# City of Creedmoor, North Carolina

# **Comprehensive Stormwater Management Plan Update**

In Support of the City's NPDES Phase II MS4 Permit No. NCS000545



Adopted April 5<sup>th</sup>, 2022



# **CITY OF CREEDMOOR**

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CITY MANAGER Gerald C. Smith Sr.

COMMISSIONERS Kechia Brustmeyer-Brown Georgana Kicinski Ed Mims Robert Way Emma Albright

## **RESOLUTION 2022 – R – 02**

## **Resolution adopting the Stormwater Management Plan Update 2022**

WHEREAS, the City of Creedmoor through its National Pollutant Discharge Elimination System (NPDES) permit is authorized to discharge stormwater from its Phase II Municipal Separate Storm Sewer System (MS4), permit number NCS000545, located within the corporate limits to receiving water of the Sate, Holman Creek, Beaverdam Creek, Cedar Creek, Robertson Creek, and Ledge Creek, within the Neuse River Basin; and

WHEREAS, Section 402(p) of the Federal Clean Water Act requires NPDES permits for stormwater discharge from MS4; and

**WHEREAS**, the Department of Environmental Quality (DEQ) Division of Energy, Mineral, and Land Resources is the agency that issues and oversees the NPDES permits in North Carolina; and

WHEREAS, the City of Creedmoor's is working under its second NPDES permit which became effective on February 1, 2018; and

WHEREAS, the NPDES permit is a perpetual permit on a five year permit renewal cycle; and

WHEREAS, within the NPDES permit, Part I-Permit Coverage, the City of Creedmoor is required to have a Stormwater Plan; and

WHEREAS, the permit requires the City of Creedmoor to implement the Stormwater Plan; and

**WHEREAS**, the City of Creedmoor has increased efforts to implement the six minimum measures as required from the MS4 permit and included in the Stormwater Plan; and

WHEREAS, to better reflect these effort the Community Development Department with Raftelis Financial Consultants Inc., in 2020, start work on updating the Stormwater Management Plan; and

**WHEREAS**, the Planning Board at the February 10, 2022 meeting recommended adoption of the Stormwater Management Plan update to the Board of Commissioners: and

WHEREAS, the Board of Commissioners at the March 1, 2022 meeting moved to open a 35-day public comment period for the Stormwater Management Plan update, and set a public hearing on adoption of the Stormwater Management Plan for the April 5<sup>th</sup>, 2022 Board of Commissioners meeting; and

**NOW THEREFORE BE IT RESOLVED** by the City of Creedmoor Board of Commissioners that they do hereby:

- 1. Accepts the recommendation of the Planning Board for adoption of the Stormwater Management Plan
- 2. Adopt the Stormwater Management Plan update as presented.

Adopted this the 5<sup>th</sup> day of April, 2022

Robert W. Whieler

Robert Wheeler, Mayor

Barbara Rouse, City Clerk



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# Acronym List

Abbreviation	Definition
AICP	American Institute of Certified Planners
BMP	Best Management Practice
CAMA	Coastal Area Management Act
CFR	Code of Federal Regulations
CWEP	Clean Water Education Partnership
CZO	Certified Zoning Official
DEMLR	Division of Energy, Mineral, and Land Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
ETJ	Extra Territorial Jurisdiction
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
I&M	Inspection & Maintenance
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
NCAC	North Carolina Administrative Code
NCDEQ	North Carolina Department of Environmental Quality
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NSW	Nutrient Sensitive Water
SCM	Stormwater Control Measure
SL	Session Law
SNAP	Stormwater Nitrogen and Phosphorus Tool
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

## **1** INTRODUCTION

On February 1, 2018, the City of Creedmoor (City) received their second National Pollutant Discharge Elimination System (NPDES) permit (Permit No. NCS000545) from the State of North Carolina Department of Environmental Quality (NCDEQ), Division of Energy, Mineral, and Land Resources (DEMLR), authorizing them to discharge stormwater from the City's municipal separate storm sewer system (MS4) located within the City's corporate limits, to receiving waters of the State including Holman Creek, Beaverdam Creek, Cedar Creek, Robertson Creek and Ledge Creek within the Neuse River Basin. These discharges must be in accordance with the discharge limitations, monitoring requirements, and other permit conditions including the development of this Stormwater Management Plan (SWMP). This permit and plan are effective until February 1, 2023.

This SWMP is required by Part I, paragraphs A and G of the City's NPDES MS4 permit. The objective of the SWMP is to establish how the permit requirements are implemented to achieve permit compliance. The SWMP plan details the program elements to be implemented under the permit program and includes: the specific best management practices (BMPs) that are intended to fulfill the permit requirements; frequency of each BMP; measurable program goals; implementation schedules; and responsible positions.

The City's Department of Community Development is the primary agency responsible for managing the City's NPDES MS4 permit, the MS4 system and the SWMP. Implementation of the requirements within the permit and SWMP activities are coordinated with the Department of Public Works and other applicable City departments as necessary. Funding for the BMPs specified in the SWMP is provided by local stormwater utility fees, except where noted.

The SWMP includes the following core NPDES MS4 permit programs:

1. Public Education and Outreach Program – This program provides the general public and businesses with information on general water quality, pollution prevention, and reporting problems, as well as specialized information on various activities that have the potential to

cause pollution and harm water quality. This information is delivered through a wide range of methods including print, web, radio, social media, presentations, and public events.

2. Public Involvement and Participation Program – This program provides the general public and businesses the opportunity to participate in various programs within the City's SWMP. Litter cleanup events and the Pharmaceutical Drug Disposal Program are available as public volunteer opportunities.

3. Illicit Discharge Detection and Elimination Program – This program is designed to protect water quality by detecting and eliminating pollution sources such as improper sewage or wastewater connections, illegal discharges of hazardous materials, other chemicals and litter. As part of this program, the City enforces the "City of Creedmoor Watershed Protection Ordinance," (Ord. 2018-O-09, ZTA-2018-05) which defines illicit discharges and provides enforcement measures if illicit discharges are discovered. The City is mapping its MS4 system to inspect for and track illicit discharges more efficiently. The City relies on regular inspections of the MS4 system and reports from the public to assist in identifying and eliminating these sources of pollution.

