Stormwater Management Program Plan
Stormwater Coalition of Monroe County

August 20, 2009

ACKNOWLEDGEMENTS

Sections of this document have been adapted from the document "Model Stormwater Management Plan," drafted for the Western New York Stormwater Coalition in October 2008 as well as the "Model Stormwater Management Program Plan" created by the Ontario-Wayne Stormwater Coalition in February 2009.

TABLE OF CONTENTS

Introduction **1**

Minimum Measure 1: Public Education and Outreach on Stormwater Impacts **3**
1.1 Description of Minimum Control Measure 3
1.2 General Permit Requirements 3
1.3 Methodology for Compliance with Permit Requirements 4
1.4 Best Management Practices Implemented or Underway 4
1.4.1 Stormwater Pollution Education Pieces 4
1.4.2 Coalition Webpage 5
1.4.3 School and Community Presentations 6
1.4.4 Stormwater Door Hangers 6
1.4.5 H2O Hero Mass Media Campaign 7
1.4.6 Stormwater Curriculum Modules 8
1.4.7 Pet Waste Signs 8
1.4.8 Stormwater Exhibit at the Rochester Museum & Science Center 9
1.4.9 Develop, Record, Periodically Assess, and Modify Measurable Goals 9
1.4.9.1 Public Opinion Water Quality Phone Survey 9
1.5 Best Management Practices for Future Consideration 10
1.6 Minimum Reporting Requirements 10

Minimum Measure 2: Public Involvement and Participation **11**
2.1 Description of Minimum Control Measure 11
2.2 General Permit Requirements 11
2.3 Methodology for Compliance with Permit Requirements 12
2.4 Best Management Practices Implemented or Underway 12
2.4.1 Public Review of Annual Reports 12
2.4.2 Community Cleanup Events 13
2.4.3 Storm Drain Marking 13
2.4.4 Rain Barrels 14
2.4.5 Rain Gardens 14
2.4.6 Develop, Record, Periodically Assess, and Modify Measurable Goals 15
2.4.6.1 Public Opinion Water Quality Phone Survey 15
2.5 Best Management Practices for Future Consideration 15
2.6 Minimum Reporting Requirements 15

Minimum Measure 3: – Illicit Discharge Detection and Elimination **17**
3.1 Description of Minimum Control Measure 17
3.2 General Permit Requirements 17
3.3 Methodology for Compliance with Permit Requirements 18
3.4 Best Management Practices Implemented or Underway 19
3.4.1 Outfall Mapping, Verification and Inspection 19
3.4.2 Adoption of the IDDE Stormwater Management Ordinance 20
3.4.3 Non-Stormwater Discharge Detection and Mitigation Program 20

3.4.3.1 Procedures for Identifying Priority Areas of Concern for IDDE Program 20
3.4.3.2 Description of Priority Areas of Concern, Available Equipment, Staff, Funding, Etc. 21
3.4.3.3 Procedures for Identifying and Locating Illicit Discharges (Trackdown) 22
3.4.3.4 Procedures for Eliminating Illicit Discharges 23
3.4.3.5 Procedures for Documenting Actions 23
3.4.4 Inform Public Employees, Businesses, and the General Public of the Hazards Associated with Illegal Discharges and Improper Disposal of Waste 24
3.4.5 Addressing Categories of Non-Stormwater Discharges or Flows 24
3.4.6 Develop, Record, Periodically Assess, and Modify Measurable Goals 25
3.4.6.1 Percent of Outfalls Inspected 25
3.4.6.2 Percent of Staff in Relevant Positions and Departments that have Received IDDE Training 25
3.4.7 Select Appropriate IDDE BMPs and Measurable Goals to Ensure the Reduction of All POCs in Stormwater Discharges to the MEP 26
3.5 Best Management Practices for Future Consideration..... 26
3.5.1 Updating Outfall Mapping/Outfall Information Management 26
3.5.2 Sewershed Mapping 27
3.6 Minimum Reporting Requirements..... 27

Minimum Measure 4: Construction Stormwater Management 29
4.1 Description of Minimum Control Measure 29
4.2 General Permit Requirements..... 29
4.3 Methodology for Compliance with Permit Requirements..... 31
4.4 Best Management Practices Implemented or Underway 32
4.4.1 Stormwater Ordinance 32
4.4.2 Design Requirements.....32
4.4.3 Construction Plan Review, both Public and Internal 33
4.4.4 Construction Inspection Procedures and Certification Program 35
4.4.5 Develop, Record, Periodically Assess, and Modify Measurable Goals 36
4.4.5.1 Active Construction Sites Inspected During the Reporting Period 36
4.4.5.2 Percent of Sites Where MS4 Compliance Inspection Found Significant Non-Compliance 37
4.5 Best Management Practices for Future Consideration..... 37
4.5.1 Research and Establish a Joint Inspection Program 38
4.6 Minimum Required Reporting..... 38

Minimum Measure 5: Post-Construction Stormwater Management..... 40
5.1 Description of Minimum Control Measure 40
5.2 General Permit Requirements..... 40
5.3 Methodology for Compliance with Permit Requirements..... 42
5.4 Best Management Practices Implemented or Underway 42
5.4.1 Stormwater Ordinance 42
5.4.2 Inspection Program for Newly and Re-Developed Sites 43
5.4.3 Stormwater Management Facility Maintenance Education for Target Audiences ...44

5.4.4 Develop, Record, Periodically Assess, and Modify Measurable Goals 45
5.4.4.1 Stormwater Management Facility Maintenance Education for Target Audiences 45
5.5 Best Management Practices for Future Consideration 45
5.5.1 Asset Management Program for Existing Storm Drainage Facilities 45
5.5.2 Stormwater Master Plan 46
5.5.3 Promote Implementation of Green Infrastructure 46
5.6 Minimum Reporting Requirements 47

Minimum Measure 6: Pollution Prevention and Good Housekeeping for Municipal Operations 48
6.1 Description of Minimum Control Measure 48
6.2 General Permit Requirements 48
6.3 Methodology for Compliance with Permit Requirements 50
6.4 Best Management Practices Implemented or Underway 50
6.4.1 Stormwater Pollution Prevention Planning for Municipal Operations 50
6.4.2 Third Party Contracted Services 51
6.4.3 Multisector General Permit Provisions 52
6.5 Best Management Practices for Future Consideration 63
6.5.1 Self Assessment 63
6.6 Minimum Reporting Requirements 64

Appendices

Appendix A: General Definitions and Requirements 66

Appendix B: List of Commonly Used Abbreviations 70

Appendix C: List of Documents for Inclusion by Individual MS4s 71

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. It is a shared Stormwater Management Plan providing policy and management guidance to the regulated municipalities and agencies that are members of the Stormwater Coalition of Monroe County (SCMC). The purpose of this plan is to maintain or improve water quality.

The Stormwater Coalition of Monroe County exists by way of an inter-municipal agreement enacted through municipal resolution by each participating member, the term of which is from January 1, 2000 through ***XX-XX-XXXX (Insert new IMA date here).*** These include the Towns of Brighton, Chili, Clarkson, Gates, Greece, Hamlin, Henrietta, Irondequoit, Mendon, Ogden, Parma, Penfield, Perinton, Pittsford, Riga, Sweden and Webster; the Villages of Brockport, Churchville, East Rochester, Fairport, Hilton, Pittsford, Scottsville, Spencerport, and Webster; and Monroe County, the City of Rochester, and SUNY Brockport. Each of these entities is a party to this Stormwater Management Plan, although not all are regulated MS4s.

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. (Page 10)

The SWMP Plan 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 Current NYSDEC General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems. Responsibilities to achieve and

sustain compliance are clearly defined for each BMP. Portions of the work necessary are provided through the Stormwater Coalition of Monroe County, its collective Members, and Partners. The remaining work is the responsibility of the individual regulated MS4. To this end, assistance is readily available from Coalition staff upon request.

Certain components of this program have been codified into local law within applicable MS4s. Refer to the Local Law for Stormwater Management and Erosion and Sediment Control and the Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems for more information. These laws were adopted by each MS4 in 2007.

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 current NYSDEC General Permit, as well as to account for progress made.

Minimum Measure 1: Public Education and Outreach on Stormwater Impacts

1.1 Description of Minimum Control Measure

The Public Education and Outreach Minimum Control Measure (MCM) consists of BMPs that focus on the development of educational materials designed to inform the public about the impacts that stormwater discharges have on local water bodies. The educational materials contain 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 Public Education and Outreach program and BMPs, in combination, are expected to reach all of the constituents within the MS4's permitted boundary. The target pollutant sources are construction site runoff, impacts from new and re-development projects, illicit discharges, homeowner activities, and local/regional Pollutants of Concern (POCs).

1.2 General Permit Requirements[1]

An MS4 must, at a minimum:

a. Identify POCs, waterbodies of concern, geographic areas of concern, target audiences;

b. Develop and implement an ongoing public education and outreach program designed to describe to the general public and target audiences:
   i. the impacts of stormwater discharges on waterbodies;
   ii. POCs and their sources;
   iii. steps contributors of these pollutants can take to reduce pollutants in stormwater runoff; and
   iv. steps contributors of non-stormwater discharges can take to reduce pollutants (non-stormwater discharges are listed below);

c. Develop, record, periodically assess, and modify as needed, measurable goals; and

d. Select appropriate education and outreach activities and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

Non-stormwater discharges are defined in the MS4 General Permit Part I.A.2 and include:

- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration
- Uncontaminated ground water

[1] Information derived from GP-0-08-002.

- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space and basement sump pumps
- Footer Drains
- Lawn and landscape watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer's product label
- Water from individual residential car washing
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool discharges
- Residual street wash water
- Discharges or flows from fire fighting activities
- De-chlorinated water reservoir discharges
- Any SPDES permitted discharge

1.3 Methodology for Compliance with Permit Requirements

The SCMC has developed many of the BMPs necessary for this MCM. These have included the mass media campaign (television, radio, and print advertisements), brochures, posters, presentations, a webpage, and displays for community events. These BMPs will be evaluated by the SCMC on an annual basis and updated or enhanced as necessary. The SCMC provides educational services, by itself or through contractor, to schools and at community events within the SCMC area. All information is made available to each MS4 that is a member of the SCMC and certain materials are posted online on the SCMC website at www.thestormwatercoalition.org or the campaign website at www.h2ohero.org.

1.4 Best Management Practices Implemented or Underway

1.4.1 Stormwater Pollution Educational Pieces

Description/Methodology of BMP

Develop public education brochures addressing stormwater pollution prevention for distribution to the general public, homeowners, and students. SCMC educational pieces include:

- Lawn Care and Landscaping… How to Protect Water Quality
- Make Your Home the Solution to Stormwater Pollution
- Living Next to Stormwater Management Ponds
- Pools, Fountains and Spas…. How to Protect Water Quality
- Get Pumped! Residential septic system mailer/magnet
- Stormwater door hanger
- H2O Hero car magnet

Some of the brochures are available on the SCMC webpage along with other information for businesses, municipalities, schools, and the general public, all of whom can request brochures or download the brochures directly.

Annual Compliance Requirements

SCMC

- Distribute relevant brochures to targeted stakeholders, the general public and others
- Identify entities and/or events for targeted distribution of materials
- Insure an adequate supply of educational materials is available and coordinate funding and re-printing as needed
- Provide additional brochures to local MS4s upon request
- Develop new educational pieces as additional topics and target audiences are identified
- Maintain records of educational materials distributed

Stormwater Management Program (SWMP) Coordinator

- Display public education materials in county/town/village hall
- Inventory existing stock of brochures and replenish as needed
- Identify entities and/or events for targeted distribution of materials
- Maintain records of number of educational materials distributed.

1.4.2 Coalition Webpage

Description/Methodology of BMP

Develop and maintain a coalition webpage designed to educate businesses, municipalities, schools, and the general public regarding the impacts that stormwater runoff has on local water bodies. The webpage URL is:

http://www.thestormwatercoalition.org

A variety of subjects are posted regularly on the webpage, including (but not limited to) the following:

- The mission and history of the Coalition, as well as all the current members
- The Annual Report prepared for the most recent year
- Various resources for use by the Coalition Members and public including educational pieces and links

Annual Compliance Requirements

SCMC

- Update and maintain the webpage as necessary.

- Promote the website to potential users by including the URL in various educational and promotional materials.
- Track number of visitors to the site

Stormwater Management Program (SWMP) Coordinator

- Update and maintain a local webpage as necessary.
- Maintain link to the Coalition website

1.4.3 School and Community Presentations

Description/Methodology of BMP

Stormwater pollution presentations are made to school classes and at community events using a table top watershed model as the principle teaching tool. Actions that students and residents can take to reduce stormwater pollution are emphasized. Public participation opportunities such as storm drain marking, rain barrels, and rain gardens are promoted as part of these presentations.

SCMC

- Coordinate and implement stormwater pollution presentations at schools and community events
- Maintain database of the presentations for use in the annual MS4 reporting to New York State

Stormwater Management Program (SWMP) Coordinator

- Incorporate stormwater public education into community events and programs
- Identify presentation opportunities and communicate them to Coalition staff

1.4.4 Stormwater Door Hangers

Description/Methodology of BMP

Two door hangers have been developed and printed with the following titles:

- "Stormwater Pollution Found in Your Area!" – This door hanger is used by municipal staff and Coalition staff in areas where evidence of illicit discharges is observed. It includes basic information on how the stormwater system works and key pollution prevention practices as well as contact information.
- "Open The Door To Clean Water… Be an H20 Hero" – This door hanger is used by municipal and Coalition staff, as well as volunteers, when storm drains are being marked. It is in the shape of a fish and explains the watershed concept and how residents can protect water quality as well as contact information.

