

# STORMWATER MANAGEMENT PROGRAM REPORT



February 13, 2017

City of High Point  
NPDES MS4 Permit NCS000421

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# 1. STORM SEWER SYSTEM INFORMATION

## 1.1 Population Served

Population: 111,967

Permanent: 111,967

Basis of Population statistic: 2016 Population Estimate by the City of High Point Planning Department (see Appendix A)

Seasonal: N/A

Method used to create seasonal estimates: N/A

## 1.2 Growth Rate

Growth Rate: 1.20%

## 1.3 Jurisdictional and MS4 Service Areas

Jurisdictional and MS4 Service Areas: 56.88 square miles

## 1.4 MS4 Conveyance System

There are both curb/gutter and ribbon pavement streets in High Point. The stormwater drainage system has both pipe and open channel conveyances. There are certain older areas in High Point that have undersized and deteriorating drainage systems. The streams throughout High Point have been significantly impacted by stormwater runoff. A number of these streams have eroded stream banks, large amounts of trash/litter, and elevated fecal coliform counts.

The City of High Point maintains the storm sewer system in the public right-of-way. It is the responsibility of private property owners to maintain the drainage system located on private property. The City of High Point provides the Stormwater Management Improvement Program to assist private property owners with the maintenance and repair of stormwater conveyances (See Appendix B). Stormwater maintenance activities that are performed in the public right-of-way or on private property that qualify for the Stormwater Management Improvement Program, include: removal of debris and obstructions, pipe repair or replacement, pipe installation, and bank/slope stabilization.

Since 2011, there have been stormwater improvements in most, if not all, of the drainage basins in High Point. As of 2015, there was an estimated 20 million dollars earmarked for Capital Improvement Projects and for completion of 2004 Bond Referendum Drainage Projects.

There are 24 full time positions dedicated to providing maintenance to the stormwater drainage system. A vactor truck, is utilized for the removal of debris and obstructions from the stormwater drainage system. Three street sweepers are utilized for the removal of trash and sediment from the streets. Multiple crews are utilized for ditch/culvert maintenance in the public right-of-way and also on

private property. Due to the limited number of personnel and equipment, the bulk of the stormwater maintenance activities performed are complaint driven. Large scale stormwater repairs are completed as capital improvement projects.

### 1.5 Land Use Composition Estimates

Estimated percentage of jurisdictional area containing the following four land use activities:

Residential:	40.26 %
Commercial:	9.77%
Industrial:	19.46 %
Open Space:	15.84 %

### 1.6 TMDL Identification

TMDL Identification:

Basin	Waterbody	Pollutant	Approved
Cape Fear	E. Fork Deep River	Fecal Coliform	March 4, 2004
Cape Fear	Richland Creek	Fecal Coliform	May 17, 2004
Yadkin	Rich Fork Creek	Fecal Coliform	April 28, 2004

## 2. RECEIVING STREAMS

See Appendix C for a complete table of receiving streams located within the City of High Point.

## 3. EXISTING WATER QUALITY PROGRAMS

### 3.1 Local Programs

A Water Supply Watershed Protection Program was implemented in 1993 to protect the six watersheds located in the City of High Point. The watersheds that are protected include: Oak Hollow Lake, City Lake, Oakdale Reservoir, Uwharrie (Lake Reece), Lake Thom-A-Lex, and Randleman Lake. The watershed protection requirements are outlined in Chapter 6 (Environmental Standards) of the City of High Point Development Ordinance.

Raw water intake monitoring is performed 24 hours a day at both City Lake and Oak Hollow Lake through an agreement with North Carolina State University's Center for Applied Aquatic Ecology. Data for both lakes can be accessed at <https://caae.cals.ncsu.edu/>.

