



**TIOGA COUNTY  
AND  
TOWN OF OWEGO  
STORMWATER MANAGEMENT  
PROGRAM  
PLAN  
EFFECTIVE 5/1/10 – 4/31/15**

**DRAFT**

**TIOGA COUNTY AND TOWN OF OWEGO ARE MEMBERS OF  
THE BROOME-TIOGA STORMWATER COALITION**



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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 (GP-0-08-002) for a Traditional Non-Land Use Control. The purpose of this plan is to maintain or improve water quality. The Tioga County 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 15 participating members.

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
4. Construction Site 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 GP-0-08-002. 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 Tioga County’s Stormwater Management Program Manager and the Stormwater Official Contact.

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 GP-0-10-002, as well as to account for progress made.

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

## **1. Description of Minimum 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, waterbodies 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 sediment and nutrients. 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, waterbodies of concern within the Town of Owego include the Apalachin Creek and the main branch of the Susquehanna River. There are two regulated MS4s addressed by this plan the Town of Owego and Tioga County. In order to address the portions of Tioga County within the MS4 area the Town of Owego and Tioga County have signed an intermunicipal agreement that allows them to coordinate stormwater activities.

**Target Audiences:** Tioga County 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 in stormwater discharges to MEP.

## **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,

Enviroscape 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. BTSC has also created a stamp with our logo to use on pre-printed educational material.
- Creation of a website dedicated to stormwater issues in the Broome-Tioga MS4 area at [www.broometiogastormwater.com](http://www.broometiogastormwater.com).
- 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 Enviroscape Stormwater model is demonstrated.
- The BTSC does modify as needed measurable goals. For instance, one goal had been to do an overall PSA that shows residents practices that will least pollute stormwater. Now we have modified that do produce a series of PSA's that are seasonable in nature such as not raking grass clippings after mowing in the summer, not oversalting driveways and walkways in the winter, containing raked leaves in the fall and not fertilizing or installing rain barrels in the spring.

#### **4. Goals**

- Tioga County will demonstrate the Enviroscape Stormwater Model to 2 classrooms within the MS4 each year
- Tioga County will produce a series of 4 brochures targeted to homeowners on ways to reduce pollution to the stormwater system by season. These brochures will be distributed at various events and to households within the MS4 area.
- Tioga County will produce a series of television PSA's targeted to homeowners on ways to reduce pollution to the stormwater system by season
- Tioga County will create posters containing ways for municipal workers to reduce polluting stormwater runoff to post in municipal offices and highway garages within the MS4 area
- Tioga County will create a separate stormwater webpage on the county's website [tiogacountyny.com](http://tiogacountyny.com) and create a link from that page to the Broome-Tioga Stormwater Coalition website
- BTSC municipalities will purchase 10,000 permanent drain markers and install on catchment basins within the MS4 area. Tioga County will install these markers on 100% (30) of catchments basins on Pennsylvania Avenue.

#### **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/Tioga County MS4 Annual Stormwater reports. Records on training sessions in Tioga County are on file in the Tioga County Economic Development and Planning Office with supplemental materials located at the Tioga County Soil & Water Conservation District Office.

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

## **1. Description of Minimum 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

- Tioga County 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 both Tioga County's and 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 both Tioga County's and Broome-Tioga Stormwater Coalition's website. The annual report is also posted on Tioga

County'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 2 noted websites every year which includes all the required information about the annual report, annual report presentation public meeting, and how and when to comment.
- The Tioga County SWMP will also be permanently posted on the Tioga County website, Stormwater webpage. It will be replaced as it is modified. Archival versions will be on file in the Tioga County Economic Development & Planning Office.

#### **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 and the annual report gets replaced on the Tioga County website.
- The BTSC will continue to hold a public meeting to solicit comment on the annual report and provide sufficient notice. Tioga County will report annually to its County Legislature, also providing sufficient notice through the Legislature meeting agenda and releasing a notice of availability.
- Tioga County and Town of Owego will work in partnership to initiate 2 Adopt-a-Watershed Groups that are within the MS4 Area and the Town of Owego. Various community groups will be recruited to participate such as the Hiawatha Yacht Club, Boys and Girls Scout troops, stream clean up groups, Rotary and Kiwanis Clubs, as well as municipal officials.
- Tioga County and partners will continue to hold the following annual events: stream clean ups, tire collections, household hazardous waste collections and household electronics collections.
- BTSC municipalities will purchase 10,000 permanent drain markers and install on catchment basins in the MS4 area.
- Tioga County will install "Do Not Dump Drains to River" steel, bolt-on drain markers on 30 (or 100%) catchments basins along Pennsylvania Avenue
- Town of Owego will enlist various service working groups such as Tioga Works and Alternatives to Incarceration to install "Do Not Dump Drains to River" steel, bolt-on drain markers on 1,400 catchments basins during this 5-year permit
- Tioga County and the Town of Owego will continue to encourage interested groups to conduct storm drain stenciling projects where needed to supplement those not having permanent markers.
- Tioga County will post all MCM 1 educational material on County website
- Tioga County will continue to post Public Stormwater Contact and Stormwater Program Manager contact information on County website
- Tioga County's Public Stormwater Contact information is posted on the tiogacountyny.com website on the Economic Development and Planning webpage. This information will be moved to a dedicated stormwater webpage when it is created.

