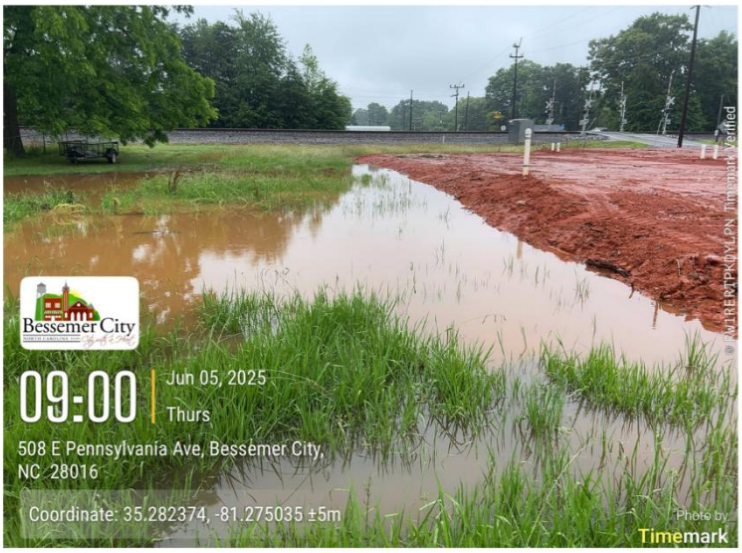
Draft Stormwater Management Plan
City of Bessemer City, NC
NCS000412

July 13, 2026

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City of Bessemer City, NC

NOTE: This draft SWMP is submitted in response to NOV-2026-PC-0162 dated April 13, 2026. It addresses all deficiencies identified in the DEQ MS4 Program Compliance Audit conducted March 4–5, 2026, and presents a credible, phased corrective action plan for the 2026–2031 permit term.











Stormwater = Drinking Water

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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 Bessemer City 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 Bessemer City 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 NCS000412, 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 Bessemer City and located within the corporate limits of the City of Bessemer City.

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

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

PART 2: CERTIFICATION

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

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

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

☐ I am a ranking elected official.

☒ I am a principal executive officer for the permitted MS4.

☐ I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):

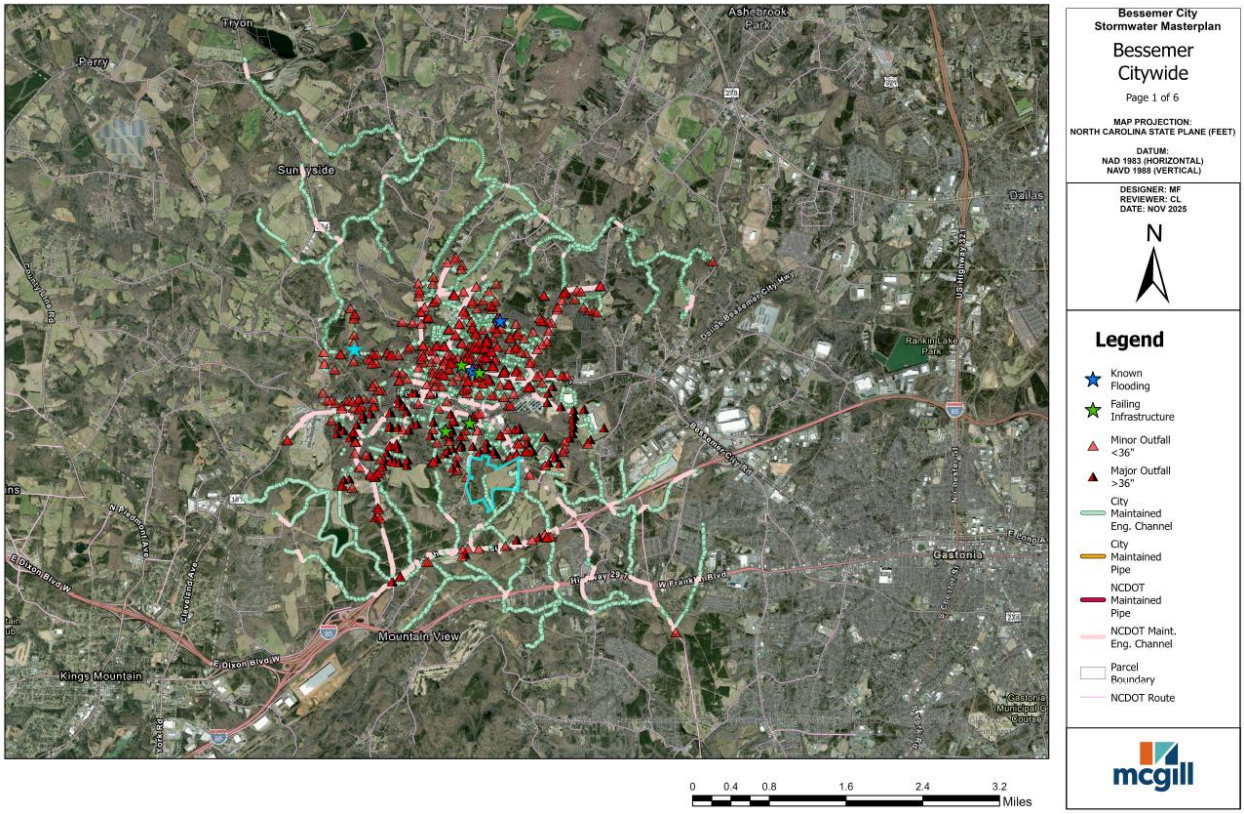
- ☐ A specific individual having overall responsibility for stormwater matters.
- ☐ A specific position having overall responsibility for stormwater matters.

Signature:	
Print Name:	*JOSHUA M. ROSS, MPA*
Title:	*CITY MANAGER*
Signed this 14th day of July 2026 .	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

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



3.2 Existing MS4 Mapping

The current MS4 mapping includes… The City of Bessemer City engaged McGill Associates Engineering to conduct a comprehensive field mapping of the MS4 system, including identification and GPS location of major outfalls, pipe size and material, flow direction, inverts, catch basins, manholes, ditches, and documentation of outfall condition. This mapping project is currently in progress. Preliminary desktop-based mapping identified the following outfalls pending field verification:*[insert link to public MS4 GIS map, if available]*

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	IN PROGRESS	%
No. of Major Outfalls* Mapped	103	total
No. of Minor Outfalls Mapped	387	total
Total Outfalls Mapped	490	total

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

3.3 Receiving Waters

The City of Bessemer City 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

Table 2: Summary of MS4 Receiving Waters

Receiving Water Name	Stream Index / AU Number	Water Quality Classification	303(d) Listed Parameter(s) of Interest
Abernethy Creek	11-135-4	Class C	Not listed. Stream is outside BC limits; UTs originating within BC discharge to it. Classified August 31, 1974.
First Creek (trib. to Abernethy)	11-135-4-1	Class C	Not listed. Outside BC limits; receives UTs from BC. Classified August 31, 1974.
Bessemer Branch	11-135-5	Class C	Not listed. Headwaters within BC limits. Discharges to Crowders Creek, which is subject to TMDLs — see TMDL table below. Classified August 31, 1974.
Oates Creek	11-135-5-1	Class C	Not listed. Headwaters within BC limits. Converges with Bessemer Branch south of I-85; together discharge to Crowders Creek. Classified August 31, 1974.
Long Creek — lower segment (Gaston Co.)	11-129-16-(4)	Class C	Not listed. Primary MS4 discharge area below BC water supply intake. NOTE: Distinct waterbody from Mecklenburg Co. Long Creek (Index 11-120). TMDL applicability under review — see TMDL table below. Classified August 2, 1992.
Long Creek — water supply intake area (Gaston Co.)	11-129-16-(2.3)	WS-II; HQW, CA	Not listed. Protects Bessemer City water supply intake. Catawba Buffer Rules apply. Not a primary MS4 discharge area. Classified August 2, 1992.
Limekiln Creek (trib. to Long Creek)	11-129-16-2	WS-II; HQW	Not listed. Upper tributary; within water supply watershed protection zone. Classified August 2, 1992.
Unnamed trib. to Abernethy Creek via UTs from BC	—	Class C (assumed)	Not separately indexed. UTs originate within BC limits and drain to Abernethy Creek watershed outside BC. Representative monitoring point to be established per BMP 53.

3.4 MS4 Interconnection

The City of Bessemer City MS4 is not interconnected with another regulated MS4 and directly discharges to the receiving waters as listed in Table 2 above.

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

a. The interconnection is/is not receiving stormwater from the NCDOT MS4. The number of interconnections is known/estimated/unknown. Quantity: ## or N/A

b. The interconnection is/is not discharging stormwater into the NCDOT MS4. The number of interconnections is known/estimated/unknown. Quantity: ## or N/A

c. The City of Bessemer City MS4 mapping does/does not identify interconnections with the NCDOT MS4.

d. The City of Bessemer City MS4 mapping does/does not include NCDOT MS4 outfalls.

