



Village of North Syracuse
Onondaga County, New York

STORMWATER MANAGEMENT PROGRAM

for coverage under the

New York State Pollutant Discharge Elimination System (SPDES)
General Permit for Stormwater Discharges
from
Municipal Separate Storm Sewers (MS4s)
General Permit No. GP-0-08-002

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GP-0-08-002**

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Introduction

Pursuant to Section 402 of the Clean Water Act (CWA), operators of small *municipal separate storm sewer systems* (MS4s), located in *urbanized areas* (UA) are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System* (NPDES) permit or by a state permit program for stormwater discharges. New York's *State Pollutant Discharge Elimination System* (SPDES) is a NPDES-approved program with permits issued in accordance with the *Environmental Conservation Law* (ECL).

As a designated MS4, The Village of North Syracuse is required to develop, implement, and enforce a stormwater management program (SWMP) which is designed to reduce the discharge of pollutants from small MS4s to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the ECL and the CWA. According to the federal regulation, the SWMP is required to be fully implemented by January 1, 2008 and consists of the following six *minimum control measures* (MCMs):

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

This SWMP describes specific actions that will be taken by the Village to reduce the discharge of pollutants, protect water quality, and to comply with the SPDES General Permit (GP-0-08-002) (see Appendix A). These specific actions are categorized by the above minimum control measures.

Onondaga Lake Watershed

A portion of the Village of North Syracuse is located within the Onondaga Lake Watershed, which is mainly located in the central portion of Onondaga County and encompasses an area of approximately 285 square miles (see Appendix B). Onondaga Lake is listed as an impaired waterbody, which is a waterbody that is too polluted or otherwise degraded to meet the water quality standards. The State is required, under the Clean Water Act, to establish a Total Maximum Daily Load (TMDL) which is the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The State is currently working on a TMDL for phosphorous and enforces enhanced phosphorous removal regulations on all projects disturbing 1 or more acre of land within the Onondaga Lake Watershed.

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**Minimum Control Measure #1
Public Education and Outreach**



The Public Education and Outreach minimum control measure is designed to inform the general public and specific target audiences (i.e. construction site operators, business owners, school children, etc.) as well as Village employees of the impact that stormwater runoff has on the environment and what can be done to reduce particular pollutants associated with stormwater runoff.

The Village of North Syracuse, along with 28 other regulated MS4's within the Syracuse urbanized area have contracted with the Central New York Regional Planning and Development Board (CNYRPDB) for assistance with complying with this minimum control measure. The CNYRPDB is responsible for essentially all permit requirements which include the following:

- Identify pollutants of concern (POCs), waterbodies of concern, geographic areas of concern, target audiences;
- Develop and implement an ongoing public education and outreach program designed to describe to the general public and target audiences:
 - the impacts of stormwater discharges on waterbodies;
 - POCs and their sources;
 - steps contributors of these pollutants can take to reduce pollutants in stormwater runoff; and
 - steps contributors of non-stormwater discharges can take to reduce pollutants;
- Develop, record, periodically assess, and modify as needed, measurable goals;
- Select appropriate education and outreach activities and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

Additional Requirements for Onondaga Lake Watershed

- Plan and conduct an ongoing public education and outreach program designed to describe the impacts of phosphorus (the POC) on waterbodies. The program must identify potential sources of Phosphorus in stormwater runoff and describe steps that contributors can take to reduce Phosphorus in stormwater runoff.
- develop, or acquire if currently available, specific educational material dealing with sources of Phosphorus in stormwater and pollutant reduction practices. At a minimum, the educational material should address the following topics:

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- understanding the phosphorus issue;
- septic systems as a source of phosphorus; and
- phosphorus concerns with fertilizer use.

Strategies and Implementation

The CNYRPDB has addressed each of these requirements as follows:

Pollutants of Concern

Phosphorous

Silt and Sediment

Toxic Substances (gasoline, household products, paint thinner)

Pathogens (bacteria, viruses)

Oxygen demanding Organics (human and animal excreta; decaying plant, animal matter; discarded litter, food wastes)

Metals (lead, mercury, copper and cadmium)

Oil and Grease (petroleum products)

Thermal Stress (sunlight)

Floatables (litter)

Waterbodies of Concern

The CNYRPDB has identified a number of waterbodies of concern, all of which are listed on their website. The only listing associated with the Village of North Syracuse is the Onondaga Lake Watershed.