### 3.2 State Programs

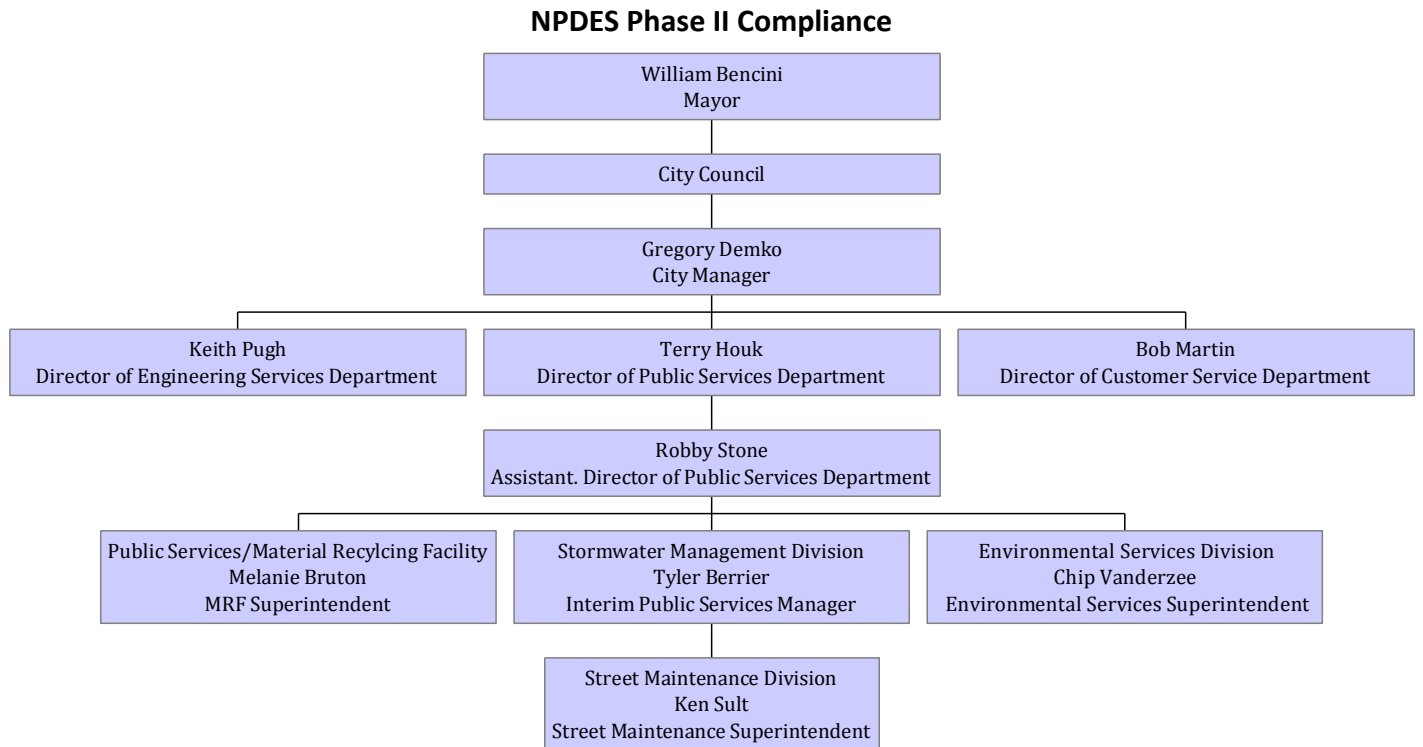
N/A

## 4. PERMITTING INFORMATION

### 4.1 Responsible Party Contact List

See Appendix D for responsible party contact list.

### 4.2 Organizational Chart



### 4.3 Signing Official

Gregory Demko, City Manager. Mr. Demko is the City Manager for the City of High Point and will be the signing official for the NPDES stormwater permit application.