3.5 Total Maximum Daily Loads (TMDLs)

The TMDL(s) listed in Table 3 below have been approved within the MS4 area, as determined by the map and list provided on the NCDEQ Modeling & Assessment Unit web page. The table also indicates whether the approved TMDL has a specific stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4, and whether a Water Quality Recovery Program has been implemented to address the WLA.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Crowders Creek (1996)	Nutrients (N/P)	N	N
Crowders Creek (2004)	Fecal Coliform	N	N

The City of Bessemer City does not currently have a waste load allocation associated with any approved TMDL applicable to its MS4 service area. In the absence of a formal WLA, the City has identified proactive watershed monitoring as its primary strategy for evaluating water quality conditions and assessing the long-term effectiveness of its stormwater management program. The City intends to establish a continuous water quality monitoring network at strategic locations within its MS4 service area to characterize baseline conditions and identify trends in key water quality parameters over time. A full description of the monitoring program and its associated BMPs is provided in Part 4, Illicit Discharge Detection and Elimination. Monitoring data collected under that program will inform adaptive management decisions and BMP modifications as the City's stormwater program matures.

3.6 Endangered and Threatened Species and Critical Habitat

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

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

Scientific Name	Common name	Species Group	Federal Listing Status
Haliaeetus leucocephalus	Bald Eagle	Bird	BGPA
Glyptemys muhlenbergii	Bogg Turtle	Reptile	T (S/A)
Perimyotis subflavous	Tri-Colored Bat	Mammal	PE
Danaus plexippus	Monarch	Butterfly	PT
Symphyotrichum georgianum	Georgia Aster	Vascular Plant	C
Helianthus schweinitzii	Schweinitz's Sunflower	Vascular Plant	E

3.7 Industrial Facility Discharges

The City of Bessemer City 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
NCG050476	Advanced Drainage Systems Inc, 333 Southridge Pkwy
NCG060375	Bud Antle LLC (Dole), 220 Southridge Pkwy
NCG021049	Piedmont Lithium Carolinas Inc (Rio Tinto)
NCG021053	Piedmont Lithium Carolinas Inc (Rio Tinto)
NCGNE0221	201 Southridge Pkwy

3.8 Non-Stormwater Discharges

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

significantly impact water quality. The City of Bessemer City 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 City of Bessemer City.

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 City of Bessemer City to determine whether they may significantly impact water quality.

The City of Bessemer City has evaluated non-stormwater discharges associated with car washing activities within its MS4 service area. Residential car washing conducted on pervious surfaces with vegetative cover is considered incidental and is not identified as a significant source of stormwater pollution, consistent with DEQ guidance. No citizen complaints related to residential car wash discharge have been received.

However, the City has identified at least one self-service commercial car wash facility operating within the MS4 service area. The discharge pathway and pre-treatment status of this and any similar facilities have not yet been formally evaluated. The City will conduct a full inventory and field evaluation of all commercial car wash facilities as part of its IDDE program. Any facility determined to discharge detergent-laden wash water directly to the MS4 without pre-treatment will be subject to enforcement action under the City's IDDE ordinance. Additionally, the City will pursue adoption of a Land Development Code performance standard requiring wash water reclamation or pre-treatment for all new commercial car wash facilities. A final determination regarding the significance of commercial car wash discharge as a stormwater pollutant source will be incorporated into this SWMP upon completion of the field evaluation. Measures to address these findings are provided in Part 4, Illicit Discharge Detection and Elimination.

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	Incidental
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 those target pollutants identified above, the City of Bessemer City is aware of other significant water quality issues within the permitted MS4 area. These include:

Target Pollutants

Litter
Based upon citizen complaints and staff observation during field activities, the City of Bessemer City has identified litter as an ongoing pollutant of concern within its MS4 service area. Litter generation is a general issue associated with both residential and commercial land uses throughout the City.

Sediment
Based upon citizen complaints and staff observation during field activities, the City of Bessemer City has identified sediment as a pollutant of concern within its MS4 service area. Sediment loading is primarily attributed to active construction activity and the rapid pace of development occurring within the City's watersheds.

Illegal Dumping
Based upon citizen complaints, code enforcement reports, and staff observation during field activities, the City of Bessemer City has identified illegal dumping as a pollutant of concern within its MS4 service area. Multiple dump sites have been identified within the City; efforts to identify responsible parties are ongoing.

Yard Waste
Based upon citizen complaints, the City of Bessemer City has identified yard waste as source of nutrient pollution which is a pollutant of concern within its MS4 service area. Yard waste disposal in or near stormwater conveyances is a general issue associated with residential properties and commercial landscaping crews operating within the City. Municipal maintenance and landscaping activities conducted by the City's Parks and Recreation Department represent a directly controllable internal source.

Pet Waste
Based upon citizen complaints and staff observation during field activities, the City of Bessemer City has identified pet waste as a source of bacterial and nutrient pollution, which is a pollutant of concern within its MS4 service area. Improper disposal or failure to remove pet waste in or near stormwater conveyances, public rights-of-way, and green spaces is a general issue associated with residential properties and pet owners operating within the City.

Fertilizer, Pesticide, and Herbicide Runoff
Based upon staff observation during field activities, the City of Bessemer City has identified fertilizer, pesticide, and herbicide runoff as a pollutant of concern within its MS4 service area. Improper or excessive application of fertilizers, pesticides, and herbicides is a general issue associated with residential properties, commercial landscaping operations, and municipal maintenance activities. The City's Parks and Recreation Department conducts routine turf and vegetation management within City-maintained rights-of-way, parks, and public facilities, and has been identified as a key internal audience for best management practice guidance related to chemical application timing, rates, and methods.

Sources and Target Audiences

Schools
The City of Bessemer City identified schools as a target audience based on the presence of four school facilities within the MS4 service area. Schools generate concentrated pedestrian traffic and are consistently associated with litter as a pollutant of concern. Schools are determined to have a likely significant stormwater impact and are included as a target audience for public education and outreach efforts, with litter identified as the primary target pollutant.

Downtown / Event Areas
The City of Bessemer City identified its downtown area as a target audience due to the concentration of businesses, public spaces, and recurring community events hosted within that area. Event activity concentrates people, temporary food and beverage vendors, and elevated waste streams, increasing the likelihood of litter and illicit discharge entering the stormwater system. The downtown area is determined to have a likely significant stormwater impact and is included as a target audience for public education and outreach efforts, with litter and illicit discharge identified as target pollutants.

Highway Commercial District
The City of Bessemer City identified its growing highway commercial district as a target audience due to the concentration of retail, food service, and commercial businesses along high-traffic corridors. High vehicle traffic volumes and extensive impervious surface coverage create elevated potential for litter, parking lot runoff, and improper waste disposal to enter the stormwater system. The highway commercial district is determined to have a likely significant stormwater impact and is included as a target audience for public education and outreach efforts, with litter and illicit discharge identified as target pollutants.

Industrial Facilities (Southridge Business Park and FMC Lithium)
The City of Bessemer City identified industrial facilities as a target audience based on the presence of Southridge Business Park, which hosts a concentration of NPDES stormwater permit holders, and FMC Lithium, a standalone industrial facility operating within the MS4 service area. Industrial land uses present elevated potential for sediment, chemical, and process-related pollutants to enter the stormwater system. Industrial facilities are determined to have a likely significant stormwater impact and are included as a target audience for public education and outreach efforts, with SCM inspection compliance and pollutant discharge prevention identified as the primary focus areas.

Residential General Population
The City of Bessemer City identified the residential general population as a target audience based on the broad distribution of residential land uses throughout the MS4 service area. Residential areas are consistently associated with litter, yard waste, pet waste, and improper disposal practices as pollutants of

concern. The residential general population is determined to have a likely significant stormwater impact and is included as a target audience for public education and outreach efforts, with litter and yard waste identified as target pollutants.

Construction and Development Community
The City of Bessemer City identified the construction and development community as a target audience based on the active pace of development occurring within the MS4 service area. Construction activity is a primary source of sediment loading to the stormwater system, particularly in watersheds experiencing rapid land disturbance. The construction and development community is determined to have a likely significant stormwater impact and is included as a target audience for public education and outreach efforts, with sediment identified as the primary target pollutant.

Residential, Commercial, and Municipal Chemical Application
The City of Bessemer City identified residential properties, commercial landscaping operations, and municipal staff as target audiences for fertilizer, pesticide, and herbicide management based upon staff observation of application practices within the MS4 service area. Improper or excessive chemical application in proximity to stormwater conveyances, impervious surfaces, and drainage features presents a meaningful potential for nutrient and chemical loading to the MS4. Residential properties and commercial landscaping operations represent a broad and distributed source of potential runoff, while municipal maintenance activities conducted by the City's Parks and Recreation Department represent a directly controllable internal source. All three audiences are determined to have a likely significant stormwater impact and are included as target audiences for public education, outreach, and internal training efforts, with fertilizer, pesticide, and herbicide runoff identified as target pollutants.