Geographic Areas of Concern

The areas of concern encompass all areas within the Village municipal boundary with special emphasis on the southern portion of the Village which is located within the Onondaga Lake Watershed.

Target Audiences

- General Public
- Contractors/Developers
- Businesses and Restaurants
- Municipal Officials and Employees
- Youth Groups
- Residential Neighborhoods

The CNYRPDB's website (<http://www.cnyrpdb.org/stormwater/public/>) contains extensive information regarding stormwater impacts on waterbodies of concern, POC's and their sources, as well as ways target audiences can reduce pollutants in stormwater runoff. The website also

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contains a library of brochures, posters, fact sheets, etc. that can be downloaded and distributed as necessary. See Appendix C for specific activities completed on behalf of the Village of North Syracuse.

Measurable goals include the number of newspaper articles published, the number of brochures/posters distributed, the number of training workshops held along with the number of attendees, the number and frequency of radio announcements, and results from the public survey designed to evaluate the effectiveness of the public education program.

The Village Clerk is responsible for documenting all CNYRPDB activities provided on behalf of the Village.

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



The Public Involvement / Participation minimum control measure is aimed at involving the public in the development and implementation of a stormwater management program. According to the regulations, the Village of North Syracuse is required to:

- Comply with the State Open Meetings Law and local public notice requirements, such as Open Meetings Law, when implementing a public involvement / participation program;
- 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;
- 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;
- Annual report presentation.
 - prior to submitting the final annual report to the Department, by June 1 of each reporting year, present the draft annual report in a format that is open to the public, where the public can ask questions about and make comments on the report.
 - provide public notice about the presentation, making public the following information when noticing the presentation in accordance with the State Open Meetings Law or other local public notice requirements:
 - the Department recommends that announcements be sent directly to individuals (public and private) known to have a specific interest in the permittee's SWMP;

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- include a summary of comments and (intended) responses with the final annual report. Changes made to the SWMP in response to comments should be described in the annual report; and
- ensure that a copy of the final report and the SWMP plan are available for public inspection;
- Develop, record, periodically assess and modify as needed measurable goals; and
- Select appropriate public involvement / participation activities and measurable goals to ensure the reduction of POC's in stormwater discharges to the MEP.

Strategies and Implementation

The Village of North Syracuse has reached out to youth groups in the area and annually hosts Earth Day activities. Links are provided on the Village's website to the CNYRPDB website which describes ways the general public can participate in helping to reduce pollutants in stormwater. The website also outlines the Watershed Stewardship Program which provides incentives for participation and involvement in stormwater related activities.

Open Meetings Law Compliance

Public notices are published by the Village Clerk to inform the general public of annual report presentation meetings which are open to the public and encourage public comment.

Key Individuals

The Village has identified the following as key individuals and groups who are interested in or are affected by the SWMP:

- Contractors/Developers
- Village Residents
- Village Business Owners
- Youth Groups (Boy/Girl Scouts)
- School Children

Input from Key Individuals

The Village seeks input from the key individuals pertaining to the development and implementation of the SWMP. The Village provides opportunities for these individuals to become involved through public comment and through stormwater related activities sponsored by the Village.

Activities

The Village hosts annual Earth Day festivities which consist of cleanups of municipal properties. These activities are coordinated by the Village DPW Superintendent. The Village continues to reach out to boy and girl scout troops to participate in activities such as cleanups, flyer/brochure

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distribution, storm drain stenciling, etc. The general public is also encouraged to participate in the Stormwater Stewardship Program which is coordinated by the CNYRPDB.

Onondaga County has established a stormwater hotline for reporting illicit discharges to the storm sewer system on behalf of the entire County. Information regarding the hotline as well as the number to call is provided on the Village's website.

All public inquiries and comments, including stormwater related complaints, are received by either the Clerk or Code Enforcement. Appropriate staff is notified to follow up on inquiries and complaints. All inquiries and complaints are logged and kept on file with the corresponding department. Comments are considered by the Stormwater Group for incorporation into the SWMP. The Stormwater Group meets bi-annually and consists of the following Village personnel:

- Diane Browning, Mayor (Signatory Authority)
- Ron Dean, Code Enforcement (Stormwater Local Contact)
- Gary Wilmer, DPW Superintendent (SWMP Coordinator)
- Nancy Fortin, Village Clerk
- Diane Kufel, Village Treasurer
- Heather Cole, Wladis Law Firm, Village Attorney's Office
- Kristy Harris, CHA, Village Engineer's Office (Annual Report Preparer)

Local Stormwater Contact

The local stormwater contact is Ron Dean, Village Codes Enforcement Officer. Contact information is posted on the Village's website and the public is encouraged to contact him with specific questions regarding the Village's SWMP.