4. Construction Site Stormwater Runoff Control Program – This program is designed to control sediments and other pollutants from construction sites. The NCDEQ Division of Land Resources Erosion and Sediment Control Program effectively meets the requirements of the Construction Site Runoff Controls in the City of Creedmoor by permitting and controlling development activities disturbing one or more acres of land surface and those activities less than one acre that are part of a larger common plan of development.

5. Post-Construction Stormwater Management Program – This program is designed to control the discharge of pollutants in stormwater runoff from new development and applicable redevelopment projects. As part of this program, the City enforces the "City of Creedmoor Watershed Protection Ordinance," which requires structural stormwater controls for new development and applicable redevelopment projects as defined by current State law. The program involves review and approval of project plans as well as site

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inspections and maintenance activities to ensure that treatment practices are properly operated and maintained.

6. Pollution Prevention/Good Housekeeping Program – This program focuses on ensuring that City facilities and field operations are managed in a way that minimizes stormwater pollutant discharges. Stormwater Pollution Prevention Plans and Spill Response Plans are maintained for applicable facilities that conduct activities with the potential for stormwater pollutant discharges. The City conducts inspections and training sessions at these facilities to ensure that requirements are being met. Good housekeeping measures such as street sweeping and off-site car washing have been implemented to reduce pollution.

## **2 BACKGROUND INFORMATION**

## 2.1 Population Served

The City serves a current population of approximately **4,800** people. This is the population based on information from the 2020 census. This data is located at <a href="https://www2.census.gov/programs-surveys/decennial/2020/data/01-Redistricting\_File--">https://www2.census.gov/programs-surveys/decennial/2020/data/01-Redistricting\_File--</a> <a href="PL\_94-171/">PL\_94-171/</a>. Previous years of population data were found on the North Carolina Office of State Budget and Management website

(<u>https://files.nc.gov/ncosbm/demog/muniestbymuni\_2019.html</u>). This population does not have seasonal variability.

## 2.2 Growth Rate

The following table (Table 1) provides historic estimated population data for the City from the North Carolina Office of State Budget and Management website. According to this information, the population growth during the 9-year time period shown was 14%, or 1.5% per year (compounding).

YEAR	POPULATION
2020	4,866
2019	4,703
2010	4,124

Table 1. Population Data for the City of Creedmoor

## 2.3 Jurisdictional & MS4 Service Areas

Figure 1 shows City's official map, which includes the City's jurisdictional boundary as well as the City's Extraterritorial Jurisdictional (ETJ) Areas. The size of these area's as well as the size of the Land Area served by the MS4 are described in further detail below. The MS4 area is the City's jurisdictional boundary (corporate limits).



Figure 1. Official City Map for the City of Creedmoor

1.	Lar	nd Area	of Prim	ary (	Corporate	Limits	5.55	square miles
<b>`</b>	т	1 4	6.0	1	$(\mathbf{G} + 1)$		0.10	• 1

- 2. Land Area of Secondary (Satellite) Corporate 0.12 square miles Limits
- 3. Estimated Land Area served by MS4 5.67 square miles

## 2.4 MS4 Conveyance System

The City's MS4 Conveyance system is currently being mapped by The Wooten Company with an estimated completion date of December 2021. This system is comprised of stormwater drains, concrete structures, culvert pipes, grass swales, and associated outfalls. The system also has several privately-owned stormwater control measures (SCM) and one SCM owned and operated by the City, at the Creedmoor Community Center, built for the purposes of post-construction stormwater management, which were constructed to meet requirements of the NPDES permit and this SWMP. Upon completion of the map, this report will be updated to include a copy.



Figure 2. MS4 Outfalls and Receiving Waters map for the City of Creedmoor

## 2.5 Land Use Composition Estimates

Figure 2 is a zoning map of the City, which shows the various land uses within the City. The estimated size of these areas is provided in the further detail below.

1.	Residential Land Use:	3.16	square miles	30.62%
2.	Commercial Land Use:	0.68	square miles	6.59%
3.	Industrial Land Use:	0.33	square miles	3.20%
4.	Open Space:	6.15	square miles	59.59%



Figure 3. Zoning Map for the City of Creedmoor

## 2.6 Estimation Methodology

GIS mapping information was used to determine the area and ratio of land uses. Simple land area calculations were completed using the following logic:

<b>Residential Areas</b> :	Areas currently zoned for Residential Use
Commercial Areas:	Areas currently zoned for Commercial Use
Industrial Areas:	Areas currently zoned for Industrial Use
Open Space:	Areas currently zoned for Open Space
MS4 Service Area:	Area of the City's Corporate Limits

## 2.7 TMDL Identification

The City is currently not subject to any TMDL nutrient reduction requirements. However, the City does provide nitrogen and phosphorus reduction as part of the Falls Lake Nutrient Management Strategy (SL 2005-190; Falls Lake Rules; S981) The goal of these strategies

is to reduce concentrations of chlorophyll-a concentrations in the Lake.

# **3 RECEIVING STREAMS**

Stormwater from the City is discharged to following designated waters of the State (as shown on Figure 3):

- Holman Creek
- Beaverdam Creek
- Cedar Creek
- Robertson Creek
- Ledge Creek
- Whitaker Branch



Figure 4. City of Creedmoor Designated Waters of the State

# **4 EXISTING WATER QUALITY PROGRAMS**

## 4.1 Local Programs

Local Nutrient Sensitive Waters Strategy:	YES
Local Water Supply Watershed Program:	YES
Delegated Erosion and Sediment Control Program:	NO
CAMA Land Use Plan:	NO

## 4.2 State Programs

Erosion and Sediment Control Program: YES

# **5 PERMITTING INFORMATION**

## 5.1 Organizational Chart

Figure 4 below is the most current Organizational Chart for City departments and staff that are involved the stormwater program implementation.