Table 7 below summarizes the water quality pollutants identified throughout Part 3 of this SWMP, the likely activities/sources/targeted audiences attributed to each pollutant, and identifies the associated SWMP program(s) that address each. In addition, the City of Bessemer City 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	General residential population; commercial businesses; highway commercial district; downtown area and event attendees; school students and staff	Public Education & Outreach, Public Involvement & Participation, IDDE
Sediment	Active construction sites; development pressure in watersheds; construction and development community	Public Education & Outreach, Construction & Post-Construction Controls
Illegal Dumping	General population; unidentified responsible parties at multiple identified sites	Public Education, IDDE
Yard Waste	General residential population; commercial landscaping crews; Municipal Staff (Parks & Rec)	Public Education, IDDE, Pollution Prevention & Good Housekeeping
Pet Waste	General residential population; event attendees; school students	Public Education, IDDE
Fertilizer / Pesticide / Herbicide Runoff	Residential, Commercial, Municipal Staff (Parks & Rec)	Public Education, IDDE, Pesticide, Herbicide & Fertilizer Management Program

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

The City of Bessemer City manages its NPDES MS4 stormwater program through a streamlined organizational structure with primary responsibility vested in the Stormwater Manager. The Stormwater Manager oversees the full scope of stormwater program administration, including SWMP management, public education and outreach, public involvement and participation, illicit discharge detection and elimination, post-construction stormwater management, pollution prevention and good housekeeping for municipal operations, spill response, MS4 operation and maintenance, municipal SCM operation and maintenance, pesticide and herbicide and fertilizer management, vehicle and equipment cleaning, and Total Maximum Daily Load (TMDL) compliance.

Construction site runoff control is administered through an interlocal agreement with Gaston County Natural Resources, with soil and erosion control inspection functions performed by Gaston County Natural Resources staff. Municipal facilities operation and maintenance and pavement management are the responsibility of the Public Works Director, reflecting the operational nature of those functions within the City's Public Works Department.

Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Stormwater Manager	Jamie Watkins	Stormwater
SWMP Management	Stormwater Manager	Jamie Watkins	Stormwater
Public Education & Outreach	Stormwater Manager	Jamie Watkins	Stormwater
Public Involvement & Participation	Stormwater Manager	Jamie Watkins	Stormwater
Illicit Discharge Detection & Elimination	Stormwater Manager	Jamie Watkins	Stormwater
Construction Site Runoff Control	Soil and Erosion Control Inspector	Gaston County Natural Resources Staff	Gaston County Natural Resources
Post-Construction Stormwater Management	Stormwater Manager	Jamie Watkins	Stormwater
Pollution Prevention/Good	Stormwater Manager	Jamie Watkins	Stormwater

Housekeeping for Municipal Operations			
Municipal Facilities Operation & Maintenance Program	Public Works Director	Jamie Ramsey	Public Works
Spill Response Program	Stormwater Manager	Jamie Watkins	Stormwater
MS4 Operation & Maintenance Program	Stormwater Manager	Jamie Watkins	Stormwater
Municipal SCM Operation & Maintenance Program	Stormwater Manager	Jamie Watkins	Stormwater
Pesticide, Herbicide & Fertilizer Management Program	Stormwater Manager	Jamie Watkins	Stormwater
Vehicle & Equipment Cleaning Program	Stormwater Manager	Jamie Watkins	Stormwater
Pavement Management Program	Public Works Director	Jamie Ramsey	Public Works
Total Maximum Daily Load (TMDL) Requirements	Stormwater Manager	Jamie Watkins	Stormwater

4.2 Program Funding and Budget

In accordance with the issued permit, the City of Bessemer City 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 City of Bessemer City established a Stormwater Utility Enterprise Fund in April 2024 following adoption of the Stormwater Program Rate Study prepared by Withers Ravenel (July 2022). The utility fee structure is based on Equivalent Residential Units (ERUs), with one ERU equal to 3,286 square feet of impervious surface — the average impervious footprint of a single-family residential property in Bessemer City.

Current fee structure (effective FY 2025-2026):

- Residential: $6.00/month per ERU (1 ERU per residential unit)
- Non-residential: $6.00/month per ERU based on total impervious surface

The Stormwater Enterprise Fund is dedicated exclusively to stormwater program costs including permit compliance, administration, public education, infrastructure mapping, engineering review, and capital maintenance. The program is currently in the early stages of building its formal documentation and tracking infrastructure. The Withers Ravenel Rate Study recommends an increase to $8.00/ERU/month effective FY 2028 (approximately July 1, 2028) to keep pace with program cost growth as the 2026–2031 SWMP obligations are implemented. City Council will act on the rate adjustment in advance of that date consistent with the Rate Study recommendation.

The City of Bessemer City has engaged McGill Associates, PA to develop a comprehensive Stormwater Master Plan funded through a Local Assistance for Stormwater Infrastructure Investments (LASII) grant approved in March 2024. The McGill scope of services includes: a complete GIS inventory and condition assessment of the stormwater network; hydrologic and hydraulic modeling using EPA SWMM; identification and detailed evaluation of up to three priority flooding areas of concern; alternative solutions analysis with cost-benefit comparisons; evaluation of future development impacts; a public engagement meeting; and preparation of a Capital Improvement Plan (CIP) and full Stormwater Master Plan document. Total contract value is $340,000. The project was initiated in fall 2024 and is currently in progress; completion is anticipated in permit year 1 of this SWMP. The GIS deliverables from this project will serve as the foundational mapping tool for the IDDE dry weather screening program, MS4 O&M inspections, SCM inventory, and municipal facility mapping described throughout this SWMP.

Upon adoption of the Stormwater Master Plan and Capital Improvement Plan developed by McGill Associates, the City shall commission an updated rate study to evaluate whether the current ERU fee structure is adequate to fund the CIP priorities identified therein. The updated rate study shall be completed within one year of CIP adoption and its findings shall be presented to City Council. The utility rate shall be adjusted as needed to maintain alignment between program obligations, CIP priorities, and available funding. In addition, the City shall review rate adequacy at least once during the 2026–2031 permit term independent of the CIP process. This ensures that the stormwater utility fee remains a credible, self-sustaining funding mechanism commensurate with the program's actual obligations.

4.3 Shared Responsibility

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

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
Permit Ref. 3.2.2 and 3.2.4	Regional Stormwater Partnership of the Carolinas	Y
Permit Ref. 3.5.1 - 3.5.4	Gaston County Natural Resources Department	Y
Permit Re. 3.6.6	Gaston County Natural Resources Department	Y

4.4 Co-Permittees

The are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000412 for the City of Bessemer City. Table 10 summarizes contact information for each co-permittee.

4.5 Measurable Goals for Program Administration

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

Table 11: Program Administration BMPs

Permit Ref.	**2.1.2 Program Implementation** Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**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
2.	**Shared Responsibility (Permit Ref. 1.4)**			

Table 11: Program Administration BMPs				
	Agreements with entities operating on behalf of the City of Bessemer City will be reviewed to confirm that the entity has agreed to implement part of the program on the municipalities behalf and that all required documentation will be submitted to the municipality for documentation and reporting purposes.	1. Review all agreements and confirm that they meet all requirements outlined in 1.4 of the MS4 permit.	1. Permit Year 1	1. Yes/No
3.	**Minimum Control Measures (Permit Ref. 2.2.2)**			
	Written programs will be created to assure compliance with part 2.2.2 of the MS4 Permit. Written programs shall be reviewed on an annual basis and modified if needed to best outline the program and needs of the 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.	2. Annually	2. Yes/No
4.	**Funding and Staffing (Permit Ref. 2.1.1)**			
	The funding and staffing status of the program will be evaluated by appropriate City/Town staff to confirm that the program is meeting permit requirements.	1. Review and analyze the current funding and staffing of the program.	1. Annually	1. Adequate/inadequate
Permit Ref.	**1.6: Permit Renewal Application** Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
5.	**Permit Renewal Application**			
	Submit a permit renewal application and Draft SWMP no later than 180 prior to permit expiration.	1. Draft SWMP applicable to the proceeding 5 years following permit re-issuance.	1. Permit Year 5	1. Yes/No
		2. Certify the stormwater permit renewal application (Permit renewal application form and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	2. Permit Year 5	2. Date of permit renewal application submittal

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The City of Bessemer City 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 Bessemer City 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 residential population; commercial businesses; highway commercial district; downtown area and event attendees; school students and staff
Sediment	Active construction sites; development pressure in watersheds; construction and development community
Illegal Dumping	General population; unidentified responsible parties at multiple identified sites
Yard Waste	General residential population; commercial landscaping crews; Municipal Staff (Parks & Rec)
Pet Waste	General residential population; event attendees; school students
Fertilizer / Pesticide / Herbicide Runoff	Residential, Commercial, Municipal Staff (Parks & Rec)