Annual Report Presentation

The draft annual report is presented annually at a public meeting and is also available at the Village Hall and via the Village website (<http://www.northsyracuse.org/swmp>) for public viewing and comment. Notice is issued through the local newspaper and on the website to inform the public of the draft annual report meeting presentation which is open to the public. Comments are encouraged and are included in the final annual report submitted to the State. Copies of all annual reports submitted, as well as the original Notice of Intent and NYSDEC correspondence is located in Appendix D.

Measurable Goals

Measurable goals include the following:

- Number of participants taking part in cleanup activities (as well as amount of debris cleaned up as result of activities)
- Number of comments received

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- Number of calls to the stormwater hotline
- Number of youth groups participating in the distribution of flyers/brochures (as well as the number of flyers/brochures distributed)
- Number of attendees to draft annual report public meeting presentation

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**Minimum Control Measure #3
Illicit Discharge Detection and Elimination (IDDE)**



The purpose of the Illicit Discharge Detection and Elimination (IDDE) minimum control measure is to eliminate any discharges that are not composed entirely of stormwater. Illicit discharges enter the stormwater conveyance system through either direct connection (piping) or indirect connections such as illegal dumping into catch basins or spills onto roadways. This results in untreated discharges that contribute high levels of pollutants, including phosphorous, floatables, heavy metals, toxins, oil and grease, solvents, and pathogens to waterbodies.

Permit requirements are as follows:

- Develop, implement and enforce a program to detect and eliminate illicit discharges into the small MS4;
- 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;
 - 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;
- Field verify outfall locations;
- 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;
- Map new outfalls as they are constructed or newly discovered within the urbanized area and additionally designated area;

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- 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;
- 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;
- Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste;
- Address the categories of non-stormwater discharges or flows listed in Part I.A.2 as necessary;
- Develop, record, periodically assess, and modify as needed, measurable goals; and
- Select appropriate IDDE BMP's and measurable goals to ensure the reduction of all POC's in stormwater discharges to the MEP.

Strategies and Implementation

The Village's Illicit Discharge Detection and Elimination Program includes policies and procedures to prohibit illegal dumping, inform the public of proper disposal methods, inspections of outfalls, tracking and eliminating illicit discharges, as well as recording measurable goals. This program is more specifically outlined below:

Mapping

The Village has completed a map of all catch basins and outfalls within the Village boundary. The map is in GIS format and contains specific information describing each drainage structure and outfall (i.e. number and direction of inlet/outlet pipes, notes on where outfall discharges to, etc.) The outfalls have been field verified, physically marked in the field and located on the GIS map. All drainage structures and outfalls have been mapped using sub-meter GPS equipment. The Village DPW Superintendent and Village Engineer are responsible for maintaining all mapping.

Preliminary boundaries of the Village's storm sewersheds have been mapped and are available to DPW officials for tracking purposes.

Mapping of drainage structures, outfalls, and sewershed boundaries is updated as new facilities are added or modified (see Appendix E for current map). Piping between structures will be completed once funding becomes available.

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Outfall Reconnaissance Inventory

The Village DPW has conducted an outfall reconnaissance inventory and has yet to find any evidence of illicit discharges at any of the 10 outfalls. A sample inspection form is located in Appendix F. The Village has contracted with Onondaga County to perform routine inspections of all outfalls per the permit requirements. Should the County discover evidence of an illicit discharge at an outfall, the Village is notified and given the option to track the illicit discharge or the Village may hire the County to investigate the source. Once the source of the illicit discharge is found, the Village will enforce elimination of the discharge. Inspection reports are generated by the County annually and are kept on file at the Village DPW offices.

Local Law

The Illicit Discharge Detection and Elimination local law was passed on December 21, 2007 and is included as Chapter 176 of the Village Code (see Appendix G for law and attorney certification). The local law is equivalent to the Model Local Law issued by the New York State Department of Environmental Conservation (NYSDEC) and is attorney certified.

Detect and Address Non-Stormwater Discharges

The Village's program includes reliance on the Onondaga County hotline for illicit discharge reporting (illegal dumping). Priority areas of concern include areas where illegal dumping has been reported and hotspot areas (gas stations, repair shops, shopping center parking lots, areas with aging infrastructure, etc.). Identifying and locating illicit discharges is the responsibility of Onondaga County via contract. The County provides the Village with annual inspection reports for each outfall. Procedures for eliminating illicit discharges depend on type of illicit discharge. Generally, the owner will be notified of the violation and be required to eliminate the discharge. Enforcement procedures and penalties for non-compliance are outlined in the local law.