## 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/Tioga County MS4 Stormwater Annual Reports.

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

## **1. Description of Minimum 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**

Past accomplishments

- In December 2007 the Town of Owego enacted Local Law #5-2007 to prohibit illicit discharges, activities and connections to separate storms sewer systems.
- Town of Owego Subdivision regulations were amended (Local Law #3-2009) to require that newly installed catch basins are stamped with “No Dumping-Drains to River.”
- The Town of Owego has had all the outfalls within the MS4 area mapped by Tioga County GIS, with the assistance of the Town of Owego Highway Superintendent and has been provided a digital map showing the location of each outfall. Tioga County GIS currently maintains this map, which categorizes each

outfall with a unique identifier, and will eventually link the outfall to a table of outfall properties that records pertinent properties of each outfall.

- The Town of Owego & Tioga County has entered into an intermunicipal agreement whereby the Town of Owego will maintain storm sewers located on Pennsylvania Avenue.

#### 4. Goals

- Using the existing outfall mapping, the Town of Owego 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 Owego Stormwater Management Officer will ensure that outfalls are being inspected; the inspections are documented, and will submit accrued outfall mapping update forms for all outfalls that have been altered since mapping was established to the Tioga County GIS Manager.
- The Town of Owego will provide update information to the base outfall map during routine maintenance visits, scheduled outfall inspections, and responses to complaints. Since outfall mapping is managed by the Tioga County GIS Department, information collected on outfalls will periodically be transmitted to the Tioga County GIS Manager.
- The Town of Owego Stormwater Management Officer will periodically review the ordinance and adjust as necessary to maintain compliance with NYS standards and requirements.
- The Town of Owego will develop a plan, by year 2, to detect illicit discharges by conducting routine visual inspections of every mapped outfall. The plan will set criteria for the inspection process.
- If possible, define the drainage areas about each outfall. Having the drainage areas defined is helpful in tracking down illicit discharge sources. This task can only be accomplished if grants or other funding become available to accomplish this task.
- The Town of Owego 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. This goal will be aided through utilization of a GIS application. Through the BTSC, handheld GPS mapping units will be purchased to assist in plotting the entire storm sewer shed.

- The Town of Owego 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
  - Dechlorinated 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) is in the process of purchasing storm drain markers to be installed on existing catch basins. The Town of Owego will to partner with local work service groups to apply 1400 storm drain markers on catchment basins. 280 will be installed per year for the time period of this permit. The catch basins will be mapped concurrently with drain marker installation. Tioga County will install said markers on 30 catchment basins along Pennsylvania Avenue.
- Town of Owego will inspect and clean 280 catch basins per year on a rotating basis.
- Through the minimum reporting requirements the Town of Owego will document its progress in implementation of BMPs and measureable goals.

## **5. Minimum Required Reporting**

- Number and percent of outfalls mapped;
- Number of illicit discharges detected and eliminated;
- Percent of outfalls for which an outfall reconnaissance inventory has been performed;
- Status of system mapping;
- 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 (fertilizers)
  - 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 SPEDES 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.

**Pervious Permit Accomplishments:**

- Town of Owego has adopted a local stormwater ordinance town wide that establishes minimum stormwater management requirements The ordinance addresses issues relating to the following;
  - Erosion & Sediment Control;
  - Stormwater Management Design Requirements;
  - Construction Requirements; and
  - Fee Structure for Municipality services relating to SWPPP reviews, inspections and maintenance.
- A checklist developed by NYSDEC Division of Water Region 7 is utilized by the Tioga County Soil and Water Conservation District to complete reviews of SWPPPs and is available to contractors, developers, engineers or the owner of the project.
- Town of Owego has contracted services with Tioga County SWCD and a Consultant to review SWPPPs. The Town decides on which contractor will conduct the review of the SWPPP and then will sign the SWPPP Acceptance Form based upon their recommendations.