Annual Compliance Requirements

SCMC

- Insure that an adequate supply of printed materials are available for use by the MS4s
- Update and improve the door hangers as needed

Stormwater Management Program (SWMP) Coordinator

- Distribute the door hangers where stormwater pollution is observed or when installing storm drain markers.

1.4.5 H20 Hero Mass Media Campaign

Description/Methodology of BMP

The H2O Hero Mass Media Campaign is the SCMC's principle strategy for educating large numbers of residents regarding stormwater pollution. The campaign is a partnership with the Water Education Collaborative (WEC) and the Ad Council of Rochester. The overall goal for the program is to help the general public understand that stormwater transports pollutants directly to local waterways through storm drains and to inspire residents to take personal actions to improve water quality.

With professional services donated through the Ad Council, an overall campaign strategy was developed, market research was conducted (phone survey), television, radio, and print advertisement were created, and an associated website was launched.

The initial market research indicated a low level of awareness regarding stormwater pollution so the initial advertisements have focused on how the stormwater system functions and directs viewers to the campaign website. The SCMC makes periodic media buys with professional guidance provided through the Ad Council. Major donations of media space have been provided to the campaign through the Ad Council.

Follow up market research (phone survey) is conducted to measure the impact of the campaign and new advertisements and educational pieces are created as needed.

Annual Compliance Requirements

SCMC

- Provide overall coordination for the campaign including market research, development of advertisements, and funding.
- Update the H2O Hero Website

- Seek opportunities to incorporate the campaign message and H2O Hero into other programs, activities, and resources.

Stormwater Management Program (SWMP) Coordinator

- Identify opportunities to incorporate the H2O Hero and message into municipal activities and materials.

1.4.6. Stormwater Curriculum Modules

Description/Methodology of BMP

The SCMC is promoting stormwater education in schools through a partnership with SUNY Brockport. Stormwater Curriculum Modules are being created that align with the New York State teaching standards. The modules include classroom activities and resources and focus on key stormwater concepts such as watersheds and impervious surfaces. The modules are being promoted for use to local school districts through teacher trainings.

Annual Compliance Requirements

SCMC

- Provide project oversight and funding.

Stormwater Management Program (SWMP) Coordinator

- Promote the use of the Stormwater Modules by local school districts. Identify points of contact within the school districts that may be helpful in promoting the modules.

1.4.7 Pet Waste Signs

Description/Methodology of BMP

Pet Waste Signs/Stations are installed in parks, along roadways, and in other locations with large numbers of dog walkers. The signs feature the H2O Hero and explain the water quality impact of pet waste. The stations include a bag dispenser and trash can.

Annual Compliance Requirements

SCMC

- Promote the installation of the pet waste signs/stations through SCMC meetings and other venues.
- Seek funding to purchase the signs/stations so as to reduce any barriers to their use.
- Update the signs as needed.

Stormwater Management Officer (or Designee)

- Identify appropriate locations for pet waste sign/station installations.
- Install and maintain signs/stations.

1.4.8 Stormwater Exhibit at the Rochester Museum & Science Center

Description/Methodology of BMP

The SCMC has partnered with the Rochester Museum & Science Center (RMSC) to design an interactive, permanent exhibit at the Museum to educate visitors on stormwater pollution and to inspire them to take action to protect water quality. The SCMC is providing funding for the exhibit and technical subject matter input. The RMSC receives approximately 500,000 visitors a year and provides the SCMC with an opportunity to communicate its message in an educational environment. The general concept for the exhibit is a digital watershed and it includes the H2O Hero from the SCMC supported Mass Media Campaign.

Annual Compliance Requirements

SCMC

- Promote the exhibit through its various public education activities including the website.
- Provide funding for updating and expanding the exhibit as needed.

Stormwater Management Officer (or designee)

- Promote the exhibit through municipal newsletters, websites, and other communications.

1.4.9 Develop, Record, Periodically Assess, and Modify Measurable Goals

The SCMC Joint 2008-2009 Annual Report contains measurable goals for Public Education and Outreach activities that were developed by the SCMC to track overall Coalition progress of MCM 1 compliance activities. These measurable goals, expressed as BMPs, are presented below. The SCMC periodically assesses these measurable goals and results, and modifies them as appropriate.

1.4.9.1 Public Opinion Water Quality Phone Survey

Description/Methodology of BMP
In 2006, a public opinion water quality phone survey was conducted to assess the level of awareness and perceptions of local water quality issues among the general public. Key questions which indicate overall educational program results were selected for tracking in subsequent surveys:

- Percent of people who know that stormwater goes directly to nearby waterways

- Percent of people correctly identifying Non-Point Source Pollution as the primary source of water quality degradation.

Another phone survey was conducted in 2009, and its results will be used to measure success of the SCMC's Public Education and Outreach activities.

Compliance Requirements

SCMC

- Support / participate in Public Education and Outreach efforts.
- Obtain water quality survey results for measurable goal tracking within the Annual Report.
- Support future surveys

Stormwater Management Program (SWMP) Coordinator

- Facilitate / participate in Public Education and Outreach efforts within the MS4.
- *(MS4s to add other activities, as applicable.)*

1.5 Best Management Practices for Future Consideration

- Stormwater exhibits at the Seneca Park Zoo or the Strong Museum

1.6 Minimum Reporting Requirements

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

a. List education / outreach activities performed for the general public and target audiences and provide any results (for example, number of people attended, amount of materials distributed, etc.);

b. Report on effectiveness of program and progress towards measurable goals.

Minimum Measure 2: Public Involvement and Participation

2.1 Description of Minimum Control Measure

The Public Involvement and Participation measure 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.

2.2 General Permit Requirements[2]

An MS4 must, at a minimum:

a. Comply with the State Open Meetings Law and local public notice requirements, such as Open Meetings Law, when implementing a public involvement / participation program;

b. Develop and implement a public involvement/participation program that:

- Identifies key individuals and groups, public and private, who are interested in or affected by the SWMP;
- Identifies types of input the permittee will seek from the key individuals and groups, public and private, to support development and implementation of the SWMP and how the input will be used; and
- Describes the public involvement / participation activities the permittee will undertake to provide program access to those who want it and to gather the needed input. The activities included, but are not limited to a water quality hotline (report spills, dumping, construction sites of concern, etc.), stewardship activities like stream cleanups, storm drain marking, and volunteer water quality monitoring.

c. Local stormwater public contact. Identify a local point of contact for public concerns regarding stormwater management and compliance with this general SPDES permit. The name or title of this contact and the telephone number must be published in public outreach and public participation materials and kept updated with the Department on the MCC form;

d. Annual report presentation. Prior to submitting the final annual report to the Department, by June 1 of each reporting year (see Part V.C.), present the draft annual report in a format

[2] Information derived from GP-0-08-002.

that is open to the public, where the public can ask questions about and make comments on the report.

e. Develop, record, periodically assess and modify as needed measurable goals; and

f. Select appropriate public involvement/participation activities and measurable goals to ensure the reduction of pollutants of concern in stormwater discharges to the maximum extent practicable.

2.3 Methodology for Compliance with Permit Requirements

In order to comply with this permit requirement, each MS4 must involve the public in their stormwater program. Certain aspects of the permit requirements may be achieved through the Stormwater Coalition. The Coalition coordinates a public review and comment process for the shared Annual Report and implements a variety of public participation programs such as storm drain marking. However, there are certain compliance activities that must be performed by the individual MS4s such as the appointment of a local stormwater point of contact and making this person's contact information available to the public.

2.4 Best Management Practices Implemented or Underway

2.4.1 Public Review of Annual Reports

Description/Methodology of BMP

All regulated MS4s must submit an Annual Report to the New York State Department of Environmental Conservation by June 1 of each year that documents their compliance program. Prior to submittal, a draft of the report must be made available to the public for review and comment. Beginning with the 2008-2009 permit year, the Coalition prepared a shared Annual Report that covers all of the Coalition MS4 Members. The Coalition's shared Annual Report is placed on the Coalition's website (www.thestormwatercoalition.org) and a notice is published in the Democrat & Chronicle in order to inform the public that the report is available for review and comment. Public comments are directed to the Stormwater Coalition Staff.

Annual Compliance Requirements

SCMC

- Prepare the Coalition's shared Annual Report
- Prepare and publish a public notice that the Annual Report is available for review
- Receive public comments on the draft Annual Report

Stormwater Management Officer (or Designee)

- Provide data and other required materials regarding MS4 compliance program to the Stormwater Coalition Staff for use in preparing the shared Annual Report.
- Present the draft Annual Report to the MS4 town or village board
- Coordinate the passage of a board resolution adopting the Annual Report (optional)
- Complete a Municipal Compliance Certification form, signed by a valid Signatory Authority.

2.4.2 Community Cleanup Events

Description/Methodology of BMP

Promote participation in community clean up events that reduce stormwater pollution such as the International Coastal Clean Up and the Household Hazardous Waste Collections sponsored by Monroe County.

Annual Compliance Requirements

SCMC

- Post information and links regarding the International Coastal Clean Up and the Household Hazardous Waste Collection on the SCMC website.

Stormwater Management Officer (or Designee)

- Post information regarding clean ups and collections on the municipal website and newsletters.
- Provide assistance and equipment to clean up events such as dumpsters and disposal of collected garbage.
- Host Household Hazardous Waste Collections

2.4.3 Storm Drain Marking

Description/Methodology of BMP

Coordinate marking of storm drains by volunteers in order to promote awareness that nothing should be dumped down the storm drain. Custom markers with the H2O Hero image and a link to the campaign website are used. Volunteers also place stormwater door hangers at adjacent properties so that residents understand why the storm drains have been marked and to provide additional information about stormwater pollution.

Annual Compliance Requirements

SCMC

- Recruit, train, and coordinate volunteers.
- Maintain data base of volunteer storm drain marking
- Develop materials for use in the program and insure that adequate supplies are on hand for use by volunteers

Stormwater Management Officer (or Designee)

- Identify appropriate locations for storm drain marking
- Coordinate marking of storm drains by municipal staff as appropriate
- Track storm drains marked within MS4

2.4.4 Rain Barrels

Description/Methodology of BMP

Promote the installation of rain barrels by residents. The widespread use of rain barrels would reduce stormwater volumes and associated pollution as well as encourage stewardship of water resources. Low cost rain barrel kits are made available to residents.

Annual Compliance Requirements

SCMC

- Coordinate the purchase and/or donation of supplies
- Coordinate the construction of the rain barrel kits
- Promote the use of rain barrels through the H2O Hero or SCMC websites or other outreach methods

Stormwater Management Officer (or Designee)

- Promote the use of rain barrels through the municipal website or newsletter

2.4.5 Rain Gardens

Description/Methodology of BMP

Promote the construction of rain gardens to receive runoff from roof tops and driveways in residential areas. The installation of large numbers of rain gardens would reduce the volume of stormwater runoff and associated pollutants as well as foster stewardship of watershed resources. In cases where signage is included, rain gardens are a public education tool.

Annual Compliance Requirements

SCMC

- Promote the construction of rain gardens through the H2O Hero and SCMC websites and associated educational pieces.
- Construct demonstration rain gardens on municipal property or other locations to promote this practice and include signage in order to maximize the educational value.

Stormwater Management Program (SWMP) Coordinator

- Promote the construction of rain gardens through the municipal website or newsletter.
- Promote the use of rain gardens by incorporating this practice into municipal projects as appropriate.

2.4.6 Develop, Record, Periodically Assess, and Modify Measurable Goals

The SCMC Joint 2008-2009 Annual Report contains measurable goals for Public Involvement and Participation that were developed by the SCMC to track overall Coalition progress of MCM 2 compliance activities. These measurable goals, expressed as BMPs, are presented below. The SCMC periodically assesses these measurable goals and results, and modifies them as appropriate.

2.4.6.1 Level of Public Participation in Stormwater Programs

Description/Methodology of BMP
The level of public participation in stormwater programs is tracked by determining number of people participating in stormwater program events such as storm drain marking, rain barrel and rain gardens workshops, etc. The number of participants reflects a level of "buy in" by the general public regarding stormwater quality education and their willingness to initiate the desired behavioral change.

Compliance Requirements

SCMC

- Provide / support events for public participation
- Obtain participation numbers for measurable goal tracking within the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Facilitate / support public participation events within the MS4.

2.5 Best Management Practices for Future Consideration

No additional practices have been identified at this time.

2.6 Minimum Reporting Requirements

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

a. Annual report presentation information (date, time, attendees) or information about how the annual report was made available for comment;

b. Comments received and intended responses (as an attachment);

c. Public involvement participation activities (for example stream cleanups including the number of people participating, the number of calls to a water quality hotline, the number and extent of storm drain stenciling); and

d. Report on effectiveness of program, BMP and measurable goal assessment.