### 4.4 Duly Authorized Representative

N/A

## 5. CO-PERMITTING INFORMATION

N/A

## 6. RELIANCE ON OTHER GOVERNMENT ENTITY

N/A

## 7. STORMWATER MANAGEMENT PROGRAM PLAN

### 7.1 Public Education and Outreach on Stormwater Impacts

#### 7.1.1 BMP Summary Table

**BMP's and Measurable Goals for Public Education and Outreach**

	<b>BMP</b>	<b>Measurable Goals</b>	<b>YR 1</b>	<b>YR 2</b>	<b>YR 3</b>	<b>YR 4</b>	<b>YR 5</b>	<b>Responsible Position/Party</b>
1	Public Education and Outreach Program	Implement a public education and outreach program. Outreach for significant minority and disadvantaged communities will be incorporated into the program.	X	X	X	X	X	Public Services Manager  High Point Beautification Coordinator
2	Informational Web Site	The Stormwater Services Division will maintain an internet web site. Stormwater related information on water quality issues, capital improvement projects, and contact information for stormwater management program staff will be available to the public.	X	X	X	X	X	Public Services Manager
3	Public education materials for schools, home-owners, and/or businesses	Develop general stormwater educational material to appropriate target groups as likely to have a significant stormwater impact.	X	X	X	X	X	Public Services Manager  High Point Beautification Coordinator
4	Public education material dissemination	Distribute written educational material to a broad public audience. Methods of distribution to be considered will be utility inserts and at special events.	X	X	X	X	X	Public Services Manager  High Point Beautification Coordinator

### 7.1.2 Target Audience

The intent of High Point's stormwater education plan is to implement BMPs that will reach a broad audience. The targeted audience will vary by BMP, but the overall target audience for the education program will include: school children, households, business and industry, gardeners, and the Hispanic community. (As a member of the Piedmont Triad Water Quality Partnership, educational efforts are in place to educate the Hispanic community about the stormwater program.) Households will be targeted to educate homeowners on stormwater pollution and the impact that residential "practices" can have on stormwater runoff. Commercial and Industrial properties will be targeted to educate businesses on stormwater pollution and how certain commercial/ industrial "practices" can impact stormwater runoff.

### 7.1.3 Target Pollutant Sources

**Trash:** Litter and trash pose a problem for City beautification and a floatables problem for the drainage system. It is much easier to prevent litter than it is to clean it up. The City of High Point promotes litter cleanup programs which are organized by Keep High Point Beautiful, and these events are held twice a year.

**Sediment:** Due to rapid growth and development in certain areas of High Point, there is a problem with sediment transport. Educating the public will make them notice and report the greater than one acre sites that are in violation of the Sediment and Erosion Control.

**Fecal Coliform:** Many streams in High Point have elevated fecal coliform levels. Citizens will be educated on the importance of cleaning up and disposing of pet waste.

**Disposal of Household Chemicals and Used Oil:** Citizens will be educated on the proper disposal of household chemicals and used motor oil.

**Application of Lawn Care Products:** Public education efforts will continue to address the application of nutrients and the effects on receiving streams and water bodies.

### 7.1.4 Outreach Program

The City of High Point will continue to develop and implement a comprehensive public education plan. The education plan will include a wide variety of BMPs that will focus on educating the public on the importance of clean water and how humans can negatively impact water quality. The stormwater BMPs that will be utilized in this education plan may include: an in-school education program, brochures/pamphlets, a website, newspaper/TV campaigns, drain markers, and watershed signs. The time frame for implementation, targeted audiences, and the measurable goals for each BMP will be included in the education plan. The implementation progress will be documented in each annual report.



### 7.1.5 Evaluation

The program element will be reviewed annually with an emphasis on the number of people reached versus the amount of materials produced, amount of trash removed, or other relevant values as indicated in the comprehensive public education plan.

## 7.2 Public Involvement and Participation

### 7.2.1 BMP Summary Table

**BMP's and Measurable Goals for Public Involvement and Participation**

	<b>BMP</b>	<b>Measurable Goals</b>	<b>YR 1</b>	<b>YR 2</b>	<b>YR 3</b>	<b>YR 4</b>	<b>YR 5</b>	<b>Responsible Position/Party</b>
1	Administer a Public Involvement Program	Develop and implement a Public Involvement and Participation Program.	X	X	X	X	X	Public Services Manager
2	Allow the public an opportunity to review and comment on the Stormwater Plan	Conduct at least one public meeting to allow the public an opportunity to review and comment on the Stormwater Plan.	X	X	X	X	X	Public Services Manager
3	Organize a volunteer community involvement program	Organize and implement a volunteer stormwater related program designed to promote ongoing citizen participation.	X	X	X	X	X	Public Services Manager  High Point Beautification Coordinator
4	Establish a Citizens Advisory Panel	The Stormwater Services Division has utilized citizen advisory committees for the certain stormwater related programs/issues, and will continue to use citizen advisory committees as needed.	X	X	X	X	X	Public Services Manager

### 7.2.2 Target Audience

The target audience will be the citizens of High Point.

