



Stormwater Management Plan

City of Morganton

NCS000498

April 15, 2024

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Part 1: Introduction

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the City of Morganton 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 City of Morganton will develop, implement, enforce, evaluate, and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR, or Division) in order to comply with the MS4 Permit number NCS000498, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the City of Morganton and located within the corporate limits of the City of Morganton.

In preparing this SWMP, the City of Morganton 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 adequately provide for permit compliance and the community's needs.

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

Part 2: Certification

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

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

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

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

Signature:	<i>Bonnie Thompson</i>
Print Name:	Bonnie Thompson
Title:	Mayor - City of Morganton
Signed this <u>15th</u> day of <u>20 24</u> . <i>April</i>	



Part 3: MS4 information

3.1 Permitted MS4 Area

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

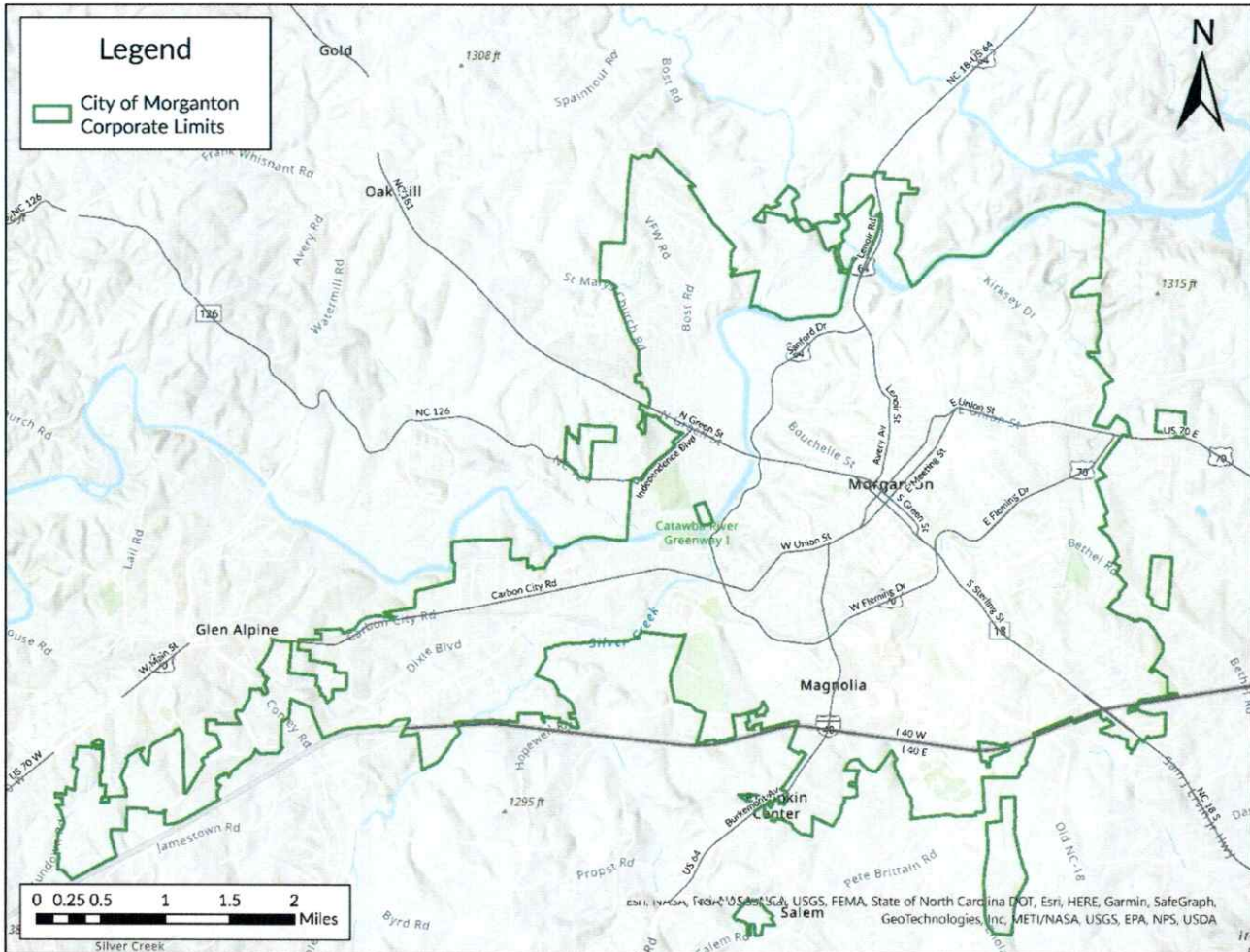


Figure 1: City of Morganton Corporate Limits

3.2 Existing MS4 Mapping

The current MS4 mapping includes inlets, pipes, culverts, manholes, outlets, and outfalls. Invert, size, condition, and material are available for some of the data.

