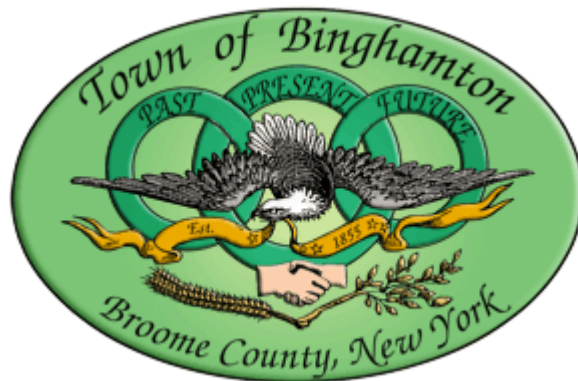


# TOWN OF BINGHAMTON STORMWATER MANAGEMENT PROGRAM PLAN



TOWN OF BINGHAMTON IS A MEMBER OF THE  
BROOME-TIOGA STORMWATER COALITION



[www.broometiogastormwater.com](http://www.broometiogastormwater.com)

Date: February 24, 2021  
Updated: November 15, 2021

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## Introduction

This Stormwater Management Program (SWMP) Plan has been developed to comply with Part IV.A. of the New York State Department of Environmental Conservation General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems – Permit No. GP-0-08-002 (updated in April 2010 to Permit No. GP-0-10-002 and subsequently updated in April 2017 to Permit No. GP-0-15-003) for a Traditional Non-Land Use Control. The purpose of this plan is to maintain or improve water quality. The Town of Binghamton MS4 is a member of the Broome-Tioga Stormwater Coalition (BTSC). The BTSC exists by way of an inter-municipal agreement enacted through municipal resolution by each of the fifteen (15) participating members. A copy of the inter-municipal agreement can be found in the Appendix of this document.

Part IV.A (“Stormwater Management Program Requirements, SWMP Background”) of GP-0-08-002 states:

“Permittees must develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (“MEP”) in order to protect water quality and to satisfy the appropriate water quality requirements of the [Environmental Conservation Law] and the [Clean Water Act]. Permittees must, by March 9, 2009 (or at the time of a Department audit of the SWMP), prepare a SWMP plan documenting their SWMP.”

This SWMP is based on the Federal Stormwater Phase II rule, issued in 1999, which requires municipal separate storm sewer system (MS4) owners and operators, in U.S. Census-defined urbanized areas as well as in additionally designated areas, to develop a Stormwater Management Program. There are six program elements designed to reduce the discharge of pollutants to the maximum extent practicable (MEP). The program elements, titled Minimum Control Measures (MCMs), include:

1. Public Education and Outreach
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention / Good Housekeeping for Municipal Operations.

This document describes each MCM and the Best Management Practices (BMPs) that have been implemented to maintain compliance with the NYSDEC Permit No. GP-0-08-002 (updated in April 2010 to Permit No. GP-0-10-002 and subsequently in April 2017 to Permit No. GP-0-15-003). Responsibilities to achieve and sustain compliance are clearly defined for each BMP. Some responsibilities are covered through the collective efforts of the Broome-Tioga Stormwater Coalition (BTSC) members. The remaining work is conducted by the Town of Binghamton Stormwater Management Program Coordinator.

This SWMP Plan should be reviewed on an annual basis and updated as necessary in order to take into consideration the latest technologies and information to maintain compliance with the NYSDEC Permit No. GP-0-15-003, as well as to account for progress made.

# Minimum Control Measure 1: Public Education and Outreach on Stormwater Impacts

## 1. Description of Minimum Control Measure

The Public Education and Outreach MCM consists of BMPs that focus on the development of educational materials, demonstration activities and training sessions designed to inform the public about the impacts that stormwater discharges have on local water bodies. The Public Education and Outreach program and BMPs, in combination, are expected to reach all of the constituents within the MS4's permitted boundary.

## 2. General Permit Requirements

At a minimum, all covered entities must:

- Identify POC's, water bodies of concern, geographic areas of concern, target audiences  
Pollutants of Concern: According to the NYSDEC 2009 Susquehanna River Basin Waterbody Inventory and Priority Waterbodies List, "water quality in the Susquehanna River Basin generally ranges from satisfactory to very good." However for the purposes of the Stormwater Management Program pollutants of concern will include vehicle/equipment fluids, silt/sediment, nutrients, herbicides, pesticides and fertilizers. Sources of these pollutants include agricultural activities, stream bank erosion and construction site runoff. The focus of this stormwater management plan will be construction site and earth disturbing activities as it pertains to stormwater runoff from these sites.

Geographic Area of Concern: Polluted stormwater runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and streams, as a result, water bodies of concern within the Town of Binghamton include the Bayless Creek, Park Creek, Pierce Creek, the West Fork of Little Snake Creek and various smaller streams that drain into them and ultimately discharge into the Susquehanna River. In order to address portions of requirements within the MS4 area the Town of Binghamton has signed an inter-municipal agreement that allows them to coordinate stormwater activities.

Target Audiences: BTSC and The Town of Binghamton will target contractors, school students, residents, municipal officials and workers, as well as various community groups.

