Implementation, Documentation & Assessment, Permit Citation - II.A.2. Stormwater Plan Implementation & Evaluation, II.A.3. Keeping the Stormwater Plan Up to Date, II.A.4. Availability of the Stormwater Plan, II.A.5. Stormwater Plan Modifications and II.A.7 Written Procedures; the Town has not evaluated the performance and effectiveness of the program and had not develop any procedures for doing so. In order to meet the State requirements for this section, a self-assessment and the effectiveness of the program components will be completed annually. Written procedures, otherwise known as, Stormwater Management Plan: SWMP, has been drafted, but not adopted at this time. The SWMP will be adopted during Permit Year One of the NPDES permit cycle following the acceptance of the SWMP and issuance of the NPDES permit.

MS4 Inspection Report for the Town of Hudson - Program Implementation, Documentation & Assessment, Permit Citation - III.A. Program Documentation; The City of Lenoir on the Town's behalf maintained some documentation regarding illicit discharge complaints and enforcement actions; however, there was an overall lack of documentation relating to the Town's stormwater program (e.g., no documentation for inspections, maintenance activities, or educational programs).

MS4 Inspection Report for the Town of Hudson - Program Implementation, Documentation & Assessment, Permit Citation - III.B. Annual Report Submittal: The latest MS4 annual report submitted was for the 2014-2015 reporting year. The report included a brief description of the six minimum control measures and initiative at the time. However, the report lacked detail regarding specific milestones for the measures, overall plan accountability, or what was accomplished during the reporting period. Instead, the report described plans for future MS4 program implementation, which largely had not yet been implemented. Further, the 2014-2015 report did not include a fiscal analysis (Permit Citation - IV.B).

The Town of Hudson will manage and report the following Best Management Practices (BMPs) for the administration of the Stormwater Management Program using Public Education & Outreach, Public Involvement & Participation, Illicit Discharge Detection & Elimination, Post-Construction Site Runoff Control, and Pollution Prevention & Good Housekeeping.

Table 11: Program Administration BMPs

Permit Ref.	2.1.2 and Part 4: Annual Self-Assessment			
	Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
1.	Annual Self-Assessment			

Table 11: Program Administration BMPs

	Perform an annual evaluation of SWMP implementation, suitability of SWMP commitments and any proposed changes to the SWMP utilizing the NCDEQ Annual Self-Assessment Template.	1. Prepare, certify and submit the Annual Self-Assessment to NCDEQ prior to August 31 each year.	1. Annually Permit Years 1-4	1. Yes/No
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
2.	Permit Renewal Application			
	Audit stormwater program implementation for compliance with the permit and approved SWMP, and utilize the results to prepare and submit a permit renewal application package.	1. Participate in an NPDES MS4 Permit Compliance Audit, as scheduled and performed by EPA or NCDEQ.	1. TBD – Typically Permit Year 4	1. Yes/No
		2. Self-audit and document any stormwater program components not audited by EPA or NCDEQ utilizing the DEQ Audit Template. Submit Self-Audit to DEMLR (required component of permit renewal application package)	2. Permit Year 5	2. Yes/No/Partial
		3. Certify the stormwater permit renewal application (Permit renewal application form, Self-Audit, and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	3. Permit Year 5	3. Date of permit renewal application submittal

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The Town of Hudson 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.

In reference to MS4 Permit Self Audit Report - Public Education and Outreach, Permit Citation II.B.2.a Program Requirements, II.B.2.c. Target Audiences, and II.B.2.h. Public Education and Outreach Program: The Town of Hudson had not defined goals & objectives for community wide issues. Stormwater impact target audiences and extend of exposure had not been recorded at public education and outreach events.

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 Hudson 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	General Public
Sediment	Construction Activity
Gray water	Residential
Fats, Oils and Grease	Businesses (Restaurants)
Animal operations	Commercial and/or bona fide Farms
Underground Storage Tanks	Businesses and Residents
Superfund Sites	Development Community
Chemicals	Industrial, Business and Residential
Illicit Discharges	General Public, Businesses, Municipal Employees
Illegal Dumping	General Public, Businesses, Municipal Employees
Improper Disposal of Waste	General Public, Businesses, Municipal Employees

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

Table 13: Public Education and Outreach BMPs

Permit Ref.	3.2: 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 document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric

Table 13: Public Education and Outreach BMPs

3.	Stormwater Fliers			
	Stormwater fliers will be distributed to Town residences, municipal employees, businesses, and industrial facilities through stormwater events. Five topics will be addressed over the term of the permit; general stormwater awareness, illicit discharges, illegal dumping, chemicals and proper disposal of waste.	1. Develop and distribute fliers at Town events to create stormwater awareness.	1. Permit Year 1	1.-5. Number of flyers distributed at events..
		2. Develop and distribute fliers for illicit discharges.	2. Permit Year 2	
		3. Develop and distribute fliers for illegal dumping.	3. Permit Year 3	
		4. Develop and distribute fliers for chemical awareness.	4. Permit Year 4	
		5. Develop and distribute fliers for proper waste disposal.	5. Permit Year 5	
4.	Public Event Outreach			
	<p>Provide stormwater educational information to the general public at community events.</p> <p>COVID-19 has limited outreach opportunities at public events due to their cancelation in 2020/2021. As such, alternative ways for this type of outreach will be necessary. Alternatives, including but not limited to, booths at farmers markets or a booth inside the library (if open) can provide these opportunities while still being safe for participants.</p>	1. Staff will have a booth at the annual Hudson Butterfly Festival to disperse stormwater outreach materials/awareness through the use of interactive educational games and activities.	1. Annually Permit Years 1-5	1. Number of attendees at the outreach booth during the butterfly festival.

Table 13: Public Education and Outreach BMPs

		2. Staff will provide alternative outreach opportunities if the Butterfly Festival is canceled, or as an additional outreach supplement. Such opportunities include but are not limited to: an outreach booth at local Libraries, and/or an outreach booth at farmers markets, or other events if they are still available at different times throughout the year.	2. Annually Permit Years 1-5	2. Number of attendees at alternative outreach booth Event/location of alternative outreach booth
5.	Youth Community Outreach			
	Provide educational information, activities, and educational materials to students and youth community groups through classrooms, workshops, community presentations, and/or hands-on activities related to stormwater best practices. The targeted community groups can include: boy scouts, girl scouts, 4-H clubs, school environmental programs, church/religious groups, community environmental groups. Many of the individuals in these groups will hit the same target audiences as student outreach but can be more easily	1. WPCOG will provide instruction and stormwater educational activities to youth community groups, classrooms, workshops, community presentations, 2. Utilize the WPCOG storm stencils during outreach events to educate community members on the impact of dumping into storm drains as well as add caution signs to them	1. Annually Permit Years 1-5 2. Annually Permit Years 1-5	1. Number of activities/events provided; Number of participants present at these events/activities. 2. Number of storm drains stenciled

Table 13: Public Education and Outreach BMPs

	met with due to the nature of their organizations	3. Staff will create a presentation covering stormwater topics to be presented in digital classrooms and/or provided to teachers. The PowerPoint will be presented by teachers and/or staff to students in a safe method such as an online classroom.	3. Annually Permit Years 1-5	3. Number of presentations provided by teachers or staff Number of students present during the presentation
6.	Printed Materials			
	Staff will design and distribute new printed materials for target audiences to aid stormwater education	1. Staff will create printed material for local government distribution addressing stormwater best practices.	1. Permit Year 1	1. Were new outreach materials created? Yes, No; Status.
		2. Staff will distribute printed materials at events, school presentations, and have them on display for public acquisition in Government buildings. The flyers will also be hosted on the WPCOG website to enable digital access to this resource.	2. See BMP 3	2. See BMP 3
7.	Annual Water Quality Conference			

Table 13: Public Education and Outreach BMPs

	Sponsor the Western Piedmont Council of Governments and Lenoir Rhyne University's Annual Water Quality Conference to provide outreach and public participation. Staff will conduct the annual regional conference for continued education targeting local government officials, municipal staff, local businesses, educators, and the general public.	1. Provide one presentation about one of the six NPDES Minimum Control Measures at each annual conference. A different MCM will be presented on each year.	1. Annually Permit Years 1-5	1. Number of attendees at conference..
8.	Evaluate Pollutants Sources and Audiences			
	Evaluate the target pollutants (litter, sediment, gray water, fats, oils, grease, animal operations, underground storage tanks, super fund sites, chemicals, illicit discharges, illegal dumping, improper disposal of waste), sources, and associated target audiences (residents, businesses, schools, construction activity, commercial, farms, industrial, development community, general public, and municipal employees) likely to have significant stormwater impacts and why they were selected. This evaluation is looking at target audiences that are creating pollution to allow the Town to correctly focus education efforts in those area.	<p>1. Evaluate following target pollutants: litter, sediment, gray water, fats, oils, grease, animal operations, underground storage tanks, super fund sites, chemicals, illicit discharges, illegal dumping and improper disposal of waste.</p> <p>2. Evaluate the following target audiences: residents, businesses, schools, construction activity, commercial, farms, industrial, development community, general public and municipal employees.</p>	<p>1. Annually Permit Years 1-5</p> <p>2. Annually Permit Years 1-5</p>	<p>1. - 2. Number of target pollutant violations.</p> <p>Were SWMP revisions needed to address target pollutants or audiences.</p>
9.	Evaluate Public Education and Outreach BMPs.			