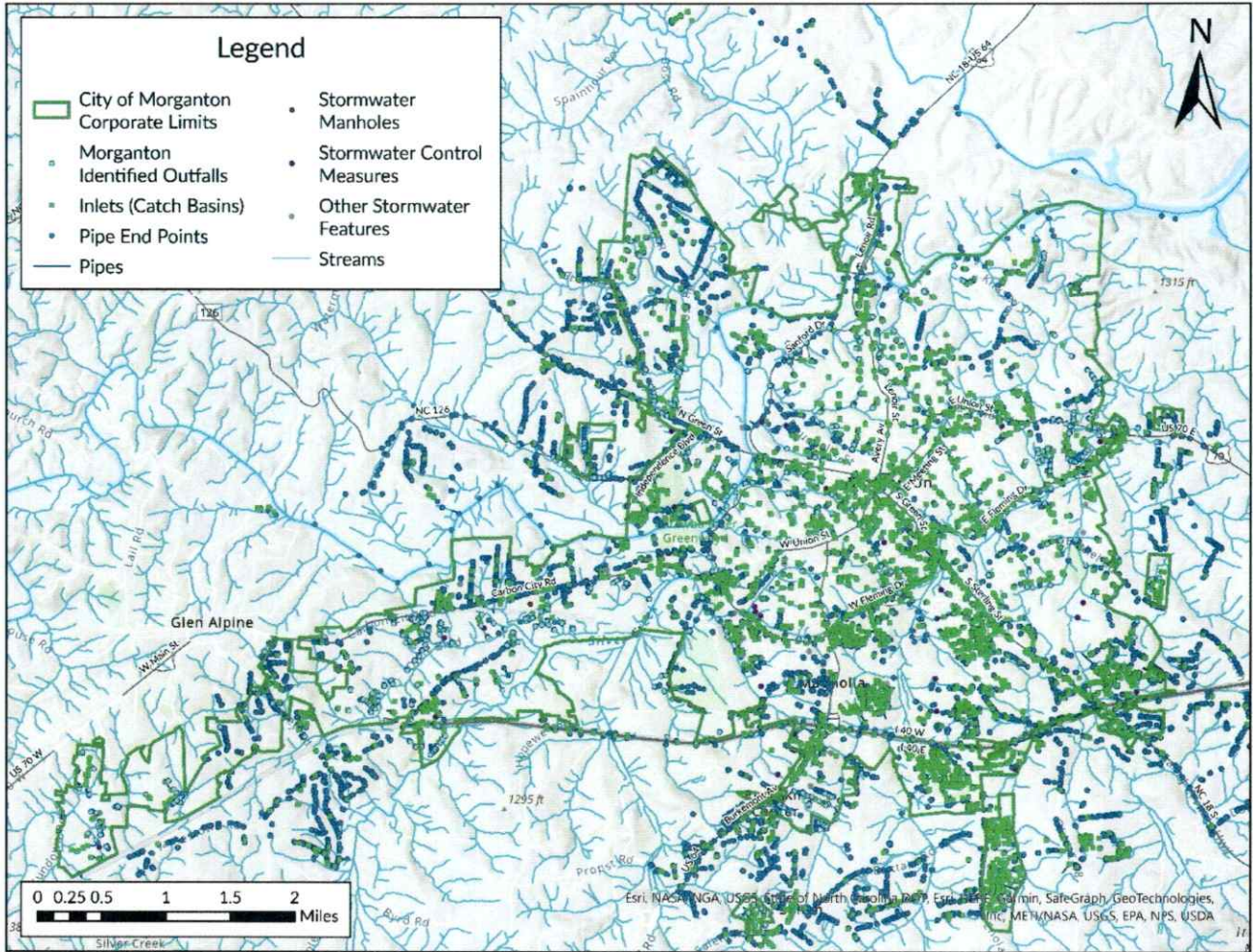


Figure 2: City of Morganton Existing MS4 Mapping

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	80	%
No. of Major Outfalls* Mapped	562	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 mapped to meet permit requirements. A major outfall is a 36-inch diameter pipe or discharge from a drainage area > 50-acres; and for industrial zoned areas a 12-inch diameter pipe or a drainage area ≥ 2-acres.

**At this time, Morganton has 562 outfalls identified in their existing GIS mapping, as confirmed, possible, and potential residential and industrial outfalls.

3.3 Receiving Waters

The City of Morganton 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:

- [Waterbody Classification Map](#)
- [Impaired Waters and TMDL Map](#)
- Most recent NCDEQ Final [303\(d\) List](#)

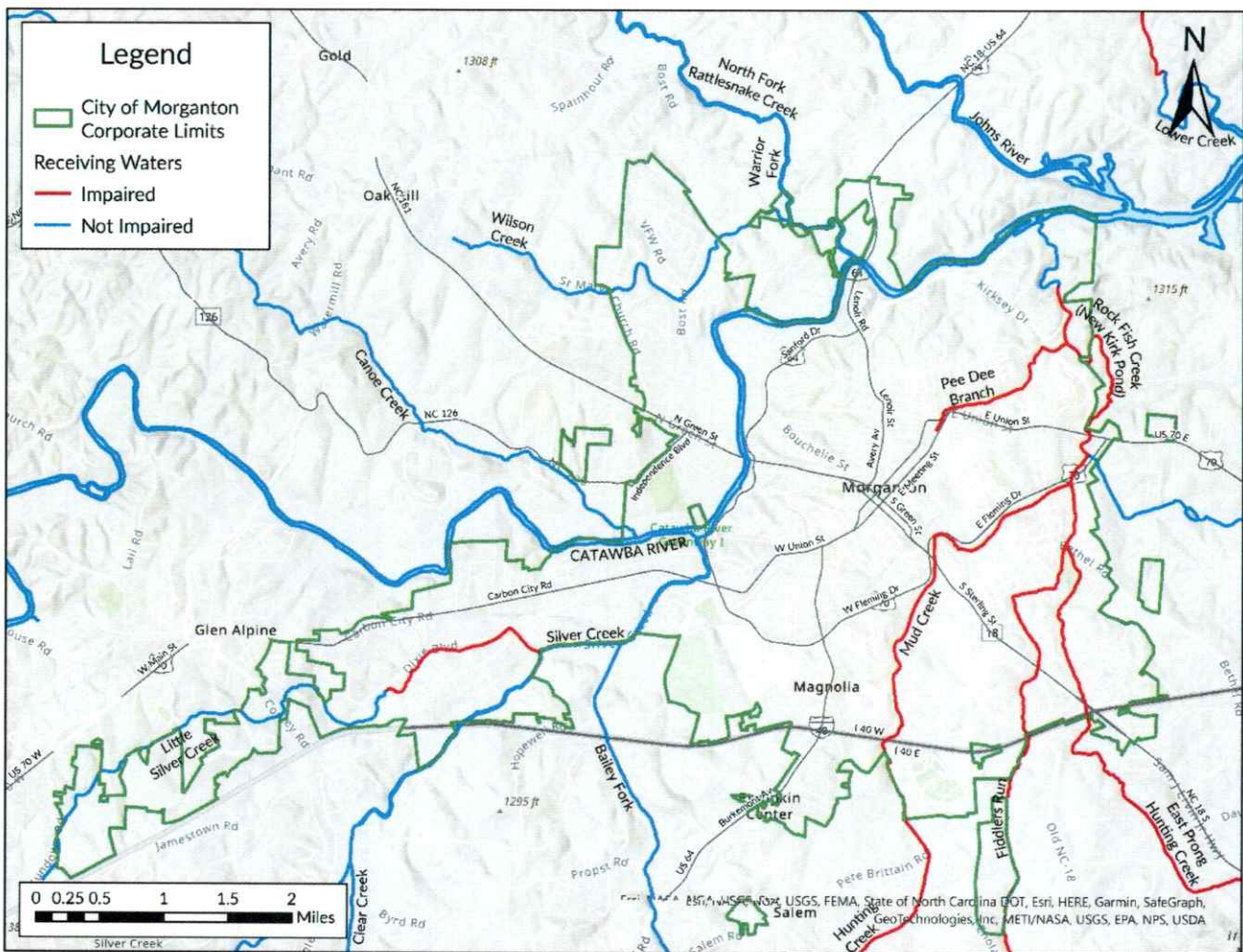


Figure 3: City of Morganton Receiving Waters

Table 2: Summary of MS4 Receiving Waters

Receiving Water Name	Stream Index / AU Number	Water Quality Classification	303(d) Listed Parameter(s) of Interest
Bailey Fork	11-34-8-(3)	WS-IV	
Canoe Creek	11-33-(2)	WS-IV	
Catawba River	11-(31.5); 11-(32.3); 11-(32.7); 11-(34.5)	WS-IV, Tr; WS-IV, CA, Tr; WS-IV; WS-IV, CA	
East Prong Hunting Creek	11-36-1	WS-IV	Fecal Coliform
Fiddlers Run	11-36-1-1	WS-IV	Fecal Coliform
Hunting Creek	11-36-(3)	WS-IV, CA	
Little Silver Creek	11-34-7-(1); 11-34-7-(2)	C; WS-IV	Benthos (Nar, AL, FW)
Mud Creek (Hunting Creek)	11-36-(0.7)a	C	Benthos (Nar, AL, FW), Fish Community (Nar, AL, FW), Fecal Coliform
Pee Dee Branch	11-36-2	WS-IV	Fecal Coliform
Rock Fish Creek (New Kirk Pond, Hunting Creek)	11-36-(0.7)b	C, SW	Fish Community (Nar, AL, FW), Fecal Coliform
Unnamed Tributary to Rock Fish Creek (Hunting Creek)	11-36-(0.7)but1		
Silver Creek	11-34-(0.5); 11-34-(6.5)	C; WS-IV	
Warrior Fork	11-35-(3.7)	WS-IV, CA	
Wilson Creek	11-35-4	WS-IV	