## **4. Goals**

Construction Plan Review 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.
- Develop and implement a set of criteria that the member MS4 can use to verify construction plan compliance with local, state, and/or federal stormwater regulations
- Develop and implement procedures for the public to request information, and to relay concerns to the representative of the municipality
- Develop & implement an internal tracking and plan review procedures 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
- Provide training for any municipal representatives that will be completing the construction plan reviews for the municipality, including planning and zoning boards.
- Conduct SWPPP review for all sites within the Town of Owego where disturbance is one acre or greater to ensure consistency with State and local sediment and erosion control requirements and complete SWPPP Acceptance Form.
- Educate the local construction community on the construction plans review process.
- Provide notice to the public that a project will be open for review and comment. For example the Planning Board and Town Board agendas for proposed projects list the projects to be discussed, and are posted the Friday prior to the 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.

Construction Inspection Procedures and Certification Program Goals:

- Develop and implement inspection forms and procedures based on the adopted local laws regulating construction sites within the Town of Owego that disturb one acre of land or more. The inspection forms and procedures must 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 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 Owego. The Town should obtain proof.
- Develop and implement internal procedures 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
- Educate municipal staff and the local construction community with regards to local inspection procedures; and
- Ensure that all appropriate municipal staff and members of the local construction community have been trained by May 1<sup>st</sup> 2011.
- 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;

## **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 Owego 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 waterbodies. 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 waterbody 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 streambank 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 an 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; and
  - 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).

- 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.
- Train inspection personnel and/or members of the local construction community on local post-construction runoff regulations and final inspection procedures.
- 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.
- Develop internal tracking procedures to keep tabs on development projects that are under construction, those that have been completed and any corrective/enforcement measure that were taken.
- Develop 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;

## **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 Owego 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 measurable goals.
- Select and implement appropriate BMPs and measurable goals to ensure the reduction of POCs in stormwater discharges to the MS4.
- Adopt techniques to reduce use of fertilizers, pesticides, and herbicides.

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

Past Accomplishments

- A pet waste station, which is monitored and emptied several times weekly, is provided at Hickories Parks Post to dissuade the public from leaving excrement from their pets on Town property. Town parks are also posted
- The Town of Owego does not utilize fertilizers as part of the green space maintenance at Town of Owego Parks.
- There are no fuel tanks on site at any Town of Owego facilities.
- All used oils are disposed on in a waste oil burner which is used as a heat source in winter months.

- All used oil filters are disposed of in a leak proof container and are picked up three times a year by a private service (Safety Kleen)
- All vehicles and equipment owned by the Town of Owego are fueled at a local private terminal located off-site.
- The current Town of Owego street sweeping policy is that all town roads are swept and all catch basins are cleaned once a year. Street sweeping in the MS4 areas within the Town begins as soon as possible in the spring.
- During ice and snow storms, all areas within the Town of Owego MS4 receive a high concentration of salt (80-85%) to prevent excessive silt and sediment from entering the storm drain system.
- The Tioga County Soil & Water Conservation District has and will facilitate training to the municipal personnel of participating MS4s. These personnel will be responsible for implementing the BMPs in their everyday activities.

#### **4. Goals**

##### ***Training***

- Provide training to each member of the municipality whose work may potentially impact stormwater. For the Town of Owego this includes the Highway, Parks, and Water departments. Several members of the Town, trained through the Tioga County Soil & Water Conservation District, will be responsible for training the remaining members of their municipality, as necessary.
- The Stormwater Management Officer will annually provide refresher training for employees and provide training to new employees when hired.
- *The Municipal Training Program Documentation Form following this section is provided to record training of employees.*

##### ***Landscaping & Lawn Care***

- Reduce the discharge of landscaping and lawn care waste from Town owned facilities through better mowing and landscaping maintenance practices. Report annually on the activities conducted under this program.
- Maintain an inventory of landscaping and lawn care areas that are owned by the Town of Owego within the MS4 regulated area.
- Evaluate current landscaping and lawn care activities in order to identify opportunities to reduce the discharge of the following:
  - 1) Fertilizers
  - 2) Leaf litter and tree trimmings
  - 3) Litter and floatable materials
  - 4) Equipment fluids
- Ensure that proper litter collection is scheduled prior to any mowing activities.
- Train employees in the proper application of lawn care products.
- Use all herbicides, pesticides, and fertilizers in accordance with manufacturers' instructions for application rates and quantities.
- Purchase only enough lawn care products necessary for one year – store properly to avoid waste generation (spills, leaks).
- Use slow release or naturally derived (organic) fertilizers.