Table 13: Public Education and Outreach BMPs

	Evaluate the successful components of outreach through interest and feedback.	1. See BMP 18	1. See BMP 18	1. See BMP 18
Permit Ref.	2.1.7 and 3.2.3: Web Site Measures to provide a web site designed to convey the program's message 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			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
10.	Website			
	Maintain the already established website designed to convey the program's message. The Town webpage will convey the importance of water quality and a link to the WPCOG Stormwater webpage will be placed on the Town's website. The WPCOG Stormwater webpage will provide educational resource links, list the compliant procedures, stormwater regulations, stormwater permit information and good housekeeping information.	1. Maintain and update stormwater program information on the existing municipal website.	1. Annually Permit Years 1-5	1. Did the website need revisions Yes, No; Status.
		2. WPCOG staff will maintain and update the WPCOG stormwater web page by: posting the MS4 Annual Self-Assessment, verifying all links and contact information are current/active, posting the current year fliers. The municipal stormwater webpage will also have the current SWMP, stormwater ordinance, and annual assessment posted	2. Annually Permit Years 1-5	2. Was annual self-assessment uploaded to website? Yes, no; Status; Did links and/or contact information need to be updated? Yes, No; Status; Were new/current fliers added to site? Yes, No; Status.
		3. Set a hit counter in order to monitor engagement.	3. Annually Permit Years 1-5	3. Report the number of hits.
11.	Education Regarding Illicit Discharges			

Table 13: Public Education and Outreach BMPs

	Provide educational information to municipal employees, businesses, citizens and schools about the hazards associated with illicit discharges, illegal dumping, and improper disposal of waste.	1. Train municipal employees in illicit discharge detection and elimination.	1. See BMP 50	1. See BMP 50
		2. Distribute material (generated from BMP 3) to target audiences (municipal employees, schools, businesses, and citizens).	2. See BMP 3	2. See BMP 3
		3. Provide education during the enforcement process.	3. Continuously, Permit Years 1-5	3. Number of citizen interactions during enforcement.
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
12.	Hotline			
	This hotline will function as a way for citizens to contact the Town to report illicit discharges, stormwater/post construction issues, outreach questions and concerns, and MS4 related concerns.	1. Establish a hotline number for stormwater complaints and information.	1. Permit Year 1	1. Was hotline established; Yes, No; Date of establishment.
		2. Identify specific staff members who will serve as hotline contacts.	2. Permit Year 1	2. Was staff member identified; Yes or No.

Table 13: Public Education and Outreach BMPs

		3. Record number and type of complaints, concerns and information related to each call. Purpose of the call, 'type'/measure the call was about, date it occurred, and municipality of the caller will be recorded.	3. Continuously. Permit Years 1-5	3. Number of hotline phone calls received by type/purpose of call.
		4. Train stormwater hotline staff in general stormwater awareness, complaint call protocols and appropriate contacts for referral and typical stormwater issues.	4. Annually, Permit Years 1-5	4. Did hotline staff receive training? Yes, No; Status.
		5. Publicize contact information on the Town and WPCOG Stormwater webpages as well as the town of Hudson facebook page.	5. Continuously Permit Years 1-5	5. Number of hotline calls received overall.

Table 13: Public Education and Outreach BMPs

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

Table 13: Public Education and Outreach BMPs

	Create an educational outreach flyer that focuses on the impacts of litter on water quality, runoff quality, and how it impacts the environment as a whole. These materials will be distributed at Town Hall and handed out at public outreach events. Educate participants during stream cleanups on the impacts of litter to stormwater runoff and overall water quality.	1. Litter focused outreach materials will be created and distributed to government buildings and at outreach events	1. See BMP 3	1. See BMP 3
		2. Stream cleanup activities will be utilized to educate participants on the impacts of litter on water bodies	2. See BMP 19	2. See BMP 19

PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

In reference to MS4 Permit Self Audit Report – Public Involvement and Participation, Permit Citation II.C.2.a. Volunteer Community Involvement Program: The Town has been supportive of efforts in the past and plans to grow the effort in the future. The location of Caldwell Community College, Early College High School and the Advancement Academy provide opportunity for community service projects within Hudson. Little Gunpowder Creek is located on the campus of all the schools listed above. The Town of Hudson will establish a hotline, webpage reporting form and survey/s, along with the use of the existing WPCOG Water Resource Committee to gather public input. Stream clean-ups will be completed on an annual basis. All events, programs, and public forums will be announced through social media.

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 Hudson 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
14.	Hotline for Public Input			
	Provide a mechanism for public input on stormwater issues and the stormwater program through utilizing the stormwater hotline (BMP 12).	1. Stormwater hotline (BMP 12) shall include a public input component and/or record public input comments/concerns.	1. See BMP 12	1. See BMP 12
15.	Web based form reporting			
	Provide an online form for public input and stormwater reporting via the WPCOG website. This will create an additional way for citizens to report issues and	1. Establish a web based complaint/reporting/input form to be housed on the WPCOG website.	1. Permit Year 1	1. Was the online form established? Yes, No; Status. Date of establishment.

Table 14: Public Involvement and Participation BMPs

	concerns, as well as have input on the stormwater program.	2. Use the form to record and track responses, inputs, issues, and concerns for metric reporting. Purpose of each question, report, or comment will be documented to allow for evaluation.	2. Continuously, Permit Years 2-5	2. Number of questions, reports, and comments submitted via the form.
		3. Maintain the web based complaint/reporting/in put form on the WPCOG website.	3. Continuously, Permit Years 1-5	3. Were revisions to the web form needed? Yes, No; Status.
16.	Social Media Outreach – Event Promotion			
	Utilize the existing Town of Hudson Facebook page to promote stormwater events, projects, outreach/general stormwater awareness, and stormwater programs. This will be used as an outreach tool to provide exposure to a larger audience and encourage engagement from the general public.	1. Utilize the existing Town of Hudson Facebook page to promote public involvement and participation related to stormwater programs, events, and projects. The Facebook page will also be used to post stormwater educational materials and provided general stormwater awareness.	1. Continuously Permit Years 1-5	1. Total Number of posts on the Town of Hudson Facebook page related to the stormwater program.

Table 14: Public Involvement and Participation BMPs

17.	Water Resources Committee			
	Provide a mechanism for public input and participation via regional meetings on stormwater issues and the stormwater program. Typically, this committee is hosted by the WPCOG once a quarter. This committee also encourages municipal interconnectivity regarding water quality within the region.	1. Participate in quarterly Water Resource Committee meetings, which are open to the public, for discussion of water quality issues within the region. Topics discussed will be recorded for annual reporting.	1. Quarterly meetings Permit Years 1-5	1. Number of attendees at each meeting.
18.	Public Survey and Evaluation			
	Provide a mechanism for public input by creating a survey to engage the public and gauge public interest in stormwater issues and the stormwater program. The survey will be taking in responses/input on the program as a whole – covering each minimum measure and BMP that refers to this Survey.	1. Create and administer an annual survey to be housed on the WPCOG stormwater website once a year, open to feedback for a total of 4 weeks. The survey will also be linked on the Town of Hudson's website. Responses/results of the survey will be analyzed for reporting and evaluation.	1. Annually Permit Years 1-5	1. Number of surveys completed.

Table 14: Public Involvement and Participation BMPs

Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual/Reporting Metric
19.	Stream Cleanup			
	Provide volunteer opportunities for ongoing citizen participation through stream cleanup activities. If a safely accessible stream with an excess of built up litter/debris cannot be located, or built up litter will not take enough time to clean, stream side educational activities will be provided as an educational supplement. These educational activities will focus on educating participants on water quality and have the opportunity for hands on activities involving water bodies.	1. Hold stream cleanup efforts by engaging groups to conduct stream cleanup activities in appropriate areas. The events will be promoted by the Town and WPCOG, with a focus on civic groups. For the Town of Hudson the stream cleanups will focus on Gunpowder Creek and/or water bodies that feed into it to help improve water quality and provide personal awareness for participants.	1. Annually Permit Years 1-5	1. Number of stream cleanup events held; Number of stream cleanup participants; Number of trash bags filled.
		2. Provide all materials for stream cleanup activities (i.e. gloves, trash bags, and trash pickers) hosted by Town and WPCOG.	2. Annually Permit Years 1-5	2. Number of stream clean up materials distributed.