WS-IV: Water Supply Watershed, Class IV

CA: Critical Area of WS Watershed

Tr: Trout Water

C: Class C (Fishable/Swimmable Waters)

Benthos/Fish Community: Impaired Benthic Microorganism/Fish Communities

Nar: Narrative Standard

AL: Aquatic Life

FW: Fresh Waters

3.4 MS4 Interconnection

The MS4 interconnects with the statewide NCDOT MS4 and includes:

- a. The interconnection is receiving and discharging stormwater from the NCDOT MS4. The number of interconnections is unknown.
- b. The City of Morganton MS4 mapping does include NCDOT MS4 outfalls as the mapping program identified stormwater structures regardless of the owner.

3.5 Total Maximum Daily Loads (TMDLs)

With the exception of the Statewide TMDL for mercury listed in Table 3 below, no TMDLs 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.

While the Statewide TMDL for mercury does not require any actions by the NPDES Stormwater Permittee because most mercury in stormwater comes from atmospheric deposition, the City provides Public Education for fish consumption through BMP 5.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Statewide	Mercury	N	N

3.6 Endangered and Threatened Species and Critical Habitat

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

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

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Danaus plexippus</i>	Monarch Butterfly	Insects	Candidate
<i>Hexastylis naniflora</i>	Dwarf-flowered heartleaf	Flowering Plants	Threatened
<i>Alasmidonta varicosa</i>	Brook floater	Clams	Resolved Taxon
<i>Sisyrinchium dichotomum</i>	White irisette	Flowering Plants	Endangered

Scientific Name	Common name	Species Group	Federal Listing Status
<i>Isotria medeoloides</i>	Small whorled pogonia	Flowering Plants	Threatened
<i>Gymnoderma lineare</i>	Rock gnome lichen	Lichens	Endangered
<i>Glyptemys muhlenbergii</i>	Bog turtle	Reptiles	Similarity of Appearance (Threatened)
<i>Tsuga caroliniana</i>	Carolina Hemlock	Conifers and Cycads	Under Review

3.7 Industrial Facility Discharges

The City of Morganton MS4 jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the [NCDEQ Maps & Permit Data web page](#). Industrial facilities are one of the criteria used to determine inspection frequency for illicit discharges, which is described in the City's Illicit Discharge Plan under a separate cover and described in BMP 13.

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
NCG020177	Vulcan Construction Materials-Morganton
NCG020691	Vulcan Materials Co.
NCG030628	American Roller Bearings
NCG030644	Meritor Heavy Vehicle Systems, LLC
NCG050220	Packaging Corporation Of America
NCG050240	Molded Fiber Glass Comp
NCG060392	Case Farms Morganton Division
NCG070085	Hairfield Wilbert Burial Vault
NCG080210	Garbage Disposal Service-Burke
NCG080678	Burke County Garage
NCG080724	Morganton City-Warehouse and Garage
NCG090032	Siegwerk EIC
NCG100074	I 40 Auto Parts Incorporated
NCG100250	Morrison's Body Shop
NCG110083	Catawba River Pollution Control Facility
NCG120067	John's River Waste Management Facility
NCG140410	Southern Concrete Materials
NCG140435	American Concrete Inc

Permit Number	Facility Name
NCG150006	Foothills Regional Airport
NCG160069	Maymead Materials, Inc.-Morganton
NCG170400	Seiren North America, LLC
NCG180090	Vanguard Furniture
NCG180255	Chaddock Home
NCG180260	VLR LLC
NCG210256	Brackett Brothers Corporation
NCG210412	Bridgewater Forest Products
NCGNE0189	The News Herald
NCGNE0957	American Roller Bearing Co
NCGNE1117	Leviton Manufacturing Company, Inc.
NCGNE1237	E.J. Victor, Inc.
NCGNE1277	Siegwerk EIC UV/EB
NCGNE1292	VEKA East, Inc.
NCGNE1411	Jackson Corrugated
NCS000009	SGL Carbon, LLC
NCS000332	Hexion Morganton Facility

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Morganton as summarized in Table 6 below. Only emergency firefighting activities are considered an allowable non-stormwater discharge. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. Discharges from firefighting training activities and vehicle washing are not allowable non-stormwater discharges. Allowable and non-allowable stormwater discharges are addressed through Public Education and Outreach and Pollution Prevention and Good Housekeeping BMPs to educate residents and municipal staff.

The City of Morganton has evaluated car and street washing for possible significant water quality impacts. Wash water associated with car washing that does not contain detergents or does not discharge directly into the MS4 is considered incidental. Other vehicle washing discharges that do contain detergents have been evaluated by the City of Morganton. The Division required remedy for an illicit connection from a wash station at the rehouse Garage facility identified during the audit. This municipal wash station is currently in compliance with the required regulations. The City is also aware of several car-washing businesses. These identified businesses and, their associated car-washing practices are addressed through BMPs to educate residents, business-owners, and municipal staff on the possible effects of detergents entering the surface waters as well as illicit discharge inspections.

The City uses a “wet” street sweeper and therefore street wash water has been evaluated. The street sweeper generates a mist that dampens solids to keep dust down and allow for collection but does not discharge enough water to create runoff. Wet solids from the street sweeper are stored at a City-owned facility with procedures for covered storage and handling; therefore, street wash water is considered an incidental water quality impact.