Public Education

The CNYRPDB informs public on the Village's behalf per the contract for minimum control measure #1. Specific information is located in Appendix C.

Measurable Goals

Measurable goals include the following:

- Number of illicit discharges detected/eliminated
- Completion of mapping
- Staff training (frequency and number of attendees)
- Distribution of educational materials (frequency and number of materials distributed)
- Cleanups (number of cleanups and amount of debris disposed of properly)
- Number of hotline calls

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BMP's

The following BMP's are publicized to the target audiences in an effort to reduce priority pollutants of concern in stormwater discharges within the Village. These BMP's are as follows:

- Swimming pool drainage (drain to grassed areas instead of storm sewer)
- Car Washing (use commercial car wash or direct wash water to grassed areas)
- Encourage residents and businesses not to use fertilizers and not to pile grass clippings/leaves near storm sewer inlets due to high levels of phosphorous
- Keep all contaminants out of storm sewers and drainage ditches (petroleum based products, paints, detergents, trash, etc.)
- Clean up after pets
- Sweep instead of hose down sidewalks/driveways

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**Minimum Control Measure #4
Construction Site Stormwater Runoff Control**



The Construction Site Stormwater Runoff Control minimum control measure is intended to address the pollution of stormwater generated from construction sites. Construction activity typically disturbs a significant amount of land that can produce sediment laden runoff if not controlled. Construction activities can also contribute pollutants such as oil and grease, phosphorous and other nutrients, construction chemicals, and solid wastes to the stormwater conveyance system since sites are generally stripped of grass and other vegetation which has natural filtering capabilities.

According to the permit, the Village is required to:

- Develop, implement, and enforce a program that:
 - provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01 or GP-0-08-001), unless more stringent requirements are contained within the MS4 general SPDES permit (GP-0-08-002);
 - 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;
 - 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

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sample laws is not adopted or if a modified version of the sample law is adopted;

- contains requirements for construction site operators to implement erosion and sediment control management practices;
- allows for sanctions to ensure compliance to the extent allowable by State or local law;
- 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;
- 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; and
 - after review of SWPPPs, the permittee must utilize the “SWPPP Acceptance Form” created by the Department and required by the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-08-001) when notifying construction site owner / operators that their plans have been accepted and approved by the permittee;
- describes procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site storm water runoff;
- 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 adequately trained and understand the State and local sediment and erosion control requirements. Adequately trained means receiving inspector training by a Department sponsored or approved training;
 - all sites must be inspected where the disturbance is one acre or greater;
- 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;
- by two years from the date the permit is issued, 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

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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 may ask for a certificate of completion or other such proof 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;
- o establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information;
 - o develop, record, periodically assess and modify as needed measurable goals; and
 - o select appropriate construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

Strategies and Implementation

Local Law

The Stormwater Management and Erosion and Sediment Control local law was adopted on October 11, 2007 and included as Chapter 201 of the Village Code (see Appendix H for law and attorney certification). In summary, this local law includes the following:

- Requires equivalent protection to the current NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities
- Addresses stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre
- Requires 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
- Requires construction site operators to implement erosion and sediment control management practices
- Allows for sanctions to ensure compliance to the extent allowable by State or local law;
- Requires construction site operators to control waste
- Describes procedures for SWPPP reviews as required by the MS4 General Permit
- Describes procedures for site inspections and enforcement of erosion and sediment control measures

Education

Construction site owner/operators, design engineers, municipal staff and other individuals involved in construction projects within the Village are educated on construction stormwater requirements during the site plan approval process and at pre-construction meetings which are required prior to

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any land disturbance activity. During the pre-construction meeting, all certification statements are signed and the SWPPP is reviewed with the contractor to ensure proper erosion and sediment control practices are understood and adhered to. Confirmation of the required contractor training is also required at the pre-construction meeting. The Village Engineer and Codes Enforcement Officer is responsible for ensuring compliance with construction stormwater requirements.