- Implement an ongoing public education and outreach program
- Educational materials may be made available at various accessible locations
- Modify as needed measurable goals
- Select and implement appropriate education and outreach activities and measurable goals to ensure the reduction of all POC's (Pollutants of Concern) in stormwater discharges to the MEP (Maximum Extent Practicable).

## 3. Methodology for Compliance with Permit Requirements

Previous permit accomplishments

- The Broome-Tioga Stormwater Coalition has formed a special committee to address MCM's 1 and 2 called the BTSC Public Education and Participation Committee. This group has produced educational materials containing specific actions as to how the public, as individuals or collectively as a group, can participate in reducing pollutants and

their impact on the environment. The program has included printed materials, Enviroscope stormwater model demonstrations at MS4 area schools and various public events, press releases and posting on websites.

- BTSC created a logo and uses it on all educational material.
- Creation of a website dedicated to stormwater issues in the Broome-Tioga MS4 area located at [www.waterfromrain.org](http://www.waterfromrain.org).
- Brochures and other educational material that the BTSC has produced or collectively purchased are made available at restaurants throughout the MS4 area, municipal offices, municipal websites and at contractor / officials trainings, as well as at events or venues where the Enviroscope Stormwater model is demonstrated.
- The BTSC does modify as needed measurable goals. For instance, one goal had been to do an overall PSA (Public Service Announcement) that shows residents practices that will least pollute stormwater. Now it has been modified to produce a series of PSA's that are seasonable in nature such as not raking grass clippings after mowing in the summer, not over salting driveways and walkways in the winter, containing raked leaves in the fall and not fertilizing or installing rain barrels in the spring.
- The Broome-Tioga Stormwater Coalition Public Education and Participation Committee has developed and implemented a public outreach campaign including creating a new education logo, television advertisements (played the first time during Super Bowl XLVIII), and a dedicated website with the new logo/campaign design.

#### **4. Goals**

- The Town of Binghamton will display BTSC brochures at municipal offices.
- The Town of Binghamton will utilize BTSC information containing ways for municipal workers to reduce polluting stormwater runoff and post in municipal offices and the DPW garage.
- The Town of Binghamton has created a separate stormwater webpage on the Town's website which includes a link from that page to the Broome-Tioga Stormwater Coalition website. The website and link can be found at: <https://townofbinghamton.com/stormwater-management-ms4/>
- The Town of Binghamton has purchased and installed permanent drain markers on all catchbasins.

#### **5. Minimum Required Reporting**

At a minimum, the covered entity shall report on items below:

- list education / outreach activities performed and provide any results (number of people attended, amount of materials distributed, etc.);
- report on effectiveness of program, BMP and measurable goal assessment; and
- maintain records of all training activities

These elements are covered in the BTSC/Town of Binghamton MS4 Annual Stormwater reports. Records on training sessions in The Town of Binghamton are on file in the Town of Binghamton Department of Public Work Office.

# **Minimum Control Measure 2: Public Involvement / Participation**

## **1. Description of Minimum Control Measure**

The Public Involvement and Participation MCM consists of a set of BMPs that are focused on getting members of the local community involved in the MS4's municipal stormwater management program. Compliance with State and local public notice requirements will be maintained whenever public participation is sought or required. The BMPs include a number of practices designed to seek public input on the SWMP and Annual Report accomplishments in addition to describing specific activities that encourage public participation. The target audiences for the public involvement program are key individuals and groups that may have an interest in the particular BMPs as well as the general public located within the permitted boundary.

## **2. General Permit Requirements**

At a minimum, all covered entities must:

- Comply with State and local public notice requirements when implementing a public involvement / participation program:
- Provide the opportunity for the public to participate in the development, implementation, review and revision of the SWMP
- Local Stormwater public contact
- Annual Report Presentation
- Record, periodically assess and modify as needed measurable goals
- Select and implement appropriate public involvement / participation activities to ensure the reduction of all the POC's stormwater discharges to the MEP.

## **3. Methodology for Compliance with Permit Requirements**

Past accomplishments

- The Town of Binghamton and the Broome-Tioga Stormwater Coalition comply with the State Open Meetings Law when planning annual report presentation public meetings. The meeting notice is distributed as a press release within the required timeframe and is also posted along with the annual report on Broome-Tioga Stormwater Coalition's website.
- E-mail contact is always listed on meeting and annual report notices to provide comment. Comments can also be made via e-mail on the BTSC website.
- The BTSC will set their meeting schedule at the beginning of every year and release to the media as well as post on the BTSC website.
- The BTSC Public Education and Participation Committee will set their meeting schedule at the beginning of every year and release to the media as well as post on the BTSC website.
- The Broome-Tioga Stormwater Coalition gives proper notice for the annual report presentation public meetings. The annual report meeting is always open to the public. The meeting notice is distributed as a press release providing the required timeframe and is also posted along with the annual report on Broome-Tioga Stormwater Coalition's website. Contact information is provided within the press release to make comments or comments can be submitted directly from the BTSC website.

- A Notice of Availability is created and distributed to the media and posted on the BTSC website every year which includes all the required information about the annual report, annual report presentation public meeting, and how and when to comment.
- The Town of Binghamton SWMP has been permanently posted on the Town of Binghamton website. It will be replaced as it is modified.
- The Town of Binghamton seeks volunteers once a year to help clean up the creeks and roadways.
- The Town in conjunction with the Sheriff's Department has inmates pick-up any garbage that has been dumped illegally on the Town roads. The trash is then taken to the Broome County Landfill for disposal.
- The Town provides a drop-off for metal items and white goods located at the Highway Garage.