- Evaluate methods for containing and/or composting trimmings and grass clippings.
- Develop zero input/low input lawns that require minimal or no herbicide/pesticide application.
- Consider alternative landscape techniques (i.e. naturescaping – landscaping with native plants to reduce water, energy, and chemical usage; xeriscaping – landscaping with native and drought resistant plants to reduce irrigation needs).
- Plant trees away from sewer lines or other underground utilities.
- Use drip irrigation techniques for landscaping.
- Establish monitoring program to promptly identify problems with vegetation.
- Establish a maintenance program to accomplish the following:
  - 1) Minimize/eliminate fertilizer application.
  - 2) Leave grass clippings on lawn.
  - 3) Water lawns no more than 1 inch per week.
  - 4) Mow with sharpened blades set at or higher than 3 inches.
  - 5) Water plants before 10 AM.
- Rinse grass from lawn care equipment on permeable (grassed) areas.
- Town of Owego Parks Maintenance Supervisor will annually review monitoring and maintenance program and revise as necessary.
- *The Lawn Care Inspection Form following this section is provided to document lawn maintenance to prevent erosion and contamination of stormwater.*

#### ***Vehicle/Equipment Maintenance***

- Maintain vehicles owned by the Town of Owego according to manufacturer's specifications and identify and eliminate significant vehicle fluid leaks.
  - Conduct routine maintenance on all vehicles according to manufacturer's specifications.
    - 1) During routine maintenance of Town owned vehicles, inspect vehicles for the presence of fluid leaks.
    - 2) Schedule repairs for vehicles determined to have significant fluid leaks.
    - 3) Maintain vehicle maintenance records and document fluid leak repair activities.
  - Conduct maintenance indoors whenever possible.
  - For maintenance performed outside, guard against spillage of materials that could discharge to storm receivers.
  - If possible, seal floor drains that discharge directly to the environment. If not possible, obtain wastewater discharge permits from regulatory agency.
  - Initiate single purpose use of vehicle bays – dedicate one (or more) bays that have no (or sealed) floor drains for repairs/maintenance.
  - Clean up spilled materials immediately, using “dry” methods.
  - Install pretreatment systems (oil/water separators) where necessary in sewer lines to capture contaminants (oil, grit), and maintain as needed.
  - Use non-hazardous cleaners. Use non-chlorinated solvents instead of chlorinated solvents. Use steam cleaning / pressure washing instead of solvents for parts cleaning.
  - Store batteries in leak proof, compatible (i.e. non-reactive) containers.
- Standard Operating Procedure:
- 1) Maintain an inventory of municipal owned vehicles.

- 2) Require municipal vehicle operators to conduct daily inspections of vehicles to check for fluid leaks.
  - 3) Review vehicle inspection and maintenance records to evaluate conformance to vehicle manufacturer service specifications and local stormwater program requirements.
- *The Vehicle/Equipment Maintenance and Inspection Form following this section is provided to document inspections for and repair of fluid leaks, and manufacturer's specified routine maintenance.*

### ***Vehicle/Equipment Washing***

- Town of Owego owned vehicles and equipment are washed in a manner to prevent discharge of pollutants to the municipal storm sewer system or local water bodies.
- Maintain an inventory of Town owned vehicles and equipment. Inspect floor drain systems regularly – use only those that discharge to a sanitary sewer or those that are permitted by the regulatory agency. Identify the need for cleaning of catch basins, oil/water separators.
- Initiate single purpose use of vehicle bays - dedicate only one bay for washing (with floor drain system).
- Perform cleaning with pressurized cold water, without the use of soaps, if wastewater will flow to a storm sewer system.
- Use minimal amounts of biodegradable soap only if wastewaters will discharge to a sanitary sewer system.
- Rinse with hoses that are equipped with automatic shutoff devices and spray nozzles.
- Steam clean (without soap) where wastes can be captured for proper disposal (i.e. oil/water separator).
- Map storm drain locations accurately to avoid illegal discharges.

### ***Building Maintenance***

- Conduct building maintenance activities such that they do not impact the stormwater systems and local water bodies.
- Maintain a list of the maintenance activities required inside and outside of each municipal building, and identify which activities have an impact on stormwater.
- Implement mitigation measures for each activity that impacts stormwater.
- Annually review the mitigation measures for each activity and revise as necessary.

### ***Hazardous and Waste Materials Management***

- Prevent the discharge of hazardous (lube oils, coatings and their components, anti-freeze, cleaning agents and fuels) and waste materials from impacting municipal stormwater systems and local waterbodies.
- **The Superintendent of Highways, Parks Maintenance Supervisor and Director of Utilities will:**
  - Maintain an inventory of existing hazardous and waste materials and their storage locations.
  - Plan for proper storage of hazardous and waste materials that are not currently stored properly.
  - Implement plan for proper storage of all hazardous and waste materials.