Figure 5. City of Creedmoor Stormwater Organization Chart

### 5.2 Responsible Party Contact Person

Contact:	Michael Frangos, AICP, CZO
Title:	Stormwater Administrator
Street Address:	111 Masonic Street
PO Box:	PO Box 765
City:	Creedmoor
State:	North Carolina
Zip Code:	27522
Telephone:	(919) 764-1016
Fax Number:	(919) 528-3052
E-mail Address:	mfrangos@cityofcreedmoor.org

## 5.3 Signing Official

Contact:	Michael Frangos, AICP, CZO
Title:	Stormwater Administrator
Street Address:	111 Masonic Street
PO Box:	PO Box 765
City:	Creedmoor
State:	North Carolina
Zip Code:	27522
Telephone:	(919) 764-1016
Fax Number:	(919) 528-3052
Fax Number:	(919) 528-3052
E-mail Address:	mfrangos@cityofcreedmoor.org

## 5.4 Duly Authorized Representative

Under Article 19, Section 2, Subsection 19.14-1 of the Creedmoor Development Ordinance (Appendix A), the City Board of Commissioners shall designate a Stormwater Administrator. Michael Frangos, AICP, CZO, Community Development Director was duly appointed as the Stormwater Administrator for the City on November 20<sup>th</sup>, 2018, by the City Board of Commissioners. This plan will be updated upon any changes to this appointment.

## **6 STORMWATER MANAGEMENT PROGRAM**

## 6.1 Public Education & Outreach on Storm Water Impacts

Pursuant to Federal Regulations 40 CFR Section 122.34 (b) the City will implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

The following sub-sections explain:

- Target audience and pollution sources;
- Program implementation; and
- Program assessment

#### 6.1.1 Target Pollutants and Stressors

The City has defined the target pollutants and stressors that it will address as part of its Public Education and Outreach Program as Nitrogen and Phosphorus. These nutrients in stormwater contribute to the exceedance of chlorophyll-*a* in the Falls Lake Watershed. Non-point sources of these pollutants include yard maintenance and debris, fertilizers and animal waste.

#### 6.1.2 Target Audiences

The City has identified all residents within the City limits, pet owners, and school children as the target audience of their Public Education and Outreach Program. City residents were selected because they are most likely to apply fertilizer on their property, often without the knowledge or training necessary to apply fertilizers properly. Without this knowledge or training, excessive amounts of Nitrogen and Phosphorus can enter the MS4 system. Pet owners were selected because animal waste can also be a contributor of Nitrogen and Phosphorus if not disposed of properly. School Children were selected because educating them about stormwater practices instills a sense of responsibility and environmental stewardship which they can bring home to encourage positive behavior in their families.

#### 6.1.3 Public Outreach and Education Program Implementation

The City's Stormwater Public Education and Outreach Program will provide water quality and pollution prevention messages to educate residents about the ways they can help protect water quality and get involved to help reduce stormwater pollution. The program will provide these messages through the following ways:

> An internet web site. The City's Stormwater Website
>  (https://www.cityofcreedmoor.org/departments-andservices/community-development/planning-zoning/stormwaterprogram/what-you-can-do) will contain information regarding

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the City's NPDES permit, the stormwater hotline /helpline(as described in detail below) and links to public education materials (as described in detail below) and to additional information at the Clean Water Education Partnership (CWEP).

- 2. Public education materials. A wide variety of print media and promotional materials about water quality and pollution prevention will be maintained and provided to the public. This includes brochures and fact sheets. Print media and promotional products will be distributed during public events, presentations, and/or through direct mail.
- 3. Public outreach events. The City's Community Development Office has previously presented a stormwater education booth at the annual Public Works Day event and City of Creedmoor Music Festival, distributed public education materials as described above, displayed a slide show regarding stormwater, and conducted demonstrations regarding impacts to stormwater from erosion. The City will continue to conduct public outreach events, these events may stay the same or change based upon the results of the annual program evaluation.
- 4. Mass media and social media. The City will continue to utilize several media sources to educate the public regarding stormwater. The City will maintain a contract with CWEP to produce and distribute an environmental education media campaign on local television stations. The City will publish one or more educational articles per year in the City's newsletter, Creedmoor Happenings. The City will post one or more articles per year on their Facebook page.
- 5. A stormwater hotline/helpline. The City will continue to maintain a stormwater hotline/helpline and advertise it on the City's stormwater website. The City will also advertise the hotline/helpline on stormwater informational posters which will be displayed throughout the City. The City will maintain a

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tracker to track complaints and outcomes. Calls to any City office regarding stormwater will be routed to the Community Development office, and Community Development employees will provide stormwater education to citizens during the course of these calls.

- School Presentations. The City will continue to maintain a contract with CWEP to conduct an annual stormwater education lesson at South Granville High School.
- 7. Pet Waste Cleanup Stations. The City has installed several pet waste cleanup stations on City owned properties and along the Cross City Trail to educate the public of the importance of cleaning up pet waste in maintaining a healthy environment and waterways. The City will continue to maintain their pet waste stations.
- LED Digital Sign. Next to the City of Creedmoor Community Center an LED digital sign allows stormwater messages to be displayed. The City will continue to post stormwater messages.

#### 6.1.4 Program Assessment

The overall success of the Public Education and Outreach Program is evaluated through the successful implementation of the components of the program and reported with each NPDES MS4 annual report. This plan will be updated should the evaluation find that some measures have not met measurable goals. Additional information regarding program assessment can be found in Table 2 below. Table 2: Public Outreach and Education BMPs.

BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
a. Establish Goals and Objectives	Define the goals and objectives of the Public Education and Outreach program based upon community wide issues	Throughout the permit period, with annual evaluation and updates if necessary	Goals and objectives will be evaluated annually and updated as needed
b. Describe target pollutants	Identify the target pollutant and target pollutant sources the permittee's public education program is designed to address and why they are an issue.	Throughout the permit period, with annual evaluation and updates if necessary	Targeted pollutants will be evaluated annually and updated as needed.
c. Describe targeted audiences	Identify the target audiences likely to have significant stormwater impacts and why they were selected.	Throughout the permit period, with annual evaluation and updates if necessary	Target audiences will be evaluated annually and updated as needed.
d. Describe residential and industrial/commercial issues	Identify and describe residential and industrial/commercial water quality issues such as pollutants, sources of pollutants, and impacts on water quality.	Throughout the permit period, with annual evaluation and updates if necessary	Residential and industrial/commercial issues will be evaluated annually and updated as needed.
e. Informational Website	Promote and maintain Internet web site.	Throughout the permit period, with annual evaluation and updates if necessary	The number of unique and total page visits will be recorded annually
f. Distribute Public Education materials to target audiences	Develop stormwater educational material to appropriate target groups as likely to have a significant stormwater impact.	Throughout the permit period, with annual evaluation and updates if necessary	The number of educational materials that were distributed to target audiences will be recorded annually
g. Maintain hotline/helpline	Maintain and promote a stormwater hotline/helpline for the purpose of public education and outreach	Throughout the permit period, with annual evaluation and updates if necessary	Number of calls to hotline/helpline to report water quality issues will be recorded annually. Number of mechanisms utilized to share hotline/helpline (e.g., brochures, promotional items) will be recorded annually
h. Implement a Public Education and Outreach Program	Establish and implement a public education and outreach program through a combination of approaches designed to reach the target audiences. For each media, event or activity estimate and record the extent of exposure.	Throughout the permit period, with annual evaluation and updates if necessary	Extent of exposure will be recorded annually for each outreach and education strategy

### 6.2 Public Involvement & Participation

Pursuant to Federal Regulations 40 CFR Section 122.34 (b) the City will implement a public involvement and participation program which must, at a minimum, comply with State and local public notice requirements.