#### **4. Goals**

- The BTSC Final Annual report remains on the specified websites for the entire reporting year for public inspection. When a new one is finalized for the next reporting year, previous annual reports are archived on the BTSC website.
- The BTSC will continue to hold a public meeting to solicit comment on the annual report and provide sufficient notice.
- The Town of Binghamton will continue to hold the stream clean up events once a year.
- The Town of Binghamton will continue to hold the white goods pickups on a call as needed basis as well as free drop off anytime at the Highway Garage.
- The Town of Binghamton will continue to hold tire and junk drop off days in the spring and fall annually.
- The Town of Binghamton has purchased and installed permanent drain markers on all catch basins.
- The Town of Binghamton will continue to utilize catch basins that have "No Dumping Drains to River" when replacing existing castings.
- The Town of Binghamton will continue to post MCM 1 & 2 educational materials on Town's website as the information is received from the Broome-Tioga Stormwater Coalition.
- The Town of Binghamton will continue to provide MCM 1 & 2 educational brochures and/or handouts at the Town Hall as the information is received from the Broome-Tioga Stormwater Coalition.
- The Town of Binghamton's Public Stormwater Contact information will be posted on the Town website.

#### **5. Minimum Required Reporting**

- annual report presentation information (date, time, attendees) or information
- about how the annual report was made available for comment;
- comments received and intended responses (as an attachment); and
- report on effectiveness of program, BMP and measurable goal assessment

These elements are all covered in the BTSC/Town of Binghamton MS4 Stormwater Annual Reports.



# **Minimum Control Measure 3: Illicit Discharge Detection and Elimination**

## **1. Description of Minimum Control Measure**

The Illicit Discharge Detection and Elimination minimum control measure consists of Best Management Practices (BMPs) that focus on the detection and elimination of illicit discharges into the MS4. The BMPs describe outfall mapping and updating procedures; the legal authority mechanism that will be used to effectively prohibit illicit discharges; enforcement procedures and actions to ensure that the regulatory mechanism is implemented; the dry weather screening program and procedures for tracing and locating the source of an illicit discharge; procedures for locating priority areas; and procedures for removing the source of the illicit discharge.

## **2. General Permit Requirements**

An MS4 must, at a minimum:

- Develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4.
- Develop and maintain a 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.
- Field verify all outfall locations.
- Conduct an outfall reconnaissance inventory, addressing each outfall at least once every five years, with reasonable progress each year.
- Map new outfalls as they are constructed or newly discovered.
- Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the storm sewer system and implement appropriate enforcement procedures and actions.
- Develop and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the system.
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
- Address the categories of non-stormwater discharges or flows as necessary.
- Develop, record, periodically assess, and modify as needed, measureable goals.
- Select and implement appropriate IDDE BMPs and measureable goals to ensure the reduction of all POCs in stormwater discharges to the MS4.

## **3. Methodology for Compliance with Permit Requirements**

- The Town of Binghamton has adopted an ordinance for Stormwater Pollution Plans (SWPPP) and post construction runoff controls.
- The Town of Binghamton has adopted and enforces a law or ordinance for illicit discharge.
- The Town of Binghamton has mapped all outfalls within the MS4 area on an AutoCAD drawing map. The Town's Engineer currently maintains this map.

## 4. Goals

- Using the completed outfall mapping, the Town of Binghamton will conduct an outfall reconnaissance inventory during routine maintenance visits, addressing each outfall at least once every five years, with reasonable progress each year.
- Maintain a prioritized list of outfalls for inspection, ranked on a 5-tier priority basis as follows:
  - Priority 1: (Highest Priority): Outfalls in which previous inspections indicated evidence of illicit discharge such as dry weather discharge, color, odor, etc. or outfalls in areas where repeated complaints were received.
  - Priority 2: Outfalls in heavy industrial or commercial areas or construction sites OR Outfalls in environmentally sensitive areas OR Outfalls to areas of impaired waters in which ambient water quality sampling indicated high levels of particular contaminants.
  - Priority 3: Outfalls in which previous inspections indicated structural deficiencies.
  - Priority 4: Outfalls in older areas of the municipality.
  - Priority 5: (Lowest Priority): None of the above.
- The Town of Binghamton Stormwater Management Officer will ensure that outfalls are being inspected twice annually; and the inspections are documented, and will update outfall mapping forms for all outfalls that have been altered since mapping was established.
- The Town of Binghamton Stormwater Management Officer will periodically review the ordinance and adjust as necessary to maintain compliance with NYS standards and requirements.
- The Town of Binghamton has adopted an inspection plan to detect illicit discharges by conducting routine visual inspections of every mapped outfall. The inspection plan requires that on an annual basis 25% of the outfalls are visually inspected and documented on the “Outfall Reconnaissance Inventory Form” and summarized in the “IDDE Summary Form.
- The Town of Binghamton has delineated the drainage areas around each outfall, known as sewersheds. Having the sewersheds mapped is helpful in tracking down illicit discharge sources. This task was accomplished through grants with the assistance of the Broome-Tioga Stormwater Coalition.
- The Town of Binghamton Stormwater Management Officer will investigate and confirm the source of pollutants when water quality issues arise due to public complaints or by scheduled inspection of outfalls and implement enforcement action per the Local Law to prohibit illicit discharges, activities and connections to separate storm sewer system.
- The Town of Binghamton Stormwater Management Officer will annually update non-stormwater discharge list as necessary such that no exempt stormwater discharge is a substantial contribution of pollutants.
  - Waterline flushing
  - Landscape irrigation
  - Diverted stream flows
  - Rising ground waters
  - Uncontaminated ground water infiltration
  - Uncontaminated pumped ground water
  - Discharges from potable water sources
  - Foundation and footing drains
  - Air conditioning condensate