Minimum Measure 3: Illicit Discharge Detection & Elimination

3.1 Description of Minimum Control Measure

The Illicit Discharge Detection and Elimination (IDDE) MCM consists of BMPs that focus on the detection and elimination of illicit discharges located within the MS4s. The BMPs describe outfall mapping and update 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, procedures for tracking down and locating the source of any illicit discharges, procedures for locating priority areas, and procedures for removing the sources of the illicit discharges.

3.2 General Permit Requirements[3]

An MS4 must, at a minimum:

a. Develop, implement and enforce a program to detect and eliminate illicit discharges into the small MS4;

b. Develop and maintain a map, at a minimum within the permittee's jurisdiction in the urbanized area and additionally designated area, showing:

- The location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls;
- By March 9, 2010, the preliminary boundaries of the permittee's storm sewersheds determined using GIS or other tools, even if they extend outside of the urbanized area (to facilitate trackdown), and additionally designated area within the permittee's jurisdiction; and
- When grant funds are made available or for sewer lines surveyed during an illicit discharge trackdown, the permittee's storm sewer system in accordance with available State and EPA guidance.

c. Field verify outfall locations;

d. Conduct an outfall reconnaissance inventory, as described in the EPA publication entitled Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment, addressing every outfall within the urbanized area and additionally designated area within the permittee's jurisdiction at least once every five years, with reasonable progress each year;

[3] Information derived from GP-0-08-002.

e. Map new outfalls as they are constructed or newly discovered within the urbanized area and additionally designated area;

f. Prohibit, through a law, ordinance, or other regulatory mechanism, illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions. This mechanism must be equivalent to the State's model IDDE local law "NYSDEC Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems". The mechanism must be certified by the attorney representing the small MS4 as being equivalent to the State's model illicit discharge local law. Laws adopted during the GP-02-02 permit cycle must also be attorney certified as effectively assuring implementation of the State's model IDDE law;

g. Develop and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the small MS4. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating illicit discharges (trackdown); procedures for eliminating illicit discharges; and procedures for documenting actions;

h. Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste;

i. Address the categories of non-stormwater discharges or flows (listed in Section 1.2 of this document) as necessary;

j. Develop, record, periodically assess, and modify as needed, measurable goals; and

k. Select appropriate IDDE BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

3.3 Methodology for Compliance with Permit Requirements

Overall, the development, implementation and enforcement of a program to detect and eliminate illicit discharges into the small MS4, in compliance with MCM 3: Illicit Discharge Detection and Elimination, is described within this Stormwater Management Plan (SWMP).

To comply with many of the requirements of MCM 3, the SCMC secured the services of the Monroe County Department of Environmental Services (MC DES). Primarily, these services include: outfall location, verification and mapping; illicit discharge detection and trackdown; outfall reconnaissance inventory; and, maintenance of outfall inspection and mapping databases. Based upon an individual MS4's needs and practices, MC DES provides all or a portion of these IDDE services, including training to allow an MS4 to do more of these services in-house should they choose. MC DES provides reports to MS4s regarding the IDDE information collected, maintains these databases, and makes all such information available to the appropriate Member MS4 upon request.

A Model IDDE Ordinance was developed by the SCMC and used by each Member MS4 to craft and pass a local ordinance(s).

The SCMC IDDE Task Group consists of representative Member MS4s and focuses on overall compliance by SCMC Members and related issues for both MCM 3: IDDE as well as MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations. With respect to IDDE issues, the Task Group Monitors MC DES IDDE Services, identifies priority areas of concern, and develops educational materials and BMPs for employees and businesses, as well as selected issues involving the general public. Finally, the Task Group has developed measurable IDDE goals for Coalition-wide tracking of MCM 3 performance.

3.4 Best Management Practices Implemented or Underway

3.4.1 Outfall Mapping, Verification and Inspection

Description/Methodology of BMP

MC DES compiles outfall information for Coalition Members including, but not limited to the following.

- A map, at a minimum within the permittee's jurisdiction in the urbanized area and additionally designated area, showing the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls. The map identifies each outfall with a unique identifier, and links the outfall to a table of outfall properties that records pertinent properties of each outfall.
- *In situ* outfall location verification of each outfall, and recording of associated GPS coordinates.
- An outfall reconnaissance inventory of each outfall, at least once every five years, through a visual dry weather inspection. This inspection identifies evidence of any non-stormwater discharges and includes a photographic record of the outfall condition and findings.
- Information collected during verification and inventory is added to the outfall database developed in the mapping process.

Compliance Requirements

SCMC

- MC DES submits periodic reports of the outfall information collected within an MS4 to that MS4 as the information is processed.
- MC DES submits outfall information, as identified in Section 3.6 Minimum Required Reporting, to each MS4 on an annual basis for purposes of preparing the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Each MS4 reviews their outfall data as provided by MC DES for accuracy and provides a request to MC DES for any additional resources or assistance.
- *(MS4s to add other compliance activities, as applicable.)*

3.4.2 Adoption of the IDDE Stormwater Management Ordinance

Description/Methodology of BMP

Each member MS4 of the SCMC has adopted a stormwater management ordinance(s) to prohibit illicit discharges, and implement enforcement procedures and actions as needed. The members of the SCMC developed their local law(s) based upon the guidance provided by the Coalition's Model IDDE Ordinance and the NYS DEC Model IDDE Ordinance. Such local laws are equivalent to the State's model IDDE local law "NYSDEC Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems", and are attorney certified as effectively assuring implementation of the State's model IDDE law.

Annual Compliance Requirements

SCMC

- Provide guidance on any necessary changes or revisions to the IDDE Stormwater Ordinance.

Stormwater Management Officer/Designee & Municipal Board

- Amend stormwater ordinance as necessary to maintain compliance with NYS standards and requirements; and
- Revise enforcement action procedures as needed.

3.4.3 Non-Stormwater Discharge Detection and Mitigation Program

Description/Methodology of BMP

This IDDE program is being developed and implemented to detect and address non-stormwater discharges, including illegal dumping to the small MS4. The BMPs presented below address the procedures and descriptions of this program. Additional BMPs may be implemented in the future to supplement those currently in use and increase the scope of the IDDE Program, and are contained in Section 3.5 Best Management Practices for Future Consideration.

3.4.3.1 Procedures for Identifying Priority Areas of Concern for IDDE Program

In May 2004 the IDDE Task Group conducted a survey of MS4 illicit discharge problem areas, and ranked the results to prioritize areas of concern. This list is presented below (ranked from highest to lowest concern).

- Gas stations
- Municipal Operations
- **Lawn Care / Pesticide Applicators**

- Golf Courses
- **Mobile Washing**
- **Swimming Pool Drainage**
- Painting Contractors
- Concrete / Asphalt Wash-outs
- Dry Cleaners
- Other: Junk yards; Parts Stores & Suppliers; Medical & Dental Offices; Auto Body Repair; Auto Recycling

This list has been used to develop educational materials for these areas, with the areas highlighted in bold-face above being addressed to date.

In addition to these areas, IDDE educational efforts were pursued towards homeowners through the development of an IDDE Doorhanger. This doorhanger is a checklist of various common homeowner discharges to storm sewers, and is used by municipal staff to notify residents in a neighborhood that an illicit discharge was observed in their area.

Compliance Requirements

SCMC

- The SCMC IDDE Task Group will continue educational efforts towards the problem areas noted, and include additional areas as identified by Coalition Members.
- The Task Group will target problem business areas for education, as appropriate, and educational materials produced through these efforts will be provided to Coalition Members for their use as well.

Stormwater Management Program (SWMP) Coordinator

- MS4s will ensure that local businesses targeted for education are included in the Coalition's efforts.
- *(MS4s should add their efforts)*

3.4.3.2 Description of Priority Areas of Concern, Available Equipment, Staff, Funding, Etc.

Priority Areas of Concern

- **Lawn Care / Pesticide Applicators** – For the Lawn Care / Pesticide Applicators area of concern, the SCMC IDDE Task Group focused on education of homeowners with respect to proper application, handling and disposal of fertilizers and pesticides. However, the educational material produced is also applicable to commercial lawncare professionals and is available to them as well. Educational brochures have been provided to MS4s and residents.
- **Mobile Washing** – The Mobile Washing area of concern focuses on indoor cleaning operations such as carpet, upholstered furniture, and floor cleaners, as

well as janitorial services. A fact sheet of "do's and don'ts" has been prepared for distribution to the providers of these services.

- **Swimming Pool Drainage** – The Swimming Pool Drainage area of concern includes swimming pools, spas (hot tubs), and fountains, and focuses on homeowner maintenance activities such as opening, winterizing, and backflushing and / or draining. Educational brochures have been provided to pool service providers, MS4s and residents.
- **IDDE Doorhanger** – The IDDE Doorhanger is a checklist notification that was designed to primarily address homeowner activities that contribute to stormwater pollution. These have been distributed to MS4s for use by their crews should they observe an illicit discharge within a residential neighborhood, although it could be used within commercial / residential districts as well.

Available Equipment – The equipment currently used to address these areas of concern are educational materials, such as brochures and fact sheets. During 2008, the SCMC had 70,000 pieces of educational material printed to support this effort. Should a related illicit discharge be observed, the full scope of IDDE equipment used by MC DES or an MS4 is available.
Staff – MC DES provides staffing resources sufficient to conduct the IDDE services required. MS4s provide staffing to the extent required for their chosen involvement.
Funding – Priority areas of concern activities are currently supported by NYSDEC Environmental Protection Fund Grant monies and SCMC Membership fees. MS4 staff and resources are funded through their municipal budget. A long term funding mechanism for all SCMC activities is being pursued.

Compliance Requirements

SCMC

- The SCMC IDDE Task Group provides guidance on the overall scope and description of the IDDE program, and provides this guidance to the full SCMC for their acceptance.
- The SCMC IDDE Task Group implements this program through the development of necessary materials and securing associated resources and funding.

Stormwater Management Program (SWMP) Coordinator

- The resources required to implement their local efforts.
- *(MS4 should note procedures and descriptions specific to their municipality.)*

3.4.3.3 Procedures for Identifying and Locating Illicit Discharges (Trackdown)

In conjunction with BMP 3.4.1 Outfall Mapping, Verification and Inspection, MC DES provides technical services to Member MS4s inspecting each outfall for signs of illicit discharges. Various techniques have been developed to further investigate suspected outfalls and to eventually narrow down and identify a suspected source. MC DES has developed and compiled these various techniques into a toolbox of methods useable for backtracking, and makes such tools available to MS4s. Further, MC DES has provided numerous IDDE training sessions for MS4 staff, in both classroom and field, to educate appropriate MS4 Staff and encourage MS4s

participation in these efforts. Collected information is added to the outfall database for historical records. MC DES submits results of illicit discharge and backtracking activities to the applicable MS4 at the conclusion of each MS4 inspection, so that follow-up, if needed can be implemented in a timely manner.

Compliance Requirements

SCMC

- MC DES provides inspected MS4s with a report on illicit discharge and backtracking investigations performed in their area. Further assistance is provided upon request.
- MC DES provides IDDE training to MS4s upon request.

Stormwater Management Program (SWMP) Coordinator

- MS4s follow-up on suspected illicit discharge sources and take enforcement action as necessary.
- *(MS4 should note whether they rely on MC DES for IDDE services, do it themselves, or utilize a combination of resources)*

3.4.3.4 Procedures for Eliminating Illicit Discharges

Eliminating illicit discharges are the responsibility of the regulated MS4. The authority to do this comes from the local IDDE Ordinance(s) adopted by each Member MS4 within the GP-02-02 permit cycle.

Compliance Requirements

SCMC

- MC DES provides inspected MS4s with a report on suspected illicit discharges found in their area.

Stormwater Management Program (SWMP) Coordinator

- MS4s follow-up on suspected illicit discharge sources and take enforcement action as necessary.
- *(MS4 should note their procedures for eliminating illicit discharges.)*

3.4.3.5 Procedures for Documenting Actions

Documenting actions associated with eliminating illicit discharges is the responsibility of the regulated MS4. GP-0-08-002, Part V.B. states "The *permittee* must keep records required by this permit (records that document *SWMP*, records included in *SWMP plan*, other records that verify reporting required by the permit, NOI, past annual reports, and comments from the

public and the *Department*, etc.) for at least five (5) years after they are generated." *(MS4s should generally describe their documentation procedures.)*

Compliance Requirements

SCMC

- MC DES provides inspected MS4s with a report on illicit discharge and backtracking investigations performed in their area.

Stormwater Management Program (SWMP) Coordinator

- MS4s maintain records of IDDE activities conducted in their municipality, including enforcement actions.
- *(MS4 should note typical documentation procedures performed)*

3.4.4 Inform Public Employees, Businesses, and the General Public of the Hazards Associated with Illegal Discharges and Improper Disposal of Waste

BMPs to inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste are included in a number of different Minimum Control Measures and SCMC Task Groups. Education / awareness programs for each of these groups are presented in different sections of this SWMP, as follows:

- public employees - Section 6
- businesses - Sections 3.4.3.1 and 3.4.3.2;
- general public - Sections 1 and 2.

3.4.5 Addressing Categories of Non-Stormwater Discharges or Flows

Description/Methodology of BMP
All Non-Stormwater Discharges listed in Section 1.2 of this document are exempt from SPDES permit coverage as established by local law, unless the NYSDEC or the municipality has determined them to be substantial contributors of pollutants.