- Repair or replace any leaking/defective containers, and replace labels as necessary.
- Maintain caps and/or covers on containers.
- Maintain aisle space for inspection of products/wastes.
- Ensure that all materials are stored in closed, labeled containers – if stored outside, drums should be placed on pallets, away from storm receivers – inside storage areas should be located away from floor drains.
- Eliminate floor drain systems that discharge to storm drains, if possible.
- Use a pretreatment system to remove contaminants prior to discharge.
- Reduce stock of materials “on hand” – use “first in/first out” management technique.
- Use the least toxic material (i.e. non hazardous) to perform the work.
- Install/use secondary containment devices where appropriate.
- Eliminate wastes by reincorporating coating/solvent mixtures into the original coating material for reuse.
- Recycle materials if possible, or ensure proper disposal of wastes.
- Annually inspect material storage areas (inside and outside).
- Annually inspect cleaning of oil/water separators by qualified contractor.
- Annually inspect stormwater discharge locations (for contaminants, soil staining, plugged discharge lines).
- *The Hazardous Materials Management Form following this section is provided to document inspections for hazardous and waste materials storage.*

#### ***Operational By Products/Wastes***

- Prevent the potential for leaching of toxic and biological contaminants from dump areas from reaching the municipal stormwater system or local waterbodies.
- **The Superintendent of Highways will:**
  - Post “no dumping” signs where needed.
  - Illuminate area if possible.
  - Prevent access – erect barriers where needed.
  - Identify the by-products/wastes that should be recycled (i.e. paper, cardboard) or can be legally disposed of on municipal lands (i.e. deer carcasses) by referencing NYSDEC regulations (6NYCRR PART 360).
  - Store mulch and leaves on high ground to mitigate contact with stormwater.
  - Clean up and dispose of “illegally dumped” materials, trash/debris in accordance with environmental regulations.
  - Cut and remove vegetation from dump areas.
  - Regularly schedule inspections for areas of maintenance concerns.
  - Coordinate with police for unscheduled patrolling of dump areas.

#### ***Roadway and Bridge Maintenance***

- Assess roadway and bridge maintenance activities and modify procedures to reduce stormwater quality impacts.
- **The Superintendent of Highways will:**
  - Pave in dry weather only.
  - Stage road operations and maintenance activity (patching, potholes) to reduce spillage. Cover catch basins and manholes during this activity.
  - Clean up fluid leaks or spills from paving equipment/materials immediately.
  - Restrict the use of herbicides/pesticide application to roadside vegetation.
  - Use porous asphalt for shoulder work.

- Sweep and vacuum paved roads and shoulders as necessary to remove debris and particulate matter.
- Maintain roadside vegetation; select vegetation with a high tolerance to road salt.
- Identify “alternative” maintenance practices that would reduce the discharge of road-materials during construction or maintenance activities (e.g. repairing leaking/defective containers or equipment on paving equipment).
- Revise roadway maintenance specifications according to identified alternative practices.
- Maintain records of road maintenance activities and the use of alternative maintenance practices.
- Incorporate preventive maintenance in planning for regular operations & maintenance activities.
- Control particulate wastes from bridge sandblasting operations.
- Clean out bridge scuppers and catch basins regularly.
- Direct water from bridge scuppers to vegetated areas.
- Mechanically remove (i.e. sweep) debris from bridge deck and structure prior to washing
- Install catch basins in place of bridge scuppers.
- Use tarps, booms, and vacuums during painting or blasting activities to control/capture particulate matter.
- Inspect roads and bridges for implementation of applicable BMPs.
- Evaluate roadway maintenance program annually and revise roadway maintenance specifications according to identified alternative practices.
- *The Roadway Maintenance and Inspection Form following this section are provided to document paving and other operations.*

### ***Road Salt Storage and Application***

- Provide proper storage and application of road salt to reduce the impact of salt on plants, aquatic life, and the local waterbodies.
- **The Superintendent of Highways will:**
  - Train operators on environmental hazards of over-salting roads.
  - Identify areas particularly susceptible to contamination in the MS4 area.
  - Use covered facility for salt storage (prevents lumping and run-off loss), sized properly for seasonal needs.
  - Store salt on highest ground elevation to mitigate contact with stormwater.
  - Calibrate salt spreaders as necessary.
  - Consider alternative deicing materials (i.e. calcium chloride, magnesium chloride).
  - If possible, use a wetting agent with salt to minimize “bouncing” during application.
  - Unload salt deliveries directly into storage facility, or if not possible, move inside immediately.
  - Inspect salt storage shed for leaks, other problems. Repair as needed.
  - Inspect salt piles for proper coverage, and/or tarps for leaks or tears. Replace tarps as needed.
  - Inspect salt application equipment.
  - Inspect salt regularly for lumping or water contamination.
  - Inspect surface areas for evidence of runoff – salt stains on ground near and around the salt shelter, loading area, or down slope.
  - Inspect for excessive amounts of salt on roads.