- Irrigation water
  - Springs
  - Water from crawl space and basement sump pumps
  - Lawn watering runoff
  - Water from individual residential car washing
  - Flows from riparian habitats and wetlands
  - De-chlorinated swimming pool and water reservoir discharges
  - Residual street wash water
  - Discharges or flows from fire fighting activities
  - Any SPDES permitted discharge
- The Broome Tioga Stormwater Coalition (BTSC) purchased storm drain markers to be installed on existing catch basins. The Town of Binghamton purchased the storm drain markers for catch basins in its 2013 FY and has installed them on all of their catch basins.
  - The Town of Binghamton will continue to inspect and clean catch basins on a rotating basis. The inspection plan requires that on an annual basis 25% of the catch basins are visually inspected, cleaned and documented on the “Catch Basin Inventory Form”.
  - Through the minimum reporting requirements the Town of Binghamton will document its progress in implementation of BMPs and measureable goals.

## **5. Minimum Required Reporting**

- Number of illicit discharges detected and eliminated;
- Percent of outfalls for which an outfall reconnaissance inventory has been performed;
- Activities in and results from informing public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;
- Regulatory mechanism status – certification that law is equivalent to the State’s model IDDE law (if not already completed and submitted with an earlier annual report); and
- Report on effectiveness of program, BMP and measureable goal assessment.

These required elements are all covered in the BTSC MS4 Stormwater Annual Report.

## Minimum Control Measure 4: Construction Stormwater Management

Polluted stormwater runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and streams. Of the pollutants listed in the box to the right, sediment is usually the main pollutant of concern. Sources of sedimentation include agriculture, urban runoff, construction, and forestry. Sediment runoff rates from construction sites however are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction sites can contribute more sediment to streams that can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to our waters.

### Pollutants Commonly Discharged From Construction Sites

- Sediment
- Solid and Sanitary Wastes
- Phosphorous (fertilizer)
- Nitrogen (fertilizer)
- Pesticides
- Oil and Grease
- Concrete truck washout
- Construction Chemicals
- Construction Debris

### 1. Description of Minimum Control Measure

The Construction Site Runoff MCM consists of BMPs that focus on the reduction of pollutants to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activities disturbing less than one acre will be considered if it is part of a larger common plan of development or sale that would disturb one acre or more. The BMPs describe legal authority mechanism that will be used to require erosion and sediment controls, enforcement procedures and actions to ensure compliance, 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, procedures for site plan review which incorporate the consideration of water quality impacts, procedures for receipt and consideration of information submitted by the public, and procedures for site inspection and enforcement of control measures.

The stormwater regulations for Construction Site Runoff Control apply to privately-owned and management projects, and MS4-owned and managed projects. Therefore, the goals described in this section have application to both types of projects.

### 2. General Permit Requirements

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to their MS4. The MS4 operator is required at a minimum to:

- Have an ordinance or other regulatory mechanism equivalent to the NYS SPDES General Permit for Stormwater Discharges from Construction Sites, requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites;

- Address stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre, and those construction activities that are part of a larger common plan of development or sale that would disturb one acre or more;
- Include a law, ordinance to require a SWPPP for each applicable land disturbing activity that includes erosion and sediment controls that meet the State’s most current technical standards;
- Have procedures for site plan review of SWPPPs that consider potential water quality impacts and consistency with State and local sediment and erosion control requirements; MS4 must also have trained individuals performing the reviews, all sites of one acre or greater must be reviewed and an MS4 Acceptance Form must be completed;
- Have procedures of site inspection and enforcement of control measures;
- Have sanctions to ensure compliance (established in ordinance or other regulatory mechanism);
- Establish procedures for the receipt and consideration of information submitted by the public (i.e. Complaints); and
- Describe procedures for site inspections and enforcement of erosion and sediment control measures including steps to identify priority sites for inspection and enforcement based on the nature of construction activity, topography, and the characteristics of the receiving waters;
- Educate construction site owner/operators, design engineers, municipal staff and other individuals to whom these regulations apply about the municipality’s stormwater construction requirements
- Ensure that construction site operators have received erosion and sediment control training before they do work within the MS4 and maintain records of that training.
- Establish and maintain an inventory of active construction sites, including the location of the site, owner/operator contact information;
- Develop, record, periodically assess and modify as needed measurable goals; and
- Determine the appropriate BMPs and measurable goals for this minimum control measure to ensure the reduction of all Pollutants of Concern (POCs) in stormwater discharges to the Maximum Extent Practicable. Suggested BMPs (i.e. the program actions/activities) and measurable goals are presented below.