Active Construction Site Inventory

The active construction site inventory is maintained by the Village Code Enforcement Officer. The inventory consists of the following information:

- Site name and location
- Owner name and contact information
- Dates of inspections
- Enforcement actions

Measureable Goals

Measureable goals include the following:

- Number of SWPPP's reviewed/approved
- Number of inspections
- Number of violations/stop work orders/other enforcement actions

BMPs

The following construction stormwater BMPs were selected to ensure the reduction of all POCs in stormwater discharges to the maximum extent practicable as referenced from the EPA's National Menu of BMPs:

- Municipal Oversight
 - Construction Phase Plan Review
 - Contractor Training and Certification
 - Local Ordinance for Construction Site Runoff Control
 - Municipal Construction Inspection Program
- Construction Site Planning and Management
 - Construction Sequencing
 - Construction Site Operator BMP Inspection and Maintenance
 - Land Grading
 - Preservation of Natural Vegetation
- Erosion Control
 - Seeding
 - Sodding
 - Mulching

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- Riprap
- Dust Control

- Runoff Control
 - Check Dams
 - Grass-Lined Channels
 - Permanent Slope Diversions
 - Temporary Slope Dikes

- Sediment Control
 - Construction Entrances
 - Sediment Basins/Traps
 - Storm Drain Inlet Protection
 - Silt Fencing
 - Vegetated Buffers

- Good Housekeeping/Materials Management
 - Concrete Washout
 - General Construction Site Waste Management
 - Spill Prevention and Control Plan
 - Vehicle Maintenance and Washing Areas at Construction Sites

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



The Post-Construction Stormwater Management minimum control measure is closely related to Construction Site Stormwater Runoff Control (MCM#4). Construction Site Stormwater Runoff Control addresses runoff from project sites during construction, as previously discussed, while Post-Construction Stormwater Management addresses runoff from project sites after construction is completed. Post-construction runoff can negatively impact water quality through an increase in type and quantity of pollutants as well as an increase in the quantity of water delivered to waterbodies during storm events. It is important to take these things into consideration during the planning and design phases of a project to minimize the introduction of pollutants in post-construction stormwater discharges.

Permit requirements are as follows:

- Develop, implement, and enforce a program that:
 - provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01 or GP-0-08-001), unless more stringent requirements are contained within this general SPDES permit (GP-0-08-002);
 - 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. 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 Department;
 - 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

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- 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 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;
- 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;
- 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 the reviews are adequately trained and understand the State and local post construction stormwater requirements;
 - ensure that the individuals performing the reviews for SWPPPs that include post-construction stormwater management practices are qualified professionals or under the supervision of a qualified professional;
 - all SWPPPs must be reviewed for sites where the disturbance is one acre or greater; and
 - after review of SWPPPs, the permittee must utilize the “SWPPP Acceptance Form” created by the Department and required by the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-08-001) when notifying construction site owner / operators that their plans have been accepted and approved by the permittee;
- establish and maintain an inventory of post-construction stormwater management practices within the permittees 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

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NYS Stormwater Management Design Manual, SWPPP, or other provided documentation; and dates and type of maintenance performed; and

- ensures adequate long-term operation and maintenance of management practices identified in 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;
- 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;
- Develop, record, periodically assess and modify as needed measurable goals; and
- Select appropriate post-construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

Additional Requirements for Onondaga Lake Watershed

- the permittee must require the use of the “Enhanced Phosphorus Removal Design Standards” in accordance with NYS Stormwater Design Manual;
- Develop and commence implementation of a Retrofit Program that addresses runoff from sites to correct or reduce existing erosion and/or pollutant loading problems, with a particular emphasis placed on the pollutant Phosphorus. At a minimum, the MS4 shall:
 - establish procedures to identify sites with erosion and/or pollutant loading problems;
 - establish policy and procedures for project selection. Project selection should be based on the Phosphorus reduction potential of the specific retrofit being constructed/installed; the ability to use standard, proven technologies; and the economic feasibility of constructing/installing the retrofit. As part of the project selection process, the permittee should participate in locally based watershed planning efforts which involve the Department, other permittees, stakeholders and other interested parties;
 - establish policy and procedures for project permitting, design, funding, construction and maintenance
 - by March 9, 2011 develop and submit approvable plans and schedules for completing retrofit projects, including identification of funding sources. Upon DEC approval of those plans and schedules, the plans and schedules shall become enforceable requirements of this permit.

Strategies and Implementation

As discussed in the previous section, the Stormwater Management and Erosion and Sediment Control Local Law was adopted on October 11, 2007 which addresses many of the above requirements (see previous section and see Appendix H).