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

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

Table 13: Public Education and Outreach BMPs				
6.	**Regional Public Education — Broadcast, Streaming, and Social Media Outreach**			
	The City of Bessemer City participates in regional public education and outreach programming facilitated by the Regional Stormwater Partnership of the Carolinas (RSPC) pursuant to the Memorandum of Understanding included in Appendix A. Regional outreach activities include broadcast media (television and radio), streaming platforms, and social media content targeting stormwater awareness across the RSPC service area. Bessemer City benefits from and contributes to regional aggregate outreach efforts conducted on behalf of all member MS4s.	1. Report annually on estimated audience reached through regional radio outreach conducted by the RSPC on behalf of member MS4s.	1. Permit Years 1–5	1. Number Reached
		2. Report annually on estimated audience reached through regional television outreach conducted by the RSPC on behalf of member MS4s.	2. Permit Years 1–5	2. Number Reached
		3. Report annually on estimated audience reached through regional social media outreach conducted by the RSPC on behalf of member MS4s.	3. Permit Years 1–5	3. Number Reached
		4. Report annually on estimated audience reached through regional streaming platform outreach conducted by the RSPC on behalf of member MS4s.	4. Permit Years 1–5	4. Number Reached
7.	**Regional Public Education — Festivals and Events**			
	The City of Bessemer City participates in regional public education and outreach programming facilitated by the Regional Stormwater Partnership of the Carolinas (RSPC) pursuant to the Memorandum of Understanding included in Appendix A. Regional outreach activities include community event participation, such as tabling and distribution of stormwater education materials at local festivals and public gatherings within the RSPC service area.	1. Participate in a minimum of one community event or festival per permit year in partnership with or facilitated by the RSPC.	1. Permit Years 1–5	1. Number of contact hours.
8.	**Education — Festivals and Events**			

Table 13: Public Education and Outreach BMPs				
	The City of Bessemer City conducts local public education and outreach at City-hosted downtown festivals and community events. The Stormwater Manager staffs an informational booth at these events to engage directly with residents, distribute stormwater education materials, and address citizen stormwater concerns.	1. Participate in a minimum of one City-hosted downtown festival or community event per permit year.	1. Permit Years 1–5	1. Number of contact hours.
Permit Ref.	**2.1.7, 3.2.3 and 3.6.5(c): Web Site** Measures to provide a web site designed to convey the program's message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials.			
BMP No.	**A** **Description of BMP**	**B** **Measurable Goal(s)**	**C** **Schedule for Implementation**	**D** **Annual Reporting Metric**
9.	**Stormwater Page on City Website**			
	Maintain a dedicated stormwater page on the City of Bessemer City website containing program information, the current NPDES MS4 permit, adopted SWMP, stormwater ordinances, public education materials, and a mechanism for citizen stormwater concerns and reporting.	1. Maintain and update webpage; post adopted ordinances and final SWMP upon permit approval.	1. Permit Year 1	1. Yes/No
		2. Review and update all webpage content at least annually to ensure accuracy and relevance.	2. Annually, Permit Years 1–5	2. Yes / No
		3. Implement engagement tracking to monitor webpage traffic and page hits.	3. Permit Year 1	3.Yes/No
		4. Report engagement tracking metrics at end of year.	4. Annually beginning Permit Year 2.	4. No of page hits for permit year.
		5. Create and maintain a citizen stormwater complaint and reporting mechanism using ArcGIS Survey123, allowing residents to submit stormwater concerns directly to the Stormwater Manager.	5. Permit Year 2	5. Yes/No
Permit Ref.	**3.2.5: Stormwater Hotline** Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			

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**
10.	**Stormwater Hotline**			
	Maintain a publicly accessible stormwater hotline for residents and staff to ask questions, report stormwater concerns, and request assistance. The current hotline number is 704-729-6510.	1. Maintain hotline and ensure stormwater inquiries are returned promptly.	1. Ongoing, Permit Years 1–5	1. Yes / No
		2. Train all public-facing City staff on hotline referral protocol and general stormwater knowledge, including available citizen reporting opportunities, to ensure stormwater inquiries and complaints are directed to the Stormwater Manager	2. Annually	2. Number of staff trained.
		3. Publicize hotline number in all stormwater outreach materials, educational handouts, and on the City stormwater webpage.	3. Ongoing, Permit Years 1–5	3. Yes / No
		4. Establish a formal call and contact tracking mechanism using ArcGIS Survey123 to log stormwater inquiries and complaints received via the hotline.	4. Permit Year 2	4. Yes/No
		5. Evaluate feasibility of establishing a dedicated stormwater hotline number separate from the Planning and Zoning main line.	5. Permit Year 3	5. Yes/No

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 Bessemer City 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**
11.	**Planning, Zoning, and Stormwater Board — Public Involvement**			
	The City of Bessemer City engages its Planning, Zoning, and Stormwater Board as a mechanism for public involvement in the stormwater program. Stormwater issues, program updates, and topics of public concern are brought before the Board for citizen input and deliberation at least twice per permit year.	1. Include stormwater as a standing agenda item at least four times per year at regularly scheduled Planning, Zoning, and Stormwater Board meetings.	1. Permit Years 1–5	1. Number of meetings.
		2. Document meeting dates, attendance, and stormwater topics discussed at each bi-annual session.	2. Permit Years 1–5	2.Yes/No
		3. Post meeting notices, agendas, and supporting materials on the City stormwater webpage in advance of each bi-annual session.	3. Permit Years 1–5	3.Yes/No
		4. Hold two annual training sessions for Planning, Zoning, and Stormwater Board members, rotating through each of the six minimum control measures over the course of the permit term to build Board familiarity with the full scope of the MS4 program.	4. Permit Years 1–5	4. Yes / No

Table 14: Public Involvement and Participation BMPs				
12.	**Stormwater Page on City Website**			
	Maintain a dedicated stormwater page on the City of Bessemer City website containing program information, the current NPDES MS4 permit, adopted SWMP, stormwater ordinances, public education materials, and a mechanism for citizen stormwater concerns and reporting.	1. Maintain and update webpage; post adopted ordinances and final SWMP upon permit approval.	1. Permit Year 1	1. Yes/No
		2. Review and update all webpage content at least annually to ensure accuracy and relevance.	2. Annually, Permit Years 1–5	2. Yes / No
		3. Implement engagement tracking to monitor webpage traffic and page hits.	3. Permit Year 1	3.Yes/No
		4. Report engagement tracking metrics at end of year.	4. Annually beginning Permit Year 2.	4. No of page hits for permit year.
		5. Develop and deploy a web-based stormwater complaint and inquiry submission form using ArcGIS Survey123, optimized for mobile access, allowing residents to report stormwater concerns directly to the Stormwater Manager without calling the hotline.	5. Permit Year 3	5. Yes / No
13.	**Stormwater Hotline**			
	Maintain a publicly accessible stormwater hotline for residents and staff to ask questions, report stormwater concerns, and request assistance. The current hotline number is 704-729-6510.	1. Maintain hotline and ensure stormwater inquiries are returned promptly.	1. Ongoing, Permit Years 1–5	1. Yes / No
		2. Train all public-facing City staff on hotline referral protocol and general stormwater knowledge, including available citizen reporting opportunities, to ensure stormwater inquiries and complaints are directed to the Stormwater Manager	2. Annually	2. Number of staff trained.

Table 14: Public Involvement and Participation BMPs				
		3. Publicize hotline number in all stormwater outreach materials, educational handouts, and on the City stormwater webpage.	3. Ongoing, Permit Years 1–5	3. Yes / No
		4. Establish a formal call and contact tracking mechanism using ArcGIS Survey123 to log stormwater inquiries and complaints received via the hotline.	4. Permit Year 2	4. Yes/No
		5. Evaluate feasibility of establishing a dedicated stormwater hotline number separate from the Planning and Zoning main line.	5. Permit Year 3	5. Yes/No
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**
14.	**Annual City-Wide Cleanup Event**			
	The City of Bessemer City organizes annual cleanup event(s) to engage volunteers in the removal of litter and debris from public areas, rights-of-way, cemeteries, and stream corridors within the MS4 service area. Events serve as both a public involvement mechanism and a direct pollutant removal activity supporting MS4 program goals.	1. Identify target cleanup areas including but not limited to the Downtown district, Vantine Cemetery, Bessemer City Memorial Cemetery, and stream corridors.	1. Permit Year 1	1. Yes / No
		2. Develop volunteer waiver, safety briefing protocol, and supply and equipment checklist for use at all cleanup events.	2. Permit Year 1	2. Yes / No
		3. Coordinate and document at least one annual city-wide cleanup event, recording volunteer participation and waste collected.	3. Permit Year 2	3. Number of volunteers; number of bags of debris collected.