### **3. Methodology for Compliance with Permit Requirements:**

Each participating MS4 of the BTSC had adopted the NYS Sample Local Law for Stormwater Management and Erosion and Sediment Control. This ordinance authorizes the MS4 to enforce a program that reduces pollutant runoff from construction sites. Each MS4 will be responsible for:

- Reviewing SWPPPs
- Inspecting Construction Sites
- Enforcing permit requirements on developers/owners/operators that do not comply with regulations.

The BTSC will also provide training to developers, contractors, and design engineers in order to inform them of the regulations. Training will also be provided by the BTSC to each participating

MS4 personnel that will be responsible for inspecting the construction sites and enforcing permit requirements.

Previous Permit Accomplishments:

- The Town of Binghamton has adopted a local stormwater ordinance that establishes minimum stormwater management requirements. The ordinance addresses issues relating to the following;
  - Erosion & Sediment Control;
  - Stormwater Management Design Requirements;
  - Construction Requirements; and
  - SWPPP reviews, inspections and maintenance.
- A checklist developed by NYSDEC Division of Water Region 7 is utilized by the Town of Binghamton to complete reviews of SWPPPs and is available to contractors, developers, engineers or the owner of the project.

## 4. Goals

Construction Plan Review Goals:

- Amend the stormwater ordinance as necessary to maintain the NYS stormwater standards and requirements as defined by the current or any future permits pertaining to stormwater management activities.
- Continue to utilize the “SWPPP Review Checklist” as a set of criteria that the Town can use to verify construction plan compliance with local, state, and/or federal stormwater regulations.
- Continue to allow the public to request information, and to relay concerns to the applicable representative(s) of the Town by visiting or e-mailing the Code Enforcement Office.
- Continue to utilize the “SWPPP Inventory & Inspections” spreadsheet as an internal tracking and plan review procedure to cover the following issues:
  - Conformance to local stormwater regulations
  - Appropriate use of temporary erosion controls
  - Inclusion of any required local, state, and / or federal stormwater permit documents
- Continue to provide training for any newly hired, elected or appointed Town representative(s) that will be completing the construction plan reviews for the Town, including planning and zoning boards. Newly hired employees, elected or appointed Town representatives will be trained during their orientation period.
- Continue to conduct SWPPP reviews for all sites within the Town of Binghamton where disturbance is one acre or greater to ensure consistency with State and local sediment and erosion control requirements and complete a “MS4 SWPPP Acceptance Form”.
- Continue to educate the local construction community on the construction plans review process. Trainings for contractors are typically done through the Broome and Tioga Soil & Water Conservation District Offices. As the trainings are announced (usually via e-mail) the Town will continue to post the notice of the training on its website.
- Provide notice to the public that a project will be open for review and comment. For example the Planning Board posts the property of the proposed project for one week prior to the public meeting.

- Notify owners/operators of local construction sites who are in violation of the standards as defined by the General Construction Permit.
- Maintain records of plans reviewed and approved under this program.
- Track the number of SWPPP's reviewed annually on the Town's "SWPPP Inventory & Inspections" spreadsheet. All SWPPP's shall be entered into the spreadsheet upon issuance of MS4 SWPPP Acceptance Form.

Construction Inspection Procedures and Certification Program Goals:

- Continue to utilize inspection forms and procedures based on the adopted local laws regulating construction sites within the Town of Binghamton that disturb one acre of land or more. The inspection forms and procedures keep track of, but are not limited to the following stormwater management procedures:
  - Use of temporary erosion controls.
  - Control of other construction related wastes;
  - Operational and general prohibitions;
  - Site closure and stabilization requirements;
  - On-site documentation and records; and
  - Enforcement action and on-site communication issues.
- Conduct and report annually on inspection procedures and educational efforts to familiarize municipal staff and the local construction community with local stormwater regulations relating to construction activities.
- By May 1, 2010 all construction site operators must verify at least one employee on site has received the required four hours of erosion and sediment control training within the last 3 years before they do work within the Town of Binghamton.
- Continue to utilize the "SWPPP Inventory & Inspections" spreadsheet for tracking new and on-going construction activities.
- Take action against owners and/or operators of local construction sites that are in violation of local construction stormwater regulations using the enforcement regulation outlined in the adopted local laws.
- Maintain records of construction site inspections, enforcement actions, and corrective actions performed by local construction site owners and operators
- Ensure that all municipal staff and/or the local construction community are educated with regards to local inspection procedures by May 1<sup>st</sup> each year.
- Inspect and maintain records of all construction sites where one acre of land or more is being disturbed using appropriate inspection procedures and forms to ensure compliance with local stormwater regulations;
- Track the number of active construction sites inspected annually on the Town's "SWPPP Inventory & Inspections" spreadsheet. Sites shall be inspected at least once per month while construction is active.

**5. Minimum Required Reporting**

At a minimum, the permittee shall report on the items below:

- Number of SWPPPS reviewed
- Number and Type of Enforcement Action
- Percent of active construction sites inspected once
- Percent of active construction sites inspected more than once
- Number of Construction sites authorized for disturbance activities of one acre or more

- Report of effectiveness of program, BMP and measurable goal assessment.
- These elements are covered in the BTSC/Town of Binghamton MS4 Annual Stormwater Reports.