Table 6: Non-Stormwater Discharges

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

3.9 Target Pollutants and Sources

In addition to possible non-stormwater discharges identified above, the City of Morganton is aware of other significant water quality issues within the permitted MS4 area. These include impairments listed in Section 3.3, as well as those described in the following:

- [Hunting Creek Watershed Plan \(2011\)](#) and [NCDEQ Watershed Plan Fact Sheet](#)
- [Western Piedmont Source Water Protection Plan \(2014\)](#) and [NCDWR Source Water Assessment Program Report for Morganton \(2020\)](#)

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

Table 7: Summary of Target Pollutants and Sources

Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Litter	Residential, Schools, Commercial	Public Education and Outreach, Public Involvement and Participation
Car Washing	Residential, Schools, Commercial and Municipal Operations	Public Education and Outreach, Illicit Discharge Detection and Elimination
Fecal Coliform	Sewer Overflows, Failing Septic Systems, Pet Waste, Wildlife, Illicit Discharges	Public Education and Outreach, Illicit Discharge Detection and Elimination
Fats/Oils/Grease	Residential, Schools, Commercial	Public Education and Outreach, Illicit Discharge Detection and Elimination
Fertilizer/Pesticides/Herbicides	Residential, Commercial, Industrial, Municipal Operations	Public Education and Outreach, Pollution Prevention and Good Housekeeping
Sediment	Construction, Commercial, Industrial, Municipal Operations	Public Education and Outreach, Construction Site Runoff Control, Post-Construction Site Runoff Control, Pollution Prevention and Good Housekeeping
General Non-Point Source Pollution	Residential, Commercial, Industrial, Municipal Operations	Public Education and Outreach, Post-Construction Site Runoff Control, Pollution Prevention and Good Housekeeping
Illicit Discharges/Illegal Dumping/Improper Disposal of Waste	Residential, Commercial, Industrial, Municipal Operations	Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection and Elimination, Pollution Prevention and Good Housekeeping
Mercury (Fish Consumption) – Statewide TMDL	Atmospheric Deposition	Public Education and Outreach

Part 4: Stormwater Management Program Administration

4.1 Organizational Structure

Stormwater Management Plan implementation, post-construction stormwater reviews, and some inspections are managed by the Development and Design Services Department. Municipal operations and some inspections are implemented under the Public Works Department. The Pesticide, Herbicide, and Fertilizer Management Program is administered by the Public Works Department, but certifications are maintained by the Recreation Department. Dedicated stormwater staff facilitate compliance with the permit, which will be jointly overseen by Development and Design Services and Public Works. Figure 4 shows the organizational structure of the City and Table 8 provides a summary of the responsible positions for specific SWMP components.

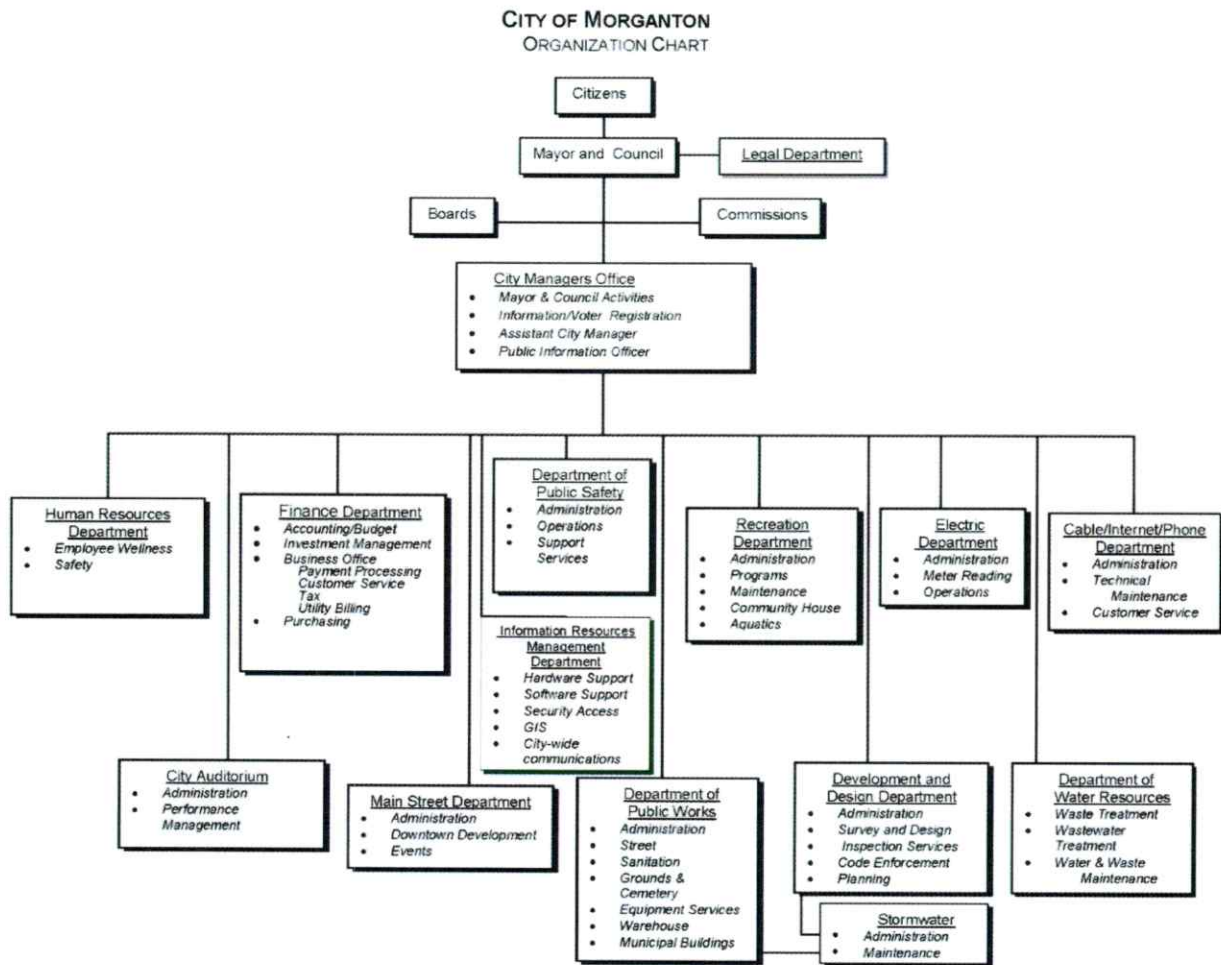


Figure 4: City of Morganton Organizational Structure

The City relies on the NCDEQ to perform Construction Site Runoff Control and has partnered with the Western Piedmont Council of Governments (WPCOG) to implement Public Education and Outreach and Public Involvement and Participation activities.

Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Stormwater Administrator	Tom Warburton	Development and Design Services
SWMP Management	Stormwater Administrator	Tom Warburton	Development and Design Services
Public Education and Outreach	WPCOG	John Wear	WPCOG
Public Involvement and Participation	WPCOG	John Wear	WPCOG
Illicit Discharge Detection and Elimination	Stormwater Administrator	Tom Warburton	Development and Design Services
Construction Site Runoff Control	NCDEQ Asheville Office	NCDEQ Asheville Office	NCDEQ Asheville Office
Post-Construction Stormwater Management	City Engineer	Mario Sclarandis	Development and Design Services
Pollution Prevention/Good Housekeeping for Municipal Operations	Stormwater Administrator/Public Works Director	Tom Warburton/ Michael Chapman	Development and Design Services/Public Works
Municipal Facilities Operation and Maintenance Program	Public Works Director/ Recreation Director	Michael Chapman/ Bryan Fish	Public Works/ Recreation
Spill Response Program	Public Works Director	Michael Chapman	Public Works
MS4 Operation and Maintenance Program	Public Works Director	Michael Chapman	Public Works
Municipal SCM Operation and Maintenance Program	City Engineer/Public Works Director	Mario Sclarandis/ Michael Chapman	Development and Design Services/Public Works
Pesticide, Herbicide, and Fertilizer Management Program	Public Works Director/ Recreation Director	Michael Chapman/ Bryan Fish	Public Works/ Recreation
Vehicle and Equipment Cleaning Program	Public Works Director	Michael Chapman	Public Works
Pavement Management Program	Public Works Director	Michael Chapman	Public Works
Total Maximum Daily Load (TMDL)	N/A	N/A	N/A

4.2 Program Funding and Budget

In accordance with the issued permit, the City of Morganton shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit. The budget includes the permit administering and compliance fee, which is billed by the Division annually.

The Stormwater Program is funded through the Development and Design Services Department and Public Works Department, and budgets are developed, requested, and allocated annually during the overall City budgeting process. A fiscal analysis to determine if the program has adequate funding to implement this SWMP and comply with the MS4 Permit will be completed as part of BMP **Error! Reference source not found.**

4.3 Shared Responsibility

The City of Morganton will share the responsibility to implement the following minimum control measures, which are at least as stringent as the corresponding NPDES MS4 Permit requirement. The City of Morganton remains responsible for compliance if the other entity fails to perform the permit obligation and may be subject to enforcement action if neither the City of Morganton nor the other entity fully performs the permit obligation. Table 9 below summarizes the specific SWMP BMP or permit requirement met by the shared responsibility, who will be implementing the component and, whether or not a legal agreement to share responsibility is in place.

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity	Legal Agreement (Y/N)
Public Education and Outreach Program – BMP 5/Permit Requirement 3.2.2 and 3.2.4	WPCOG	Y
Public Involvement and Participation Program – BMP 99/Permit Requirement 3.3.2	WPCOG	Y
Construction Site Runoff Control Program – Permit Requirements 3.5.1-3.5.4	NCDEQ	N

4.4 Co-Permittees

There are no other entities applying for co-permittee status under the NPDES MS4 Permit number NCS000498 for the City of Morganton. Table 10 is not applicable as there are no co-permittees.

Table 10: Co-Permittee Contact Information

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

4.5 Measurable Goals for Program Administration

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

Table 11: Program Administration BMPs				
Permit Ref.	2.1.2 Program Implementation Measures to evaluate the performance and effectiveness of the SWMP program components. Modify the program components as necessary to accomplish the intent of the Stormwater Program.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
1.	Annual Self-Assessment			
	Evaluate the performance and effectiveness of the program components at least annually. Results shall be used to modify the program components as necessary to accomplish the intent of the Stormwater Program	1. Prepare, conduct, and document an annual evaluation of the program components	1. Annually – Permit Years 1 – 5	1. Yes/No
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
2.	Permit Renewal Application			
	Submit a permit renewal application package and Draft SWMP no later than 180 days prior to permit expiration	1. Draft SWMP applicable to the proceeding 5 years following permit re-issuance	1. Permit Year 5	1. Yes/No

Table 11: Program Administration BMPs

		2. Certify the stormwater permit renewal application (permit renewal application form and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration	2. Permit Year 5	2. Date of permit renewal application submittal
Permit Ref.	2.1.1: Adequate Funding and Staffing The permittee shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and meet all requirements of this permit.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
3.	Fiscal Analysis			
	Perform a fiscal analysis and explore options to obtain adequate program funding to fully fund the Stormwater Program and meet all requirements of the permit. Select and implement a funding strategy	1. Complete a fiscal gap analysis	1. Permit Year 1	1. Monetary value of funding needed to meet permit requirements
		2. Determine available funding mechanisms and evaluate options	2. Permit Year 2	2. Yes/No/Status
3. Affirm adequate funding for MS4 permit		3. Permit Years 2-3	3. Yes/No	
Permit Ref.	2.2.2: Minimum Control Measures Measures to assure that a written program will be created for all MCMs			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
4.	Documentation			
	Written programs will be created to assure compliance with part 2.2.2 of the MS4 Permit. Written programs shall be reviewed on an annual basis and modified, if needed, to outline the program and needs of the municipality.	1. Develop and maintain written programs for all minimum control measures.	1. Permit Year 1	1. Yes/No
2. Review written programs and modify/update, as needed		2. Annually	2. Yes/No	

Part 5: Public Education and Outreach Program

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

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

Table 12: Summary of Target Pollutants and Audiences

Target Pollutants/Sources	Target Audience(s)
Litter	Residential, Schools, Commercial
Car Washing	Residential, Schools, Commercial
Fecal Coliform	Residential, Schools, Commercial
Fats/Oils/Grease	Residential, Schools, Commercial
Fertilizer/Pesticides/ Herbicides	Residential, Schools, Commercial, Industrial
Sediment	Residential, Schools, Commercial, Industrial
General Non-Point Source Pollution	Residential, Schools, Commercial, Industrial
Illicit Discharges/Illegal Dumping/Improper Disposal of Waste	Residential, Schools, Commercial, Industrial
Mercury (Fish Consumption) – Statewide TMDL	Residential, Schools

The City of Morganton maintains a stormwater webpage on the City website (BMP **Error! Reference source not found.**) that lists the stormwater hotline telephone number (BMP 7) and contacts for stormwater issues:

<https://www.morgantonnc.gov/development-design-services/page/stormwater-information>

Morganton has historically partnered, and will continue to partner, with WPCOG to implement portions of the Public Education and Outreach Program. Partnership commitments are described in BMP 5 and BMP 9.

The City of Morganton will manage, implement, and report the following public education and outreach BMPs.

Table 13: Public Education and Outreach BMPs

BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
5.	<p>Continue to engage with WPCOG for education initiatives and volunteer opportunities that will be administered by WPCOG. Education and volunteer opportunities will focus on residential, school, commercial, and industrial audiences. Target pollutants will include those listed in Tables 7 and 12</p>	<p>1. Monitor WPCOG activities to ensure partnership commitments are met and all target pollutants/ audiences are covered. Perform the following:</p> <ul style="list-style-type: none"> - attend (1) community meeting and/or festival. - visit (2) schools/classrooms. - attend/promote (1) local business or association conference or commercial related public event. - create/distribute (1) mailing providing industrial related stormwater information 	<p>1. Annually – Permit Years 1 – 5</p>	<p>1. Number of events conducted for the defined educational programming, topics completed, and total audience reached.</p>
		<p>2. Review legal agreement to determine if target pollutants or audiences should be revised and meets permit requirements</p>	<p>2. Annually – Permit Years 2 – 5</p>	<p>2. Yes/No</p>