The following sub-sections explain:

- The public meeting;
- Program implementation; and
- Program assessment.

#### 6.2.1 Public Meeting

The City held several Board of Commissioners meetings during the first permit term, which are open to public citizens, regarding their stormwater program on May 22, 2012 (discussion regarding potential stormwater utility rates), June 26, 2013 (discussion regarding the Stormwater Utility Ordinance and Stormwater Program for New Development), July 24, 2012 (discussion regarding Interlocal Agreement for Stormwater), and August 28, 2012 (discussion regarding Stormwater Plan Review). The City will bring any update to this plan to the Planning Board and Board of Commissioners for Board approval and public comment.

#### 6.2.2 Public Involvement Program Implementation

The City's Stormwater Public Involvement Program provides residents opportunities to protect water quality and get involved to help reduce stormwater pollution. The program provides these opportunities through the following ways:

- 1. Volunteer Opportunities. The City will provide volunteers the opportunity to help educate their community about stormwater pollution through several events.
  - a. Litter Sweep. The City collaborates with local volunteer groups such as Boy Scouts and local business to clean up litter from local waterways and parks. The City also has annual litter cleanups along roadways in conjunction with the North Carolina

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Department of Transportation's statewide cleanup. Local citizens are invited to participate in these events, which are advertised on the City website.

- b. Operation Medicine Drop. The City hosts a twiceannual collection of unused or expired prescription or over-the-counter medications to keep them out of landfills and from polluting local waterways. A Pharmaceutical drug disposal box is also located in City Hall for year round anonymous disposal of prescription medication.
- 2. An internet website. The City's will continue to maintain a "What You Can Do" page and link to a brochure educating citizens on what they can do to protect stormwater on their website. (https://www.cityofcreedmoor.org/departments-andservices/community-development/planning-zoning/stormwaterprogram/what-you-can-do)
- 3. Community Outreach. The City will continue to collaborate with the community during the development of City land conservation projects including conservation easements, greenway trails, other connections to open space in the City. These projects are supported by the Clean Water Management Trust Fund, the Triangle Land Conservancy, the North American Land Trust, and the Upper Neuse Clean Water Initiative.
- 4. A stormwater hotline/helpline. The City will continue to maintain a stormwater hotline/helpline which is advertised on the City's stormwater website. The City will also advertise the hotline/helpline on stormwater informational posters which will be displayed throughout the City. The City will maintain a tracker to track complaints and outcomes. Calls to any City office regarding stormwater will be routed to the Community Development office, and Community Development employees will provide stormwater education to citizens during the course of these calls.
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## 6.2.3 Program Assessment

The overall success of the Public Involvement and Participation Program is evaluated through the successful implementation of the components of the program and reported with each NPDES MS4 annual report. Additional information regarding program assessment can be found in Table 3 below.

ВМР	Measurable Goals	Schedule for Implementation	Reporting Metric
a. Allow the public an opportunity to review and comment on the Stormwater Program	Conduct at least one public meeting during the permit period to allow the public an opportunity to review and comment on the Stormwater Program.	One public meeting will be held during this permit period	Meeting minutes and attendees from the public meeting will be recorded
b. Establish and implement a volunteer community involvement program	Organize and promote volunteer opportunities to promote ongoing citizen participation in the stormwater program	Evaluation of the program will be conducted annually with updates to the program if necessary.	The number of events and number of volunteers will be recorded annually
c. Mechanism for Public Involvement	Establish a mechanism for public involvement	One public meeting will be held during this permit period. Evaluation of the program will be conducted annually with updates to the program if necessary.	Meeting minutes and attendees from the public meeting will be recorded. The mechanism for public involvement will be evaluated annually and updated as needed.
d. Maintain hotline/helpline	Maintain and promote a stormwater hotline/helpline for the purpose of public involvement	Evaluation of the program will be conducted annually with updates to the program if necessary.	Number of calls to helpline/hotline to report water quality issues will be recorded annually. Number of mechanisms utilized to share hotline/helpline (e.g., brochures, promotional items) will be recorded annually

# Table 3: Public Involvement and Participation BMPs

### 6.3 Illicit Discharge Detection & Elimination

Pursuant to Federal Regulations 40 CFR Section 122.34 (b) the City must:

- a) Develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at Sec. 122.26 (b)(2)) into our MS4;
- b) Develop a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- c) Effectively prohibit, through ordinance, or other regulatory mechanism, nonstorm water discharges into our storm sewer system and implement appropriate enforcement procedures and actions;
- d) Develop and implement a plan to detect and address non-storm water discharges and illegal dumping into our system;
- e) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
- f) Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) if we identify them as significant contributors of pollutants into our MS4:
  - 1) water line flushing,
  - 2) landscape irrigation (including lawn watering & irrigation water)
  - 3) diverted stream flows,
  - 4) rising ground waters,
  - uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)),
  - 6) uncontaminated pumped ground water,
  - 7) discharges from potable water sources,
  - 8) foundation drains,
  - 9) air conditioning condensation,
  - 10) springs,
  - 11) water from crawl space pumps,
  - 12) footing drains,
  - 13) individual residential car washing,

14) flows from riparian habitats and wetlands,

15) de-chlorinated swimming pool discharges, and

16) street wash water

17) Exceptions include: discharges or flows from fire-fighting activities (excluded from the effective prohibition against non-storm water and will only be addressed where they are identified as significant sources of pollutants to waters of the United States).