15.	**Annual Creek Cleanup Event — Community Partnership**			
	The City of Bessemer City will partner with environmental nonprofit organizations, such as the Catawba Riverkeeper, to organize annual creek and stream corridor cleanup events within or adjacent to the MS4 service area. Partnership events leverage existing organizational infrastructure, volunteer networks, and public outreach capacity to maximize participation and pollutant removal outcomes.	1. Identify and establish a partnership with at least one environmental nonprofit organization to co-host an annual creek cleanup event.	1. Permit Year 1	1. Yes / No
		2. Coordinate and document at least one annual creek cleanup event in partnership with an identified nonprofit organization.	2. Annually beginning Permit Year 2	2. Number of volunteers; pounds of debris collected.
		3. Publicize creek cleanup events through City outreach channels, partner organization networks, and social media to maximize volunteer participation.	3. Annually beginning Permit Year 2	3. Yes / No

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

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

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	**3.4.1: MS4 Map** Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
16.	**MS4 System Map**			
	The City of Bessemer City will complete and maintain a comprehensive GIS map of the MS4 system including stormwater conveyances, flow direction, major outfalls, and receiving waters. The MS4 map serves as the foundational tool for outfall inspection, dry weather screening, IDDE field activities, and O&M program implementation.	1. Complete the McGill Associates field mapping project, incorporating major outfall locations with GPS coordinates, pipe material and size data, and receiving water designations.	1. Permit Year 1	1. Yes / No
		2. Divide mapped major outfalls into five geographic inspection sectors to support systematic outfall screening and inspection scheduling.	2. Permit Year 2	2. Yes / No
		3. Update the MS4 map on a continuous basis as new conveyances, outfalls, and stormwater infrastructure are added through development and City capital projects	3. Ongoing, Permit Years 1–5	3. Yes / No
		4. Update SWMP Parts 3.1 and 3.2 to reflect any changes to the MS4 system map, including newly identified conveyances, outfalls, and receiving waters identified through field mapping and ongoing system updates.	4. Ongoing, Permit Years 1–5	4. Yes / No

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	**3.4.2: Regulatory Mechanism** Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
17.	**Commercial Car Wash Facility Evaluation and Outreach**			
	Identify and inventory all commercial car wash facilities operating within the MS4 service area, including self-service, automatic, and ancillary wash bay operations at fuel stations or other commercial uses.	1. Complete facility inventory.	1. Permit Year 1	1. Yes / No
		2. Conduct field evaluation of each identified facility to determine discharge pathway and document existing site conditions and drainage design.	2. Permit Year 2	2. Number of facilities evaluated
		3. Conduct education and outreach with identified facility operators regarding the water quality impacts of detergent-laden wash water discharge and available voluntary best management practices.	3. Permit Year 2-3	3. Number of facilities contacted
		4. Document findings and flag any facility where discharge is attributable to negligent or intentional behavior outside of normal designed operations for potential enforcement action under the City's IDDE ordinance.	4. Annually Beginning Permit Year 3	4. Number of facilities flagged; number of enforcement actions initiated
17.	**LDC Performance Standard for New Commercial Car Wash Facilities**			
	Draft and adopt a Land Development Code performance standard requiring all new commercial car wash facilities to incorporate wash water reclamation, recycling, or pre-	1. Draft performance standard language and present to Planning Board and City Council for adoption.	1. Permit Year 2	1. Yes/No

Table 15: Illicit Discharge Detection and Elimination BMPs				
	treatment systems prior to discharge, regardless of zoning district.	2. Apply adopted performance standard to all new commercial car wash facility site plan applications received after the effective date of adoption.	2. Annually Beginning Permit Year 3	2. Number of new facilities reviewed; number in compliance
18.	**Maintain Legal Authority — IDDE Ordinance**			
	The City of Bessemer City maintains legal authority to prohibit, detect, and eliminate illicit discharges and illicit connections to the MS4 through the City of Bessemer City Code of Ordinances (COO) Chapter 152. The ordinance establishes enforcement procedures, civil penalties, and remediation authority necessary to support the City's IDDE program.	1. Adopt COO Chapter 152 amendments establishing and codifying IDDE enforcement authority.	1. Permit Year 1	1. Yes / No
		2. Post adopted IDDE ordinance on the City stormwater webpage for public access.	2. Permit Year 1	2. Yes / No
		3. Review IDDE ordinance annually and update as needed to reflect changes in regulatory requirements, enforcement experience, or program needs.	3. Permit Years 1–5	3. Yes / No
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: 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**
19.	**Standard Operating Procedure**			

Table 15: Illicit Discharge Detection and Elimination BMPs				
	The City of Bessemer City will draft and maintain a written Illicit Discharge Detection and Elimination Standard Operating Procedure (SOP) covering priority area identification, dry weather screening protocols, source investigation procedures, and elimination and enforcement workflows. The SOP will serve as the operational guide for all IDDE field activities conducted by the Stormwater Manager.	1. Draft written IDDE SOP.	1. Permit Year 1	1. Yes / No
20.	**Autonomous Watershed Water Quality Monitoring Program**			
	The City will establish a continuous in-situ water quality monitoring network at strategic locations along Long Creek to support IDDE activities, establish baseline water quality conditions, and evaluate MS4 program effectiveness over time. Implementation is subject to available funding and resources.	1. Determine total cost to acquire, install, and maintain autonomous monitoring equipment and associated data dashboard.	1. Permit Year 3	1. Yes / No
		2. Identify and pursue applicable funding sources sufficient to execute the monitoring program as designed, including grants, equipment partnerships, and budget appropriations.	2. Permit Year 4	2. Yes / No
		3. If funding was successfully acquired: implement the monitoring program as designed. If funding was not acquired: update the SWMP to reflect revised implementation timeline or modified program scope.	3. Permit Year 5	3. Yes / No
21.	**Outfall Inspections - Dry Weather Screening**			
	The City of Bessemer City will conduct regular dry weather outfall inspections to identify illicit discharges and illicit connections to the MS4. Inspections will be	1. Formalize and document outfall inspection and investigation procedures as part of the IDDE SOP.	Permit Year 1	Yes / No

Table 15: Illicit Discharge Detection and Elimination BMPs				
	conducted systematically across all major outfalls within the MS4 service area using a sector-based approach tied to the City's GIS MS4 map.	2. Divide all mapped major outfalls into five geographic inspection sectors of approximately equal size to support systematic annual screening coverage.	Permit Year 1, following mapping completion	Yes / No
		3. Inspect one sector per permit year, achieving coverage of approximately 20% of all major outfalls annually and full system coverage over the five-year permit term.	Annually beginning Permit Year 2	Number of outfalls inspected
		4. Document all outfall inspections in ArcGIS Survey123 linked to the MS4 GIS map, recording field observations, dry weather flow detections, and follow-up actions.	Annually beginning Permit Year 2	Yes / No
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**
22.	**IDDE Database Tracking System**			
	The City of Bessemer City will develop and implement a database tracking system for IDDE violations, investigations, and follow-up enforcement actions. The system will utilize ArcGIS Survey123 for field data collection linked to the City's MS4 GIS map, providing a documented and auditable record of all IDDE activities.	1. Develop a Potential Illicit Discharge Report form in ArcGIS Survey123 for use during field investigations and citizen complaint follow-up.	1. Permit Year 2	1. Yes / No
		2. Create and maintain a tracking database populated from Survey123 exports, recording investigation results, discharge characterization, closure dates, and enforcement actions taken.	2. Permit Year 2	2. Yes / No

Table 15: Illicit Discharge Detection and Elimination BMPs				
		3. Track and report annually the number of IDDE complaints received from citizens, staff, and other sources.	3. Annually, Permit Years 1–5	3. Number of IDDE complaints received
		4. Track and report annually the number of field investigations initiated, including both complaint-driven and proactive inspection-based investigations.	4. Annually, Permit Years 1–5	4. Number of investigations performed
		5. Track and report annually the number of Notices of Violation issued as a result of IDDE investigations.	5. Annually, Permit Years 1–5	5. Number of NOVs issued
		6. Track and report annually the number of civil penalties or formal enforcement actions issued where NOV compliance was not achieved.	6. Annually, Permit Years 1–5	6. Number of enforcement actions and penalties issued
		7. Track and report annually the number of IDDE cases successfully resolved and closed during the permit year.	7. Annually, Permit Years 1–5	7. Number of cases resolved and closed
		8. Track and report annually the number of IDDE cases remaining open or in progress at the close of the permit year	8. Annually, Permit Years 1–5	8. Number of cases still in progress at end of permit year

Permit Ref.	**3.4.5: Staff IDDE Training** Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
23.	**Staff Training — Illicit Discharge Identification and Reporting**			
	The City of Bessemer City will develop and implement a staff training program to educate municipal employees with potential to observe illicit discharges in the field on indicators of illicit discharges and connections and proper internal reporting procedures. Target departments include Public Works, Parks and Recreation, and the Police Department.	1. Develop a staff training program including identification of illicit discharge indicators, reporting procedures, and contact information for the Stormwater Manager.	1. Permit Year 1	1. Yes / No
		2. Deliver initial training to all target department staff; document attendees, agenda, and date of training.	2. Permit Year 2	2. Number of staff trained
		3. Provide annual refresher training to all target department staff on illicit discharge identification and reporting procedures, capturing both existing employees and new hires in a single annual training cycle.	3. Annually beginning Permit Year 3	3. Number of employees trained.
24.	**IDDE Staff Awareness — Fact Sheets**			
	The City of Bessemer City maintains IDDE awareness fact sheets in municipal employee common areas to reinforce staff knowledge of illicit discharge indicators and internal reporting procedures between formal training cycles.	1. Maintain existing fact sheets currently displayed in the City Hall break room, updating content as needed to reflect current reporting procedures and contact information.	1. Ongoing, Permit Years 1–5	1. Yes / No
		2. . Expand fact sheet posting to include break rooms at the Public Works facility and Parks and Recreation facility.	2. Permit Year 1	2. Yes / No