Table 13: Public Education and Outreach BMPs

		3. Renew legal agreement with WPCOG or develop alternate program	3. Permit Year 3	3. Date renewed or alternate program established
Permit Ref.	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site designed to convey the program’s message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with a link to the NCDEQ MS4 webpage for all relevant post-construction requirements, design standards, checklists and/or other materials.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
6.	Stormwater Webpage on City Website			
	Maintain the stormwater webpage on the City website to provide information regarding the stormwater program, MS4 permit requirements, SWMP, applicable ordinances, hotline phone number, links to state Erosion Control information, and links to WPCOG information	1. Review the webpage to determine if all required information is included 2. Maintain and update the stormwater webpage, check for broken links, and upload new material as needed	1. Permit Year 1 2. Annually – Permit Years 1 – 5	1. Yes/No/Status 2. Yes/No
Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
7.	Stormwater Hotline			
		1. Establish a tracking mechanism to document the number and type of calls received	1. Permit Year 1	1. Yes/No

Table 13: Public Education and Outreach BMPs

<p>Maintain the stormwater hotline for citizens to ask stormwater questions and report stormwater issues. Train the hotline operator and identify and train after-hours personnel to direct stormwater calls. The hotline number will be advertised on the stormwater webpage</p>	<p>2. Identify a responsible party to answer the hotline during business hours and after hours</p>	<p>2. Permit Year 1</p>	<p>2. Yes/No</p>
	<p>3. Train responsible parties in general stormwater knowledge, appropriate contacts for stormwater questions, and citizen opportunities within the stormwater program</p>	<p>3. Annually – Permit Years 2 – 5</p>	<p>3. Date of training and number trained</p>
	<p>4. Publicize hotline in materials developed for the stormwater program and posting on stormwater webpage</p>	<p>4. Annually – Permit Years 1 – 5</p>	<p>4. Number of materials developed with stormwater hotline</p>

Part 6: Public Involvement and Participation Program

This SWMP identifies the minimum elements and implementation of a Public Involvement and Participation Program that complies with applicable State, Tribal, and local public notice requirements. The City of Morganton 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 Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
8.	City Council Meeting			
	City staff will schedule stormwater agenda items at City Council Meetings to present the results of the annual self-assessment.	1. Schedule a stormwater agenda item during a City Council meeting	1. Annually – Permit Years 1-5, following submission of annual self-assessment	1. Meeting date
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
9.	Partnership with WPCOG			
	Continue to engage with WPCOG volunteer opportunities that will be administered by WPCOG. Volunteer opportunities will focus on residential, school, commercial, and industrial audiences. Target pollutants will include those listed in Tables 7 and 12	1. WPCOG will hold semi-annual event in spring and fall that will focus on removing litter from public spaces and streams along greenways/trails that have the potential to pollute stormwater.	1. Semi-Annually – Permit Years 1 – 5	1. Number of participants and number of trash bags filled.

Table 14: Public Involvement and Participation BMPs

Stream Cleanup Map				
10.	Create map that shows streams that are accessible from City-owned property to facilitate stream cleanup volunteer opportunities. Record the location and dates of stream cleanups and evaluate the locations to determine if there are areas of concentrated litter and note those "hot spots" on the map	1. Create a map that shows streams accessible from City-owned property	1. Permit Year 2	1. Yes/No
		2. Record the locations and dates of stream cleanups in the City GIS database	2. Permit Year 2	2. Yes/No
		3. Evaluate stream cleanups with the host to determine the amount of litter collected to identify potential litter "hot spots" and add to map	3. Annually – Permit Years 3 – 5	3. Number of litter "hot spots" identified and added to map (if any)

Part 7: Illicit Discharge Detection and Elimination Program

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

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	3.4.1: MS4 Map Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
11.	Update MS4 Map			
	Update the MS4 map to provide stormwater features and structures within the current coverage of the MS4 system within City boundaries. Add information including stormwater conveyances, flow direction, outfalls, and receiving waters. Update the map annually with newly identified or constructed stormwater infrastructure	1. Add receiving waters to the map	1. Permit Year 1	1. Yes/No
		2. Develop current system mapping	2. Permit 3	2. Yes/No
		3. Develop a process for collecting as-built data and incorporating into the existing map	3. Permit Year 3	3. Yes/No
4. Add new conveyances, flow directions, an outfalls to map when located or constructed		4. Continuously – Permit Years 3- 5	4. Number of outfalls added to the map	
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
12.	Review Legal Authority			
	Review existing Nuisance Ordinance (Code of Ordinance Part 8 – Chapter 4) to determine if all illicit discharge requirements are covered (e.g., prohibition of interconnection, enforcement procedures).	1. Review existing ordinance and update if required	1. Permit Year 1	1. Yes/No

Table 15: Illicit Discharge Detection and Elimination BMPs

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
13.	IDDE Plan Document			
	Implement newly developed IDDE Plan to prevent illicit discharges to the MS4 system and waters of the State. Update the document as needed	1. Write SOPs to achieve IDDE Plan goals to identify illicit discharges and trace sources.	1. Permit Year 2	1. Yes/No
14.	Outfall Inspections			
	Perform regular dry weather (no rain in previous 72 hours) outfall inspections to proactively identify illicit discharges according to the schedule identified in the IDDE Plan	1. Inspect 20% of all known major outfalls per year	1. Continuously – Permit Years 1 – 5	1. Percent of outfalls inspected
15.	Annual IDDE Plan Evaluation			
	Perform an annual evaluation of IDDE Plan implementation and effectiveness.	1. Host an evaluation meeting to review the existing Plan	1. Annually – Permit Years 1 – 4 (in conjunction with annual self-assessment)	1. Yes/No

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
16.	Track and Document IDDE Investigations			
	Develop and maintain a centralized tracking and documentation system for illicit discharges that includes the date of illicit discharge, the results of the investigation, and the date closed. Identify "hot-spot" areas, chronic violators, and recurring issues (including sanitary sewer overflows)	1. Create and maintain a documentation system for illicit discharges	1. Permit Year 1	1. Yes/No
		2. Review IDDE reports and identify chronic violators, issues, and/or "hot-spot" areas	2. Annually – Permit Years 1 – 4 (in conjunction with annual self-assessment)	2. (a) Number of potential illicit discharges found, (b) number verified, (c) number resolved/removed, (d) number of enforcement actions taken, and (e) number of chronic violators/ "hot spots" identified
		3. Document the location and date of sanitary sewer overflows and add to the IDDE map	3. Annually - Permit Years 1-5	3. Number of overflows
Permit Ref.	3.4.5: Staff IDDE Training Measures to provide training for municipal staff who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping, or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping, and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	A	B	C	D