The following sub-sections explain:

- The BMPs intended to meet program requirements;
- Integral components of the IDDE program;
- Education strategy; and
- Program Assessment.

#### 6.3.1 IDDE Ordinance

The City adopted its Watershed Protection Ordinance (Article 19) on June 18, 2012 and subsequently amended the Ordinance on November 20, 2018 per Ord. 2018-O-09, ZTA-2018-05. Section 6 of this ordinance specifically addresses Illicit Discharges. This ordinance is enforced as part of the NPDES MS4 permit and SWMP. Detailed administration, remediation and enforcement procedures are maintained for the ordinance.

#### 6.3.2 Stormwater System Map

The City has contracted with The Wooten Company to produce a map of the City's MS4 stormwater system. The City will maintain and update the inventory of its MS4 system using Geographic Information Systems (GIS) which includes data for major outfalls and sub-basins. New stormwater infrastructure will be entered into the GIS inventory for new development projects. Inventory data will be stored and maintained digitally. Hard copy maps showing major outfalls and receiving streams can be produced as needed. This report will be updated with a copy of the map once it has been completed

#### 6.3.3 Illicit Discharge Detection and Elimination Program

The City will continue to implement their IDDE program in the following ways:

- Outfall Inspections/Inventory Monitoring of dry weather flows will be conducted by the City's Public Works and Community Development staff during routine maintenance and inspection site visits. If dry weather flows are observed; sensory cues are used and samples are collected to determine if the flow is a pollution source. Immediate follow-up field screening activities are initiated to identify and eliminate pollution sources. Notice of Violation (NOVs) are sent to the property owner if illicit discharges are discovered during the inspection process. The City has created a stormwater inspection tracker to track all stormwater outfall inspections, outcomes and resolutions (if any). The City has also created an IDDE tracker to track any IDDE NOVs and resolutions.
- Water Quality Monitoring Water quality monitoring will be conducted to identify illicit connections and discharges, determine general water quality conditions and target water quality problem areas for additional follow-up actions. Water quality monitoring reports will be produced annually to document findings of the sampling.
- 3. A stormwater hotline/helpline. The City will continue to maintain a stormwater hotline/helpline which is advertised on the City's stormwater website. The City will also advertise the hotline/helpline on stormwater informational posters which will be displayed throughout the City. The City has developed a tracker to track complaints and outcomes. Calls to any City office regarding stormwater will be routed to the Community Development office, and Community Development employees will provide stormwater education to citizens during the course of these calls.

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### 6.3.4 Employee Training

Training about illicit discharges will continue to be provided to a variety of City employees, including Public Works and Stormwater Administration staff, and typically includes:

- How to recognize common illicit discharges;
- Their impact on surface water quality;
- Why protecting surface water is important for the community;
- Pollution prevention practices;
- How to report illicit discharges; and
- How these reports are investigated and enforced.

The City will continue to update information on employee training including names of courses, dates, and certifications.

#### 6.3.5 Public Education and Outreach

The City will continue to maintain a public education and outreach program to inform businesses and the general public about illicit discharges and improper waste disposal and how they impact the environment. This education and outreach program includes instructions regarding the proper method for reporting illicit discharges on the City's website. Public education and outreach items for the IDDE Program are included as a component of the Public Education and Outreach Program described in Section 6.1 above.

#### 6.3.6 Program Assessment

The overall success of the IDDE Program is evaluated through the successful implementation of the components of the program and reported with each NPDES MS4 annual report. Additional information regarding program assessment can be found in Table 4 below.

BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
a. Maintain an Illicit Discharge Detection and Elimination Program	Develop and implement an Illicit Discharge Detection and Elimination Program including provisions for program assessment and evaluation.	The program has been implemented. The program will be maintained throughout the permit period, with annual evaluation and updates if necessary.	The IDDE program will be evaluated annually and updated as needed
b. Maintain appropriate legal authorities	Maintain adequate ordinances or other legal authorities to prohibit illicit discharges and enforce the approved Illicit Discharge Detection and Elimination Program.	The ordinance has been approved and implemented. Annual evaluation and updates will be made throughout the permit period if needed.	The effectiveness of the ordinance will be evaluated annually and updated as needed
c. Develop and maintain a Storm Sewer System Map of Major Outfalls	Map identifying major outfalls and stormwater drainage system components. At a minimum, components include major outfalls and receiving streams. Establish procedures to continue to identify, locate, and update the map of the drainage system.	The Storm Sewer System map is currently being produced with ongoing updates being made as needed.	The system map will be evaluated annually and updated as needed
d. Inspection/detection, tracking and elimination program to detect illicit discharges including dry weather flows	Establish written procedures for detecting and tracing the sources of illicit discharges and for removing the sources or reporting the sources to the State to be properly permitted. Establish and implement tracking of investigations.	The program has been implemented. The program will be maintained throughout the permit period, with annual evaluation and updates if necessary.	Observed discharges, results of investigation, follow up, and case closure dates will be reported annually
e. Provide employee training	Implement training program for appropriate municipal staff, who, as part of their normal job responsibilities, may come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system. The training program shall identify appropriate staff, the schedule for conducting the training and the proper procedures for reporting and responding to an illicit discharge or connection. Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing.	Employee training will be conducted throughout the permit period, with annual evaluation and updates to the training program if necessary.	Document and maintain records of the training provided and the staff trained.

## Table 4: Illicit Discharge and Detection Elimination BMPs

Table 4: Illicit Discharge and Detection Elimination BMPs cont'd

BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
f. Provide public education	Inform public employees, businesses, and general public of hazards associated with illegal discharges and improper disposal of waste.	Public education will be conducted throughout the permit period, with annual evaluation and updates to the education program if necessary	Public Education materials will be evaluated annually and updated as needed
g. Provide a public reporting mechanism	Promote, publicize, and facilitate a reporting mechanism for the public and staff to report illicit discharges and establish and implement citizen request response procedures. Conduct reactive inspections in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party to achieve and maintain compliance.	A public reporting hotline has been implemented. The hotline will remain the permit period, with annual evaluation and updates if necessary	Number of calls to hotline to report illicit discharges will be recorded annually Reports to the hotline and outcomes from those calls will be reported annually
h. Provide a mechanism to enforce the IDDE ordinance	The permittee shall implement a mechanism to track the issuance of notices of violation and enforcement actions. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.	The mechanism to enforce the IDDE program has been implemented via ordinance. Enforcement will continue throughout the permit period, with annual evaluation and updates if necessary	NOVs and enforcement actions will be reported annually

### 6.4 Construction Site Stormwater/Runoff Control

Pursuant to Federal Regulations 40 CFR Section 122.34(b) the City must develop, implement, and enforce a program to reduce pollutants in any storm water runoff into our MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre will be included in our program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with Sec. 122.26(b)(15)(i), we are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites. The program will include the development and implementation of, at a minimum:

- a) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;
- b) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- c) Requirements for 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 impacts to water quality;
- d) Procedures for receipt and consideration of information submitted by the public, and
- e) Procedures for site inspection and enforcement of control measures.