Table 14: Public Involvement and Participation BMPs

		3. The Town and WPCOG will publicize the event (hosted by WPCOG) to the public to gather volunteers for stream cleanup efforts to assist in public awareness and involvement. The event will be posted on the WPCOG website, The Town website, and flyers will be distributed at Town Hall.	3. Annually Permit Years 1-5	3. Was the event publicized? Yes, No; Status; Number of participants per event.
		4. If streams do not have adequate litter available for cleanup, supplement or replace stream clean-up time with outdoor educational activities	4. Annually Permit Years 1-5	4. Number of supplemental activities held; Number of participants in supplemental activities;

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

MS4 Inspection Report for the Town of Hudson – Illicit Discharge Detection and Elimination (IDDE), Permit Citation II.D.2.a. IDDE Program: The Town had not developed written procedures for implementing an IDDE Program. In response the Town will locate priority areas likely to have illicit discharges, conduct routine dry weather outfall inspections, identify illicit discharges and trace sources, eliminate the source(s) of an illicit discharge, and evaluate and assess the IDDE Program.

The Town will also, in response to the MS4 Inspection Report for the Town of Hudson – Illicit Discharge Detection and Elimination (IDDE), Permit Citation II.D.2.b. Legal Authority, the Town has adopted and will maintain and enforce the stormwater ordinance and other regulatory mechanisms that provide the legal authority to prohibit illicit connections and discharges to the MS4.

The City of Lenoir provided a map of the Town of Hudson's outfalls and MSC locations during the MS4 Inspection; however the map was developed in 2013, the accuracy of the map is in question and the Town did not use the map to facilitate any MS4 activities (II.D.2.c. Storm Sewer System Map). In the future the Town will be mapping the complete MS4 within Permit Years 3 through 5 (Permit Ref: 3.4.1 BMP 20)

In the last permit cycle, the Town did not conduct dry weather screening or maintain written procedures for dry weather field activity (II.D.2.d. Dry Weather Flow Program). Within the Stormwater Management Plan a schedule is to be created to conduct dry weather screening quarterly. Data such as date screening occurred, location of inspected outfall, and photos of outfall will be recorded in GIS.

The Town of Lenoir, on behalf of the Town of Hudson, in the past has taken a reactive approach to Illicit Discharge investigations with no written procedures (II.D.2.e.). A list of violators were provided to DEQ dating back to 2011; however a majority of the cases did not have a documented resolution (II.D.2.f.). It is unclear if any of the violations were in the Town of Hudson. Within the new permit cycle, as stated below, the Town will be adopting an IDDE Plan to establish written procedures. A proactive stance will be initiated with the use of a GIS application to track and document IDDE cases. This will allow the Town to identify priority areas based on historical data.

Further, the Town will train municipal staff and the general public to identify illicit discharge and illegal dumping through the use of educational outreach materials and training opportunities. Previously, no training had been administered (II.D.2.g. & h.). Educational material will be available to help educate public employees, businesses, and the general public about hazards associated with illicit discharges and the improper disposal of waste.

Public complaints of any kind could be submitted to the Town through a webpage portal or by phone; however the line of communication was not publicized (II.D.2.i). The stormwater hotline phone number, as mentioned in the public education and outreach and Illicit discharge areas of this plan, will be established on the WPCOG website. A link from the Town's website will lead to the WPCOG portal. A citizen can make a complaint via hotline number or through an email tool on the WPCOG webpage.

The Town of Hudson 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 No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
20.	MS4 Map			
	Develop, update, and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls, and the waters of the United States receiving stormwater discharges. The map will be placed onto an arc-online map to make it multi-use and easily accessible for stormwater or IDDE issues. 20% of MS4 mapping will be completed each year (miles of pipe, type of pipe, number of SCMs, number of outfalls, flow direction located, number of conveyances mapped, were receiving bodies located/marked).	1. Update existing map to include open channels and storm drain information and flow direction. This data will be collected through a mixture of preexisting map data (following its validation), as well as field work based off Public Works and the Planning Departments Recommendation and known information. 2. Add new infrastructure to map as new construction occurs, updated on an annual basis.	1. Continuously Permit Years 1-5 2. Annually Permit Years 1-5	1. Was the map updated Yes, No; Status. Was at least 20% of the MS4 area mapped? 2. Was new infrastructure added to the map: Yes, No; Status
Permit Ref.	3.4.2: Regulatory Mechanism Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
21.	Maintain Legal Authority			

Table 15: Illicit Discharge Detection and Elimination BMPs

	Review existing Ordinance (Section 7 of Town of Hudson Phase II stormwater ordinance) in order to maintain the legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions. Update ordinance if required.	1. Review the ordinance and update if revision is required. Revisions will require council re-approval.	1. Annually Permit Years 1-5	1. Were revisions to the ordinance needed? Yes, No; Status.
Permit Ref.	3.4.3: IDDE Plan Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to: <ul style="list-style-type: none"> a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program. 			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
22.	IDDE Plan			
	Establish 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.	1. Develop written IDDE Plan to define the procedures of identifying, tracking and processing illicit discharges, illegal dumping and significant contributors of pollutants to the MS4. Submit IDDE Plan to DEQ for approval.	1. Permit Year 1	1. Was IDDE plan developed? Yes, No; status; Date draft plan is submitted to DEQ for approval.

Table 15: Illicit Discharge Detection and Elimination BMPs

		2. Train staff on the processes defined in the IDDE Plan and what is required by the IDDE ordinance.	2. See BMP 50	2. See BMP 50
		3. Implement/Enforce the IDDE Plan and IDDE Ordinance.	3. See BMP 27	3. See BMP 27
23.	Location of Priority Areas			
	Establish and maintain procedures for locating priority areas likely to have illicit discharges. A high priority area is an area that has a high chance of stormwater pollution potential: Areas with known dry weather outfall flows/violations, repeat offenders, business/commercial areas, industrial areas, and businesses with high pollution potential.	1. Use MS4 map to locate outfalls near high pollution risk areas. As BMP 20 is being completed, priority areas will be established. The priority areas will be re-evaluated on an annual basis to add additional high priority areas should they be found or new ones develop.	1. Annually, Permit Years 1-5	1. Were priority areas located? Yes, No; Status. Number of Priority areas added upon revision.
24.	Dry Weather Outfall Inspections			
	Perform regular dry weather (no rain in previous 72 hours) outfall inspections to proactively identify illicit discharges and illicit connections. The Town will be broken into 5 sections, with at least one section (20%) being inspected each permit year. The inspections will consist of the currently known outfalls and expanded with the progress of BMP 20.	1. Establish a procedure to divide the Town and create a schedule for dry weather inspections for known outfalls.	1. Permit Year 1	1. Were procedures and the schedule established Yes, No; Status.
		2. Implement dry weather inspection procedures. Date inspections occurred, location of inspected outfall, and photos of outfall will be documented.	2. Annually, Permit Years 2-5	2. Number of dry weather inspections completed; Number of potential illicit discharges (from dry weather flow) identified.

Table 15: Illicit Discharge Detection and Elimination BMPs

25.	Illicit Discharges and Trace Sources			
	Establish procedures to track and document Illicit Discharge investigations.	1. Establish procedures to track verified discharges and trace sources.	1. See BMP 27	1. See BMP 27
		2. Maintain illicit discharge tracking documentation.	2. See BMP 27	2. See BMP 27
26.	Maintain and Implement IDDE Plan			
	Maintain and implement the IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4.	1. Screen priority areas likely to have illicit discharges (BMP 23).	1. Annually, Permit Years 1-5	1. Number of illicit discharges found in priority areas.
		2. Investigate and Enforce IDDE issues.	2. See BMP 27	2. See BMP 27
		3. Evaluate and assess the IDDE plan/program – Identify where improvements can be made based on data collected. Changes must be approved by DEQ from the previously approved IDDE Plan.	3. Annually Permit Years 1-5	3. Were revisions to the IDDE plan needed? Yes, No; Status.