Table 15: Illicit Discharge Detection and Elimination BMPs

	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
17.	Staff Training			
	Provide training to educate City staff of indicators of potential illicit discharges and the appropriate avenues through which to report suspected illicit discharge	1. Identify or develop staff training	1. Permit Year 1	1. Yes/No
		2. Identify and train staff with illicit discharge and detection responsibilities	2. Annually – Permit Years 1 – 5	2. Number of staff trained
		3. Identify and train staff with the potential to discover an illicit discharge during routine work activities	3. Annually – Permit Years 1 – 5	3. Number of staff trained
Permit Ref.	3.4.6: IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping, and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
18.	Stormwater Hotline			
	Train the hotline operator and train after-hours personnel to direct IDDE calls. The IDDE reporting hotline number will be advertised on the stormwater webpage.	1. Train personnel to facilitate reporting and provide rapid response to IDDE calls	3. Annually – Permit Years 1 – 5	3. Date of training and number of staff trained

Part 8: Construction Site Runoff Control Program

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

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

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ

The City of Morganton 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
19.	Referral Process Documentation			
	Develop and maintain a method for tracking and documenting the number of construction site runoff control issues referred to NCDEQ. Provide training for City staff who receive calls from the public on the protocols for referral and tracking complaints and implement as a part of the Stormwater Hotline training	1. Create and maintain documentation of construction site runoff control complaints	1. Permit Year 1	1. Yes/No
2. Document the number of violations identified and referred to NCDEQ		2. Annually – Permit Years 2–5	2. Number of violations referred	
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.			
	A	B	C	D

Table 17: Construction Site Runoff Control BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
20.	Review Legal Authority			
	Review existing Nuisance Ordinance for measures to prohibit illicit discharges/illegal dumping/improper disposal of construction waste	1. Review existing ordinance and update if required	1. Permit Year 2	1. Yes/No

Part 9: Post-Construction Site Runoff Control Program

This SWMP identifies the minimum elements to develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, which are located within the City of Morganton 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 City of Morganton implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where 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	Code of Ordinance Part 9 – Chapter 7 – Watershed Protection (1994)/See BMP 22

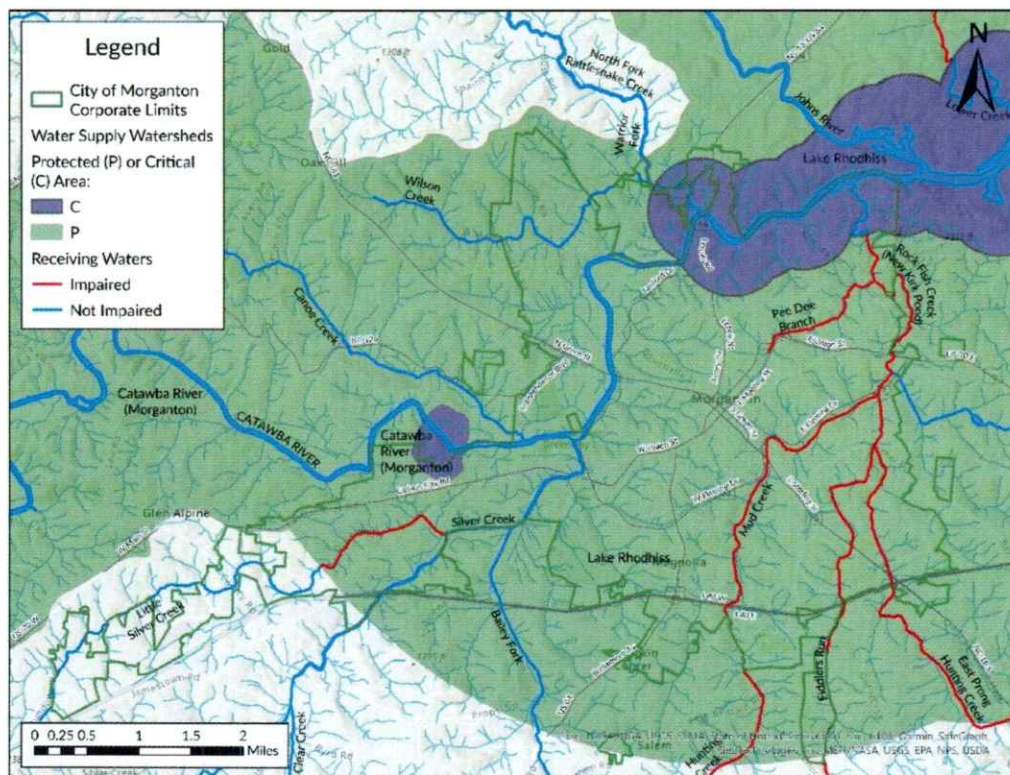


Figure 5: City of Morganton Post-Construction Programs

Part 9/Chapter 7 of the City’s Code of Ordinance describes the Water-Supply Watershed (WSW) rules. Part 9/Chapter 8 of the Ordinance describes the MS4 Post-Construction Rules, which apply throughout the corporate limits. There are several WSW-IV areas in Morganton. The City applies the most stringent ordinance in cases where multiple apply. As part of this plan, the City will review and update the ordinances to meet all post-construction and QAP requirements according to the BMPs described in Table 20 .

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

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for Plan Review and Approval	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(b) Plan Review	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(c) Operations and Maintenance (O&M) Agreement	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(d) O&M Plan	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(e) Deed Restrictions/Covenants	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.3(f) Access Easements	City of Morganton Stormwater Ph II Ordinance	12/3/2007
Permit Requirements for Inspections and Enforcement	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.2(c) Right of Entry	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.4(a) Pre-CO Inspections	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.4(b) Compliance with Plans	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.4(c) Annual SCM Inspections	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.4(d) Low Density Inspections	City of Morganton Stormwater Ph II Ordinance	12/3/2007
3.6.4(e) Qualified Professional	City of Morganton Stormwater Ph II Ordinance	12/3/2007
Permit Requirements for Fecal Coliform Reduction	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	City of Morganton Stormwater Ph II Ordinance	2/4/2008

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

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
21.	Standard Reporting			
	Implement standardized tracking, documentation, inspections, and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/ Qualifying Alternative Program being implemented as listed in Tables 18 and 19	1. Track number of low density and high-density projects with plan reviews, approval and, finalized construction	1. Continuously – Permit Years 2 – 5	1. Annual number of low density and high density projects constructed
		2. Track number of SCM inspections performed	2. Continuously – Permit Years 2 – 5	2. Number of SCM inspections
		3. Track number of low-density inspections performed	3. Continuously – Permit Years 2 – 5	3. Number of low-density projects inspected
		4. Track number and type of enforcement actions taken	4. Continuously – Permit Years 2 – 5	4. Number of enforcement actions issued
Permit Ref.	2.3 and 3.6: Qualifying Alternative Program(s) Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
	A	B	C	D

Table 20: Post Construction Site Runoff Control BMPs

BMP No.	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
22.	WSW Ordinance Review and Update			
	Review and update existing Watershed Protection Ordinance to remove outdated references and to make sure the ordinance complies with the most recent State WSW Rules. Consider simplifying ordinance to combine with the Post-Construction requirements and ensure watershed maps are updated and available for review online	1. Review ordinance and make recommendations for changes	1. Permit Year 1	1. Yes/No
		2. Adopt updated ordinance	2. Permit Years 2	2. Code reference and date adopted
3. Provide a link to the watershed maps on the City's stormwater webpage and regularly review maps for completeness		3. Permit Year 2, and Annually review for Permit Years 3 – 5	3. Date link added to the webpage. Dates maps reviewed	
Permit Ref.	<p>3.6.2: Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.</p>			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
23.	Post-Construction Ordinance Review and Update – Authority This permit requirement is met by the existing post-construction program, see references in Table 19.			