Pursuant to 40 CFR 122.35, an operator of a regulated small MS4 may share the responsibility to implement the minimum control measures with other entities provided:

- a) The other entity, in fact, implements the control measure;
- b) The particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and

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c) The other entity agrees to implement the control measure on behalf of the MS4.

Pursuant to State Requirements in Session Law 2006-246 Section 7 "to obtain a Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater management, [the city] shall, to the extent authorized by law, develop, implement, and enforce a stormwater management plan approved by the Commission that satisfies the six minimum control measures required by Code 40 of Federal Regulations §122.34(b)(1 July 2003 Edition)." Regulated entities may propose using any existing State or local program that relates to the minimum measures to meet, either in whole or in part, the requirements of the minimum measures.

The NCDEQ Division of Land Resources Erosion and Sediment Control Program effectively meets the requirements of the Construction Site Runoff Controls in the City of Creedmoor by permitting and controlling development activities disturbing one or more acres of land surface and those activities less than one acre that are part of a larger common plan of development. This program is authorized under the Sediment Pollution Control Act of 1973 and Chapter 4 of Title 15A of the North Carolina Administrative Code. This program includes procedures for public input, sanctions to ensure compliance, requirements for construction site operators to implement appropriate erosion and sediment control practices, review of site plans which incorporates consideration of potential water quality impacts, and procedures for site inspection and enforcement of control measures. The NCG0 10000 permit establishes requirements for construction site operators to as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

## 6.5 Post Construction Stormwater Management- New Development and Redevelopment

Pursuant to Federal Regulations 40 CFR Section 122.34 (b) the City must develop, implement, and enforce a program to address storm water 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 discharge into our MS4. The program will ensure that controls are in place that would prevent or minimize water quality impacts. The City will at a minimum:

- a) Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for our community;
- b) Use an ordinance or other regulatory mechanism to address postconstruction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law; and
- c) Ensure adequate long-term operation and maintenance of BMPs.

The following sub-sections explain:

- The BMPs intended to meet program requirements;
- Integral components of the program; and
- Program Assessment.

#### 6.5.1 Post Construction Legal Authority

The City has adopted several mechanisms to meet the legal requirements of the Post-Construction Stormwater Management Program including the Postconstruction Stormwater Runoff Controls for Development in the Falls Watershed. The stormwater management and water quality protection promulgated in Rule 15A NCAC 02B .0277 Stormwater Management for New Development, and Rule 15A NCAC 02B .0278 Stormwater Management for Existing Development effectively meets the Post-construction Stormwater Runoff control requirements within the Falls Lake Water Supply.

#### 6.5.2 Stormwater Control Measures

BMP strategies for the City's Post-Construction Stormwater Management program will consist mainly of structural stormwater control measures (SCMs) such as sand filters, wet ponds, wetlands, and bioretention areas. SCMs should be designed in accordance with the *NC Department of Environmental Quality Stormwater Design Manual* (NCDEQ BMP Manual). SCMs will be required on projects that have high density development and disturb more than one-half acre of land for residential or recreational development that is not part of a larger common plan of developer or sale or disturb more than 12,000 square feet of land for non-residential/recreational developments that are not part of a larger common plan of development or sale. In addition, SCMs must be designed to:

• Reduce Nitrogen and Phosphorus loads to not exceed 2.2 and 0.33 pounds per acre per year, respectively;

Control and treat the runoff generated from all surfaces by one inch of rainfall;

• Control the peak flow from the 1-year – 24-hour storm event; and

• Convey the runoff from the 10-year storm event without surcharging the drainage system.

The program will also require proper operation, maintenance, and inspection of SCMs as discussed in Section 6.5.4 below.

#### 6.5.3 Stormwater Permit Plan Review

For a stormwater permit to be reviewed and issued by the City of Creedmoor, several documents must be submitted. The documentation required to apply for a stormwater permit consists of:

• City Stormwater Permit Application;

• SNAP Tool (an interactive Excel spreadsheet that calculates nutrient reduction);

• Three (3) sets of plans;

• A copy of the operations and maintenance manual for the engineered SCM's proposed;

• Application fee (as listed in the City's Fee and Rate Schedule)

All permit requirements will continue to be provided to developers on the City webpage (<u>https://www.cityofcreedmoor.org/departments-and-services/community-</u> development/planning-zoning/stormwater-program/obtaining-stormwater-permits).

#### 6.5.4 SCM Operation and Maintenance Program

The City will continue to require deed restrictions and protective covenants to ensure that SCMs remain consistent with approved plans. Streams and buffer boundaries will be required on all surveys and record plats. An operation and maintenance agreement for SCMs will be required to be referenced on record plats and recorded in deeds. In addition, a maintenance easement will be required to be recorded to provide access to structural SCMs.

The City will also require an operation and maintenance agreement executed by the responsible party (owner) of each SCM. As part of the program, the owner will be required to:

- Conduct annual inspections of SCMs;
- Submit inspection reports to the City;
- Repair any deficiencies in the SCM found during the inspection process;
- Obtain and submit performance and maintenance security or bonds for each SCM annually; and
- Maintain proper records documenting operation and maintenance activities.

Any owner that fails to submit the required documents and properly maintain their SCM may be subject to an enforcement action by the City. The City will continue to maintain electronic copies of all SCM plans, inspection reports, securities/ bonds and enforcement actions.

#### 6.5.5 Program Assessment

The overall success of the Post-Construction Stormwater Management Program is evaluated through the successful implementation of the components of the program and reported with each NPDES MS4 annual report. Additional information regarding program assessment can be found in Table 5 below.