Table 15: Illicit Discharge Detection and Elimination BMPs

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
27.	IDDE Tracking			
	Staff will create a mechanism 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 identifying chronic violators.	1. Develop the IDDE tracking sheet for tracking IDDE violations, recording who made the complaint, location of complaint, note prior IDDE violations, status of the investigation and actions taken.	1. Permit Year 1	1. Was the IDDE tracking sheet developed? Yes, No; Status Date IDDE sheet was developed.
		2. Record illicit discharge/connection and illegal dumping reports/investigations on the IDDE tracking sheet. Differentiate staff discovery from citizen reporting to allow for review of outreach program.	2. Continuously, Permit Years 1-5	2. Number of verified IDDE issues.
		3. Upon investigation, enforce Illicit Discharge/connection and Illegal Dumping violations to ensure the responsible party/violator remedies verified illicit discharges..	3. Continuously, Permit Years 1-5	3. Number of violations/enforcement actions issued; Number of violations/enforcement actions resolved.

Table 15: Illicit Discharge Detection and Elimination BMPs

		4. Establish and maintain a list of chronic violators, as applicable. Updated on a Semi-annual basis.	4. Semi-Annually, Permit Years 1-5	4. Number of chronic violators identified.
		5. Evaluate and assess the IDDE tracking sheet – Identify where improvement can be made based on data collected, problems encountered and needs. Evaluation of the sheet will be done on an annual basis to find shortcomings with the IDDE program should they be determined.	5. Annually, Permit Years 2-5	5. Were revisions to the IDDE tracking sheet needed? Yes, No; Status
Permit Ref.	3.4.5: Staff IDDE Training Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge, illicit connection or illegal dumping. Training shall include identifying and reporting illicit discharges, illicit connections and illegal dumping. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
28.	Staff Training			
	Train municipal staff and contractors to identify and report illicit discharges, illicit connections, illegal dumping and spills.	1. Identify staff members and/or contractors that are likely to observe an illicit discharge, illicit connection and illegal dumping.	1. See BMP 11	1. See BMP 11

Table 15: Illicit Discharge Detection and Elimination BMPs

		2. Hold IDDE training events to educate staff and contractors in identifying and reporting illicit discharges, illicit connections, illegal dumping, and spills. Trainings will have a sign in sheet to track the names of trained individuals.	2. See BMP 50	2. See BMP 50
29.	IDDE Educator			
	Establish appropriate staff contacts for field inquiries regarding IDDE education, outreach and complaints. During IDDE enforcement, an outreach approach to raise awareness of why the violation is problematic will be taken (See BMP 12). The hotline will also function as a mechanic for responding to IDDE questions from the public.	1. Train hotline contacts in IDDE awareness, complaint call protocols, and appropriate contacts for referral.	1. See BMP 12	1. See BMP 12
		2. Utilizing social media and the Town/ WPCOG webpages, publicize contact information for IDDE reporting.	2. See BMP 12	2. See BMP 12
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
30.	IDDE Reporting Hotline			
	Provide a hotline for the public and municipal staff to report illicit	1. Utilize the hotline (BMP 12) to receive IDDE reports.	1. See BMP 12	1. See BMP 12

Table 15: Illicit Discharge Detection and Elimination BMPs

	discharges, illegal dumping and spills.	2. Train hotline staff to differentiate between illicit discharge complaints and stormwater/post-construction complaints. The staff will also be trained to keep adequate records of the calls for metrics.	2. See BMP 12	2. See BMP 12
		3. Publicize Hotline by including the phone number on educational materials. Post the hotline number on the Town and WPCOG websites and shared via social media accounts.	3. See BMP 12	3. See BMP 12
31.	IDDE Reporting Web-based Reporting Form			
	Staff will establish and maintain a web-based form where IDDE complaints/reports can be entered and sent to the appropriate reporting individual. Publicize the reporting tool in education outreach materials as well as on the Town of Hudson website.	1. Use web based reporting form for IDDE reporting.	1. See BMP 15	1. See BMP 15
32.	IDDE Reporting Efficiency			
	Staff will provide a rapid response to all complaints received. Staff will record the response dates and summary of results to improve IDDE program and tracking sheet	1. Use the IDDE tracking sheet, once established (BMP 27), to track time of complaint, site visit, type of complaint and all enforcement/resolution measures.	1. See BMP 27	1. See BMP 27

Table 15: Illicit Discharge Detection and Elimination BMPs

		2. Evaluate response time. Work to minimize response time to reported issues and record what is causing those issues to be fixed in later iterations of the plan. Track the times elapsed between when an IDDE incident is reported, and when it is addressed.	2. Annually, Permit Years 1-5	2. Average response time.
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PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the Town of Hudson 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	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ	Part

The Town of Hudson 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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
33.	Municipal Staff Training			
	Train municipal staff who receive calls from the public on the protocols for referral and documentation of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. See BMP 50	1. See BMP 50
		2. Maintain a list of trained municipal staff who have reported construction run-off issues.	2. Continuously, Permit Years 1-5	2. Number of construction run-off issues reported by municipal staff. Date trained staff reporting list was established.

Table 17: Construction Site Runoff Control BMPs

34.	Means of Public Input Utilize the survey, the hotline, and the online form to give citizens methods of responding to how construction runoff is being managed. The survey will ask questions regarding: how they view construction runoff in the Town, what they think should be changed to improve upon said problems, and where they believe there should be more focus within the program.	1. Use survey (BMP 18) to obtain feedback about public perspective about construction runoff in the Town.	1. See BMP 18	1. See BMP 18
		2. Administer the survey. The survey will be linked to on the WPCOG stormwater webpage and the Town of Hudson website.	2. See BMP 18	2. See BMP 18
		3. Utilize reporting form (BMP 15) that will allow citizens and the development community (separately distinguished) to write concerns and report construction runoff issues.	3. See BMP 15	3. See BMP 15
		4. Publicize the ability to report concerns about construction runoff issues via the online form on the Town and WPCOG websites and social media.	4. See BMP 15	4. See BMP 15
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
35.	Waste Management			
		1. Develop an ordinance that addresses construction site waste.	1. Permit Year 1	1. Ordinance developed: Yes or No, Status.

Table 17: Construction Site Runoff Control BMPs

	Require construction site operators to control waste at the construction site that may cause adverse impact to water quality.	2. Adopt developed ordinance through council approval.	2. Permit Year 1	2. Ordinance adopted; Yes, No; Status.
		3. Train municipal staff on identifying and reporting construction waste violations.	3. See BMP 50	3. See BMP 50
		4. Maintain adopted ordinance (if revisions are needed).	4. Annually Permit years 2-5	4. Were any revisions to the waste management ordinance made? Yes, No; Status.
		5. Enforce ordinance using the tracking sheet to track and document construction site waste concerns and corrective actions.	5. See BMP 27	5. See BMP 27

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

MS4 Inspection Report for the Town of Hudson – Post-construction Site Runoff Control Program Implementation Status, Permit Citation: II.F.2.a. Legal Authority, “At the time of inspection, the Town was utilizing a Caldwell County ordinance to implement the post-construction site runoff controls program. The Ordinance authorized Caldwell County, rather than the Town of Hudson, to review plans, request information, and enter private property to conduct inspections of post-construction controls.” The Town of Hudson has developed and adopted a stormwater ordinance which authorizes the Town, rather than the County to administer the aforementioned items. Within the ordinance language granting the Town of Hudson the ability to require deed restrictions and protective covenants (II.F.2.e.) is included.

Contracting WPCOG, an inventory of projects will be established (BMP 36.B.1, 2, and 3) within the municipal limits, this is in response to Permit Citation II.F.2.d. of the latest audit (2018). Along with the inventory list proactive inspections will be administered by Staff semi-annually and certified by a private engineer annually to ensure SCM functionality (II.F.2.g.) Upon non-compliance, enforcement action will be taken, not a common practice in years past, but now the Town will have a GIS tracking mechanism to proactively enforce to obtain compliance (II.F.2.i.).

MS4 Inspection Report for the Town of Hudson – Post-construction Site Runoff Control Program Implementation Status, Permit Citation: II.F.3.c. Nutrient Sensitive Waters: The City of Lenoir, on behalf of the Town of Hudson had not designed or constructed any SCMs in the permitted area specifically to reduce nutrient loads. At this time it is unclear if the co-permittees within the MS4 are receiving discharge into the nutrient sensitive waters.

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 Hudson 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 Hudson implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Program(s) (QAPs) in the MS4 area(s) where they are implemented.