		3. Conduct an annual in-person inspection of all three fact sheet posting locations to verify materials are displayed, current, and in good condition; replace or update as needed.	3. Annually beginning Permit Year 2	3.Yes/No

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**
25.	**Stormwater Hotline**			
	Maintain a publicly accessible stormwater hotline for residents and staff to ask questions, report stormwater concerns, and request assistance. The current hotline number is 704-729-6510.	1. Maintain hotline and ensure stormwater inquiries are returned promptly.	1. Ongoing, Permit Years 1–5	1. Yes / No
		2. Train all public-facing City staff on hotline referral protocol and general stormwater knowledge, including available citizen reporting opportunities, to ensure stormwater inquiries and complaints are directed to the Stormwater Manager	2. Annually	2. Number of staff trained.
		3. Publicize hotline number in all stormwater outreach materials, educational handouts, and on the City stormwater webpage.	3. Ongoing, Permit Years 1–5	3. Yes / No
		4. Establish a formal call and contact tracking mechanism using ArcGIS Survey123 to log stormwater inquiries and complaints received via the hotline.	4. Permit Year 2	4. Yes/No

		5. Evaluate feasibility of establishing a dedicated stormwater hotline number separate from the Planning and Zoning main line.	5. Permit Year 3	5. Yes/No
26.	**IDDE Report Form in Stormwater Page on City Website**			
	Maintain a dedicated stormwater page on the City of Bessemer City website containing program information, the current NPDES MS4 permit, adopted SWMP, stormwater ordinances, public education materials, and a mechanism for citizen stormwater concerns and reporting.	1. Maintain and update webpage; post adopted ordinances and final SWMP upon permit approval.	1. Permit Year 1	1. Yes/No
		2. Review and update all webpage content at least annually to ensure accuracy and relevance.	2. Annually, Permit Years 1–5	2. Yes / No
		3. Implement engagement tracking to monitor webpage traffic and page hits.	3. Permit Year 1	3.Yes/No
		4. Report engagement tracking metrics at end of year.	4. Annually beginning Permit Year 2.	4. No of page hits for permit year.
		5. Develop and deploy a web-based stormwater complaint and inquiry submission form using ArcGIS Survey123, optimized for mobile access, allowing residents to report stormwater concerns directly to the Stormwater Manager without calling the hotline.	5. Permit Year 3	5. Yes / No

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the City of Bessemer City 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	Gaston County Delegated SPCA Program*	15A NCAC Chapter 04, NCDEQ Approved Delegation, Interlocal Agreement/Joint Resolution, Local Ordinance	Gaston County

* The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: https://www.deq.nc.gov/energy-mineral-and-land-resources/land-quality/2003-vol10-no1-janfebmar-sediments/download

https://library.municode.com/nc/gaston_county/codes/code_of_ordinances?nodeId=COOR_CH4BUCOREAC_ARTIIISOERSECO

https://library.municode.com/nc/gaston_county/codes/code_of_ordinances?nodeId=COOR_CH5.5EN_ARTIISTMA

The City of Bessemer City 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**
27.	**Municipal Staff Training**			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Years 1-5(	1. Number of staff trained,

28.	**Construction Site Runoff Control Reporting and Referral to Delegated SPCA Program**			
	The City of Bessemer City provides and promotes a means for the public to report observed erosion and sedimentation problems at active construction sites. All complaints are received and logged by the Stormwater Manager, who serves as the primary public-facing contact for construction site runoff concerns. Complaints are referred to Gaston County Natural Resources for field investigation and enforcement action pursuant to the Interlocal Agreement for Enforcement Services of the Gaston County Soil Erosion and Sedimentation Control Ordinance, executed May 12, 2025.	1. Develop and document a written complaint intake and referral protocol for construction site runoff complaints, establishing intake procedures, logging requirements, and referral pathway to Gaston County Natural Resources.	1. Permit Year 1	1. Yes / No
		2. Publicize the construction site runoff complaint mechanism through the City stormwater hotline, City website, and outreach materials so that residents know to contact the Stormwater Manager to report erosion and sedimentation concerns.	2. Permit Year 1, ongoing	2. Yes / No
		3. Log all construction site runoff complaints received by the City, including date, location, nature of complaint, and referral date to Gaston County Natural Resources	3. Annually	3. Number of complaints received; number referred to Gaston County Natural Resources

		4. Establish a formal annual reporting protocol with Gaston County Natural Resources requiring the County to provide the City with a summary report of all referred complaints, including number of investigations conducted, notices of violation issued, civil penalties assessed, cases resolved, and cases still outstanding at the close of the permit year. Report shall be received by the City no later than July 31 of each permit year for inclusion in the City's MS4 Annual Self-Assessment.	4. Permit Year 1	4.Yes/No
		5. Receive and incorporate Gaston County Natural Resources annual enforcement summary report into the MS4 Annual Self-Assessment.	5. Annually	5. Yes / No
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**
29.	**Construction Site Waste Management — Legal Authority**			
	The City of Bessemer City maintains legal authority to require construction site operators to control waste including discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at active construction sites through the City of Bessemer City Code of	1. Adopt COO Text Amendment to Chapter 152 establishing construction site litter and debris containment requirements at the July 2026 City Council meeting	1. Permit Year 1	1. Yes / No

	Ordinances Chapter 152. This provision establishes construction site litter and debris containment requirements applicable to all sites regardless of land disturbance size, with joint and several liability assigned to both the contractor and the property owner.	2. Maintain and enforce legal authority through regular site inspections and code enforcement actions as warranted. Update COO & LDC as needed to maintain appropriate enforcement authority.	2. Ongoing, Permit Years 1–5	2.Yes/No
		3.	3.	3.
		4.	4.	4.
30	**Construction Site Waste Management — Contractor Education**			
	The City of Bessemer City will communicate construction site waste management requirements to construction site operators through targeted education and outreach at the pre-construction meeting stage. All permitted construction projects will be required to attend a pre-construction meeting at which waste management requirements under COO Chapter 152 are communicated and documented.	1. Develop a contractor fact sheet summarizing construction site waste management requirements under COO Chapter 152 for distribution at pre-construction meetings.	1. Permit Year 1, following ordinance adoption	1. Yes / No
		2. Post contractor fact sheet on the City website developer resources page.	2. Permit Year 1, following ordinance adoption	2. Yes / No
		3. Require a pre-construction meeting for all permitted construction projects; distribute waste management fact sheet; document attendees and date. Coordinate with the Planning Department to ensure the Stormwater Manager is notified of all active construction permits prior to project commencement so that no project proceeds without a documented pre-construction meeting.	3. Permit Year 2, ongoing	3. 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, that are located within the City of Bessemer City 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 Bessemer City implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

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

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Water Supply Watershed (WS-II)	15A NCAC 2B .0620 - .0624	LDC Chapter 5, Section 5.2 (Gaston County UDO Chapter 15 by reference)
Universal Stormwater Management Program	15A NCAC 2H .1020	LDC Section 5.5 (Post-Construction SCM Standards — adopted July 2026); Gaston County Stormwater Ordinance (Interlocal Agreement May 12, 2025

The City of Bessemer City 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	LDC Section 5.4.A; COO 152.26	Amended January 2026; July 2026
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	LDC Section 5.5.B.3.	July 2026
3.6.3(b) Plan Review	Gaston County Stormwater Ordinance — Interlocal Agreement	May 12, 2025
3.6.3(c) O&M Agreement	LDC Section 5.5.I	July 2026
3.6.3(d) O&M Plan	LDC Section 5.5.I	July 2026
3.6.3(e) Deed Restrictions/Covenants	LDC Section 5.5.H.2(b); 5.5.H.3(d)	July 2026
3.6.3(f) Access Easements	LDC Section 5.5.J	July 2026
Permit Requirements for **Inspections and Enforcement**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	LDC Section 5.5.D(e); 5.5.N	July 2026
3.6.2(c) Right of Entry	LDC Section 5.5.I.1(c); 5.5.K.2	July 2026
3.6.4(a) Pre-CO Inspections	LDC Section 5.5.G	July 2026
3.6.4(b) Compliance with Plans	LDC Section 5.5.G	July 2026
3.6.4(c) Annual SCM Inspections	LDC Section 5.5.K.1	July 2026
3.6.4(d) Low Density Inspections	LDC Section 5.5.K.3	July 2026
3.6.4(e) Qualified Professional	LDC Section 5.5.K.1	July 2026
Permit Requirements for **Fecal Coliform Reduction**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	COO Section 152.24(I)	July 2026
3.6.6(b) On-Site Domestic Wastewater Treatment	LDC Section 5.5.O; Gaston County Health Dept.	July 2026

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**
31.	**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 of enforcement actions issued.