Compliance Requirements

SCMC

- Periodic review of the non-stormwater discharges listed in Section 1.2 of this document by the SCMC IDDE Task Group to determine if any should be re-considered as substantial contributors of pollutants, and recommend any changes to Coalition Members.

Stormwater Management Program (SWMP) Coordinator

- Update Non-Stormwater Discharge list as necessary such that no exempt stormwater discharge is a substantial contribution of pollutants.

3.4.6 Develop, Record, Periodically Assess, and Modify Measurable Goals

The SCMC Joint 2008-2009 Annual Report contains measurable goals for IDDE activities that were developed by the SCMC IDDE Task Group for use by Members to track overall Coalition progress of MCM 3 compliance activities. These measurable goals, expressed as BMPs, are presented below. The SCMC IDDE Task Group periodically assesses these measurable goals and results, and modifies them as appropriate.

3.4.6.1 Percent of Outfalls Inspected

Description/Methodology of BMP
Permit GP-0-08-002 requires that a reconnaissance inventory of each outfall be conducted at least once every five years. Using a guide of 20% per year, this measurable goal tracks the overall Coalition Members' progress towards compliance with this requirement. As part of the Outfall Mapping, Verification and Inspection BMP described in Section 3.4.4, compliance with this requirement will allow MS4s to verify that formerly detected illicit discharges have been eliminated and identify new illicit discharges that may be occurring.

Compliance Requirements

SCMC

- MC DES submits periodic reports of the outfall inspections performed within an MS4 to that MS4 as the information is processed.
- MC DES submits outfall inspection information to each MS4 on an annual basis for purposes of preparing the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Each MS4 reviews their outfall inspection data as provided by MC DES for accuracy and follow-up, as needed, and provides a request to MC DES for additional assistance, if needed.
- *(MS4s to add other activities, as applicable.)*

3.4.6.2 Percent of Staff in Relevant Positions and Departments that have Received IDDE Training

Description/Methodology of BMP
This metric tracks the Coalition-wide educational process of IDDE issues within MS4 staff, with a goal of 100%. Making MS4 Staff aware of IDDE issues and response is necessary to ensure that staff will recognize problems within both private and public sectors of their municipality and react properly. This metric is also important for ensuring MCM 6: Good Housekeeping and Pollution Prevention compliance.

Compliance Requirements

SCMC

- MC DES provides IDDE training to MS4 Staff at workshops or training session throughout the year.

Stormwater Management Program (SWMP) Coordinator

- Each MS4 tracks the number of their staff trained in IDDE (through MC DES or elsewhere) during the year for purposes of preparing the Annual Report.

3.4.7 Select Appropriate IDDE BMPs and Measurable Goals to Ensure the Reduction of All POCs in Stormwater Discharges to the MEP

The SCMC believes that the numerous BMPs and measurable goals described throughout this Section are most appropriate to ensure the reduction of all POCs in stormwater discharges to the MEP at this time. It is the role of the SCMC IDDE Task Force to periodically review these BMPs and measurable goals to ensure that they remain most appropriate or to modify them, if needed.

3.5 Best Management Practices for Future Consideration

At this time the following BMP areas are recognized by the SCMC as being required in the future. Based upon the oversight of the SCMC IDDE Task Group, should the need for other BMPs become evident, they will be implanted by the Coalition as necessary.
(MS4s should add any BMPs they are considering for the future.)

3.5.1 Updating Outfall Mapping/Outfall Information Management

Description/Methodology of BMP
MC DES will update outfall information within the Coalition outfall map / database during routine outfall inspections and investigations, and as new information is provided by MS4s concerning additional outfalls located or constructed. Increasing accessibility of the information for MS4s will be ongoing.

Implementation Steps

SCMC

- MC DES will update outfall maps and related database as new information is acquired.
- MC DES will provide information and training to MS4s regarding access and use of outfall maps and related database.

Stormwater Management Program (SWMP) Coordinator

- MS4s will provide information on newly located or constructed outfalls to MC DES for incorporation into existing maps and related database.
- MS4s will request assistance or training from MC DES on access to and utilization of outfall mapping and related database.

3.5.2 Sewershed Mapping

Description/Methodology of BMP

Permit GP-0-08-002 requires that the map developed and maintained for outfalls also include, by March 9th, 2010, the preliminary boundaries of the permittee's storm sewersheds determined using GIS or other tools, even if they extend outside of the urbanized area (to facilitate trackdown), and additionally designated area within the permittee's jurisdiction. When grant funds are made available or when sewer lines are surveyed during an illicit discharge trackdown, this map should further include the permittee's storm sewer system in accordance with available State and EPA guidance.

Implementation Steps

SCMC

- MC DES will update outfall maps and related database to include the storm sewersheds.
- SCMC will develop a plan to obtain storm sewer system information through grant funds or other means, per State and EPA guidance.
- MC DES will update outfall/sewershed maps and database with storm sewer system information, as it becomes available.

Stormwater Management Program (SWMP) Coordinator

- MS4s will provide information, to the extent available, to MC DES for incorporation of storm sewersheds into the outfall map and related database.
- MS4s will provide storm sewer system information to MC DES for incorporation into outfall/sewershed maps and database as it becomes available, in accordance with the SCMC plan.

3.6 Minimum Required Reporting

At a minimum, the permittee shall report on the items below, per current GP-0-08-002 Annual Report requirements :

- 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 measurable goal assessment.

Minimum Measure 4: Construction Stormwater Management

4.1 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. The 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. Due to a recommendation made by the SCMC, some MS4s may have a lower threshold of 0.5 acres of land disturbance. The BMPs describe the adoption of a mechanism that provides the legal authority to require erosion and sediment controls, enforcement procedures and actions to ensure compliance, requirements for construction site operators to implement appropriate erosion and sediment control BMPs, 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 potential 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 both privately-owned and managed projects, and MS4-owned and managed projects. Therefore, the BMPs described in this section have application to both types of projects.

4.2 General Permit Requirements[4]

An MS4 must, at a minimum:

a. Develop, implement, and enforce a program that:
   i. Provides equivalent protection to the current NYS SPDES General Permit for Stormwater Discharges from Construction Activities;

   ii. Addresses stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Control of stormwater discharges from construction activity disturbing less than one acre must be included in the program if:

   - That construction activity is part of a larger common plan of development or sale that would disturb one acre or more; or
   - If controlling such activities in a particular watershed is required by the Department.

[4] Information derived from GP-0-08-002.

iii. Includes a law, ordinance or other regulatory mechanism to require a SWPPP for each applicable land disturbing activity that includes erosion and sediment controls that meet the State's most up-to-date technical standards:

- This mechanism must be equivalent to one of the versions of the "NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control"; and
- Equivalence must be documented using the NYSDEC Gap Analysis Workbook or be certified by the attorney representing the small MS4 as being equivalent to one of the versions of the sample laws if one of the sample laws is not adopted or if a modified version of the sample law is adopted.

iv. Contains requirements for construction site operators to implement erosion and sediment control management practices;

v. Allows for sanctions to ensure compliance to the extent allowable by State or local law;

vi. Contains requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

vii. Describes procedures for SWPPP review that incorporate consideration of potential water quality impacts and review of individual pre-construction SWPPPs to ensure consistency with State and local sediment and erosion control requirements;

- Ensure that the individuals performing the reviews are adequately trained and understand the State and local sediment and erosion control requirements;
- All SWPPPs must be reviewed for sites where the disturbance is one acre or greater unless the MS4 has adopted lower threshold of 0.5 acres; and
- After review of SWPPPs, the permittee must utilize the "SWPPP Acceptance Form" created by the Department and required by the current SPDES General Permit for Stormwater Discharges from Construction Activity when notifying construction site owner / operators that their plans have been accepted and approved by the permittee.

viii. Describes procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site storm water runoff;

ix. Describes 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 the construction activity, topography, and the characteristics of soils and receiving water;

- The permittee must ensure that the individual(s) performing the inspections are qualified professionals and understand the State and Local sediment and erosion control requirements. A qualified professional is a P.E., a CPESC, a registered LA or

others who have received inspector training by a NYS DEC sponsored or approved training; and
- All sites with a disturbance of one acre or greater must be inspected by staff from the operator of the MS4 unless the MS4 has adopted lower threshold of 0.5 acres;

x. Educates construction site owner / operators, design engineers, municipal staff and other individuals to whom these regulations apply about the municipality's construction stormwater requirements, when construction stormwater requirements apply, to whom they apply, the procedures for submission of SWPPPs, construction site inspections, and other procedures associated with control of construction stormwater;

xi. By May 1st, 2010, ensures that construction site operators have received erosion and sediment control training before they do work within the permittee's jurisdiction. Small home site construction (construction where the Erosion and Sediment Control Plan is developed in accordance with Appendix E of the "New York Standards and Specifications for Erosion and Sediment Control") is exempt from the requirements below:

- Training may be provided by the Department or other qualified entities (such as Soil and Water Conservation Districts);
- The permittee is not expected to perform such training, but they may cosponsor training for construction site operators in their area;
- The permittee will be issued a card designed by the Department which indicates the completion of training; and
- The permittee may provide notice of upcoming sediment and erosion control training by posting in the building department or distribute with building permit application.

xii. Establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information;

xiii. Develop, record, periodically assess and modify as needed measurable goals; and

xiv. Select appropriate construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

4.3 Methodology for Compliance with Permit Requirements

Each participating MS4 of the SCMC has adopted the Model Ordinance for Construction Site Stormwater Pollution Prevention 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 and enforcing the permit requirements on developers / owner / operators that do not comply with the regulations. The SCMC will provide training to developers, contractors, and design engineers in order to inform them of the regulations. Training will also be provided by the SCMC to each participating MS4 personnel that will be responsible for inspecting the construction sites and enforcing the permit requirements.

4.4 Best Management Practices Implemented or Underway

4.4.1 Stormwater Ordinance

Description/Methodology of BMP
Each member MS4 of the SCMC has adopted a construction site stormwater runoff control ordinance. These ordinances establish minimum stormwater management requirements and controls to protect the general health, safety, and welfare of the public. The ordinance addresses issues relating to the following:

- Erosion and Sediment Control;
- Stormwater Management Design Requirements;
- Construction Requirements; and
- Enforcement and penalties.

Annual Compliance Requirements

Municipal Board

- Customize the fee structure and ordinance, if necessary to incorporate municipality's requirements. The fee structure should be referenced in Local Law however this cannot be done in way that allows for future updates to the fee structure without having to revise the Local Law as a whole.

Stormwater Management Officer/Designee & Municipal Board

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

4.4.2 Design Requirements

Description/Methodology of BMP
Evaluate current in-house design criteria and practices related to the review of project plans. Make required changes to and (when necessary) develop new policies with a focus on remaining compliant with local, state and/or federal construction stormwater regulations. Upon completion of this process communicate these new procedures to the local design and construction communities.

Many MS4-owned and managed as well as some privately-owned and managed projects have special conditions which make it impractical to implement standard pollution prevention practices as defined in the NYS Stormwater Management Design Manual. Such projects include highway reconstruction, demolition/redevelopment, waterline construction, and some types of linear-type construction. Acceptable design criteria for these special condition projects must be approved by the MS4 on a project-by-project basis, and the owner's preparation of the current

General Permit Stormwater Pollution Prevention Plan (SWPPP) is the mechanism by which accepted practices are evaluated by MS4.

Annual Compliance Requirements

SCMC

- Notify MS4 community of any amendments to state design criteria.

Stormwater Management Officer (or Designee)

- Prepare construction design and permitting guidelines, if they differ from those outlined in current State regulations, for the local design and construction communities and involved MS4 personnel; and
- If needed, distribute construction design and permitting guidelines to the local design and construction communities, and involved MS4 personnel; and
- Review construction project, planning, and design criteria to determine changes needed to comply with local, state and/or federal construction stormwater regulations.

Additional Information/Resources

- The current General Permit for Construction Activity
- The New York Standards and Specifications for Erosion and Sediment Control
- The NYS Stormwater Management Design Manual

4.4.3 Construction Plan Review, both Public and Internal

Description/Methodology of BMP
Develop a set of criteria that the member MS4 can use to verify construction plan compliance with local, state, and/or federal construction stormwater regulations.

Provide the public with an opportunity to review and comment on proposed design plans and construction sites.

Develop procedures for the public to request information, and to relay concerns to the representative of the municipality.

Prepare a checklist of items, each of which comes out of the criteria previously developed, that must be verified by the reviewer for each construction plan review. This checklist will be available to developers, contractors, engineers, and architects to assist them in preparing satisfactory plans. The check list will contain approved structural and non-structural BMPs that meet the requirements of the stormwater regulations. This list will identify if the BMP needs to be used in combination with other BMPs in order to completely satisfy all regulatory requirements.

Develop internal tracking and plan review procedures to cover the following issues:

- Conformance to local stormwater regulations;
- Appropriate use of temporary erosion controls; and
- Inclusion of any required local, state, and/or federal stormwater permit documents.

Provide training for municipal engineers, building department staff, and other municipal representatives that will be completing the construction plan reviews within each municipality.

Conduct SWPPP review for all sites within the MS4 where the disturbance is one acre or greater unless MS4 has adopted 0.5 acre threshold to ensure consistency with State and local sediment and erosion control requirements:

- SWPPP Acceptance Form issued by NYSDEC, and required by the current General Permit for Stormwater Discharges from Construction Activity, must be signed prior to obtaining permit coverage to indicate plans have been accepted and approved by the MS4. The construction site owner / operators should include the signed SWPPP Acceptance Form with the NOI submitted to NYSDEC for Permit coverage.