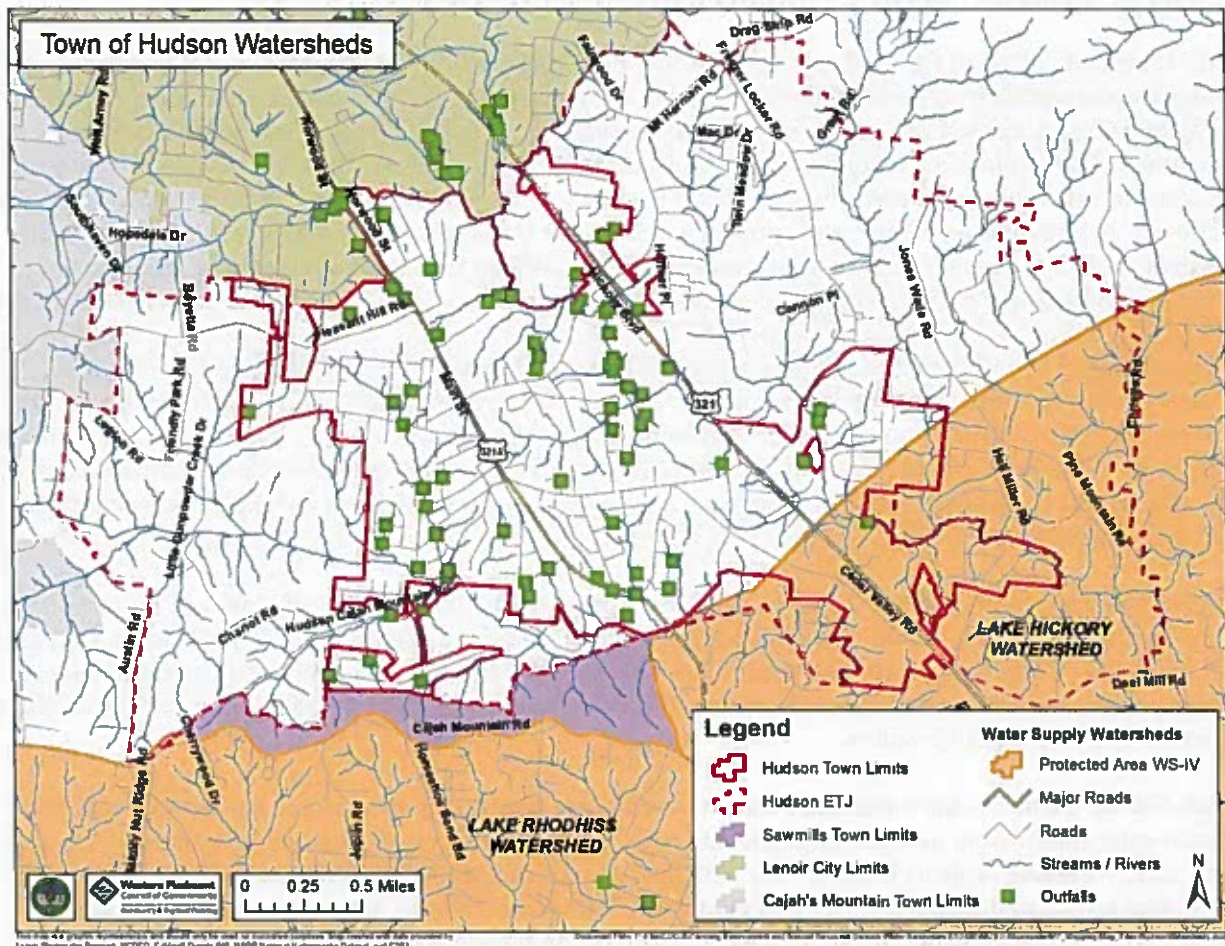


Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Water Supply Watershed (WS-IV)	15A NCAC 2B .0620 - .0624	WS-IV Watershed Ordinance (See map)

The Town of Hudson has existing requirements including the presents of a Qualifying Alternative Program(s) in a portion of the Town limits. The Qualified Alternative Program is the Lake Hickory water supply watershed Protected Area WS-IV. To ensure compliance with the NPDES MS4 Phase II post-construction program requirements the Town of Hudson applies the post-construction standards throughout the Town Limits, including the area that is located within the watershed. These requirements are to be adopted as local ordinance(s) per BMP 38.B.1. and implementation per BMP 38.B.3-4, and are summarized in Table 19 below.

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	Stormwater Ordinance Section 102	12/17/19
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	Stormwater Ordinance Section 105	12/17/19
3.6.3(b) Plan Review	Stormwater Ordinance Section 202	12/17/19
3.6.3(c) O&M Agreement	Stormwater Ordinance Section 402	12/17/19
3.6.3(d) O&M Plan	Stormwater Ordinance Section 402	12/17/19
3.6.3(e) Deed Restrictions/Covenants	Stormwater Ordinance Section 302 and 303	12/17/19
3.6.3(f) Access Easements	Stormwater Ordinance Section 408	12/17/19
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	Stormwater Ordinance Section 401	12/17/19
3.6.2(c) Right of Entry	Stormwater Ordinance Section 402	12/17/19
3.6.4(a) Pre-CO Inspections	Stormwater Ordinance Section 203	12/17/19
3.6.4(b) Compliance with Plans	Stormwater Ordinance Section 203	12/17/19
3.6.4(c) Annual SCM Inspections	Stormwater Ordinance Section 401	12/17/19
3.6.4(d) Low Density Inspections	Stormwater Ordinance Section 302	12/17/19
3.6.4(e) Qualified Professional	Stormwater Ordinance Section 401	12/17/19
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	Stormwater Ordinance Section 308	12/17/19
3.6.6(b) On-Site Domestic Wastewater Treatment	Stormwater Ordinance Section 308	12/17/19

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.	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
36.	Standard Reporting			

Table 20: Post Construction Site Runoff Control BMPs

	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/ Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	1. Track number of low density and high density plan reviews performed.	1. Continuously Permit Years 1-5	1. Number of plan reviews performed for low density and high density.
		2. Track number of low density and high density plans approved.	2. Continuously Permit Years 1-5	2. Number of plan approvals 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. Summary of number and type of SCMs added to the inventory; and number and acreage of low density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit Years 1-5	4. Number of SCM inspections.
		5. Track number of low density inspections performed.	5. Continuously Permit Years 1-5	5. Number of low density projects inspected
		6. Track number and type of enforcement actions taken.	6. Continuously Permit Years 1-5	6. Number and type of enforcement actions issued
Permit Ref.	2.3 and 3.6: Qualifying Alternative Program(s) Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
37.	Qualifying Alternative Program			
	The QAP requirements are applicable to a portion of the Town of Hudson; however the Phase II Post-construction Stormwater Ordinance is being administered to fulfill both requirements.			

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	3.6.2: Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
MP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
38.	Phase II Post-construction Stormwater Ordinance			
	The Town has adopted and will maintain in effect the Phase II Stormwater Ordinance, which gives the Town legal authority to review designs for new development and redevelopment, to ensure adequate stormwater controls, to request information, to perform inspections on private property, and to perform other compliance activities related to this measure. The ordinance references the DEQ BMP Design Manual as the source of standards to be used in selecting, designing, evaluating, and maintaining structural and non-structural BMPs.	1. Train staff (field and office) in Stormwater Ordinance procedures and enforcement actions.	1. See BMP 50	1. See BMP 50
		2. Enforcement of the Phase II Post-construction Stormwater Ordinance to ensure compliance. Should the correct processes and order not be followed, a notice of violation will be issued to address the violation.	2. Continuously, Permit Years 1-5	2. Number of notices of violations issued; Number of Civil Citations issued; Number of still in progress of abatement at time of annual report.
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).			

Table 20: Post Construction Site Runoff Control BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
39.	Plan Review and Approval			
	Review plans for all new development and redevelopment sites that will 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).	1. Review procedures and submittal documents annually to determine if items need to be added or modified.	1. Annually, Permit Years 1-5	1. Were changes to the procedures/submittal documents needed? Yes, No; Status.
	All required submittals (as defined by the plan review procedures) must be received by the reviewer before the issuance of a Certificate of Occupancy (per development). Should the procedures not be followed, a notice of violation and stop work order will be issued in accordance with the Town's ordinance and SOP.	2. Review plans for all new development and redevelopment sites that will disturb greater than or equal to one acre. This is including projects less than one acre that are part of a larger common plan of development or sale. This requirement also applies to Federal, State and Local Government projects.	2. See BMP 36	2. See BMP 36
	The Town of Hudson requests that the County holds the Certificate of Occupancy on all developments that fall under stormwater regulations within the Town. The CO is not issued until all stormwater requirements (designs, submittals, and inspections) are satisfied and the Stormwater Administrator approves the issuance.	3. Maintain the existing SCM Inventory sheet. Said sheet tracks all required submittals, relevant information, and all projects within the Town that have gone through (and/or are going through) the stormwater review procedure.	3. See BMP 36	3. See BMP 36