### 7.2.3 Participation Program

Participation will be through the form of a public hearing. Stormwater related volunteer programs will also be implemented for public participation.

**7.2.4 Evaluation**

The minimum measure will be evaluated based on public / City Council input. The permit application will be reviewed, revised as needed and sent to the North Carolina Department of Environment and Natural Resources for permit issuance. Volunteer programs will be evaluated based on public participation and overall effectiveness of the program.

**7.3 Illicit Discharge Detection and Elimination**

**7.3.1 BMP Summary Table**

**BMP's and Measurable Goals for Illicit Discharge and Elimination**

	<b>BMP</b>	<b>Measurable Goals</b>	<b>YR 1</b>	<b>YR 2</b>	<b>YR 3</b>	<b>YR 4</b>	<b>YR 5</b>	<b>Responsible Position/Party</b>
1	Develop/Implement an Illicit Discharge Detection and Elimination Program	Develop and implement an Illicit Discharge and Elimination Program. Include provisions for program assessment and evaluation.	X	X	X	X	X	Public Services Manager
2	Establish and maintain appropriate legal authorities	Establish and maintain adequate legal authorities to prohibit illicit discharges and enforce the approved Illicit Discharge Detection and Elimination Program.	X	X	X	X	X	Public Services Manager
3	Develop a Storm Sewer System Base Map	Identify outfall locations and map stormwater drainage system components. Mapping components will include outfalls, drainage areas, and receiving streams.	X	X	X	X	X	Public Services Manager
4	Implement illicit discharge detection procedures	Implement an inspection program to detect dry weather flows at system outfalls. Establish procedures for tracing the sources of illicit discharges and for removing sources. Develop procedures for identification of priority areas likely to have illicit discharges. Continue to identify, locate, and update map of drainage system components on a priority basis per approved Illicit Discharge Program.	X	X	X	X	X	Public Services Manager

5	Conduct employee cross-training	Conduct training for municipal staff on detecting and reporting illicit discharges.	X	X	X	X	X	Public Services Manager
6	Provide public education	Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.	X	X	X	X	X	Public Services Manager  High Point Beautification Coordinator
7	Establish a public reporting mechanism	Establish and publicize a reporting mechanism for the public to report illicit discharges.	X	X	X	X	X	Public Services Manager

**7.3.2 Storm Sewer System Map**

Public Services staff will continue to locate outfall locations in the field and record locations using a global positioning system (GPS). Staff will also use USGS (7.5 min quads), High Point topographic maps, as-builts and other necessary information to help locate outfall locations. The map of outfall locations will be in digital format and will be maintained by the City. The map will be incorporated into the City of High Point GIS database. A hard copy of the map will be kept in the Stormwater Division offices for the public to review.

**7.3.3 Regulatory Mechanism**

The City of High Point Illicit Discharge and Connection Ordinance will be utilized to prohibit illicit discharges into the MS4.

**7.3.4 Enforcement**

The enforcement of illicit discharges will be carried out through Chapter 3, the Public Nuisance section of the City of High Point Code of Ordinances.

**7.3.5 Detection and Elimination**

The City of High Point Customer Service Line (883-3111) will be available for citizens to notify the City of illicit discharges and connections. Other strategies for finding illicit connections that will be considered include:

- stream walking while inventorying the outfalls;
- dry weather monitoring of outfalls;
- educating relevant City employees on identifying illicit connections; and
- any other useful strategy that could be effective in detecting illicit connections.

The City of High Point Fire Department HAZMAT will conduct spill response in the community. The Guilford County Environmental Health Division assists with the cleaning up of spills. City employees that work at applicable facilities will be educated on spill prevention and proper procedures to follow if a spill occurs.

If an illicit connection or discharge is detected, all appropriate actions will be taken to eliminate the discharge on non-stormwater into the MS4.