Annual Compliance Requirements

SCMC

- Develop criteria to verify construction plan compliance.
- Prepare a construction activities process checklist for municipalities and for owners / operators to assist with compliance with regulations.
- Continue to train municipal staff that will be completing construction plan reviews.
- Educate the local construction community on the construction plans review process.

Stormwater Management Officer (or Designee)

- Implement the construction plan review procedures for local construction sites.
- Provide notice to the public that a project will be open for review and comment. Typically, this should correspond with the Planning Board or Town Board agendas for proposed projects.
- Provide a method, either on the municipal webpage or at the municipal administration building, or both, to allow residents to comment on construction plans.
- Notify owners / operators of local construction sites who are in violation of the standards defined in the current permit.
- Train additional municipal staff as necessary and update per customized local code.
- Conduct SWPPP reviews or engage the services of a New York State licensed P.E. to review plans or accept the certification of a licensed / certified professional that plans conform to local law; and
- Maintain records of plans reviewed and approved for construction under this program.

Municipal Board

- Provide approval to engage services of New York State P.E. to review SWPPP.

Additional Information

- NYS Standards and Specifications for Erosion and Sediment Control (Blue Book)
- NYS Stormwater Management Design Manual (White Book)
- Current SWPPP Review Check List
- Current SWPPP Acceptance Form
- Current Notice of Intent for Stormwater Discharges Associated with Construction Activity
- Current Notice of Termination for Stormwater Discharges Associated with Construction Activity
- List of approved structural and non-structural BMPs

4.4.4 Construction Inspection Procedures and Certification Program

Description/Methodology of BMP
Develop inspection forms and procedures based on the adopted local laws regulating construction sites within an MS4 that disturb one acre of land or more unless the MS4 has adopted the 0.5 acre threshold. 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 actions 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.

Within two years of the signing of this document 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 three years before they do work within the MS4's jurisdiction.

Develop 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.

Annual Compliance Requirements

SCMC

- Develop and distribute an inspection form for MS4 staff to use based on local and state construction stormwater regulations.
- Provide template form for qualified inspectors to use during inspections.
- Educate municipal staff and the local construction community with regards to local inspection procedures; and

Stormwater Management Officer (or Designee)

- Inspect and maintain records of all construction sites where one acre of land or more, unless MS4 has adopted 0.5 acre threshold, is being disturbed using appropriate inspection procedures and forms to ensure compliance with local stormwater regulations; and
- Take action against, and maintain records of developers / owners / operators of local construction sites that are not in compliance with local construction stormwater regulations using the enforcement regulation outlined in the adopted local law.
- By May 1st, 2010 ensure that all construction site operators have at least one employee on site who has received required the required four hours of erosion and sediment control training within three years prior to the start of any construction within the MS4's jurisdiction. The SMO should obtain proof in the form of the issued training card provided to attendees for the purpose of documentation.
- Maintain an inventory of both active and previously active construction sites within the MS4 Urbanized Area in accordance with the Current General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems.
- Ensure that all appropriate municipal staff and members of the local construction community have been trained by May 1st 2011.

4.4.5 Develop, Record, Periodically Assess, and Modify Measurable Goals

The SCMC Joint 2008-2009 Annual Report contains measurable goals for Construction Stormwater Management that were developed by the SCMC Construction and Post-Construction Task Group to track overall Coalition progress of MCM 4 compliance activities. These measurable goals, expressed as BMPs, are presented below. The SCMC periodically assesses these measurable goals and results, and modifies them as appropriate.

4.4.5.1 Active Construction Sites Inspected During the Reporting Period

Description/Methodology of BMP

All active construction sites should be inspected each year, so this measurable goal tracks overall SCMC Member compliance with this requirement. Further, tracking the number of construction sites inspected more than once a year reflects follow-up activity verifying compliance and indicates that permit requirements are being enforced.

Compliance Requirements

SCMC

- Provide MS4s with unified set of inspection and guidance materials for consistent results.
- Obtain and compile inspection numbers for measurable goal tracking within the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Perform inspections and follow-ups per permit requirements.
- Provide inspection numbers to SCMC for Annual Report.

4.4.5.2 Percent of Sites Where MS4 Compliance Inspection Found Significant Non-Compliance

Description/Methodology of BMP
This measurable goal was initiated this reporting year, and requires MS4s to track the percent of sites where significant non-compliance is found. This metric should reflect overall site compliance for MS4s within the SCMC, in that lower numbers of significant non-compliance would reflect better overall construction and development permit compliance.

Compliance Requirements

SCMC

- Provide training for contractors / developers regarding permit requirement and guidance for consistent reporting.
- Provide MS4s with unified set of construction / development inspection and guidance materials for consistent results.
- Obtain and compile compliance numbers for measurable goal tracking within the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Perform inspections and track occurrences of significant non-compliance.
- Provide tracking results to SCMC for Annual Report.

4.5 Best Management Practices for Future Consideration

4.5.1 Research and Establish a Joint Inspection Program

Description/Methodology of BMP
The SCMC may wish to develop a cooperative construction site inspection strategy or program, whereby a centralized staff handles permitting and inspection duties for construction sites.

Currently, a pilot project is underway to provide technical assistance to MS4s including construction site inspections. At the end of this project, the results will be compiled and the support for a cooperative construction site inspection program will be evaluated. The findings will be provided to Coalition members.

Implementation Steps

SCMC

- Implement and monitor pilot project;
- Evaluate project outcomes and provide findings to Coalition members;

Stormwater Management Officer (or Designee)

- Review project findings

Municipal Board

- Formally support the planning process;
- Evaluate alternative and outcomes raised in any final plan; and
- Initiate recommendations

4.6 Minimum Required Reporting

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

a. Number of SWPPPs reviewed;

b. Number and type of enforcement actions;

c. Percent of active construction sites inspected once;

d. Percent of active construction sites inspected more than once unless MS4 has adopted 0.5 acre threshold;

e. Number of construction sites authorized for disturbances of one acre or more; and

f. Report on effectiveness of program, BMP and measurable goal assessment.

Minimum Measure 5: Post-Construction Stormwater Management

5.1 Description of Minimum Control Measure

The Post-Construction Stormwater Management MCM consists of BMPs that focus on the prevention or minimization of water quality impacts from both new and re-development projects that disturb one acre or more unless MS4 adopted 0.5 acre threshold. 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.

5.2 General Permit Requirements[5]

An MS4 must, at a minimum:

a. Develop, implement, and enforce a program that:
   i. Provides equivalent protection to the current NYS SPDES General Permit for Stormwater Discharges from Construction Activities;

   ii. Addresses stormwater runoff from new development and redevelopment projects to the small MS4 from projects that result in a land disturbance of greater than or equal to one acre unless MS4 adopted 0.5 acre threshold. Control of stormwater discharges from projects of less than one acre must be included in the program if:

      - That project is part of a larger common plan of development or sale; or
      - If controlling such activities in a particular watershed is required by the NYS DEC.

   iii. Includes a law, ordinance or other regulatory mechanism to require post-construction runoff controls from new development and re-development projects to the extent allowable under State or Local law that meet the State's most up-to-date technical standards:

      - The mechanism must be equivalent to one of the versions of the "NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control"; and
      - Equivalence must be documented using the NYSDEC Gap Analysis Workbook or certified by the attorney representing the small MS4 as being equivalent to one of

[5] Information derived from GP-0-08-002.

the sample laws if one of those sample laws is not adopted or if a modified version of one of the sample laws is adopted.

iv. Includes a combination of structural management practices (including, but not limited to practices from the NYS Stormwater Management Design Manual or equivalent) and / or non-structural management practices (including, but not limited to comprehensive plans, open space preservation programs, Low Impact Development (LID), Better Site Design (BSD) and other Green Infrastructure practices, land use regulations) appropriate for the permittee that will reduce the discharge of pollutants to the MEP. Permittees are encouraged to implement Green Infrastructure practices at a site level and to review, and revise where appropriate, local codes and laws that include provisions that preclude construction that minimizes or reduces pollutant loadings;

- If a stormwater management practice is designed and installed in accordance with the New York State Stormwater Management Design Manual or has been demonstrated to be equivalent and is properly operated and maintained, then MEP will be assumed to be met for post-construction stormwater discharged by the practice.

v. Describes procedures for SWPPP review that incorporate consideration of potential water quality impacts and review of individual pre-construction SWPPPs to ensure consistency with local post-construction stormwater requirements;

- Ensure that the individuals performing SWPPP reviews are adequately trained, or under the supervision of a qualified professional who understand the State and Local post construction stormwater requirements;
- All SWPPPs must be reviewed for sites where the disturbance is one acre or greater unless MS4 adopted 0.5 acre threshold; and
- After review of SWPPPs, the permittee must utilize the "SWPPP Acceptance Form" created by the Department and required by the current SPDES General Permit for Stormwater Discharges from Construction Activity when notifying construction site owner / operators that their plans have been accepted and approved by the permittee.

vi. Establish and maintain an inventory of post-construction stormwater management practices within the permittee's jurisdiction. At a minimum, include practices discharging to the small MS4 that have been installed since March 10, 2003, all practices owned by the small MS4, and those practices found to cause or contribute to water quality standard violations;

- The inventory shall include at a minimum: location of practice (street address or coordinates); type of practice; maintenance needed per the NYS Stormwater Management Design Manual, SWPPP, or other provided documentation; and dates and type of maintenance performed; and

vii. Ensures adequate long-term operation and maintenance of management practices identified in construction activity permit (Part VII.5.a.vi) by trained staff, including inspection to ensure that practices are performing properly.

- The inspection shall include inspection items identified in the maintenance requirements (NYS Stormwater Management Design Manual, SWPPP, or other maintenance information) for the practice. Permittees are not required to collect stormwater samples and perform specific chemical analysis.

b. Develop, implement, and provide adequate resources for a program to inspect development and re-development sites by trained staff and to enforce and penalize violators;

c. Develop, record, periodically assess and modify as needed measurable goals; and

d. Select appropriate post-construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

5.3 Methodology for Compliance with Permit Requirements

All participating MS4s in the SCMC have adopted the Model Ordinance for Design and Management of Post-Construction Stormwater Pollution Prevention Measures 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.

5.4 Best Management Practices Implemented or Underway

5.4.1 Post-Construction Stormwater Management Ordinance

Description/Methodology of BMP
Each member MS4 of the SCMC has adopted a post-construction stormwater management ordinance. This ordinance establishes minimum stormwater management requirements and controls to protect the general health, safety, and welfare of the public. The ordinance addresses issues relating to the following:

- Permanent Erosion and Sediment Controls;
- Stormwater Management Design Requirements; and
- SWPPP reviews, inspections, and maintenance.

Annual Compliance Requirements

Municipal Board

- Customize the fee structure and ordinance, if necessary to incorporate municipality's requirements. The fee structure should be referenced in Local Law however this cannot be done in way that allows for future updates to the fee structure without having to revise the Local Law as a whole.

Stormwater Management Officer/Designee & Municipal Board

- Revise fee schedule as needed.
- 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.

5.4.2 Inspection Program for Newly and Re-Developed Sites

Description/Methodology of BMP

Develop an inspection program for newly developed and redeveloped sites for compliance with the 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 or 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.

Annual Compliance Requirements

SCMC

- Develop inspection forms and procedures necessary to inspect local new and re-development projects in order to ensure compliance with local post-construction runoff regulations and approved plans.
- Develop and distribute Model Maintenance Agreement to MS4s for their use.
- Train inspection personnel and / members of the local construction community on local post-construction runoff regulations and final inspection procedures.

Stormwater Management Officer (or Designee)

- Maintain an inventory of projects that qualify for inspection under local post-construction runoff regulations in accordance with the Current General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems;
- Inspect qualifying development project sites using adopted inspection forms and procedures to ensure conformance with local post-construction runoff regulations in accordance with the Current General Permit;
- Issue enforcement measures to owners or operators of local development projects that are not in compliance with local post-construction runoff regulations; and
- Record and report on current and past qualified construction sites as well as any corrective and enforcement actions taken.

5.4.3 Stormwater Management Facility Maintenance Education for Target Audiences

Description/Methodology of BMP

Develop educational materials outlining acceptable maintenance practices for areas adjacent to stormwater management facilities to ensure their proper function. Educational effort focused on landscaping and property maintenance firms, as well as homeowners living adjacent to stormwater management facilities, will include but is not limited to brochures and presentations.

Implementation Steps

SCMC

- Develop educational materials and distribute to MS4s; and
- Assist in identifying and scheduling appropriate educational events to attend and promote maintenance practices.

Stormwater Management Officer (or Designee)

- Distribute educational materials and key messages to target audiences.

Municipal Board

- Endorse the educational messages regarding stormwater management facility maintenance being communicated to target audiences.

5.4.4 Develop, Record, Periodically Assess, and Modify Measurable Goals

The SCMC Joint 2008-2009 Annual Report contains measurable goals for Post-Construction Stormwater Management that were developed by the SCMC Construction and Post-Construction Task Group to track overall Coalition progress of MCM 5 compliance activities. These measurable goals, expressed as BMPs, are presented below. The SCMC periodically assesses these measurable goals and results, and modifies them as appropriate.