- Inspect equipment to verify proper operation. Service trucks and calibrate spreaders regularly to ensure accurate, efficient distribution of salt.
- *The Road Salt Storage and Application Inspection Form following this section are provided to document inspections for roads and salt storage areas, and calibration of salt spreaders.*

### ***Catch Basin and Storm Drain System Cleaning***

- Reduce sediment and floatable material discharges by routinely cleaning municipal catch basins and stormwater inlet structures.
- **The Superintendent of Highways will:**
  - Identify areas where catch basins, surface inlets, and/or storm sewer manholes should be periodically cleaned to reduce discharge of floatable materials, sediment, and other materials.
  - Prioritize storm drain systems and catch basins (e.g. catch basins on steep grades may need more frequent cleaning).
  - Develop a schedule for inspection and cleaning of inlet structures, catch basins, and manholes.
  - Inspect catch basins, (below grade) storm sewer systems, and open ditches for need of maintenance or cleaning.
    - Clean catch basins when depth of deposits is  $> 1/3$  to bottom of pipe.
    - Storm event inspection – identify pollution problems (i.e. sediments).
    - Post storm event inspection – identify problems (i.e. blockage).
  - Evaluate the catch basin cleaning schedule on an annual basis.
    - Increase frequency of cleaning as necessary.
  - Catch basins and floor drain systems inside of buildings should be either:
    - Sealed to prevent discharge
    - Permitted by NYSDEC
    - Discharged to sanitary sewers
  - Repair/replace storm drain receiver and catch basin receiver grates as necessary.
  - Maintain slope of drainage ditches.
  - Maintain vegetation in drainage ditches by cutting (to capture sediment).
  - Remove obstacles/ debris from drainage ditches.
  - After excavation /ditch scraping, reseed ditch.
- *The Storm Drain System Inspection Form following this section is provided to document maintenance operations including inspections and cleaning of catch basins and ditches.*

### ***New Construction and Land Disturbance***

- Comply with the Town's construction and post-construction minimum control measures.
- **The Superintendent of Highways will:**
  - Provide education material and training opportunities to the municipal work crews to inform them of the local, state, and/or federal regulations that will impact their projects.
  - Plan the construction and/or land clearing activities so that soil is not exposed for long periods of time.
    - Minimize compaction of soils.
    - Minimize impervious cover.
    - Maximize opportunities for infiltration.
  - Install sediment control devices before disturbing soil.

- Limit grading to small areas.
- Stabilize site to protect against sediment runoff.
- Protect against sediment flowing into storm drains.
- Maintain native vegetation (especially near waterways).
- Install sediment barriers on slopes or divert stormwater.
- Inspect erosion and sediment controls (ES&C) devices.
- Inspect ES&C devices during storm or snow melt events.
- *The Land Disturbance Inspection Form following this section is provided to document inspections of erosion and sediment control devices.*

### ***Hydrologic Habitat Modification***

- Develop requirements for the municipal work crews to abide by during hydrologic habitat modification such as stream and ditch cleaning, and wetland disturbance. Provide training to the local municipal work crews regarding the requirements associated with any habitat modification.
- **The Superintendent of Highways will:**
  - Identify any potential habitat modification to the Tioga County Soil & Water Conservation District, NYSDEC and USACOE through their Joint Application for Permit Program.
  - Comply with all requirements of the NYSDEC and USACOE permits for work within freshwater wetlands and streams.
  - Comply with the construction and post-construction requirements within the stormwater regulations.
  - Provide the NYSDEC and USACOE with the required information in the Joint Application for Permit to obtain their approval prior to proceeding.
  - Tioga County Soil & Water Conservation District will annually provide additional training as necessary to the municipal work crews.

### ***Street Cleaning and Maintenance***

- Develop requirements for the sweeping of streets and roadways in order to reduce the amount of sediment and associated pollutants discharged to the MS4 from roadways.
- **The Superintendent of Highways will:**
  - Identify the type of roadways that should be swept to remove sediment and other pollutants.
  - Perform operations such as paving in dry weather only.
  - Maintain records of streets that have been cleaned.
  - Adjust sweeping schedules according to program needs.
  - Prior to road reconstruction, consider/evaluate the use of “shouldered roads” instead of “curbed roads”.
  - Maintain roadside vegetation; select plants/trees that can withstand the action of road salt and direct runoff to these areas.
- *The Roadway Maintenance and Inspection Form following this section is provided to document roadway sweeping/cleaning operations.*

### ***Boating Operations***

- Provide for proper operation and maintenance of boating access in order to mitigate the contamination of the stormwater system and local waterbodies.
- **The Parks Maintenance Supervisor will:**

- Minimize the impact of the following items:
  - Liquids associated with boat maintenance products (oils, fuels, antifreeze, wood preservatives, etc.) and particulate matter (i.e. boat bottom paint from hull sanding)
  - Sedimentation from barren soils.
- Implement the following:
  - Stabilize shoreline.
  - Designate locations for boat maintenance away from the water.
  - Minimize impervious areas – install vegetated buffer strips (i.e. grass, shrubs).
  - Provide covered trash receptacles.
  - Educate (posters, signage) boaters and other marina users of potential problems.
  - Identify areas of runoff that lack vegetation.
  - Regularly check fueling areas, maintenance areas for spills, other potential sources of pollution.