### 7.3.6 Non Stormwater Discharges

#### Illicit or Allowable

1. Water line flushing:	Allowable
2. Landscape irrigation:	Allowable
3. Diverted stream flows:	Allowable
4. Rising ground waters:	Allowable
5. Uncontaminated ground water infiltration (as defined by 40 CFR §35.2005(20))	Allowable
6. Contaminated pumped ground water:	Allowable
7. Discharges from potable water sources:	Allowable
8. Foundation drains:	Allowable
9. Air conditioning condensation:	Allowable
10. Irrigation water:	Allowable
11. Springs:	Allowable
12. Water from crawl space pumps:	Allowable
13. Footing drains:	Allowable
14. Lawn watering:	Allowable
15. Individual residential car washing:	Allowable
16. Flows from riparian habitats and wetlands:	Allowable
17. Dechlorinated swimming pool discharges:	Allowable
18. Street wash water:	Allowable

### 7.3.7 Outreach

In developing the stormwater education plan, the most effective strategies for educating the public on illegal discharges and improper disposal of waste will be evaluated. Those strategies determined to be most effective for educating the public on illicit discharges will be incorporated into the comprehensive stormwater education plan.

### 7.3.8 Staff Training

The Stormwater Division is currently training the various City divisions and departments by showing two videos, **Storm Watch** and **Rain Check** and utilizing the training manuals and quizzes for assessment. The training includes good housekeeping measures and also the procedure for detecting and reporting illicit discharges.

### 7.3.9 Evaluation

The goal will be to address all illicit discharges and connections as detected. Depending upon staffing, the City of High Point will attempt to remove a minimum of 50% to 75% of detected illicit discharges in a permit year. The illicit discharge and detection program will be evaluated based on removal rates and type/nature of discharges detected.

## 7.4 Post-Construction Storm Water Management in New Development and Redevelopment

### 7.4.1 BMP Summary Table

**BMP's and Measurable Goals for Post-Construction Stormwater Management**

	BMP	Measurable Goals	YR 1	YR 2	YR 3	YR 4	YR 5	Responsible Position/Party
1	Continue to implement and enforce post-construction stormwater management standards and policies addressed in City of High Point Development Ordinance	Evaluate effectiveness of Development Ordinance based on amendment process. Stormwater management related amendments will be documented and reported annually.	X	X	X	X	X	Public Services Manager

2	Establish strategies which include BMPs appropriate for the MS4	Develop and implement strategies and include a combination of structural and/or non-structural 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.	X	X	X	X	X	Public Services Manager
3	Establish a program to control the sources of fecal coliform to the maximum extent practicable	Control the sources of fecal coliform to the maximum extent practicable. Develop and implement to ensure proper operation and maintenance of on-site wastewater treatment systems for domestic wastewater. Municipalities must coordinate this program with county health department.	X	X	X	X	X	Public Services Manager

**7.4.2 Regulatory Mechanism**

See Appendix E – Chapter 6 of City of High Point Development Ordinance.

The Watershed Protection section of the City of High Point Development Ordinance applies to all property within the City of High Point and its extraterritorial jurisdiction, including both water supply watersheds and non-water supply watersheds. National Pollutant Discharge Elimination System (NPDES) Phase II stormwater regulations apply jurisdiction-wide and are overlaid by districts that regulate development in water supply watersheds, including the separate General Watershed Areas (GWA) and Watershed Critical Areas (WCA) of Oak Hollow Lake, City Lake, Oakdale Reservoir, Randleman Lake and the Uwharrie (Lake Reese) watersheds.

Activities covered include land disturbance, paving, gravel placement, and construction of buildings and other structures, except for the exemptions listed in Section 6.2.3. The following mechanisms are addressed in Chapter 6 of the City of High Point Development Ordinance in regards to post construction runoff from new developments and redevelopments:

- Protection of Fragile Areas (Sec. 6.2.6)
  - Land Disturbance Minimization
  - Floodplain Protection
  - Stream Buffers
  - Slope and Buffer Protection

- Low Impact Design (Sec. 6.2.7)
- General Standards and Restrictions (Sec. 6.2.8)
  - Density and Intensity Requirements
  - Minimum Stormwater Control Requirements
  - Structural BMP Design, Construction, and O&M Requirements
  - Watershed Development Plan Submittal Requirements and Plan Review
- Tree Preservation (see Appendix F)
- Enforcement (see Appendix G - Ch. 9 of the CHP Development Ordinance)

### 7.4.3 Structural BMPs

See Appendix E – Chapter 6 of City of High Point Development Ordinance.