## **Minimum Control Measure 5: Post-Construction Stormwater Management**

Post construction stormwater management in areas undergoing new development or redevelopment is necessary because of runoff from these areas has been shown to significantly affect receiving water bodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction stormwater discharges is the most cost-effective approach to stormwater quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater runoff. As runoff flows over areas altered by development it picks up harmful sediment and chemical such as oil and grease, pesticides, heavy metals, and nutrients. These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the water body during storms. Increased impervious surfaces (i.e. parking lots, driveways, and rooftops) interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank erosion and downstream flooding, which often lead to a loss of aquatic life and damage to property.

### **1. Description of Minimum Control Measure**

The Post Construction Stormwater Management MCM consists of goals that focus on the prevention or minimization of water quality impacts from both new and re-development projects that disturb one acre or more. This includes projects less than one acre that are part of a larger common plan of development, or sale that discharge into the MS4. The BMPs describe structural and/or non-structural practices, the legal authority mechanism that will be used to address post construction runoff from new development and redevelopment projects, and procedures to ensure long term operation and maintenance of BMPs.

### **2. General Permit Requirements**

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to their MS4. The MS4 operator is required at a minimum to:

- Provide equivalent protection to the NYS SPDES General Permit for Stormwater Dischargers from Construction Activities
- Address post-construction runoff to their MS4 from new development and redevelopment projects that result in the land disturbance activities of greater than or equal to one acre or part of a larger common plan of development;

- Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, or Local law and meets the State's most current technical standards;
- Develop and implement strategies which include a combination of structural and/or non-structural best management practices, this includes considering Low Impact Development (LID), Better Site Design (BSD) and other Green Infrastructure, as well as smart growth principles, natural resource protection, impervious area reduction, riparian buffers or set back distances for protection of environmentally sensitive areas such as streams, wetlands and erodible soils when developing watershed plans, municipal comprehensive plans, land use regulations, etc.;
- Have procedures for site plan review of SWPPPs that consider potential water quality impacts and consistency with State and local sediment and erosion control requirements; MS4 must also have trained individuals performing the reviews, all sites of one acre or greater must be reviewed and an MS4 Acceptance Form must be completed;
- Ensure adequate long term operation and maintenance of post-construction stormwater management practices within the covered entities jurisdiction. Inventory to include location of practice, type of practice, maintenance needed per practice, SWPPP, dates and type of maintenance performed;
- Provide adequate resources for a program to inspect development and re-development sites by trained staff and to enforce and penalize violators;
- Record, annually assess and modify as needed measurable goals;
- Determine the appropriate best management practices and measurable goals for this minimum control measure.

### **3. Methodology for Compliance with Permit Requirements**

All participating MS4s in the BTSC have adopted the NYS Sample Local Law for Stormwater Management and Erosion & Sediment Control which includes provisions to enforce a program that reduces pollutant runoff from both newly and re-developed sites. Each MS4 will be responsible for inspecting the sites for proper operation and maintenance and enforcing the permit requirements and for properties that are not in compliance. In this manner, the MS4 can ensure adequate long-term management practices for both public and private facilities.

#### Previous Permit Accomplishments:

- Each member of the BTSC has adopted a post-construction stormwater management ordinance. This ordinance establishes minimum stormwater management requirements and controls. The ordinance addresses issues relating to the following:
  - Permanent Erosion & Sediment Controls;
  - Stormwater Management Design requirements;
  - Fee Structure for municipal services relating to SWPPP reviews, inspections and maintenance.

### **4. Goals**

- Develop and implement the fee schedule as needed and amend the stormwater ordinance as necessary to maintain the NYS stormwater standards and requirements as defined by the current or any future permits pertaining to stormwater management activities. (The fee structure should be referenced in Local Law but should be done in a way to update without having to revise the Local Law as a whole). The Town will develop and implement the fee schedule by the end of 2022.

- Amend stormwater ordinance, as necessary, to maintain compliance with NYS stormwater standards and requirements as defined by the current or any future permits pertaining to stormwater management activities.

Inspection Program for Newly and Re-Developed Sites:

- Develop an inspection program for newly developed and re-developed sites for compliance with post construction regulations. This program must include a form and procedures that includes a list of items that municipal personnel and/or members of the local building community can use to guide their operations. This list can include, but is not limited to the following items:
  - Construction of controls according to approved development plans and specifications;
  - Adherence to any legal commitment to operate and maintain permanent stormwater quality structures;
  - Conformance to open space and landscaping requirements; and
  - Conformance to local development standards.

Currently the Town does not have sites (public or private) with post-construction controls. When/if a project employs post-construction controls the Town will develop an inspection program at that time.