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.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
32.	**Establish Legal Authority – Ordinance Adoption**			
	The City of Bessemer City will adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP). Upon adoption, this permit requirement will be met by the provisions referenced in Table 19, incorporated into the comprehensive ordinance as Exhibits A through H.	1. Adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP), including all exhibits referenced in Table 19.	1. Permit Year 1, July 2026 City Council meeting	1. Yes / No
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**
33.	**Plan Review and Approval- Ordinance Adoption**			

	The City of Bessemer City will adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP). Upon adoption, this permit requirement will be met by the provisions referenced in Table 19, incorporated into the comprehensive ordinance as Exhibits A through H.	1. Adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP), including all exhibits referenced in Table 19.	1. Permit Year 1, July 2026 City Council meeting	1. Yes / No
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** **Description of BMP**	**B** **Measurable Goal(s)**	**C** **Schedule for Implementation**	**D** **Annual Reporting Metric**
34.	**Inspections and Enforcement – Ordinance Adoption**			
	The City of Bessemer City will adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP). Upon adoption, this permit requirement will be met by the provisions referenced in Table 19, incorporated into the comprehensive ordinance as Exhibits A through H.	1. Adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP), including all exhibits referenced in Table 19.	1. Permit Year 1, July 2026 City Council meeting	1. Yes / No
		4.	4.	4.
		5.	5.	5.

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**
35.	**Fecal Coliform Reduction- Ordinance Adoption**			
	The City of Bessemer City will adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP). Upon adoption, this permit requirement will be met by the provisions referenced in Table 19, incorporated into the comprehensive ordinance as Exhibits A through H.	1. Adopt the Comprehensive Ordinance Amending the Bessemer City Land Development Code (LDC); Code of Ordinances (COO); & Adopting the Draft 2026 Stormwater Management Plan (SWMP), including all exhibits referenced in Table 19.	1. Permit Year 1, July 2026 City Council meeting	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 Bessemer City municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

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

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

The City of Bessemer City 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**
36.	**Municipal Facilities Inventory and Inspection Program**			
	The City of Bessemer City will develop and maintain a current inventory of City-owned facilities with the potential to generate polluted stormwater runoff, classify each facility by pollution potential, and implement a structured inspection program to confirm good	1. Compile a list of all City-owned facilities; coordinate with McGill Associates to include in the MS4 mapping project, or compile independently if not included.	1. Permit Year 1	1. Yes / No

Table 21: Pollution Prevention and Good Housekeeping BMPs				
	housekeeping practices and identify potential sources of polluted stormwater runoff. Inspection frequency will be based on each facility's pollution potential classification. All inventoried facilities will be inspected at least once per permit term; facilities classified as high potential will be inspected annually.	2. Conduct initial inspection of all inventoried facilities and classify each as high or low stormwater pollution potential.	2. Permit Year 2	2. No. Hight potential; No. Low potential
		3. Identify facilities requiring Spill Prevention, Control, and Countermeasure (SPCC) plans or NPDES Industrial permits (currently known: Water Treatment Plant; verify all others).	3. Permit Year 1	3. No needing SPCC; No. needing NPDESS Industrial permits
		4. Develop a Standard Operating Procedure (SOP) for facility inspections, including inspection schedule, standardized inspection form, and tracking system.	4. Permit Year 3	4. Yes/No
		5. Implement inspections per SOP; inspect high-potential facilities annually and low-potential facilities at least once per permit term.	5. Annually beginning Permit Year 3	5. No. inspections High/Low.
		6. Document all inspection results and maintain records in the tracking system; update inventory as facilities are added or closed.	6. Continuously, Permit Years 1–5	6. Inventory Current Yes/No
37.	**Staff Training - Stormwater Awareness and Pollution Prevention**			
	The City of Bessemer City will provide staff training on general stormwater awareness and the implementation of pollution prevention and good housekeeping practices at City-owned facilities. Training will be provided to all relevant municipal staff and repeated on a regular basis to ensure consistent awareness and compliance.	1. Develop a general stormwater awareness and pollution prevention training program for municipal staff.	1. Permit Year 1	1. Training program developed: Yes / No
		2. Conduct initial training for all relevant municipal staff.	2. Permit Year 2	2.Number of staff trained
		3. Provide annual refresher training for all relevant municipal staff.	3. Annually beginning Permit Year 3	3. Number of staff trained

Table 21: Pollution Prevention and Good Housekeeping BMPs				
		4. Document attendance and training topics for each training event.	4. Continuously, Permit Years 1–5	4.Total training events; topics covered
		5.	5.	5.
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**
38.	**Spill Response Program**			
	The City of Bessemer City will maintain written spill response procedures for facilities and operations that store or use materials with the potential to contaminate stormwater runoff if spilled. Relevant staff will be identified, trained on spill response procedures, and retrained on a regular basis to ensure preparedness and compliance.	1. Develop written spill response procedures for all facilities and operations with spill potential.	1. Permit Year 1	1. Yes/No
		2. Identify all staff responsible for spill response and reporting.	2. Permit Year 1	2. Yes/No
		3. Conduct spill response training for all identified staff.	3. Annually beginning Permit Year 2	3. Number of Staff Trained
		4. Document any spill incidents and responses.	4. Continuously, Permit Years 1–5	4. No. incidents reported
		5.	5.	5.
39.	**Spill Kit Procurement and Maintenance**			
	The City of Bessemer City will ensure that adequate spill response materials are available at all facilities and operations with spill potential. Spill kits will be procured, distributed to identified locations, and maintained on an ongoing basis to ensure readiness. Adequate funding will be incorporated into the City's budget process to sustain spill kit inventory over the permit term.	1. Identify all facilities and operations requiring spill kits based on the municipal facilities inventory and spill potential classification.	1.Permit Year 1	1. No. facilities ID'd
		2. Procure and distribute spill kits to all identified locations.	2. Permit Year 1	2. No Spill Kits Distributed.
		3. Develop a spill kit inspection and restocking schedule to ensure kits remain adequately supplied.	3. Permit Year 2	3. Yes/No
		4. Replenish used spill kits as soon as incidents are reported.	4. On going- Permit Years 1-5	4. No Replenished (Should match no incidents reported)
		5.	5.	5.

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**
40.	**MS4 Operation and Maintenance - Staff Training**			
	The City of Bessemer City will provide general stormwater awareness and pollution prevention training to all Public Works employees responsible for the operation and maintenance of the MS4 collection system. Training will be developed or sourced from an appropriate program, provided to all relevant staff initially, and repeated annually to ensure ongoing awareness and compliance.	1. Develop or identify an appropriate stormwater awareness and pollution prevention training program for Public Works staff.	1. Permit Year 3	1.
		2. Provide initial training to all Public Works employees.	2. Permit Year 3	2.
		3. Provide annual refresher training for all Public Works employees to ensure continuing awareness and to capture new hires.	3. Annually beginning Permit Year 4	3.
		4.	4.	4.
		5.	5.	5.
41.	**MS4 System Inspections and Maintenance**			
	The City of Bessemer City will implement a proactive inspection and maintenance program for the MS4 stormwater collection system, including catch basins and conveyances, to minimize pollutants in stormwater runoff. A Standard Operating Procedure will establish inspection schedules, documentation requirements, staff responsibilities, and maintenance protocols. Inspection and maintenance activities will be tracked using a GIS-based system to prioritize repairs and demonstrate compliance.	1. Develop an SOP for MS4 system inspections and maintenance, including inspection schedule, documentation requirements, staff responsibilities, and maintenance training.	1. Permit Year 3	1. Yes/No
		2. Implement regular MS4 system inspections per the adopted SOP.	2. Permit Year 3	2.Number of Inspections
		3. Develop a GIS-based inspection and maintenance tracking system using Survey123 and ArcGIS.	3. Permit Year 3	3.Yes/No

Table 21: Pollution Prevention and Good Housekeeping BMPs				
		4. Document all inspection findings and prioritize maintenance activities based on findings.	4. Annually beginning Permit Year 3	4. Yes/No; documentation on file
		5.	5.	5.
.	**BMP Title**			
	Narrative description of BMP	1.	1.	1.
		2.	2.	2.
		3.	3.	3.
		4.	4.	4.
		5.	5.	5.
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**
42.	**Inventory of Municipal SCMs**			
	The City of Bessemer City will develop and maintain a current inventory of all City-owned structural stormwater control measures (SCMs), including SCMs located in public rights-of-way. Known City-owned SCMs include the Public Works sand filter at 321 E. Lee Avenue. Inventory development will be coordinated with McGill Associates as part of the MS4 mapping project. Operation and Maintenance (O&M) plans will be compiled for all inventoried SCMs and the inventory will be updated as new SCMs are constructed.	1. Identify and map all City-owned SCMs, including the Public Works sand filter at 321 E. Lee Avenue and any SCMs in public rights-of-way; coordinate with McGill Associates to include in the MS4 mapping project.	1. Permit Year 1	1. Inventory Complete; Yes/No
		2. Compile Operation and Maintenance (O&M) plans for all inventoried City-owned SCMs.	2. Permit Year 1	2.Number of SCMs & Accompanying O&M manuals compiled
		3. Update inventory as new City-owned SCMs are constructed or existing SCMs are modified or removed.	3. Continuously, Permit Years 1–5	3.Inventory up to date Yes/No
		4.	4.	4.
		5.	5.	5.