Engineered Stormwater Controls: In accordance with Sections 6.2.8.A.1 and 6.2.8.A.2 (as shown in Chapter 6 of the Development Ordinance), a wet detention pond or other BMP meeting the performance standards of control of the first one inch of rainfall from the 10-year storm and removal of 85% total suspended solids shall be used to control stormwater runoff in compliance with the *NCDEQ Stormwater BMP Design Manual*. In lieu of an on-site engineered stormwater control, developments may participate in a regional stormwater control program in compliance with the requirements of Sec. 6.2.8.C of the Development Ordinance.

Alternate Measures: As required by Sections 6.2.8.A.1 and 6.2.8.A.2 in the Development Ordinance, the following stormwater management facilities are considered alternate measures that may be allowed provided that they meet the standards of the *NCDEQ Stormwater BMP Design Manual*:

- a. Extended dry pond
- b. Infiltration Trench
- c. Natural Infiltration Area
- d. Participation in a public or private regional runoff control program, in compliance with Sec. 6.2.8.C of the Development Ordinance.
- e. Low Impact Design
- f. Any other BMP approved by the Watershed Review Committee that meets the performance standards of control of the first one-half inch of rainfall from the ten-year storm.

Vegetated Conveyances for Low Density Design- Stormwater runoff shall be transported from the development by vegetated conveyances to the maximum extent practical as determined by the Technical Review Committee.

#### 7.4.4 Operation and Maintenance

See Appendix E – City of High Point Development Ordinance, Section 6.2.8.D.5.

Operation and Maintenance Agreement:

- a. Maintenance responsibility for stormwater management facilities and their access shall be vested with a responsible party by means of a legally binding and enforceable operation and maintenance agreement that is executed as a condition of plan approval, as provided for in Section 6.2.8.D.3, Recordation of Improvements.
- b. The agreement must be approved by the Planning and Development Director and shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the stormwater management facilities.
- c. In the case of participation in a regional runoff control program in accordance with Section 6.2.8, General Standards and Restrictions, a binding contract or agreement shall be required for participation.
- d. The operation and maintenance agreement shall be referenced on the final plat and shall be recorded with the appropriate county Register of Deeds upon final plat approval.
- e. If no subdivision plat is recorded for the site, then the operation and maintenance agreement shall be recorded with the appropriate county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.
- f. The operation and maintenance agreement shall require the owner or owners' association to maintain, repair and, if necessary, reconstruct the stormwater management facilities, and shall state the terms, conditions, and schedule of maintenance for such.
- g. The owner of each stormwater management facility installed pursuant to this Ordinance shall maintain and operate it so as to preserve and continue its function in controlling water quality and quantity in accordance with the function for which it was designed.
- h. The operation and maintenance agreement shall refer the property owner or owners' association to the City of High Point for specific maintenance requirements of stormwater management facilities. In addition, it shall grant to the City a right of entry in the event that the Public Services Director has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the stormwater management facilities. In no case shall the right of entry, of itself, confer an obligation on the City to assume responsibility for maintenance of the stormwater management facilities.