5.4.4.1 Percent of Post-Construction Stormwater Management Facilities Inspected

Description/Methodology of BMP
This measurable goal tracks the percentage of post-construction stormwater management facilities inspected *versus* the number inventoried, and will provide overall trending towards inspection of 100% of post-construction stormwater management facilities located within SCMC Member MS4s.

Compliance Requirements

SCMC

- Obtain and compile post-construction stormwater management facility inspection numbers for measurable goal tracking within the Annual Report.

Stormwater Management Program (SWMP) Coordinator

- Perform post-construction stormwater management facility inspections per permit requirements.
- Provide inspection numbers to SCMC for Annual Report.

5.5 Best Management Practices for Future Consideration

5.5.1 Asset Management Program for Existing Storm Drainage Facilities

Description/Methodology of BMP
Develop and implement an asset management program for all existing public storm drainage systems identifying the location of each storm drainage facility including:

- Open or closed;
- Tributary drainage area; and
- Current Condition

Develop a list of existing facilities and a form that includes performance indicators that will enable a measurable evaluation of the system. Create a weighted value system with thresholds for each indicator that would prioritize sites for maintenance, rehabilitation, or replacement.

Develop a comprehensive list of approved maintenance, rehabilitation, and replacement practices.

Implementation Steps

SCMC

- Assist in identifying resources that can be used to implement such a program; and
- Assist in identifying methodology for conducting such an analysis

Stormwater Management Officer (or Designee)

- Identify the existing storm facilities;
- Develop the performance indicators, inspection forms, and procedures; and
- Record and report on inspection and maintenance efforts.

5.5.2 Stormwater Master Plan

Description/Methodology of BMP
A project team could be formed to assess stormwater impacts and infrastructure in Monroe County and plan for needed improvements

Implementation Steps

SCMC

- Coordinate the project team
- Assist in the identification of existing reports and studies applicable to the issue
- Research and pursue funding opportunities

Stormwater Management Officer (or Designee)

- Serve time on the project team
- Identify MS4 studies and reports that could inform the master plan

5.5.3 Promote Implementation of Green Infrastructure

Description/Methodology of BMP
The SCMC may wish to promote the implementation of green infrastructure throughout Monroe County.

Implementation Steps

SCMC

- Research projects currently including green techniques;
- Evaluate project outcomes and provide findings to Coalition members;
- Implement green infrastructure educational workshops
- Research grant opportunities for implementing green infrastructure
- Coordinate pilot projects

Stormwater Management Officer (or Designee)

- Review project findings
- Provide information on current projects implementing green infrastructure within MS4 boundary.
- Promote green infrastructure to the development community

Municipal Board

- Formally support the implementation of green infrastructure;

5.6 Minimum Required Reporting

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

a. Number of SWPPPs reviewed;

b. Number and type of enforcement actions;

c. Number and type of post-construction stormwater management practices inventoried;

d. Number and type of post-construction stormwater management practices inspected;

e. Number and type of post-construction stormwater management practices maintained;

f. 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" (if not already done); and

g. Report on effectiveness of program, BMP and measurable goal assessment.

Minimum Measure 6: Pollution Prevention and Good Housekeeping for Municipal Operations

6.1 Description of Minimum Control Measure

The Pollution Prevention and Good Housekeeping MCM consists of BMPs that focus on the prevention or reduction of pollutant runoff from municipal operations. In this SWMP, MCM 6 is addressed through the implementation of an effective Municipal Pollution Prevention and Good Housekeeping Program. To this end, SCMC has developed a guidance document to assist SCMC Member MS4s develop their Program. Through this guidance document, BMPs can be developed which describe controls for reducing or eliminating the discharge of contaminants from the following:

- Street and Bridge Maintenance
- Winter Road Maintenance
- Stormwater System Maintenance
- Vehicle and Fleet Maintenance
- Parks and Open Space Maintenance
- Municipal Building Maintenance
- Solid Waste Management
- New Construction and Land Disturbances
- Right-Of-Way Maintenance
- Marine Operations
- Hydrologic Habitat Modification
- Other Municipal Facilities or Operations

Further, the Guidance Document in combination with implementation of other BMPs included in this Section of the SWMP, as applicable, will ensure MS4 compliance with the current NYS DEC General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems MCM 6.

6.2 General Permit Requirements[6]

An MS4 must, at a minimum:

a. Develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that:
   i. Addresses municipal operations and facilities that contribute or potentially contribute POCs to the small MS4s. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification; or other;

[6]Derived from GP-0-08-002.

ii. At a minimum frequency of once every three years, perform a self assessment of all municipal operations addressed by the SWMP to:

- Determine the sources of pollutants potentially generated by the permittee's operations and facilities; and
- Identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already.

iii. Determines management practices, policies, procedures, etc. that will be developed and implemented to reduce or prevent the discharge of (potential) pollutants. Refer to management practices identified in the "NYS Pollution Prevention and Good Housekeeping Assistance Document" and other guidance materials available from the EPA, State, or other organizations;

iv. Prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and permittee's capabilities;

v. Addresses pollution prevention and good housekeeping priorities;

vi. Includes an employee pollution prevention and good housekeeping training program and ensures that staff receive and utilize training;

vii. Requires third party entities performing contracted services, including but not limited to street sweeping, snow removal, lawn / grounds care, etc., to meet permit requirements as the requirements apply to the activity performed ; and

viii. Requires municipal operations and facilities that would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges to prepare and implement provisions in the SWMP that comply with Parts III. A, C, D, J, K and L of the MSGP. The permittee must also perform monitoring and record keeping in accordance with Part IV. of the MSGP. Discharge monitoring reports must be attached to an MS4s annual report. For those operations or facilities that are not required to gain coverage under the MSGP, implementation of the above noted provisions of the SWMP will ensure that MEP is met for discharges.

b. Develop, record, periodically assess and modify as needed any and all measurable goals; and

c. Select appropriate pollution prevention and good housekeeping BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

6.3 Methodology for Compliance with Permit Requirements

Municipal Pollution Prevention and Good Housekeeping is currently within the purview of the SCMC IDDE Task Group and receives technical assistance from MC DES. Through the Task Group, the SCMC has developed a document entitled "Guidance to Developing an Effective Municipal Pollution Prevention and Good Housekeeping Program" for use by MS4s in complying with this MCM. If fully implemented, this guidance document will address GP-0-08-002 general requirements identified in Sections 6.2, a.i. through a.vi., and c.

In 2008, MC DES and Coalition Staff held two workshops for MS4s describing how to implement a Municipal Pollution Prevention and Good Housekeeping Program by using the guidance document. One of these Workshops was video recorded for later use as training for other MS4s or their Staff. The guidance document was also placed on the Coalition's Website for access by MS4s or the general public. MC DES provides in-depth training and guidance upon request to MS4s, up to and including step-by-step implementation of the guidance document, if desired.

MS4s are ultimately responsible for development and implementation of their pollution prevention and good housekeeping program, as described within the guidance document. Beyond the scope of the guidance document, MS4s must establish third party contracts as applicable, fulfill Multisector General Permit requirements, if necessary, and perform self assessments at least every three years. In addition, each MS4 develops measurable goals which will be reflective of their situation and appropriate for implementing a successful pollution prevention and good housekeeping program in their MS4.

6.4 Best Management Practices Implemented or Underway

6.4.1 Stormwater Pollution Prevention Planning for Municipal Operations

Description / Methodology of BMP

Implement the steps for Stormwater Pollution Prevention Planning as described in the SCMC document entitled "Guidance to Developing an Effective Municipal Pollution Prevention and Good Housekeeping Program". In that document a planning process is suggested for municipal operations which allows the MS4 operators to identify the activities that generate pollutants and the best management practices (BMPs) applicable to the activities. Successful completion of this process will help ensure the MS4 operator is able to meet all State requirements for Minimum Control Measure 6, Pollution Prevention and Good Housekeeping for Municipal Operations. The recommended process includes the following components:

- **Understand Permit Requirements:** Review and understand current New York State Department of Environmental Conservation (NYSDEC) permit requirements to help ensure that the MS4 is on the path to compliance with the Control Measure.
- **Inventory**: An inventory is developed of all municipal facilities and operations that may be a source of pollutants in stormwater including, but not limited to,
    - Street and Bridge Maintenance
    - Winter Road Maintenance
    - Stormwater System Maintenance

  - Vehicle and Fleet Maintenance
  - Parks and Open Space Maintenance
  - Municipal Building Maintenance
  - Solid Waste Management
  - New Construction and Land Disturbances
  - Right-Of-Way Maintenance
  - Marine Operations
  - Hydrologic Habitat Modification
  - Other Municipal Facilities or Operations
- **Assessment**: Using the inventory, facilities and operations are evaluated for their potential to discharge pollutants to storm drains and/or receiving waters. The outcome of this process should be to develop an understanding of BMPs already in place and which areas of facilities and operations are likely sources of stormwater pollution. Priorities are established during the assessment, and pollution generating activities are identified for implementation of additional or new BMPs.
- **BMP Selection**: BMPs are then selected to deal with the identified sources of stormwater pollution. Emphasis is placed on source control BMPs and proper maintenance of treatment control BMPs, as well as training staff in BMP procedures. This process will also include development of measurable goals.
- **Program Implementation**: BMPs are implemented and their effectiveness evaluated. A staff training program is initiated. Periodically record, assess and modify measurable goals as needed and report on the effectiveness of the entire program.
- **Self-Assessments:** At a minimum of once every three years, the **Inventory** and **Assessment** steps are repeated to ensure that all facilities and / or operations and potential pollutants generated by them are included in this program.

MS4s should note here what P2 planning is being conducted.

Annual Compliance Requirements

SCMC

- Provide the guidance document information and related training to MS4 staff.
- Provide additional assistance, as requested, on program implementation, especially BMPs, training and measurable goals.

Stormwater Management Program (SWMP) Coordinator

- Develop and implement a Pollution Prevention and Good Housekeeping for Municipal Operations Program.
- Document the Pollution Prevention and Good Housekeeping for Municipal Operations Program through written policies, procedures and reference materials, as necessary.

NOTE to MS4s: *The following Section should be included only if applicable.*

6.4.2 Third Party Contracted Services

Description / Methodology of BMP
Third party entities performing contracted services, including but not limited to street sweeping, snow removal, lawn / grounds care, etc., are required to meet permit requirements as the requirements apply to the activity performed. Acknowledgement of such requirements by third parties contracted to perform these services are documented and included in the Pollution Prevention and Good Housekeeping for Municipal Operations Program.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Third party agreements to meet applicable permit requirements are documented within the Pollution Prevention and Good Housekeeping for Municipal Operations Program.

NOTE to MS4s: *The following Section should be included only if applicable.*

6.4.3 Multisector General Permit Provisions

Description / Methodology of BMP
Municipal operations and facilities that would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges are required to prepare and implement provisions in the SWMP that comply with Parts III. A, C, D, J, K, L and Part IV of the MSGP.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Determine if MS4 operations and facilities would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges and, if so, comply with Parts III. A, C, D, J, K, L and Part IV of the MSGP.

NOTE to MS4s: *Implementation of a Pollution Prevention and Good Housekeeping for Municipal Operations Program will have features common to all, or most, MS4s as well as features specific to an individual MS4. The topics below, indicated by an arrow, may or may not be applicable to your specific MS4, but are presented as possible BMPs to address various MCM 6 compliance requirements. Of course many other BMPs are referenced in the SCMC P2 / Good Housekeeping Guidance Document.*

⇨ **Municipal Training Program**

Description/Methodology of BMP
Institute a program that provides training to each member of the municipality whose work may potentially impact stormwater. This includes highway, water, buildings and grounds, sewer,

parks, and recreation departments. Monroe County personnel have trained employees from MS4s and will continue to train town and village employees. It will then become the responsibility of those individuals to train the remaining employees of their municipality.

Annual Compliance Requirements

SCMC

- Conduct training sessions for the municipal employee(s) that have been designated to teach the remaining members of the municipality; and
- Continue to identify new training opportunities and bring these opportunities to the attention of SCMC members.

Stormwater Management Program (SWMP) Coordinator

- Train municipal employees whose job duties impact stormwater management;
- Identify new BMPs;
- Develop and / or modify inspection checklists; and
- Develop and / or implement operating procedures in the municipality

Vehicle, Equipment Maintenance and Maintenance Facilities Procedures

Description/Methodology of BMP

Develop and maintain an inventory of municipal owned vehicles and maintenance records. Maintain all MS4 owned vehicles and maintenance facilities using an identified maintenance plan that includes, but not limited to the following procedures:

- Maintain and / or wash all municipal owned vehicles indoors whenever possible and according to manufacturer's specifications. If maintenance must be performed outside, guard against spillage of materials that could discharge to storm receivers;
- Identify and eliminate vehicle fluid leaks. If leak occurs clean it up immediately using a "dry" method;
- Perform cleaning with pressurized cold water, without the use of soaps, if wastewaters will flow to a storm sewer system;
- Use minimal amounts of biodegradable soaps only if wastewaters will discharge to a sanitary sewer system;
- Seal floor drains that discharge directly to the environment or install pretreatment systems, i.e.) oil/water separators where necessary in sewer lines to capture contaminants such as oil and / or grit and obtain a wastewater discharge permit from a regulatory agency, maintain as system as needed;
- Initiate single purpose use of vehicle bays – dedicate one (or more) bays that have no (or sealed) floor drains for repairs/maintenance;
- Never leave vehicles unattended while refueling;
- Identify appropriate recycling/disposal options for wastes; and
- Review vehicle inspection and maintenance records on an annual basis to evaluate conformance to vehicle manufacturer service specifications.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Maintain vehicles and maintenance facilities in accordance with maintenance plan;
- Conduct routine inspection on all municipal vehicles according to manufacturers' specifications, also inspecting vehicle for the presence of fluid leaks;
- Identify the need for cleaning of catch basins, oil/water separators;
- Schedule repairs for vehicles determined to have fluid leaks; and
- Maintain/update as necessary any inventories and plans that effect municipally owned vehicles, equipment and maintenance facilities.