Table 21: Pollution Prevention and Good Housekeeping BMPs				
43.	**Municipal SCM Inspections and Maintenance**			
	The City of Bessemer City will implement a regular inspection and maintenance program for all City-owned structural stormwater control measures (SCMs) to ensure continued function and compliance with applicable Operation and Maintenance Agreements. Inspections will be conducted by certified personnel using standardized inspection forms adapted from NCDEQ checksheets and administered through Survey123. Maintenance activities will be performed based on inspection findings and tracked in a dedicated database.	1. Maintain NC SCM Inspection and Maintenance Certification via annual attendance to one or more NC State Trainings/ Workshops.	1. Continuously, Permit Years 1–5	1. At least one training workshop attended; Yes / No
		2. Develop a standardized SCM inspection form using Survey123, adapted from NCDEQ SCM inspection checksheets.	2. Permit Year 2	2. Form Developed; Yes / No
		3. Develop a tracking database to document inspection results and maintenance activities for all City-owned SCMs.	3. Permit Year 2	3.Database Created; Yes / No
		4. Inspect each City-owned SCM annually using the adopted inspection form.	4. Annually beginning Permit Year 3	4. No. of Inspections Performed
		5. Perform all maintenance activities identified through inspections in a timely manner.	5. Annually beginning Permit Year 3	5.Maintenance Log Kept; Yes / No
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**
44.	**Pesticide, Herbicide, and Fertilizer Applicator Training**			

Table 21: Pollution Prevention and Good Housekeeping BMPs				
	The City of Bessemer City will minimize water quality impacts from landscape chemicals used by City staff through maintained applicator certifications, direct supervision requirements, and routine pollution prevention training. All City staff who apply pesticides, herbicides, or fertilizers will be directly supervised by a licensed NC Pesticide Applicator during application. All field supervisors overseeing chemical application crews will be required to obtain and maintain NC Pesticide Applicator certification. Currently, Brandon Willis (Parks & Recreation, License No. 032-9260, Categories L and E) holds an active certification. A compliance tracking system will be established to monitor certification status and renewal deadlines for all relevant staff.	1. Maintain NC Pesticide Applicator License for all City staff who apply landscape chemicals; currently Brandon Willis, Parks & Recreation, License No. 032-9260, Categories L and E.	1. Continuously, Permit Years 1–5	1. Records up to date Yes/No
		2. Compile a list of all City staff who apply pesticides, herbicides, or fertilizers and identify their direct field supervisors.	2. Permit Year 1	2.No of applicators
		3. Require all identified field supervisors to obtain NC Pesticide Applicator certification in applicable categories.	3. Permit Year 2	3.No of supervisors trined
		4. Develop an SOP requiring direct supervision of all chemical application activities by a licensed NC Pesticide Applicator.	4. Permit Year 2	4. Yes / No
		5. Develop a certification tracking log to monitor license status, categories, and renewal deadlines for all relevant staff.	5. Permit Year 2	5. Yes/No
		6. Develop a pollution prevention and chemical use, storage, and handling training program for all relevant staff.	6. Permit Year 2	6. Yes/No

Table 21: Pollution Prevention and Good Housekeeping BMPs				
		7. Provide annual pollution prevention and chemical handling training to all relevant staff.	7. Annually beginning Permit Year 3	7. No. staff trained
Permit Ref.	**3.7.6: Vehicle and Equipment Maintenance Program** Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	**A** **Description of BMP**	**B** **Measurable Goal(s)**	**C** **Schedule for Implementation**	**D** **Annual Reporting Metric**
45.	**NPDES Industrial Permit Compliance**			
	The City of Bessemer City will ensure that all City-owned facilities subject to NPDES Industrial permitting requirements are identified, permitted, and maintained in compliance with applicable permit conditions. The municipal facilities inventory will be used to identify all facilities requiring NPDES Industrial permits. Known facilities include the Water Treatment Plant; all others will be verified. A permit tracking system will be established to monitor permit expiration dates and renewal deadlines, and annual inspections will be conducted at all applicable facilities.	1. Review the municipal facilities inventory to identify all City-owned facilities requiring NPDES Industrial permits.	1. Permit Year 1	1. No. total facilities ID'd.
		2. Confirm the Water Treatment Plant NPDES Industrial permit is current and valid; apply for any permits identified as missing or expired.	2. Permit Year 1	2.Permit Valid Yes/No
		3. Develop a standardized inspection form for NPDES Industrial facility inspections.	3. Permit Year 2	3. Yes/No
		4. Establish a permit tracking spreadsheet documenting all NPDES Industrial permits, expiration dates, and renewal deadlines.	4. Permit Year 2	4.Yes/No
		5. Perform annual inspections at all facilities subject to NPDES Industrial permitting requirements.	5. Annually beginning Permit Year 2	5. No. of inspections performed.
46.	**Vehicle and Equipment Facility Inspections**			

Table 21: Pollution Prevention and Good Housekeeping BMPs				
	The City of Bessemer City will conduct routine inspections of all municipal vehicle and equipment maintenance and cleaning areas to identify and correct potential sources of stormwater contamination. Inspections will be conducted using a standardized checklist. Facility managers will be notified of any required corrective actions identified during inspections, and reinspections will be performed as needed to confirm compliance.	1. Develop a standardized inspection checklist for vehicle and equipment maintenance and cleaning areas.	1. Permit Year 2	1. Yes / No
		2. Perform bi-annual inspections of all applicable facilities using the adopted checklist; notify facility managers of required corrective actions.	2. Twice yearly beginning Permit Year 3	2.No. of Inspections
		3. Perform reinspections as required to confirm corrective actions have been completed.	3.As needed, beginning Permit Year 3	3.No. of Reinspections
		4.	4.	4.
		5.	5.	5.
47.	**Spill Response Program**			
	The City of Bessemer City will maintain written spill response procedures for facilities and operations that store or use materials with the potential to contaminate stormwater runoff if spilled. Relevant staff will be identified, trained on spill response procedures, and retrained on a regular basis to ensure preparedness and compliance.	1. Develop written spill response procedures for all facilities and operations with spill potential.	1. Permit Year 1	1. Yes/No
		2. Identify all staff responsible for spill response and reporting.	2. Permit Year 1	2. Yes/No
		3. Conduct spill response training for all identified staff.	3. Annually beginning Permit Year 2	3. Number of Staff Trained
		4. Document any spill incidents and responses.	4. Continuously, Permit Years 1–5	4. No. incidents reported
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** **Description of BMP**	**B** **Measurable Goal(s)**	**C** **Schedule for Implementation**	**D** **Annual Reporting Metric**
48.	**Leaf Collection**			

Table 21: Pollution Prevention and Good Housekeeping BMPs				
	The City of Bessemer City will implement a periodic leaf collection program serving residential and public areas to reduce the transport of organic matter and associated pollutants into the MS4 stormwater collection system. A Standard Operating Procedure will establish a collection schedule, and the schedule will be made available to the public. Collection activities will be documented annually to track program implementation.	1. Develop a leaf collection SOP including collection schedule and documentation procedures; document tons of material collected annually.	1. Permit Year 1	1. SOP developed Yes/No
		2. Implement the leaf collection program and publish the collection schedule for public access.	2.Permit Year 1	2.Collection Schedule Published Yes/No
		3.Document tons of leaves collected in Annual Report	3.Annually by 31 August	3.Tons of Leaves Collected
		4.	4.	4.
		5.	5.	5.
49.	**Street Sweeping**			
	The City of Bessemer City will implement a regular street sweeping program for City-maintained streets to reduce the accumulation and transport of pollutants in stormwater runoff. The Stormwater Manager will coordinate with the Public Works Director to establish a street sweeping schedule and Standard Operating Procedure. Street sweeping activities will be documented annually to track program implementation and effectiveness.	1. Coordinate with the Public Works Director to establish a street sweeping schedule and Standard Operating Procedure (SOP).	1. Permit Year 1	1. Yes/No SOP created
		2. Implement the street sweeping SOP and document miles swept per year.	2.Annually by 31 Aug	2.Miles of Street Swept
50.	**Spill Response Program**			
	The City of Bessemer City will maintain written spill response procedures for facilities and operations that store or use materials with the potential to contaminate stormwater runoff if spilled. Relevant staff will be identified, trained on spill response procedures, and retrained on a regular basis to ensure preparedness and compliance.	1. Develop written spill response procedures for all facilities and operations with spill potential.	1. Permit Year 1	1. Yes/No
		2. Identify all staff responsible for spill response and reporting.	2. Permit Year 1	2. Yes/No
		3. Conduct spill response training for all identified staff.	3. Annually beginning Permit Year 2	3. Number of Staff Trained
		4. Document any spill incidents and responses.	4. Continuously, Permit Years 1–5	4. No. incidents reported