- j. The Public Services Director shall have the responsibility to inspect the engineered stormwater control structures annually, as required by NC Environmental Management Commission, to record the results on forms approved or supplied by the NCDWR, to inspect any other stormwater management facilities as deemed necessary, and to notify the responsible property owner or owners' association when maintenance or repairs are required.
- j. All required repairs and maintenance shall be performed within 90 days the required maintenance or repairs within the stated period, the City may perform such maintenance or repairs and recover all costs attendant thereto from the landowner or owners' association.
- k. For all stormwater management facilities required pursuant to this Ordinance that are owned by a private property owner or an owners' association, the required operation and maintenance agreement shall include all of the following provisions:
  - 1. Acknowledgment that the owner or owners' association shall continuously operate and maintain the stormwater management facilities.
  - 2. Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological, or vegetative replacement, major repair, or reconstruction of the stormwater management facilities. If stormwater management facilities are not performing adequately or as intended or are not properly maintained, the City, in its sole discretion, may remedy the situation, and in such instances the City shall be fully reimbursed from the escrow account.
  - 3. Escrowed funds may be spent by the landowner or owners' association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the stormwater management facilities.
  - 4. Granting to the City a right of entry to inspect, monitor, maintain, repair, and reconstruct stormwater management facilities.
  - 5. Allowing the City to recover from the landowner or owners' association and its members any and all costs the City expends to maintain or repair the stormwater management facilities or to correct any operational deficiencies.
  - 6. Failure to pay the City all of its expended costs, after 45 days' written notice, shall constitute a breach of the agreement.
  - 7. In case of a deficiency, the City shall thereafter be entitled to bring an action against the owner or owners' association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

8. A statement that this agreement shall not obligate the City to maintain or repair any stormwater management facility, and the City shall not be liable to any person for the condition or operation of stormwater management facilities.
9. A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City to enforce any of its ordinances as authorized by law.
10. A provision indemnifying and holding harmless the City for any costs and injuries arising from or related to the stormwater management facilities, unless the City has agreed in writing to assume the maintenance responsibility and has accepted dedication of any and all rights necessary to carry out that maintenance.

#### Inspection Program:

- a. Inspections and inspection programs by the City may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws.
- b. Inspections may include, but are not limited to:
  - (1) Reviewing maintenance and repair records;
  - (2) Sampling discharges, surface water, groundwater, and material or water in stormwater management facilities; and
  - (3) Evaluating the condition of stormwater management facilities.
- c. If the owner or occupant of any land refuses to permit such inspection, the Public Services Director shall proceed to obtain an administrative search warrant pursuant to North Carolina General Statutes Section 15-27.2, as amended.
- d. No person shall obstruct, hamper or interfere with the Public Services Director while carrying out their official duties.

#### Maintenance Responsibility:

- a. Maintenance responsibility for an engineered stormwater control and/or its buffer shall be vested with a responsible party by means of a legally binding and enforceable maintenance agreement that is executed as a condition of plan approval, as provided for in Sec. 6.2.8.D.3.
- b. When engineered stormwater control structures serve more than one lot, an owners association for the purpose of maintenance shall be required (see Sec 7.3.1), or a binding

contract or agreement shall be required for participation in a regional runoff control program (see Sec. 6.2.8.D.5(c)).

- c. Maintenance of engineered stormwater control structures shall be performed at such time as the designated sediment storage volume of the structure has been lost to sediment storage and/or a part of the installation is not functioning as originally designed. The Enforcement Officer shall have the responsibility to inspect the engineered stormwater control structures annually, to record the results on forms approved or supplied by the North Carolina Division of Water Quality, and to notify the responsible property owner or owners association when maintenance or repairs are required. All required repairs and maintenance shall be performed within 90 days after such notice. In case of failure by the responsible party to perform the required maintenance or repairs within the stated period, the City may perform such maintenance or repairs and recover all costs attendant thereto from the property owner or owners' association.

**7.4.5 Evaluation**

The effectiveness of post construction stormwater management will be evaluated based on the amendment process to the City of High Point Development Ordinance. All amendments to the City of High Point Development Ordinance will be reported annually. The water quality device inspection program will be evaluated based on the percentage of maintenance activities that are being performed by the owners of the inspected water quality devices.