Table 20: Post Construction Site Runoff Control BMPs

Permit Ref.	3.6.3: Plan Review and Approval			
	Measures to maintain plan review and approval authority, standards and procedures to: (a) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire MS4 permitted area, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program, (b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction, (c) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12), (d) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13), (e) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans, and (f) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
24.	Post-Construction Ordinance Review and Update – Government Projects and O&M Plans This permit requirement is met by the existing post-construction program, see references in Table 19.			
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
25.	Post-Construction Ordinance Review and Update - Low-Density Projects This permit requirement is met by the existing post-construction program, see references in Table 19.			
26.	As-Built Inspections			
		1. Identify a responsible party for performing inspections	1. Permit Year 1	1. Responsible party

Table 20: Post Construction Site Runoff Control BMPs

	Develop a program to perform “as-built” post-construction inspections prior to issuing a Certificate of Occupancy (CO) to ensure that the project has been constructed in accordance with the approved plans	2. Perform “as-built” inspections for each project prior to issuing a CO	2. Continuously – Permit Years 2-5	2. Number of “as-built” projects and number of inspections
Permit Ref.	3.6.6: Fecal Coliform Reduction Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
27.	Ordinance Review and Update - Pet Waste Management			
	Review and update the existing animal nuisance ordinance that specifically requires management of pet waste for control of fecal coliform	1. Review ordinance. Update if required	1. Permit Year 1	1. Yes/No

Part 10: Pollution Prevention and Good Housekeeping Programs

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the City of Morganton municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

Pollution prevention and good housekeeping for municipal operations includes the following programs:

1. Municipal Facilities O&M Program
2. Spill Response Program
3. MS4 O&M Program
4. Municipal SCM O&M Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The City of Morganton will manage, implement, and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program.

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.1: Municipal Facilities Operation and Maintenance Program Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
28.	Pollution Prevention and Good Housekeeping (PPGH) Plan Document			
	Implement the newly developed PPGH Plan that includes measures for facilities O&M, spill response, MS4 O&M, municipal SCM O&M, staff training, vehicle maintenance, and pavement management. Perform inspections for each good housekeeping requirement according to the schedule of implementation	1. Maintain a list of municipal facilities and complete an annual inspection for each facility. 2. Hold an evaluation meeting to review the existing Plan and revise if needed	1. Annually – Permit Years 1 – 5 2. Annually – Permit Years 2 – 4 (in conjunction with annual self-assessment)	1. Total number of inspections and number of facilities identified in the list. 2. Report any proposed changes

Table 21: Pollution Prevention and Good Housekeeping BMPs

Staff Training				
29.	Develop or identify a staff training program for general stormwater pollution prevention/spill response/fertilizer training/ vehicle maintenance best practices/ pavement management and overview of the PPGH plans and provide to employees who may handle pollutants	1. Identify or develop staff training program for municipal employees	1. Permit Year 2	1. Yes/No
		2. Train staff that handle pollutants	2. Annually – Permit Years 2 – 5	2. Number of staff trained
Permit Ref.	3.7.2: Spill Response Program Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
Spill Response Program				
30.	Maintain spill response procedures as part of the PPGH Plan and train appropriate staff	1. Train staff that handle pollutants	1. Annually – Permit Years 2 – 5	1. Number of staff trained
Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
Citywide catch basin maintenance				
31.	Implement the newly developed PPGH Plan that includes measures for MS4 O&M.	1. Cleaning of system catch basins along scheduled routes within designated quadrants.	1. Annually – Permit Years 1 – 5	1. Number of catch basins

Table 21: Pollution Prevention and Good Housekeeping BMPs

Permit Ref.	3.7.4: Municipal SCM Operation and Maintenance Program Measures to manage municipally-owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee’s post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
<i>At this time, the City does not own, operate, or maintain any post-construction SCMs.</i>				
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
	Applicator Licensing			
32.	Continue to require City staff who apply landscape chemicals to maintain applicator licenses	1. Require staff to maintain applicator licenses and verify	1. Annually – Permit Years 1 – 5	1. Yes/No
Permit Ref.	3.7.6: Vehicle and Equipment Maintenance Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

Table 21: Pollution Prevention and Good Housekeeping BMPs

NPDES Industrial Permit Compliance				
33.	Ensure NPDES industrial facilities comply with permitting requirements. Determine if Spill Prevention, Control, and Countermeasure (SPCC) Plans are required for any facility. Perform routine general facility inspections to ensure vehicle and equipment facilities are following proper procedures to minimize water quality impacts from washing and maintenance activities.	1. Review industrial NPDES facilities annually for industrial permit compliance and, make changes if required	1. Annually – Permit Years 1 – 5	1. Yes/No
		2. Determine if any of the City-owned facilities require an SPCC Plan	2. Permit Year 1	2. Number of plans
		3. Vehicle washing station inspection and maintenance	3. Annually – Permit Years 1 – 5	3. Yes/No
Permit Ref.	3.7.7: Pavement Management Program Measures to reduce pollutants in stormwater runoff from municipally-owned streets, roads, and parking lots within the permittee’s corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric

Table 21: Pollution Prevention and Good Housekeeping BMPs

Street Sweeping				
34.	Street sweeping following a regular schedule in order to reduce pollutants from city owned and maintained streets and public facilities, such as parks and parking lots	1. Develop street sweeping SOP	1. Permit Year 2	1. Yes/No
		2. Implement SOP to achieve annual cleanup of citywide street system (90 miles).	2. Permit Year 3-5	2. Total street miles swept
		3. Provide public education about stopping vehicle leaks	3. Annually – Permit Years 3 – 5	3. Yes/No
Leaf Collection				
35.	Periodic collection of leaves from residential and public areas to reduce pollutants and clogging of storm system inlets.	1. Develop leaf collection SOP	1. Permit Year 2	Yes/No
		2. Conduct leaf collection activities as defined in SOP	2. Permit Year 3	2. Total street miles of leaf collection
Vehicle spill clean up				
36.	An organized vehicle accident spill cleanup response to prevent pollutants from vehicular accidents from entering the storm drain system.	1. Develop SOP specific to public safety and public works response to accidents	1. Permit Year 2	1. Yes/No
		2. Provide public education about stopping vehicle leaks on stormwater website	2. Permit Year 3	2. Date information added to website.