Table 20: Post Construction Site Runoff Control BMPs

40.	Operation and Maintenance Agreement and Plan			
	The Operation and Maintenance (O&M) agreement requires owners of structural BMPs to perpetually maintain and operate BMPs according to the O&M plan submitted during the plan review process and require submission of annual inspection reports written by a qualified professional. Each O&M agreement shall include an enforcement component defining the actions the Town can take if the O&M plan is not followed.	1. Ensure that each project has an approved O&M Agreement and O&M Plan prior to CO, to be included in the project checklist and required prior to CO. Each O&M agreement will include a requirement for annual inspections.	1. Continuous Permit Years 1-5	1. Number of permitted projects with O&M plans that received their CO.
41.	Recordation			
	The plan review process shall include verification that permanent legal mechanisms are in effect ensuring the project is built consistently with its approved plans. This will be verified through the submittal of an engineer's certification and providing an as-built. These must be received and accepted to approve the issuance of that projects CO.	1. Ensure each project has recorded deed restrictions and protective covenants in effect to ensure development activities will be maintained consistent with the approved plans (low and high density projects).	1. See BMP 36	1. See BMP 36
	A recorded deed restriction or protective covenant, along with an access easement is established through recordation. Recording both the access easement and deed restrictions are required for the issuance of a Certificate of Occupancy.	2. Ensure that each SCM and associated maintenance access areas are recorded in a permanent easement to guarantee access for inspection and maintenance of the SCM.	2. See BMP 36	2. See BMP 36

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	3.6.4: Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low density projects at least once during the permit term, and (e) Require that inspections be conducted by a qualified professional.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
42.	Inspection and Enforcement			
	After project completion, but prior to issuance of a certificate of occupancy, an inspection will be completed by a qualified professional to ensure the project has been constructed according to the plan/design. Following approval, annual inspections by a qualified professional will be completed. Low density projects will be inspected once in a permit term to monitor potential unpermitted expansion and apply enforcement if violations are found.	1. Prior to issuance of a CO, a qualified Town representative shall perform an inspection on all project SCMs to ensure compliance. If corrections are required, then follow up inspections will be performed until the SCM and project site is compliant prior to the issuance of CO.	1. Continuously Permit Years 1-5	1. Number of pre-CO inspections completed Number of repeat inspections required.
		2. Staff will perform inspections of all SCMs (both government and non-government) within the Town.	2. Annually, Permit Year 1-5	2. Number of SCM inspections completed. Number of failed SCM inspections
		3. Owner shall have a Qualified Licensed Professional perform an SCM inspection in accordance with the O&M Agreement and DEQ SCM manuals once a year.	3. Annually Permit Year 1-5	3. Number of qualified licensed professional inspections completed with documentation received. Number of SCMs under annual inspection enforcement.

Table 20: Post Construction Site Runoff Control BMPs

		4. Conduct inspection of 20% of low-density projects each year (See BMP 36 for inventory).	4. Annually Permit Years 1-5	4. Number of low density inspections done; Number of low density violators found. Number of low density enforcement actions issued.
Permit Ref.	3.6.5: Documentation Measures to maintain adequate documentation and standardized inspection and tracking mechanisms to: (a) Maintain an inventory of post-construction SCMs and low density projects, (b) Document, track and maintain records of inspections and enforcement actions. Tracking shall include the ability to identify chronic violators, and (c) Make available to developers all relevant ordinances, 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
43.	Documentation – Low Density			
	Ensure tracking and records are maintained on low density projects to ensure that upon inspection, impervious overages can be determined, and corrective actions taken. Ensure informational materials are available on the WPCOG website to guarantee accessibility outside of office hours. Through tracking and inspections chronic violators will be identified. 20% of the low density sites will be inspected per year.	1. Maintain low density project list to include existing sites.	1. See BMP 36	1. See BMP 36
		2. Inspect the completed low-density projects to ensure the projects have not expanded into a high density classification thus needing a SCM.	2. See BMP 42	2. See BMP 42
		3. Provide educational material to the general public about low density developments: during the issuance of zoning permits, distributed through mailings, posted on social media, and handed out at events.	3. Continuously Permit Years 1-5	3. Number of low density educational materials distributed.
44.	Documentation – High Density			

Table 20: Post Construction Site Runoff Control BMPs

	Ensure tracking and records are maintained on projects to ensure that upon granting of final CO and follow-up inspection impervious overages can be determined and corrective actions taken. Ensure informational materials are available online to guarantee accessibility outside of office hours. Through tracking and inspections chronic violators will be identified.	1. Maintain an inventory of all developments and redevelopments (public and private) with SCMs. Update inventory as projects are reviewed, approved, and constructed.	1. See BMP 36	1. See BMP 36
		2. Provide educational material to developers about high density development. At a minimum, hyperlinks will be maintained on the Towns web page directed to the Ordinance and to the BMP Design Manual. Printed materials will be distributed (but not limited to): during the issuance of zoning permits, distributed through mail, digitally posted on social media, and handed out at events.	2. Continuously Permit Years 1-5	2. Number of high density informational materials distributed.
		3. Establish links to all ordinances, manuals, policies, checklists, design standards, and/or other materials on the WPCOG website.	3. Annually Permit Years 1-5	3. Items placed on the webpage: Yes or No, Status Were items replaced with current versions if revisions were required? Yes, No; Status.
Permit Ref.	3.6.6: Fecal Coliform Reduction Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			

Table 20: Post Construction Site Runoff Control BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
45.	Fecal Coliform Reduction			
	Protective measures have been established through the adoption of the pet waste component of the Phase II Stormwater Ordinance.	1. Maintain Pet Waste Ordinance to reduce the amount of pet waste.	1. Annually Permit Years 1-5	1. Did Pet Waste Ordinance require revisions? Yes, No; Status
	The majority of the Town of Hudson's wastewater is managed via a sewer system – however there are still septic tanks within the Town that could become a source of fecal coliform pollution. An outreach approach will be taken to assist in reducing this pollutant and raise awareness.	2. Develop and supply septic tank awareness materials to the County through the WPCOG septic tank program. These flyers will be used to raise awareness of septic tank pollution and septic maintenance	2. Continuously, Permit Years 1-5	2. Number of septic tank flyers distributed.

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the Town of Hudson 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 park 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 Cleaning Program
7. Pavement Management Program

The Town of Hudson will manage, implement and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program. In response to the inefficiencies identified in the MS4 Inspection Report, Permit Citations II.G.2.a., the Town had maintained an inventory of municipal facilities, but had not determined which facilities were at risk to generate polluted stormwater runoff. A list of these possible polluters will be established.

An O & M program for the facilities and SCMs has not been created to date (II.G.2.b. and II.G.2.e.). After the acceptance of the SWMP and in Permit Year One, an O & M program will be established. (BMP 45). Furthermore, the municipal facilities and SCMs were not being inspected annually, as required per DEQ (II.G.2.b. c. & g.). Municipal SCMs were not inventoried to date; but "it is believed that the Town of Hudson does not have municipally owned structural stormwater controls" (II.G.2.f.) Incorporated in the O & M program, staff will be trained to determine appropriate operations and maintenance for facilities and SCMs. To date staff had no training in this area. The Town of Hudson staff did not perform street maintenance, including cleaning of catch basins and stormwater conveyances (II.G.2.e).

II.G.2.d states that "The City of Lenoir did not evaluate BMPs based on their pollutant removal" in reference to streets, roads, and public parking lot maintenance. Several of the BMPs below address this issue by developing, adopting, and maintaining procedures that focus on pollutant removal in these impervious areas. Permit Reference: 3.7.7, BMP's 59-62 address this prior lack of evaluation and program implementation. BMP 59 focuses on setting schedules and requirements for street/parking lot sweeping. BMPs 60 and BMP 61 focuses on minimizing and collecting litter/debris, with BMP 60.B.2 working in part as a community outreach program. BMP 62 addresses procedures for cleaning the oils, fluids, and debris that can come from car accidents by utilizing the developed standard spill procedures as necessary according to II.G.2.c.

In the audit, II.G.2.e addresses the prior lack of maintenance of the Town's storm sewer system, Permit Reference, 3.7.3, BMP's 48-51 focus on the training, inspection, and maintenance of said system. BMP 49 develops the required O&M plan which defines procedures/schedules, BMP 50 trains maintainers on the correct procedure, BMP 51 focuses on inspection along with its documentation, and BMP 52 addresses the audit problem itself by performing the maintenance on the system with documentation.

Previously, the use of pesticides, herbicides, and fertilizers in municipal facilities was not well tracked or managed as stated in II.G.2.h. Permit Reference, 3.7.5, BMP 55 focuses to ensure all staff using pesticides, herbicides, and fertilizers are officially certified and following appropriate (minimal) usage. BMP 56 focuses on tracking contractor certification as well as the copies of permits of both municipal staff and contractors.