- Continue to train inspection personnel and/or members of the local construction community on local post-construction runoff regulations and final inspection procedures by May 1<sup>st</sup> each year.
- Continue to perform inspections on qualifying project sites using adopted inspection forms and procedures to ensure conformance with local post-construction runoff regulations.
- Issue enforcement measures to owners and/or operators of local development projects that are in violation of local post-construction runoff regulations.
- Continue to track development projects that are under construction, those that have been completed and any corrective/enforcement measure that were taken.
- Track and maintain an inventory of projects under local post-construction runoff regulations in accordance with the General Permit.
- Inspect project sites using inspection forms and procedures to ensure conformance with local post-construction runoff regulations in accordance with the General Permit;
- Ensure that after projects are complete a Notice of Termination is filed with the NYSDEC and the Owner/Operator performs Operation and Maintenance Inspections as specified in the SWPPP. A copy of the O&M Inspection shall be submitted to the Town for its records.
- Ensure long-term Maintenance Agreements between the Town and the Owner/Operator are properly executed and kept in the project file.
- Track the number of O&M Inspections on the Town’s “SWPPP Inventory & Inspections” spreadsheet.

**5. Minimum Required Reporting**

At a minimum, the permittee shall report on the items below:

- Number of SWPPPS reviewed
- Number and Type of Enforcement Action
- Number and Type of Post Construction Stormwater Management Practices inventoried;

- Number and Type of Post Construction Stormwater Management Practices inspected
- Number and Type of Post Construction Stormwater Management Practices maintained;
- Regulatory mechanism status – certification that regulatory mechanism is equivalent to one of the “NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control” and
- Report on effectiveness of program, BMP and Measurable Goal Assessment.

These elements are covered under the BTSC/Town of Binghamton MS4 Annual Stormwater Reports.

# Minimum Control Measure 6: Pollution Prevention and Good Housekeeping

## 1. Description of Minimum Control Measure

The Pollution Prevention / Good Housekeeping (PP/GH) minimum control measure consists of Best Management Practices (BMPs) that focus on training and the prevention or reduction of pollutant runoff from municipal operations. The BMPs describe the training program; specific municipal operations that are impacted by the proposed operation and maintenance programs (Standard Operating Procedures, or SOPs); maintenance, activities, schedules, and long term inspection procedures for controls to reduce floatables and other pollutants; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations; and procedures for the proper disposal of waste removed from the MS4 and municipal operations, including dredge spoil, accumulated sediments, floatables and other debris.

## 2. General Permit Requirements

An MS4 must, at a minimum:

- Develop and implement a pollution prevention/good housekeeping plan for municipal operations and facilities that:
  - Addresses municipal operations and facilities;
  - Includes a self-assessment of all municipal operations;
  - Determines management practices that will be developed and implemented; Priorities pollution prevention and good housekeeping efforts;
  - Addresses pollution prevention and good housekeeping priorities;
  - Includes an employee training program and ensures staff receives training;
  - Requires third party entities to make required certification;
  - Monitoring and record keeping by municipal operations in accordance with
  - MSGP;
  - Incorporate cost effective runoff reduction techniques and green infrastructure;
- Develop measureable goals.
- Select and implement appropriate BMPs and measureable goals to ensure the reduction of POCs in stormwater discharges to the MS4.
- Adopt techniques to reduce the use of fertilizers, pesticides, and herbicides.

## 3. Methodology for Compliance with Permit Requirements

Past Accomplishments

- The Town of Binghamton has a continuing documented program of street sweeping, ditch cleaning and catch basin cleaning.
- All used oils are disposed of in a waste oil burner which is used as a heat source in winter months.
- The Town of Binghamton Stormwater Management Officer will facilitate training to the DPW municipal personnel. These personnel will be responsible for implementing the BMPs in their everyday activities.
- The Town of Binghamton has coordinated efforts with local groups for beautification projects and cleanup days.

## 4. Goals

### Training

- Provide training to each member of the municipality whose work may potentially impact stormwater. For the Town of Binghamton this includes the Highway, Sewer, Parks, and Water departments.
- The Stormwater Management Officer will annually provide refresher training for employees and provide training to new employees when hired.

### Landscaping & Lawn Care

- Refer to “Best Management Practice/Standard Operating Procedure - Landscape & Lawn Care” document located in Appendix D.

### Vehicle/Equipment Washing

- Refer to “Best Management Practice/Standard Operating Procedure - Vehicle/Equipment Washing” document located in Appendix D.

### Building Maintenance

- Refer to “Best Management Practice/Standard Operating Procedure - Building Maintenance” document located in Appendix D.

### Hazardous & Waste Materials Management

- Refer to “Best Management Practice/Standard Operating Procedure - Hazardous & Waste Materials Management” document located in Appendix D.

### Operational By-products/Wastes

- Refer to “Best Management Practice/Standard Operating Procedure - Operational By-products/Wastes” document located in Appendix D.

### Roadway & Bridge Maintenance

- Refer to “Best Management Practice/Standard Operating Procedure - Roadway & Bridge Maintenance” document located in Appendix D.

### Road Salt Storage & Application

- Refer to “Best Management Practice/Standard Operating Procedure - Road Salt Storage & Application” document located in Appendix D.

### Catch Basin & Storm Drain System Cleaning

- Refer to “Best Management Practice/Standard Operating Procedure - Catch Basin & Storm Drain System Cleaning” document located in Appendix D.

### New Construction & Land Disturbance

- Refer to “Best Management Practice/Standard Operating Procedure - New Construction & Land Disturbance” document located in Appendix D.