ВМР	Measurable Goals	Schedule for Implementation	Reporting Metric
a. Establish a Post-Construction Stormwater Management Program, including legal authorities	Develop and adopt by ordinance (or similar regulatory mechanism) a program to address stormwater runoff from new development and redevelopment. Implement and enforce the program within 24 months of the permit issue date. Annually review and revise/update as necessary	The City's Watershed Development ordinance has been developed, approved and implemented. Evaluation annually.	The effectiveness of the ordinance will be evaluated annually and updated as needed.
b. Establish strategies which include BMPs appropriate for the MS4	Develop strategies that include a combination of structural and/or nonstructural BMPs. Provide a mechanism to require long-term operation and maintenance of structural BMPs. Require annual inspection reports of permitted structural BMPs performed by a qualified professional (i.e., someone trained and certified by NC State for BMP Inspection & Maintenance).	The stormwater management and water quality protection promulgated in Rule 15A NCAC 02B .0277 Stormwater Management for New Development, and Rule 15A NCAC 02B .0278 Stormwater Management for Existing Development effectively meets the Post-Construction Stormwater Runoff control requirements within the Falls Lake Water Supply.	The effectiveness of the Falls Rules will be evaluated annually and updates to the City's program made as needed
c. Plan reviews	Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre and discharge to the MS4 (including sites that disturb less than one acre that are part of a larger common plan of development or sale).	Plan reviews will be conducted throughout the permit period.	The effectiveness of the plan reviews will be evaluated annually and updated as needed. The number of plans reviewed and approved will be tracked annually.
d. Inventory of projects with post- construction structural stormwater control measures	Maintain an inventory of projects with post- construction structural stormwater control measures installed and implemented at new development and redeveloped sites, including both public and private sector sites located within the permittee's jurisdiction area that are covered by its post construction ordinance requirements.	Inventory has been completed, is updated continuously and evaluated annually.	Number of new SCMs associated with a project that have received a Certificate of Occupancy.

# Table 5: Post-Construction Stormwater Management Program BMPs

BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
e. Deed restrictions and protective covenants	Provide mechanisms such as deed restrictions or protective covenants to ensure development activities will remain consistent with approved plans	Mechanism is complete. Evaluate and update annually as needed. Continuously ensure that deed restrictions and protective covenants are recorded.	New deed restrictions or protective covenants are recorded annually.
f. Long-term Operation and Maintenance of structural SCMs	Require an operation and maintenance plan for the long-term operation SCMs.	O&M requirements have been put in place through the City's Watershed Protection ordinance. Evaluate and update annually as needed. Ensure that O&M plans are required and recorded throughout the permit term. Evaluation conducted annually. Ensure that annual inspections are performed by a qualified professional. Evaluation conducted annually.	Track annual inspection reports, security bonds, and any operation and maintenance activities.
g. Inspections	Conduct and document inspections of each project site covered under performance standards, at least one time during the permit term.	Inspections will be conducted throughout the permit term. The inspection program will be evaluated annually.	Track annual inspections and maintain inspection records.
h. Educational materials and training for developers	Make available through paper or electronic means, ordinances, post-construction requirements, design standards checklists, and other materials appropriate for developers.	Educational materials for developers can be found on the City's website. Evaluation of these materials will be conducted annually.	Education materials will be evaluated annually and updated as needed
i. Enforcement	Track the issuance of notices of violation and enforcement actions. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.	This tracking mechanism has been implemented and will be evaluated annually.	Number of NOVs and other enforcement actions reported annually. The effectiveness of the enforcement mechanism will be evaluated annually.

# Table 5: Post-Construction Stormwater Management Program BMPs cont'd

## 6.6 Pollution Prevention/Good Housekeeping for Municipal Operations

Pursuant to Federal Regulations 40 CFR Section 122.34 (b) the city will develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, the State of North Carolina, or other organizations, our program will include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

The following sub-sections explain:

- The BMPs intended to meet program requirements;
- Integral components of the program;
- Employee education and training; and
- Program assessment.

#### 6.6.1 Inventory of Municipal Facilities and Operations

The City provides an extensive network of municipal operations designed to serve its citizens and keep vital infrastructure functioning properly. All parcels of land owned or operated by the City are examined to determine whether they are included in the Municipal Facilities Inventory within the Pollution Prevention/Good Housekeeping Program. A Standard Administrative Procedure is followed when evaluating parcels for this inventory. Once included in the inventory, facilities will receive:

• Preparation and implementation of a Stormwater Pollution Prevention Plans (SWPPP);

• Regular inspections; and

#### • Annual employee training.

At the time of this report, only the operations the City's Public Works Facility is thought to have potential impact to the City's MS4 system. To reduce any potential impact, the City will maintain operation and maintenance programs and spill prevention plans at the Public Works Facility and any other facilities that are identified later. The City will continue to implement best management practices (described in Section 6.6.2 and 6.6.3 below) to minimize negative impacts to the storm drain system. This is accomplished through a process of:

- Observing and inspecting field operations;
- Updating best management practices and SOPs; and
- Training employees.

#### 6.6.2 Inspection and Maintenance Program at Municipal Facilities

The inspection and maintenance program at the City's Public Works Facility includes:

- Thorough assessment of facility operations and maintenance activities;
- Evaluation of waste disposal and storage methods;
- Evaluation of the stormwater drainage system, including catch basin inlets, structural best management practices and outfalls;
- Review of spill response and clean up procedures with recommended revisions as appropriate;
- Evaluation of housekeeping practices with recommended revisions as necessary to eliminate potential pollution sources;
- Evaluation of outdoor storage areas and recommendations for elimination of potential pollution sources;
- Identification and elimination of dry weather discharges;
- Review and update (if needed) of the SWPPP; and
- Completion of a written report documenting findings and recommendations.

Follow-up inspections, communication and meetings with appropriate personnel will be conducted as necessary to eliminate potential pollution sources. Facility

personnel, typically a supervisor and/or management personnel, will participate in inspections and will be responsible for implementation of SWPPPs and best management practices.