### ***Pest Control***

- Reduce the discharge of pesticides from Town owned facilities as they may harm aquatic life and may contaminate local water bodies and sediment.
- **The Parks Maintenance Supervisor will:**
  - Identify pests within municipality. Determine if levels are acceptable or if action needs to be taken to control them.
    - Assess each location for opportunities to implement alternative practices and to retrofit structures in order for non-pesticide methods of maintenance to become effective.
    - Develop a prioritized list of areas where retrofits and alternative pest control practices would reduce overall pesticide and herbicide application volumes.
  - Maintain an inventory of areas designated for herbicide and pesticide application including the following:
    - Area of application
    - Type of pesticide or herbicide applied
    - Purpose of application
    - Pesticide and herbicide application schedule.
  - Comply with local, state, and federal regulations associated with pesticide and herbicide application, e.g. licensing regulations.
  - Purchase only enough pesticides necessary for one year – store properly to avoid waste generation (spills, leaks, product deterioration).
  - Minimize/eliminate pesticide application, use lowest toxicity pesticides.
  - Track the volume and type of pesticide or herbicide applied at each location.
  - Do not apply pesticides immediately prior to or during rain events.
  - Ensure that employees are properly trained and certified in pesticide application techniques and safety.
  - Develop zero input or low input lawns.
  - Eliminate food, water, and shelter for pests
  - Adopt integrated pest management (IPM) techniques.
  - Adopt alternatives to pesticides options (use physical, mechanical, or biological controls).
  - Inspect pest traps (bait boxes) regularly. Remove and properly dispose of dead pests.
  - Block/eliminate access to buildings/structures for pests.
  - Remove pests (insects).

- Follow NYSDEC regulations (6NYCRR Part 325).
- The Pest Control Materials Management Form following this section is provided to document the application of herbicides and pesticides to prevent the contamination of stormwater.

### ***Septic System Management***

- Prevent improperly treated wastewaters from Town-owned septic systems from impacting municipal stormwater systems and local waterbodies.
- **The Parks Maintenance Supervisor will:**
  - Divert stormwater runoff (i.e. from roof drains) away from septic system.
  - Divert groundwater (sump pump) discharges away from septic system.
  - Prevent problems caused by vegetation - growth of woody plants on the System.
  - Prevent hydraulic overloading - “Spread out” the use of devices which use large volumes of water across the entire day. Repair leaky fixtures.
  - Minimize water usage by using flow restrictors on potable water distribution devices (i.e. shower heads, water faucets)
  - Develop an inventory of existing municipal sewage treatment systems.
  - Prevent heavy equipment from driving on top of the system components.
  - Assess each septic system on an annual basis for the following conditions:
    - “back up” of wastewater in sewer lines
    - sewage odors
    - leach field/sand filter - wetness/ponding on surface
    - overflow of wastes from system components
    - heavy vegetation (woody plants) growth on system components
  - Determine the interval for pumping out each municipal septic tank.
- The Septic System Inspection Form following this section is provided to document inspection and maintenance of municipal septic systems

## **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);  
Pounds of phosphorus applied in chemical fertilizer  
Pounds of nitrogen applied in chemical fertilizer; and  
Acres of pesticides/herbicides applied.

- Staff training events and number of staff trained; and
- Report on effectiveness of program

## **STORMWATER MANAGEMENT PROGRAM PLAN: Implementation Schedule**

<b>MCM</b>	<b>Description of Activity</b>	<b>Who is Responsible?</b>	<b>Expected Annual Accomplishment</b>				
			Year 1	Year 2	Year 3	Year 4	Year 5
MCM 1	Demonstrate stormwater model	Tioga County and Town of Owego	Contact schools within the O-A District	Establish classrooms for demos	2 classroom demos	2 classroom demos	2 classroom demos
	Develop brochures	Broome-Tioga Stormwater Coalition	Determine subjects and design brochure formats	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 consultants	Develop campaigns	Rollout Campaign 1	Rollout Campaign 2	Rollout Campaign 3
	Webpage / Create links to BTSC website	Tioga County and Town of Owego	Design web page and create link	Update as needed	Update as needed	Update as needed	Update as needed
MCM 2	Purchase & install 1400 Storm Drain Markers	Debbie/Mark (purchase) Mark/Tioga Works (install)	1400 storm drain markers purchased – 280 installed	280 storm drain markers installed	280 storm drain markers installed	280 storm drain markers installed	280 storm drain markers installed
	Establish 2 Adopt-A-Watershed Groups	Tioga County and Town of Owego	Conduct public outreach for volunteer participation	Establish 1 group	Start Group 1 activities	Establish 1 group	Start Group 2 activities
MCM 3	Outfall reconnaissance inventory	Mark/Highway	Inventory all 22 outfalls and prioritize inventory for inspection at least once every five years				