### Hydrologic Habitat Modification

- Refer to “Best Management Practice/Standard Operating Procedure - Hydrologic Habitat

Modification” document located in Appendix D.

#### Street Cleaning & Maintenance

- Refer to “Best Management Practice/Standard Operating Procedure - Street Cleaning & Maintenance” document located in Appendix D.

## **5. Minimum Required Reporting**

#### Program Development:

Identification of municipal operations and facilities that will be considered for inclusion in the program;

- Description of PP/GH program priorities;
- Description of management practices and policies to be developed;
- Identification of staff and equipment available;
- Description of employee PP/GH training program, begin training, report on number of staff trained;
- Description of development management practices.

#### Program Implementation:

- Commence implementation reporting after three year development permit. Implementation reporting can begin earlier if implementation begins during development period.
- Indicate the municipal operations and facilities that the pollution prevention and good housekeeping program assessed;
- Describe the management practices, policies and procedures that have been developed and report on the following items:
  - Acres of parking lot swept;
  - Miles of street swept;
  - Number of catch basins inspected and cleaned (where necessary);
  - Post-construction control stormwater management practices inspected and cleaned (where necessary);
- Staff training events and number of staff trained; and
- Report on effectiveness of program

## STORMWATER MANAGEMENT PROGRAM PLAN: Implementation Schedule

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
MCM 1  Status: Task Completed by BTSC	Demonstrate stormwater model	Broome-Tioga Stormwater Coalition and Town of Binghamton	Contact schools within	Establish classrooms for demos	2 classroom demos	2 classroom demos	2 classroom demos
	Develop brochures	Broome-Tioga Stormwater Coalition	Determine subjects and design brochure	Develop and distribute brochure 1	Develop and distribute brochure 2	Develop and distribute brochure 3	Develop and distribute brochure 4
	Develop TV PSA campaign	Broome-Tioga Stormwater Coalition	Outreach to TV stations and	Develop campaigns	Rollout Campaign 1	Rollout Campaign 2	Rollout Campaign 3
	Webpage / Create links to BTSC website	Town of Binghamton	Design web page and create link	Design web page and create link to BTSC site	Update as needed	Update as needed	Update as needed
MCM 2  Status: Task Completed	Purchase & install 350 Storm Drain Markers	Highway Department	Purchase 350 Storm Drain Markers	Install storm drain markers	Install storm drain markers	Install storm drain markers	Install storm drain markers.
	Stream Clean-up	Town of Binghamton	Conduct public outreach for volunteer participation	Conduct public outreach for volunteer participation	Conduct public outreach for volunteer participation	Conduct public outreach for volunteer participation	Conduct public outreach for volunteer participation
MCM 3  Status: Task Completed/ongoing as-needed	Outfall reconnaissance inventory	Highway Department Town Engineer	Inventoried all outfalls	Continue annual inspections	Continue annual inspections	Continue annual inspections	Continue annual inspections



MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
3 cont. Status: Complete Task ongoing as-needed	Develop Catchbasin inventory	Highway Department Town Engineer	CBs are inventoried in a data base.	Update as needed	Update as needed	Update as needed	Update as needed. Completed
	Map catch basins within the MS4	Highway Department Town Engineer	Storm system has been mapped	Update as needed	Update as needed	Update as needed	Update as needed
	Catch Basin and storm drain system inspection and cleaning	Highway Department Town Engineer	Continue with current level of inspection and cleaning of CBs,ditches and outlets	Continue with current effort.	Continue with current effort	Continue with current effort	Continue with current effort
	Develop public service information	Town of Binghamton					
MCM 4 Status: Ongoing as-needed	Site Plan and Project Review	Planning Board Stormwater Officer Town Engineer	Continue current requirement to review plans for conformance with NYSDEC and Town storm water requirements.	Continue plan review.	Continue plan review.	Continue plan review.	Continue plan review.
MCM 5 Status: Ongoing as-needed	Inspection of stormwater facilities	Stormwater Officer Town Engineer	Develop a form and inspect installed stormwater facilities	Continue facility inspections	Continue facility inspections	Continue facility inspections	Continue facility inspections

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
MCM 6  Status: Completed/Ongoing as-needed	Training	Town of Binghamton	Provide training to each member of the municipality who's work may impact stormwater	Refresher training	Refresher training	Refresher training	Refresher training
	Street Sweeping, ditch & catchbasin cleaning	Highway Department	Continue current efforts of cleaning and documenting.	Continue current efforts of cleaning and documenting.	Continue current efforts of cleaning and documenting.	Continue current efforts of cleaning and documenting.	Continue current efforts of cleaning and documenting.
	Vehicle/ Equipment Maintenance	Highway Department	Purchased fire proof cabinet for storage of vehicle repair fluids	Continue proper storage of fluids	Continue proper storage of fluids	Continue proper storage of fluids	Continue proper storage of fluids
	Stream Riverbank Cleanup	Broome County Environmental Management Council and Town of Binghamton	Continue to participate in the annual Riverbank Cleanup Program	Continue to participate in the annual Riverbank Cleanup Program waste materials storage	Continue to participate in the annual Riverbank Cleanup Program	Continue to participate in the annual Riverbank Cleanup Program	Continue to participate in the annual Riverbank Cleanup Program