Building Maintenance

Description/Methodology of BMP
Conduct building maintenance activities such that they do not impact the stormwater systems and local water bodies whenever possible.

Develop a list of the maintenance activities required inside and outside of each municipal building.

Identify which activities have an impact on stormwater.

Develop mitigation measures for each activity that impacts stormwater.

Review the maintenance activity lists on an annual basis to determine if any improvements are necessary.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Implement the mitigation measures for each activity;
- Review the maintenance activity list and update as necessary;
- Review the mitigation measures for each activity and revise as necessary; and
- Maintain/update as necessary an inventory of all municipally owned facilities and material storage areas.

Hazardous Waste and Materials Management

Prevent the discharge of hazardous waste and materials from impacting municipal stormwater systems and local waterbodies by doing the following:

- Post "no dumping" signs, illuminate and / or prevent access to stormdrain areas if possible.
- Identify the byproducts and / or wastes that should be recycled such as paper and / or cardboard and where they can be legally disposed of on municipal lands by referencing NYSDEC regulations (6NYCRR PART 360); and
- Ensuring that all municipal hazardous waste and 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; or
- 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 and / or use secondary containment devices where appropriate.
- Eliminate waste by reincorporating coating and / or solvent mixtures into the original coating material for reuse.

If spills occur the MS4 will comply with federal and state spill prevention control and counter measures plan regulations, and review spill response procedures to ensure stormwater quality protection measures are considered during spill response. This will be done by, but not limited to the follow procedures:

- Develop and/or maintain SPCC plans for permittee owned facilities that require plans;
- Evaluate each municipally owned facility and determine if Spill Prevention Control and Countermeasures plans (SPCC) are required; and
- Comply with SPCC plan requirements at qualifying municipally owned facilities, including consideration of the following:
  - Conduct employee training.
  - Maintain spill prevention equipment.
  - Keep all materials properly stored in closed, labeled containment systems.
  - Use secondary containment systems where appropriate.
  - Obtain spill recovery materials for immediate response to a spill.
  - Maintain SPCC records.
  - Update and re-certify the SPCC plan according to SPCC regulations
  - Annually report on the number of facilities with SPCC plans and the current status of each SPCC plan.

<u>Annual Compliance Requirements</u>

Stormwater Management Program (SWMP) Coordinator

- Implement plan for proper storage of all hazardous and waste materials.
- Inspect secondary containment systems and oil/water separators; and
- Inspect containers for leaks, areas near storm receiver inlets and outlets, floor drains for indication of spills.

- Pump out oil water separators as needed.
- Protect drains with oil absorbent materials; and
- Clean out receivers on regular schedule.
- Remove spilled salt from salt loading area.

Roadway and Bridge Maintenance

Description/Methodology of BMP

Develop, assess, and implement roadway and bridge maintenance activities and modify procedures to reduce stormwater quality impacts using, but not limited to the following activities:

- Be on the lookout for new and / or alternative practices that would reduce the discharge of salt, construction and other debris during construction or maintenance activities;
- Calibrate salt spreaders to provide the proper application of road salt to reduce the impact of salt on plants, aquatic life, and the local waterbodies;
- Store salt indoors and at as high an elevation as possible, to mitigate negative stormwater impacts;
- Pave in dry weather only;
- Consider alternative deicing materials (i.e. calcium chloride, magnesium chloride);
- Incorporate preventive maintenance and planning such covering catch basins during regular operations & maintenance activities including but limited to resurfacing, when patching and filling potholes;
- Clean up fluid leaks or spills that occur during regular maintenance activity from paving equipment/materials immediately;
- Use porous asphalt for pothole repair and shoulder work whenever possible;
- Sweep and vacuum paved roads shoulders and bridges regularly to remove debris and particulate matter;
- Maintain roadside vegetation; select vegetation with a high tolerance to road salt;
- Control particulate wastes from bridge sandblasting operations;
- Clean out bridge scuppers and catch basins regularly;
- Direct water from bridge scuppers to vegetated areas;
- Identify the type of roadways that can be swept to remove sediment and other pollutants;
- Schedule and implement street sweeping of identified roadways; and
- Prior to road reconstruction, consider/evaluate the use of "shouldered roads" instead of "curbed roads".
- Maintain records of all road maintenance activities and the use of alternative maintenance practices.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Evaluate roadway maintenance program and revise roadway maintenance specifications according to identified alternative practices.
- Implement street sweeping in accordance with the identified schedule.
- Inspect salt piles and storage shed for leaks, clumping or other problems and repair as needed.
- Inspect equipment to verify proper operation. Service trucks and calibrate spreaders regularly to ensure accurate, efficient distribution of salt.
- Maintain and / or update as necessary an inventory of all municipally owned infrastructure – it is essential to include underground infrastructure i.e.) ditches, underground storm piping, septic systems, UST's, oil/water separators, catch basins/sewers, etc.

Catch Basin and Storm Drain Cleaning

Description/Methodology of BMP

The purpose of this BMP is to reduce sediment and suspended solid discharges by routinely cleaning municipal catch basins and stormwater inlet structures. The MS4 will do this by:

- Identifying areas where catch basins, surface inlets, and / or storm sewer manholes that should be periodically cleaned to reduce discharge of suspended solids, sediment, and other materials;
- Developing a schedule for cleaning inlet structures, catch basins, and manholes based on the previous assessment;
- Implement the catch basin cleaning program according to the developed schedule; and
- Evaluate the catch basin cleaning schedule on an annual basis.

Catch basins and floor drain systems inside of buildings should be either:

- Sealed to prevent discharge;
- Permitted by NYSDEC; or
- Discharged to sanitary sewers

Repair/replace storm drain receiver and catch basin receiver grates as necessary.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Implement the catch basin cleaning program according to the developed schedule;
- Evaluate the catch basin cleaning program to identify improvements and/or modifications.
- Maintain and / or update, as necessary an inventory of all municipally owned infrastructure – it is essential to include underground infrastructure (i.e. septic systems, UST's, oil/water separators, catch basins/sewers, etc.)

Road Salt Storage and Application

Description/Methodology of BMP

- Provide proper storage and application of road salt to reduce the impact of salt on plants, aquatic life, and the local waterbodies.
- Require covered facility for salt storage, and size properly for seasonal needs.
- Store salt on highest ground elevation to mitigate contact with stormwater.
- Calibrate salt spreaders as necessary.
- If possible, use a wetting agent with salt to minimize "bouncing" during application.
- Consider alternative deicing materials
- Unload salt deliveries directly into storage facility, or if not possible move inside immediately.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Inspect salt storage shed for leaks, other problems. Repair as needed.
- Check salt piles for proper coverage, tarps for leaks or tears. Replace tarps as needed.
- Inspect salt application equipment.
- Inspect salt regularly for lumping or water contamination.
- Check surface areas for evidence of runoff
- Inspect roads for excessive amounts of salt
- Inspect equipment to verify proper operation.
- Maintain an inventory of all municipally owned facilities and salt storage areas/structures.

Spill Response and Prevention

Description/Methodology of BMP

Comply with federal and state spill prevention control and counter measures plan regulations, and review spill response procedures to ensure stormwater quality protection measures are considered during spill response.

- Evaluate each permittee owned facility and determine if Spill Prevention Control and Countermeasures Plans (SPCC) are required.
- Develop and/or maintain SPCC plans for permittee owned facilities that require plans.

Comply with SPCC plan requirements at qualifying permittee owned facilities, including consideration of the following:

- Conduct employee training
- Maintain spill prevention equipment
- Keep all materials properly stored in closed, labeled containment systems
- Use secondary containment systems where appropriate
- Obtain spill recovery materials for immediate response to a spill.
- Maintain SPCC records
- Update and re-certify the SPCC plan according to SPCC regulations
- Annually report on the number of facilities with SPCC plans and the current status of each SPCC plan.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Inspect secondary containment systems and oil/water separators
- Inspect containers for leaks, areas near storm receiver inlets and outlets, floor drains for indication of spills
- Pump out oil/water separators as needed
- Protect drains with oil absorbent materials
- Clean out receivers on regular schedule
- Remove spilled salt from salt loading area

Alternative Discharge Options for Chlorinated Water

Description/Methodology of BMP
Prevent the discharge of chlorinated water from impacting municipal stormwater systems and local waterbodies by doing the following:

- Dechlorinate pool water before any discharge, be it over land or to the sanitary sewer, or allow the "disinfectant" to dissipate with sunlight, use, etc. prior to discharge; and
- Use ultraviolet radiation or osmosis to disinfect water/wastewater.
- Backwash water should be discharged to the sanitary sewer, if available. If not available, discharge water over vegetated areas, not to surface waters

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Check chlorine residuals in municipal pools prior to discharge;
- Do not discharge chlorinated water into the sanitary sewer system during periods of high flow;
- Maintain proper levels of chlorine residuals in pools;
- Allow disinfectant to dissipate prior to discharge of pool waters;

- Obtain permission from the municipal Publicly Owned Treatment Works (POTW) prior to discharging any chlorinated pool waters to a sanitary sewer system; and
- ID opportunities to change current maintenance practices to incorporate ways to abate the potential for stormwater contamination such as disinfecting water with osmosis or UV light.

Septic System Management

Description/Methodology of BMP

Prevent improperly treated wastewaters from septic systems from impacting municipal stormwater systems and local waterbodies by:

- Diverting stormwater runoff i.e.) from roof drains away from septic system;
- Diverting groundwater and / or sump pump discharges away from septic system;
- Locating swimming pools away from the septic system i.e.) at least 20' from the septic tank and at least 35' from the closest edge of the leach field or sand filter system;
- Preventing problems caused by vegetation such as growth of woody plants on the system; and
- Preventing hydraulic overloading by "Spreading out" the use of devices which use large volumes of water across the entire day for uses such as clothes washing, dish washing, and bathing. Repair leaky fixtures.
- Minimizing water usage by using flow restrictors on potable water distribution devices i.e.) shower heads, water faucets

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Determine the interval for pumping out each municipal septic tank; and
- Maintain/update as necessary an inventory of all municipally owned septic systems and corresponding dates of service for each.

Pest Control

Description/Methodology of BMP

Reduce the discharge of pesticides from municipally owned facilities as they may harm aquatic life and may contaminate local water bodies and sediment. This may be accomplished by the following:

- Developing 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; and
  - Prepare a pesticide and herbicide application schedule.
- Comply with local, state, and federal regulations associated with pesticide and herbicide application i.e.) 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;
- 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.
- Eliminate food, water, and shelter for pests;
- Adopt integrated pest management (IPM) techniques; and
- Adopt alternatives to pesticides options (use physical, mechanical, or biological controls)

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Inspect pest traps regularly to remove and properly dispose of dead pests;
- Block and / or eliminate access to buildings and / or structures for pests;
- Remove pests; and
- Review pesticide application at all facilities and / or lands and incorporate new methodologies for application, or determine if pesticide application can be discontinued at sites.

Hydrologic Habitat Modification

Description/Methodology of BMP

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 previously mentioned requirements associated with any habitat modification. Identify any potential habitat modification to the NYSDEC and USACE through their Joint Application for Permit Program. Comply with all requirements of the NYSDEC and USACOE permits for work within freshwater wetlands and streams permits. Comply with the construction and post-construction requirements within the stormwater regulations.

Annual Compliance Requirements

SCMC

- Annually provide additional training as necessary to the municipal work crews.

Stormwater Management Program (SWMP) Coordinator

- Provide the NYSDEC and USACOE with the required information in the Joint Application for Permit to obtain their approval prior to proceeding; and
- Comply with all requirements of the NYSDEC and USACOE permits.

Landscaping and Lawn Care

Description/Methodology of BMP

Reduce the discharge of landscaping and lawn care waste from MS4 owned facilities through the use of the following methods:

- Developing an inventory of landscaping and lawn care areas that are owned by the MS4;
- Evaluate current landscaping and lawn care activities in order to identify opportunities to reduce the discharge of the following:
  - Fertilizers
  - Leaf litter and tree trimmings
  - Litter and floatable materials
  - Equipment fluids
- Ensure that proper litter collection is scheduled prior to any mowing activities;
- Use slow release or naturally derived and / or organic all herbicides, pesticides, and fertilizers and 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);
- Train employees in the proper application of lawn care products;
- Consider alternative landscape techniques i.e. naturescaping, xeriscaping, and rain gardens;
- Plant trees away from sewer lines or other underground utilities;
- Use drip irrigation techniques for landscaping; and
- Report annually on the activities conducted under this program.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Review monitoring and maintenance program and revise as necessary; and
- Maintain and / or update as necessary an inventory of all municipally owned lands that are and / or will be subject to landscaping and lawn care activities.