#### 6.6.3 Street Sweeping Operations

Streets can be a significant source of stormwater pollution, particularly leaves, which can contribute nitrogen and phosphorus (the City's target pollutants) to local waterways. In order to address this source, the City will continue to conduct street sweeping operations. The City will continue to contract with *American Road Conservation* to provide quarterly vacuum truck sweeping for all residential areas where curb and gutter are present. The City will continue to maintain documentation regarding each sweeping event including miles swept and pounds of debris collected. The City is in the process of developing an evaluation program for its street sweeping operation, with the goal of determining the amount of nitrogen and phosphorus removed from their roadways on an annual basis. This information will be utilized to determine if street sweeping operations should be adjusted for future permit years.

## 6.6.4 Municipal Owned Stormwater Control Measures and MS4 System

The City currently has one municipally owned SCM, located at the Creedmoor Community Center. This SCM is inspected several times per year. Maintenance is conducted as needed based on inspection results. Standard inspection forms are used to conduct and document inspections with this information maintained in a database.

The City's Public Works staff will continue to conduct cleaning and maintenance of the MS4 system. Services will include, but will not limited to:

• Catch basin cleaning (manually and with jet trucks);

- Catch basin top cleaning (manually and with jet trucks);
- Stormwater pipe cleaning (by jet truck); and
- Repairs if needed.

Crews will also respond to service requests for cleaning of the MS4 system. All work will be recorded and maintained in a spreadsheet.

#### 6.6.5 Employee Staff Training

Training will continue to be conducted for employees at the Public Works facility. The goal of training is to inform employees of the actions necessary to reduce the discharge of pollutants from their facilities/operations and protect water quality. Some of the topics that will included in the training are:

• Description of common pollutants, their sources and water quality impacts;

• Description of the actions they should take to reduce discharges of pollutants, with an emphasis on good housekeeping;

• Description of effective spill response and prevention measures that should be employed at each facility;

• Discussion of typical pollution sources at municipal operations and specific actions that should be taken to eliminate these sources and protect water quality;

- Review of the SWPPP where applicable;
- Explanation of the potential negative consequences of failing to control pollutants at facilities; and

• Overview of IDDE Program and how to report observed water quality problems.

#### 6.6.6 Vehicle and Equipment Cleaning Operations

The City recognizes the negative impacts that vehicle and equipment wash water runoff can have on stormwater and, ultimately, surface waters. To reduce those impacts, the City has contracted with AutoBrite Car Washes, Inc. (AutoBrite) to wash all Police Department, Public Works and Community Development vehicles and most larger pieces of vehicle equipment. AutoBrite car washes are self-service car washes with a discharge capture system.

### 6.6.7 Program Assessment

The overall success of the Pollution Prevention and Good Housekeeping Program is evaluated through the successful implementation of the components of the program and reported with each NPDES MS4 annual report. Additional information regarding program assessment can be found in Table 6 below.

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BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
a. Inventory of municipally owned or operated facilities	Maintain, evaluate annually, and update as necessary an inventory of facilities and operations owned and operated by the permittee with the potential for generating polluted stormwater runoff.	The inventory of municipally owned and operated facilities has been completed and is updated annually.	Inventory reviewed annually and updated as necessary.
b. Inspection and Maintenance (I&M) for municipally owned or operated facilities	Maintain and implement, evaluate annually and update as necessary an I&M program for municipally owned and operated facilities with the potential for generating polluted stormwater runoff. The I&M program shall specify the frequency of inspections and routine maintenance requirements.	The program has been implemented and maintained and will continue to be evaluated annually throughout the permit term. Inspections will be documented annually for each facility.	Document number of completed inspections and maintenance actions. The effectiveness of the I&M program will be evaluated annually and updated as needed.
c. Spill Response Procedures for municipally owned or operated facilities	Maintain written spill response procedures for municipal operations.	Spill response procedures will be evaluated annually.	Document if spill response procedures have been completed for each facility. Spill response reviewed annually and updated as necessary.
d. Streets, roads, and public parking lots maintenance	Maintain and implement a program to reduce polluted stormwater runoff from municipally-owned streets, roads, and public parking lots.	Street sweeping of roads and streets is conducted quarterly on all roadways with curb and gutter.	Provide documentation of sweeping events, miles swept and characterize the quantity and composition of the trash and debris.
e. I&M program for municipally owned catch basins and conveyance systems	Maintain and implement an I&M program for the stormwater sewer system including catch basins and conveyance systems that it owns and maintains	Implementation of program in place – evaluate annually and update as needed.	Document and report any inspection issues, when maintenance is performed and how many inlets on each street are inspected. Records to include date of inspection, inspector, and linear footage of inspections/maintenance.
f. Identify structural stormwater controls	Maintain a current inventory of municipally- owned or operated structural stormwater controls installed for compliance with the City's Watershed Protection Ordinance.	Inventory and mapping of SCMs at all facilities within MS4 service area has been completed. Inventory will be reviewed annually and updated as needed.	Inventory reviewed annually and updated as necessary.

## Table 6: Pollution Prevention and Good Housekeeping BMPs

Table 6: Pollution Prevention and	l Good Housekeeping BMPs cont'd
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BMP	Measurable Goals	Schedule for Implementation	Reporting Metric
g. I&M program for municipally owned or maintained structural stormwater controls	Maintain and implement, assess annually and update as necessary an I&M program for municipally owned or maintained structural stormwater controls. Document inspections and maintenance of all municipally-owned or maintained structural stormwater controls.	I&M program for municipal SCMs has been implemented. Document inspections and maintenance required annually for each facility.	Document and report number of inspections and maintenance actions needed. Document and report maintenance actions performed.
h. Pesticide, Herbicide and Fertilizer Application Management.	Ensure municipal employees and contractors are properly trained and all permits, certifications, and other measures for applicators are followed.	The training program has been implemented and will be conducted annually.	Document number of staff members with active certification.
i. Staff Training	Implement an employee training program for employees involved in implementing pollution prevention and good housekeeping practices.	Training program has been implemented. Training is documented annually.	Document and report who is trained, number of staff trained, training dates, and topics covered.
j. Prevent or minimize contamination of stormwater runoff from all areas used for vehicle and equipment cleaning.	Implement a program to minimize contamination of stormwater runoff by vehicle and equipment cleaning.	The City has contracted with AutoBrite Car Washes, Inc. to provide vehicle washing that minimizes contamination of stormwater	Provide documentation regarding contracted vehicle washing services