II.G.2.i addresses inconstant/lacking training for municipal employees in regards to good housekeeping and pollution practices. This is addressed in: 47.B.5, 48.B.4, 50.B.1 BMP, 54.B.5, 55.B.1, 57.B.2, 58.b.3, 62.b.1, and 46.b.1. Each of these BMPs focusing on each of the 7 programs required by the permit.

II.G.2.J addresses a lack of measures regarding correct waste disposal and cleaning of municipal vehicles/equipment. BMP 57 focuses on the washing side of the problem, addressing training, protocol, requirements, and options for municipal vehicle operators. BMP 58 focuses on the other side of the issue, ensuring that vehicle maintenance facilities are correctly disposing of waste and that permitting is correctly followed to ensure MS4 compliance.

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
46.	Municipal Facilities Operation & Maintenance (O & M) Plan			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	An O & M Plan must be developed, implemented, and maintained for each municipal facility with the potential to generate stormwater pollution. These plans will define the expectations of the facility in regards to stormwater/MS4 regulations. Each municipal facility in which this is applicable will implement an O&M plan. The implementation of a plan entails signing a legally binding document that defines the party charged with ensuring that the facility is correctly maintained and documentation of the maintenance is adequate. The documents will also define the procedures in how the facility will be maintained to reduce the risk of stormwater pollution. The facilities requiring O&M plans will be inventoried through BMP 47. Should the facility maintain and/or store vehicles, washing procedures will be defined in the facilities O&M plan.	1. Inspect all municipal facilities to determine which facilities require an O&M plan to be developed. All facilities will be inspected once per permit term. Applicable facilities will be inspected annually (See BMP 47).	1. See BMP 47	1. See BMP 47
		2. Develop an O & M plan for each municipal facility with the potential to generate stormwater pollution. Each plan will define required procedures per applicable facility to inspect, maintain and evaluate the facilities risk of stormwater pollution.	2. Permit Year 1	2. Number of facility O&M plans developed.
		3. Implement the written O & M Plan (per applicable facility).	3. Permit Years 2-5	3. Number of facility O&M plans implemented.
		4. Enforce and inspect the facilities to ensure compliance with the O & M Plans.	4. See BMP 47	4. See BMP 47
47.	Municipal Facilities			
	The municipal facilities operation and maintenance plan will ensure the facilities are being managed/maintained in a way that does not negatively impact water quality. The facilities will be maintained in a scheduled and well-defined manner by	1. Verify the existing list of facilities is correct by using tax records and field visits.	1. Permit Year 1	1. Is the facility list verification complete: Yes or No, Status. Date of completion

Table 21: Pollution Prevention and Good Housekeeping BMPs

	performing routine inspections. If a facility is subject to SPCC requirements, then specific inspection procedures will be completed per the SPCC requirements. At the time of developing this SWMP, the Town of Hudson does not own a facility that would fall under SPCC requirements. Should one be re-evaluated and SPCC criteria are met, it will be managed as such.	2. Use tax data and facility visits to determine if the facility has a potential pollutant and/or spill risk (Make note of SPCC facilities).	2. Permit Year 1	2. Number of facilities with potential pollutants/spill risk. Number of potential SPCC facilities.
		3. Perform facility inspections to ensure the Town is following good housekeeping measures.	3. Annually Permit Years 1-5	3. Number of facilities inspected. Number of SPCC permitted facilities inspected.
		4. Document and correct issues found during inspections. If a facility is subject to SPCC requirements, then ensure the correct documentation is in place for compliance with the regulation/requirements.	4. Annually Permit Years 1-5	4. Number of corrective actions taken (SPCC permitted facilities and non-SPCC facilities).
		5. Train municipal facility staff on proper stormwater awareness and good housekeeping methods.	5. See BMP 50	5. See BMP 50
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	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
48.	Spill Response			
		1. Develop a written spill response procedure plan for each facility that requires one.	1. Permit Year 1	1. Were the procedures created for all facilities that require one Yes, No; Status summary.

Table 21: Pollution Prevention and Good Housekeeping BMPs

<p>Spill response program for facilities and operations that store and/or use materials that pose a spill risk. The program will be designed in a way that tracks potential polluting facilities as well as defining the procedures/materials required for spill response in those facilities.</p> <p>The definition of reportable spills will be written into each facility spill response plans following §143-215.85.</p>	2. Implement the spill response procedures plan (per facility).	2. Permit Year 1	2. Number of spill response plans implemented.
	3. Maintain spill response procedures in response to problems that may arise from implementation of spill procedures.	3. Annually Permit Years 1-5	3. Number of spill response procedure plans that required revisions.
	4. Train facility staff on spill response procedures.	4. See BMP 50	4. See BMP 50
	<p>5. Respond to spills as they occur and manage the spill/s following established spill procedures.</p> <p>Reportable spills (per §143-215.85) will be reported to DEQ.</p>	5. Continuously, Permit Years 1-5	<p>5. Number of non-reportable spills.</p> <p>Number of spills reported to DEQ.</p>

Table 21: Pollution Prevention and Good Housekeeping BMPs

Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
49.	MS4 Operation & Maintenance (O & M) Plan			
	An O & M Plan must be developed, implemented and maintained to follow the requirements of the MS4 NPDES Phase II Stormwater collection system permit. As a component of this plan, a capital improvement component will be included to assist in prioritizing parts of the MS4 as determined by the MS4 inspections (BMP 50) The O&M Plan must also be submitted to DEQ for approval.	1. Develop an O&M plan to define the required procedures to schedule inspections, perform maintenance and evaluations of the stormwater collection system. The plan shall cover inspection schedules, standard documentation, and staff responsibilities.	1. Permit Year 1	1. Was the MS4 O&M Plan developed: Yes or No, Status.
		2. Submit the developed O&M Plan to DEQ for approval.	2. Permit Year 1	2. Was the O & M Plan approved by DEQ: Yes or No, Status. Date of submittal to DEQ.
		3. Implement the written O M Plan.	3. Permit Years 2-5	3. Was the O&M Plan implemented, Yes, No; Status.
		4. Administer the O&M Plan (See BMP 51 & 52).	4. Continuously, Permit Year 2-5	4. Number of MS4 inspections completed.

Table 21: Pollution Prevention and Good Housekeeping BMPs

50.	MS4 O&M Training			
	<p>Provide MS4 training to municipal and contracted staff to minimize pollutants in the stormwater collection system, prevent unnecessary damage and wear on the system, increase awareness of stormwater issues, and show the procedures on how to deal with stormwater related issues.</p> <p>These trainings will cover: illicit discharges, pollution prevention, outreach, how to respond to IDDE or post construction issues, spill prevention and response procedures, municipal facility requirements, construction runoff, Post construction ordinance and procedures, pesticide and fertilizer management, IDDE Plan procedures and requirements, IDDE ordinance, and good housekeeping procedures.</p>	<p>1. Hold MS4 training events to educate staff on MS4 topics listed in the referencing BMPs. Train all current municipal staff on permit year one, regardless of prior training to bring them up to current standards. This will reoccur at the beginning of each new permit cycle</p> <p>The topics covered and number of participants will be recorded at each training.</p>	1. Permit Year 1	<p>1. Number of trainings held;</p> <p>Number of personnel trained.</p>
		<p>2. Train any newly hired staff during permit years 2-5 or were not previously trained on stormwater best management practices</p>	2. Permit Years 2-5	<p>2. Number of trainings held;</p> <p>Number of personnel trained.</p>
51.	MS4 Inspection			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Proactively perform MS4 inspections to ensure clogged lines, non-functioning SCMs, and drainage inadequacies are identified.	1. Inspect the MS4 infrastructure (pipes, major outfalls, stormwater conveyances, and basins) to ensure functionality.	1. Continuously Permit Years 1-5	1. Number of catch basins and conveyances inspected; Number of conveyance issues found/reported.
52.	MS4 Maintenance			
	MS4 inspections to ensure clogged lines, non-functioning basins, and drainage inadequacies are repaired. If the municipality cannot reasonably maintain issues with MS4 infrastructure found in a permit year, it can be contracted out to a qualified licensed professional if the Town chooses to do so. The town will utilize public works resources to maintain the MS4 infrastructure; or the issue will be included in the Towns capital improvement project list, and appropriately prioritized depending on the nature of the repair.	1. Inspect all municipal catch basins and conveyances on an annual basis and/or upon report of maintenance being required. 2. Maintenance will be completed upon finding through inspection or receiving reports of MS4 infrastructure in poor condition.	1. See BMP 51 2. Continuously, Permit Years 1-5	1. See BMP 51 2. Number of MS4 cleanings/maintenance actions performed.
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.			
	A	B	C	D