New Construction and Land Disturbance

Description/Methodology of BMP

- Comply with the requirements of the construction and post-construction minimum control measure listed previously.
- Provide education material and training opportunities to the municipal 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

Annual Compliance Requirements

SCMC

- Provide additional training as necessary to municipal crews

Stormwater Management Program (SWMP) Coordinator

- Incorporate BMPs into the work activities of the work crews during land disturbance requirements
- Monitor work activities to verify compliance with land disturbance requirements
- Review new construction design plans to incorporate PP/GH BMPs so as to avoid all deleterious effects to stormwater runoff (prior to construction)

⇨ Pet Waste Collection

Description/Methodology of BMP

House all animals in an enclosed, roofed shelter. Identify and utilize permitted waste disposal facilities for animal wastes. Post signage and possibly develop an ordinance that dissuades the public from leaving excrement from their pets on public property. Where possible encourage community organizations to install pet waste stations and signage along frequent walking routes or in parks.

Implementation Steps

Stormwater Management Program (SWMP) Coordinator

- Remove spilled food and / or animal waste upon request.

6.5 Best Management Practices for Future Consideration

6.5.1 Self Assessment

Description/Methodology of BMP
At a minimum frequency of once every three years, the MS4 will perform a self assessment of all municipal operations addressed by the SWMP to:

- Determine the sources of pollutants potentially generated by the permittee's operations and facilities; and
- Identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already.

Annual Compliance Requirements

Stormwater Management Program (SWMP) Coordinator

- Incorporate BMPs into the work activities of the work crews during land disturbance requirements
- Monitor work activities to verify compliance with land disturbance requirements
- Review new construction design plans to incorporate PP/GH BMPs so as to avoid all deleterious effects to stormwater runoff (prior to construction)

Note to MS4s: *Add into this Section any future BMPs currently being planned.*

6.6 Minimum Reporting Requirements

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

a. Indicate the municipal operations and facilities that the pollution prevention and good housekeeping program assessed;

b. Describe, if not done so already, the management practices, polices and procedures that have been developed, modified, and / or implemented and report, at a minimum, on the items below that the permittee's pollution prevention and good housekeeping program addressed during the reporting year:

   - Acres of parking lot swept;
   - Miles of street swept;
   - Number of catch basins inspected and, where necessary, cleaned;
   - Post-Construction control stormwater management practices inspected and, where necessary, cleaned;
   - Pounds of phosphorus applied in chemical fertilizer;

- Pounds of nitrogen applied in chemical fertilizer; and
- Pounds of pesticides / herbicides applied as pure product.

c. Staff training events and number of staff trained; and

d. Report on effectiveness of program, BMP and measurable goal assessment. If the pollution prevention and good housekeeping program addresses other operations than what is listed in GP-0-08-002, Part VII.A.6.a(ii), the permittee shall report on items that will demonstrate program effectiveness.

MS4s that would otherwise be subject to the NYS Multisector General Permit for industrial stormwater discharges must attach discharge monitoring reports to their MS4 annual report.

Appendices

Appendix A: General Definitions and Requirements

Best Management Practices (BMPs) – Activities or structural improvements that help reduce the quantity and improve the quality of stormwater runoff. BMPs include public education and outreach, treatment requirements, operating procedures, and practices to control runoff, spillage, leakage, sludge and waste disposal, and drainage from raw material storage.

Clean Water Act – Amendments made to the Federal Water Pollution Control Act in 1972 to establish water quality standards and to create the National Pollutant Discharge Elimination System to protect the waters and waterways of the U. S. by regulating the discharge of pollutants from point source discharges and municipal separate storm sewer systems.

Combined Sewer System – A sewer system designed to convey both sanitary wastewater and stormwater.

Detention Pond – Pond that stores a volume of water for a given period of time and then discharges the water downstream.

Discharge – An outflow of water from a stream, pipe, ground water system or watershed.

Ecosystem – All of the plants and animals in an area that interact to make up the local environment.

Erosion – The overall process of the transport of material on the earth's surface including the movement of soil and rock by agents such as water, wind, or gravity.

Groundwater –All of the water contained in void space beneath the earth's surface.

Heavy Metals – Metals such as zinc, copper, lead, mercury, chromium, cadmium, iron, manganese, nickel, molybdenum and silver that, even in low concentrations can be toxic or lethal to humans, animals and aquatic life.

Illicit Discharge – The term refers to any discharge to an MS4 that is not composed entirely of stormwater unless authorized via an NPDES permit or otherwise excluded from regulation. Thus, not all illicit discharges are illegal or prohibited.

Industrial Waste – Unwanted materials from an industrial operation, this may include liquids, sludge, solids, or hazardous waste.

Large Municipal Separate Storm Sewer System (Large MS4) – All municipal separate storm sewers that are located in an incorporated place with a population of 250,000 or more according to the latest Census.

Maintain or Improve Water Quality – This statement is to mean that no MS4 shall allow for an increase in turbidity to local waters that will cause a substantial visible contrast to natural

conditions; the MS4s shall not allow suspended, colloidal and settleable solids from sewage, industrial wastes or other wastes that will cause deposition or impair local waters for their best usages; and no MS4 shall allow residue from oil and floating substances attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules or grease.

Maximum Extent Practicable (MEP) – A water quality standard that applies to all MS4 operators under NPDES permits. The standard has no exact definition, as it was intended to be flexible to allow operators to tailor their stormwater programs to their particular site.

Medium Municipal Separate Storm Sewer System (Medium MS4) – This includes all municipal separate storm sewers that are located in an incorporated place with a population of more than 100,000 but less than 250,000.

Municipal Separate Storm Sewer Systems (MS4) – Areas with a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains) that are not a combined sewer or part of a publicly owned treatment system and are owned or operated and regulated by a municipality or authorized agency. MS4s may be small, medium or large with the medium or large MS4s being principally determined by population size.

Non-Point Source Pollutants (NPS) – Pollution coming from many diffuse sources whose origin is often difficult to identify. This pollution occurs as rain or snowmelt travels over the land surface and picks up pollutants such as fertilizer, pesticides, and chemicals from cars. This pollution is difficult to regulate due to its origin from many different sources. These pollutants enter waterways untreated and are a major threat to aquatic organisms and people who fish, use waters and waterways for recreational purposes or as an untreated drinking water source.

National Pollutant Discharge Elimination System (NPDES) – This is the EPA's regulatory program to control the discharge of pollutants to waters and waterways of the United States.

Notice of Intent (NOI) – An application to notify the permitting authority of a facility's intention to be covered by a general permit. This exempts a facility from having to submit an individual or group application.

Nutrients – The term typically refers to nitrogen and phosphorus or compounds containing free amounts of the two elements. These elements are essential for the growth of plant life, but can create problems in the form of algal blooms, depletion of dissolved oxygen and pH changes in streams and other water bodies when higher concentrations are allowed to enter drainage systems and lakes.

Ordinance – A law based on state statutory authority developed and approved by a governmental agency to allow them to regulate the enforcement of criteria contained within the specific law and to invoke sanctions and other enforcement measures to ensure facilities comply with the criteria.

Outfall – the point where a sewer or drainage discharges into a receiving waterway.

Point Source Pollution – This is pollution coming from a single, definable source, such as a factory.

Retention Pond – Pond that stores a volume of water without allowing it to discharge downstream.

Runoff – Any drainage that leaves an area as surface flow.

Sanitary Sewer – Is an underground pipe system that carries sanitary waste and other wastewater to a treatment plant.

Sediment – Material derived from the weathering of rock such as sand and soil. This material can be detrimental to aquatic life and habitats if too much is allowed to wash into rivers and ponds.

Site Plan – Is a geographic representation of the layout of buildings and other important features on a tract of land.

Small Municipal Separate Storm Sewer Systems (SMS4s) – Are MS4s that are not merely determined by population, but are much broader in scope, they are land areas with conveyances that are designated because of one or more of the following criteria: 1) they discharge to sensitive waters; 2) they are experiencing high growth or have a high growth potential; 3) they are contiguous to urbanized areas and other MS4s; 4) they are a significant contributor of pollutants to the waters of the U. S.; or 5) they have ineffective protection of water quality through other programs.

State Pollutant Discharge Elimination System (SPDES) – The state's regulatory program to control the discharge of pollutants to waters of the Unites States.

Storm Drain – Any drain which drains directly into the storm sewer system, usually found along roadways or in parking lots.

Storm Sewer – Is an underground pipe system that carries runoff from streets and other surfaces.

Storm Sewershed – The land area that drains into the storm sewer system based on the surface topography. Adjacent catchment areas that drain to adjacent outfalls are not separate storm sewersheds.

Stormwater – Stormwater or snow melt runoff, and surface runoff and drainage.

Stormwater Management – Any measure associated with the planning, maintenance, and regulation of facilities which collect, store, or convey stormwater.

Stormwater Pollution Prevention Plan (SWPPP) – A plan developed by a facility or entity that thoroughly evaluates potential pollutant sources at a site and selects and implements appropriate best management practice measures designed to prevent or control the discharge of pollutants in stormwater runoff.

Surface Runoff – Is the flow of water across the land surface that occurs when the rainfall rate exceeds the ability of the soil to absorb the water. This is of primary concern when dealing with impervious surfaces, such as parking lots, roofs, roads, or driveways where water cannot infiltrate at all.

Surface Water – Is any water that remains on the earth's surface, such as ponds, rivers, streams, impoundments, wetlands, oceans, etc.

Total Maximum Daily Load (TMDL) – Is a regulatory limit of the maximum amount of a pollutant type that can be released into a body of water in a twenty-four hour period without adversely affecting water quality.

Tributary – A stream which drains into another larger stream or body of water.

Urbanized Area (UA) – Is a land area consisting of one or more central places and the adjacent densely settled surrounding area (urban fringe) that together have a residential population of at least 50,000 and a minimum average population density of at least 1,000 people per square mile.

Watershed – A geographic area in which water flowing across the surface will drain into a certain stream or river and flow out of the area via that stream or river, or all of the land that drains to a particular body of water, also known as a catchment or drainage basin.

Waters of the US – These are surface waters defined as wetlands, lakes (including dry lakes), rivers, streams (including intermittent streams, ephemeral washes and arroyos), mudflats, sandflats, sloughs, wet meadows, playa lakes, natural ponds, and man-made impoundments.

Wetlands – Is an area of land where part of the surface is covered with water or the soil is completely saturated with water for a large majority of the year. Wetlands provide an important habitat for many different types of plant and animal species. Wetlands are also natural stormwater control areas, since they filter out pollutants and are able to retain large amounts of water during storm events.

Appendix B: List of Commonly Used Abbreviations

BMPs – Best Management Practices

CWA – Clean Water Act

EPA – U.S. Environmental Protection Agency

MCC – Municipal Compliance Certification form

MCM – Minimum Control Measure

MEP – Maximum Extent Practicable

MS4 - Municipal Separate Storm Sewer System

NOI – Notice of Intent

NPS – Non-Point Source Pollutants

NPDES – National Pollution Discharge Elimination System

NYSDEC – New York State Department of Environmental Conservation

POC – Pollutants of Concern

SCMC – Stormwater Coalition of Monroe County

SMO – Stormwater Management Officer

SOP – Standard Operating Procedures

SPCC – Spill Prevention and Control Countermeasures

SPDES – State Pollution Discharge Elimination System

SWMP – Stormwater Management Program

SWPP – Stormwater Pollution Prevention

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

USEPA – United States Environmental Protection Agency

Appendix C: List of Documents for Inclusion by Individual MS4s

This list was compiled from page 74 of the New York State Department of Environmental Conservation General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems. It is not necessarily limited to all actions and documents for inclusion. It is the responsibility of the MS4 and the assigned Stormwater Management Officer to address the following components of the SWMP plan and any other required actions and documents for inclusion that may be required but are not present on this list.

The SWMP plan shall be made readily available to the permittee's staff, the general public and regulators, such as DEC and EPA staff. Portions of the SWMP plan, primarily policies and procedures, must be available to the management and staff of a permittee that will be called upon to use them.

Actions and Documents for Inclusion in the SWMP Plan

- **All applicable local laws (MCMs 3, 4 & 5)**
- **Inter-municipal agreements and other legal authorities**
- **Staffing and staff development programs and organization charts**
  - Organization charts should detail the applicable offices and/or individuals which are responsible for implementing various components of the permit
- **Program budget**
- **Policy, procedures, and materials for each minimum measure**
  - This item is largely satisfied by the body of this document; if, however, an MS4 wishes to elaborate or expand upon elements in Sections 1-6, it should do so.
- **Outfall and small MS4 system maps**
- **Stormwater management practice selection and measurable goals**
  - This item is largely satisfied by the body of this document; if, however, an MS4 wishes to elaborate or expand upon elements in Sections 1-6, it should do so.
- **Operation and maintenance schedules**
- **Documentation of public outreach efforts and public comments**
  - This item is largely satisfied by the body of this document; if, however, an MS4 wishes to elaborate or expand upon public outreach efforts detailed in Sections 1-6, or if it has received any public comments pertaining to implementation of MCMs 1-6, it should do so.
- **Submitted construction site SWPPPs and review letters and construction site inspection reports.**