**7.5 Pollution Prevention/Good Housekeeping for Municipal Operations**

**7.5.1 BMP Summary Table**

**BMP's and Measurable Goals for Pollution Prevention and Good Housekeeping for Municipal Operations**

	<b>BMP</b>	<b>Measurable Goals</b>	<b>YR 1</b>	<b>YR 2</b>	<b>YR 3</b>	<b>YR 4</b>	<b>YR 5</b>	<b>Responsible Position/Party</b>
1	Develop an operation and maintenance program	Develop an operation and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.	X	X	X	X	X	Public Services Manager

2	Inspection and evaluation of facilities, operations, and the MS4 system and associated structural BMPs	Develop an inventory of all facilities and operations owned and operated by the permittee with the potential for generating polluted stormwater runoff, including the MS4 system and associated structural BMPs. Inspect potential sources of polluted runoff, the stormwater controls, and conveyance systems. Evaluate the sources, document deficiencies, plan corrective actions, and document the accomplishments of corrective actions.	X	X	X	X	X	Public Services Manager
3	Conduct staff training	Conduct staff training specific for pollution prevention and good housekeeping procedures.	X	X	X	X	X	Public Services Manager
4	Review of municipality owned or operated regulated industrial activities	Conduct annual review of the industrial activities with a Phase I NPDES stormwater permit owned and operated by the permittee. Review the following aspects: the Stormwater Pollution Prevention Plans where one is required, the timeliness of any monitoring reports required by the Phase I permit, and the results of inspections and subsequent follow-up actions at the facilities.	X	X	X	X	X	Public Services Manager

### 7.5.2 Affected Operations

A) Municipal Operations that are impacted by the operation and maintenance program:

1. Parks and Recreation
  - i. Golf Courses
  - ii. Maintenance Facilities
2. Vehicle Maintenance Facilities
3. Public Works Operations
4. Wastewater Treatment Plants

B) Industrial Facilities that are subject to NPDES General Stormwater Permits:

Facility	Permit #	COC#
1. Hi Tran Public Transit Facility	NCG080000	NCG080702
2. Fleet Maintenance Facility	NCG080000	NCG080683
3. Materials Recycling Facility	NCG130000	NCG130038
4. Kersey Valley Landfill	NCG120000	NCG120105
5. Eastside POTW	NCG110000	NCG110019
6. Westside POTW	NCG110000	NCG110018
7. Ingleside Composting Facility	NCG240000	NCG240007

### 7.5.3 Training

A stormwater pollution prevention plan (SPPP) has been developed for the City of High Point industrial municipal operations. Appropriate methods and practices for reducing pollutants, including the training of personnel, has been addressed with the SPPP. Good housekeeping practices will be implemented as necessary at non-industrial municipal facilities. The Stormwater Services Division has been performing assessments and training at both industrial municipal facilities and non-industrial municipal facilities. An *Operation and Maintenance BMP Guidance Manual for Municipal Operations* has also been developed for City personnel.

#### **7.5.4 Maintenance and Inspections**

The Customer Service Line (883-3111) is available for citizens to notify City personnel of maintenance problems in the drainage system. In the public right-of way, catch basin cleaning and street sweeping will continue to be performed to reduce floatables and other pollutants. City personnel will also pick up the leaves that citizens rake to the curb as part of the normal loose-leaf collection program.

#### **7.5.5 Vehicular Operations**

A stormwater pollution prevention plan (SPPP) has been developed for the City of High Point industrial municipal operations. The SPPP addresses the necessary controls for reducing or eliminating the discharge of pollutants from municipal operations. Good housekeeping practices will be implemented as necessary at non-industrial municipal facilities. Parking lot sweeping and litter pick-up are performed as needed at the City facilities. Salt is stored in a dome building.

#### **7.5.6 Waste Disposal**

City personnel will continue to follow the standard operating procedure of disposing all waste removed from the MS4 or other municipal operations in a licensed landfill. City personnel and citizens may dispose of materials classified as household hazardous waste at Eco-Flo located at 2750 Patterson Avenue, Greensboro, NC, or the collection event hosted by the City and County every other year in High Point. The next scheduled event is June 2017.

#### **7.5.7 Evaluation**

Pollution prevention and good housekeeping is necessary at High Point municipal facilities. A facility-by-facility assessment will continue to be performed and best management practices will be implemented based on the findings from the facility inspections. A municipal facility may be inspected annually or more often as necessary based on the findings of the assessments. The goal will be to eliminate all improper housekeeping practices per year at each facility, as appropriate. Evaluation will be made based on the willingness of City facilities to comply and continue to implement the required good housekeeping measures.