Table 21: Pollution Prevention and Good Housekeeping BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
53.	Municipal SCMs Operation & Maintenance (O & M)			
	<p>The maintenance procedures and inventory of the Towns municipal SCMs will be kept up to date.</p> <p>However, at the time of developing this SWMP the Town does not currently have a municipally owned SCM. Should the Town of Hudson need to install one following expansion, these procedures will be followed.</p>	1. Maintain an inventory of existing Town-owned SCMs with information including type, year built, date of last inspection, and maintenance actions.	1. See BMP 36	1. See BMP 36
		2. Develop and maintain SCM Operation and Maintenance Plans for each Town-owned SCM.	2. Continuously	2. Were any municipal SCM O&M's developed? Yes, No; Status.
		3. Review/Update SCM inventory as necessitated by new Town development.	3. See BMP 54	3. See BMP 54
54.	Municipal SCMs			
	<p>The municipal SCM/s operation and maintenance program will ensure the stormwater structures are being managed/maintained in a way that does not negatively impact water quality. The SCMs will be maintained in a scheduled and well-defined manner written in its O&M plan.</p>	<p>1. Verify the existing list of municipal SCMs is correct by visiting the sites to determine type and condition. Use aerial photography in conjunction with Town records to determine SCM location/ ownership.</p>	<p>1. Permit Year 1</p>	<p>1. Is the SCM list complete: Yes or No; Status (Location and type to be documented).</p>

Table 21: Pollution Prevention and Good Housekeeping BMPs

	However, at the time of developing this SWMP the Town of Hudson does not currently have a municipally owned SCM. Should the Town need to install one following expansion, these procedures will be followed.	2. Maintain Inventory of municipally owned SCMs. Add all new SCMs as they are constructed.	2. Continuously Permit Years 1-5	2. Did the inventory require any municipal SCMs to be added Yes, No; Status. Total number of municipal SCMs
		3. Perform annual inspection and maintenance of municipally owned SCMs to ensure the operation and maintenance plan is being followed.	3. Annually Permit Years 1-5	3. Number of municipal SCMs inspections done.
		4. Document and correct issues found during inspections.	4. Annually Permit Years 1-5	4. Number of issues identified/recorded; Number of corrective actions/repairs taken.
		5. Should a municipal SCM be installed, Training on the maintenance of the SCM and its function shall be held.	5. See BMP 50	5. See BMP 50
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
55.	Pesticide, Herbicide and Fertilizer Training to Staff			

Table 21: Pollution Prevention and Good Housekeeping BMPs

	Measures to minimize water quality impacts from the use of landscaping chemicals. The only staff who will be allowed to apply pesticides, herbicides, or fertilizers will be certified individuals who use methods that minimize the amounts used.	1. Provide training to staff on the use, storage, and handling to get officially certified. The training will include methods of using minimal chemicals to reduce harmful effects, especially around SCM maintenance.	1. See BMP 50	1. See BMP 50
56.	Pesticide, Herbicide and Fertilizer Compliance			
	Ensure compliance with permits and certifications for the administering of pesticides, herbicides and fertilizer to ensure application of product is less impactful to stormwater runoff. Only certified landscapers/sprayers are the ones applying pesticides, herbicides, and fertilizers.	1. Maintaining copies of licenses/certifications of all staff and contractors who use landscaping chemicals.	1. Annually Permit Years 1-5	1. Number of certified municipal personnel.
Permit Ref.	3.7.6: Vehicle and Equipment Cleaning Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
57.	Vehicle and Equipment Cleaning			
	Prevent or Minimize Contamination of Stormwater Runoff from all areas used for Vehicle and Equipment Cleaning. Wash water can be directed to the sanitary sewer or to vegetated areas. Where cleaning operations cannot be performed as described above and when operations are	1. Establish Standard Operating Procedure for containing and disposing of vehicle and equipment wash water. The procedures will be defined through the facilities O&M plan.	1. See BMP 46	1. See BMP 46

Table 21: Pollution Prevention and Good Housekeeping BMPs

	performed in the vicinity of a storm drainage collection system, the drain is to be covered with a portable drain cover during cleaning activities. Any excess standing water shall be removed and properly handled prior to removing the drain cover. OR another acceptable method is installation of a SCM to capture and treat the wash water runoff.	2. Provide routine vehicle pollution prevention training to staff.	2. See BMP 50	2. See BMP 50
		3. Wash all municipal light vehicles, Town emergency vehicles, and equipment using an established method listed under this BMP, or utilize a commercial carwash facility that contains and treats wash water where applicable.	3. Continuously Permit Years 1-5	3. Number of vehicle washings performed; Was vehicle washing completed per this BMP? Yes, No; Status; Provide quarterly invoices from commercial carwash if utilized.
		4. Record washing procedures. Upon facility inspection (BMP 47) verify that documentation is being kept ensuring compliance and said documentation shows the facility is following the best management practices defined in their O&M plan.	4. See BMP 47	4. See BMP 47
58.	Vehicle and Equipment Maintenance			
	Measures to ensure that the waste generated by vehicle maintained at municipal facilities (included, but not limited to, oils, any running fluids, batteries, belts and other non-fluid vehicle waste) is being disposed of properly.	1. Ensure the Town has obtained a NPDES industrial permit for all subject municipal facilities/operations that would require one.	1. Permit Years 1	1. Log of industrial permit/s and status. Number of municipal industrial permitted facilities
		2. Perform waste inspections during facility inspections (See BMP 47).	2. See BMP 47	2. See BMP 47

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3. Provide routine pollution prevention and waste management training to staff.	3. See BMP 50	3. See BMP 50
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
59.	Street and Parking Lot Sweeping			
	Measures to reduce pollutants in stormwater runoff from municipally owned streets, roads, and parking lots within the permittee's corporate limits. As the Town of Hudson does not have a regular street cleaning service, streets will be swept/cleaned annually. To supplement this, an outreach approach and right of way conveyances/inlets with frequent issues will be prioritized.	1. Street/curb and gutter sweeping will be done to reduce road pollutants in runoff with a focus on high priority areas prone to buildup or higher chance of conveyance damage/hindrance.	1. Annually Permit Years 1-5	1. Total number of lane miles swept.
		2. Track conveyances/inlets that have frequent problems with pollution to prioritize their maintenance.	2. Continuously Permit years 1-5	2. Number of high priority cleanings done.

Table 21: Pollution Prevention and Good Housekeeping BMPs

		3. Develop and distribute educational flyers regarding street runoff pollution to help supplement street cleanings.	3. Continuously Permit Years 1-5	3. Number of street pollution flyers distributed.
60.	Litter Management			
	Collect litter in public areas and parking lots to reduce negative impacts on water quality.	1. Public waste receptacles located on municipally owned parcels and within Town right of ways are serviced on an as needed basis.	1. Continuously Permit Years 1-5	1. Number of full time employees responsible; Number of trash bags used.
		2. All other litter collection is performed on an as-needed basis utilizing available staff or community volunteers.	2. Annually Permit Years 1-5	2. Number of litter pick up events Weight of trash collected/disposed of for each event (pounds); Number of staff and/or volunteers.
61.	Leaf Collection			
	Implement measures to control leaves and debris within the municipal Town limits (to include all properties). The Town of Hudson picks up leaves on an annual basis from November 1 st through January 31 st .	1. Leaves are collected with vacuum-style equipment from November 1 st through January 31 st . Outside those months citizens can bag their leaves to be collected with trash pickup.	1. Annually Permit Years 1-5	1. Cubic yards collected during November to January.
62.	Vehicle Pollutant Management			
	Measures to prevent and minimize contamination of stormwater runoff from vehicle pollutants following an accident.	1. Train first responders for minimizing, collecting and disposing of fluids and other vehicular pollutants following an accident.	1. Annually Permit Years 1-5	1. Number of first responders (staff) trained and date of training.

Table 21: Pollution Prevention and Good Housekeeping BMPs

		2. Continue equipping the first responder vehicles with spill kits and material containment tools.	2. Annually Permit Years 1-5	2. Amount of materials used/replaced in kits.
		3. Public Education to include information about vehicle leaks in distributed materials and other educational resources.	3. Annually Permit Years 1-5	3. Number of vehicle pollution educational materials handed out.
		4. Illicit Discharge enforcement for significant vehicle leaks from parked cars.	4. Annually Permit Years 1-5	4. Number of vehicle IDDE issues documented; number of vehicle IDDE issues enforced/corrected.