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
		Debbie	Create criteria for inspection of every mapped outfall.				
	Map catchment basins within the MS4	Debbie//Mark	Occur concurrently with storm drain marker installation 280 mapped	280 storm drains mapped	280 storm drains mapped	280 storm drains mapped	280 storm drains mapped
	Catch Basin and storm drain system inspection and cleaning	Mark/Highway	Develop a schedule for inspection and cleaning of inlet structures, catch basins, and manholes – inspect and clean 280 concurrently with storm drain marker installation	Inspect and clean 280 annually			
	Develop public service information	BTSC/Debbie					
MCM 6	Training	BTSC/TCSWCD	Provide training to each member of the municipality who work may impact stormwater	Refresher training	Refresher training	Refresher training	Refresher training
	Landscaping &	Parks/Scott	Create inventory	Review and	Review and	Review and	Review and

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
	Lawn Care		of landscaping and lawn care areas owned by the Town of Owego within the MS4 regulated area	update inventory if necessary	update inventory if necessary	update inventory if necessary	update inventory if necessary
		Parks/Scott	Evaluate current landscaping and lawn care activities				
	Vehicle/ Equipment Maintenance	Parks/Scott Highway/Mark	Create and maintain an inventory of municipal owned vehicles	Create vehicle/equipment maintenance and inspection form			
	Building Maintenance	Parks/Scott Highway/Mark Utilities/Mick	Create and maintain an inventory of maintenance activities required inside and outside of each municipal building	Implement mitigation measures for each activity that impacts stormwater Annually review and revise as necessary	Review and revise activities as necessary	Review and revise activities as necessary	Review and revise activities as necessary
	Hazardous & Waste Materials	Parks/Scott Highway/Mark	Maintain an inventory of	Create hazardous	Review and revise as	Review and revise as	Review and revise as

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
	Management	Utilities/Mick	existing hazardous and waste materials & storage locations	materials management form to document inspections for hazardous and waste materials storage	necessary	necessary	necessary
	Operational by products/wastes (dump areas)	Highway/Mark	Post no dumping signs/illuminate areas if possible/ Erect barriers where possible	Create inspection schedule	Inspect annually	Inspect annually	Inspect annually
	Roadway & Bridge Maintenance	Highway/Mark	Create & maintain records of road maintenance activities	Create and implement roadway maintenance and inspection form to document paving	Inspect annually	Inspect annually	Inspect annually
	Road Salt Storage & Application	Highway/Mark	Create road salt storage and application inspection form	Inspect annually	Inspect annually	Inspect annually	Inspect annually
	Catch basin & storm drain system cleaning	Highway/Mark	Develop a schedule for inspection and cleaning of inlet	Inspect and clean annually	Inspect and clean annually	Inspect and clean annually	Inspect and clean annually

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
			structures, catch basins, and manholes				
			Create storm drain system inspection form to document maintenance operations				
	New Construction & Land Disturbance	Highway/Mark	Provide educational material and training opportunities to municipal work crews to inform them of local, state, and/or federal regulations	Annual training	Annual training	Annual training	Annual training
			Create land disturbance inspection form				
	Hydrologic Habitat Modification	Highway/Mark TCSWCD Debbie	Develop requirements for municipal work crew to abide by during hydrologic habitat modification such as stream & ditch cleaning	Annual training	Annual training	Annual training	Annual training
	Street Cleaning & Maintenance	Highway/Mark	Create inventory of roadways to be	Maintain records of			

MCM	Description of Activity	Who is Responsible?	Expected Annual Accomplishment				
			Year 1	Year 2	Year 3	Year 4	Year 5
			swept	streets that have been cleaned			
			Develop roadway maintenance and inspection form to document roadway sweeping/cleaning operations				
	Septic System Management	Parks/Scott	Develop inventory of septic systems on town owned property	Develop and utilize septic system inspection form to document inspection and maintenance	Annual assessment of septic system	Annual assessment of septic system	Annual assessment of septic system

# ***APPENDICES***

## ***Appendix A: Intermunicipal Agreements***

## ***Appendix B: Inspection Forms***















## ***Appendix C: Trainings Documentation***