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Post-Construction Stormwater Management Practices Inventory

As with the active construction site inventory, the post-construction stormwater management practice inventory is maintained by the Village Code Enforcement Officer. The inventory consists of the following information:

- Location of practice
- Type of practice
- Maintenance needed per the NYS Stormwater Management Design Manual, SWPPP, or other provided documentation
- Dates and type of maintenance performed
- Long-term operation and maintenance plans including inspections
- Inspections

Inspections

Inspections of development and re-development sites are performed by the Code Enforcement Officer and Village Engineer, if required to ensure proper function of post-construction stormwater management practices. Enforcement actions are authorized under the local law to penalize violators.

Measureable Goals:

The following are post-construction stormwater management measureable goals to ensure the reduction of all POCs in stormwater discharges to the maximum extent practicable:

- Number of SWPPP reviews
- Number and type of all post-construction stormwater management practices inventoried
- Number and type of all post-construction stormwater management practices inspected
- Number and type of all post-construction stormwater management practices maintained
- Number and type of enforcement actions
- Number of inspectors attending training sessions

BMPs

The following post-construction stormwater management BMPs were selected to ensure the reduction of all POCs in stormwater discharges to the maximum extent practicable as referenced from the EPA's National Menu of BMPs:

- BMP Inspection and Maintenance
- Local Ordinance for Post-Construction Runoff
- Post-Construction Plan Review
- Zoning
- Low Impact Development and other Green Design Strategies for Site Plans

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- Infiltration Practices
- Filtration Practices
- Retention/Detention Practices

Enhanced Phosphorous

The Stormwater Management and Erosion and Sediment Control Local Law requires all SWPPPs to comply with the latest version of the NYS Stormwater Design Manual, and therefore requires compliance with Chapter 10 – Enhanced Phosphorus Removal Standards.

Retrofit Program

The Village's Stormwater Group is currently in the process of developing a retrofit program which will comply with the current regulations.

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**Minimum Control Measure #6
Pollution Prevention/Good Housekeeping For Municipal Operations**



The Pollution Prevention/Good Housekeeping for Municipal Operations minimum control measure focuses on reducing pollutants in stormwater runoff from municipal operations.

Permit requirements are as follows:

- Develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that:
 - addresses municipal operations and facilities that contribute or potentially contribute POCs to the small MS4 system. 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;
 - 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;
 - 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;
 - 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;
 - addresses pollution prevention and good housekeeping priorities;
 - includes an employee pollution prevention and good housekeeping training program and ensures that staff receive and utilize training;

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- 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
- 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 MS4 annual report. Those operations or facilities 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 from those facilities;
- Develop, record, periodically assess and modify as needed measurable goals; and
- Select appropriate pollution prevention and good housekeeping BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

Additional Requirements for Onondaga Lake Watershed

- Develop a turf management practices and procedures policy. The policy should address the following:
 - procedures for proper fertilizer application on municipally-owned lands. The application of any phosphorus-containing fertilizer (as labeled) shall only be allowed following a proper soil test and analysis documenting that soil phosphorus concentrations are inadequate; and
 - the planting of native plant material to lessen the frequency of mowing and the use of chemicals to control vegetation.

Strategies and Implementation

Municipal Operations Potentially Contributing to Stormwater Pollution

The Stormwater Group has compiled a list of municipal operations that have the potential to contribute to stormwater pollution. These operations are prioritized based on (1) geographic area, (2) potential to improve water quality, and (3) operations/facilities most in need of improvement. These operations are outlined below under the “BMPs” section.

Pollution Prevention and Good Housekeeping Priorities for Municipal Operations

Priorities include the following:

- Prevent pollution at its source
- Manage clean water runoff and minimize pollutant exposure to clean water
- Minimize use of potential pollutants
- Follow plan for spills and accidents

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- Practice preventative maintenance
- Identify potential pollution sources

Self-Assessment

Once every three years, the Village's Stormwater Program Coordinator will perform a self-assessment of municipal operations to determine if (1) any operations are sources of pollutants, and (2) if the Village's BMPs properly address each of the Village's operations.

Employee Training

All appropriate employees are trained through NYSDEC or CNYRPDB sponsored training sessions. Should there be a lapse in third party sponsored sessions, the Village Engineer's office will provide the required training on an annual basis. All training sessions are documented with the date, content of training and attendance log. The documentation is kept on file at the Village DPW Offices.

Measureable Goals

The following are pollution prevention and good housekeeping measureable goals to ensure the reduction of all POCs in stormwater discharges to the maximum extent practicable:

- Number of catch basins cleaned/repaired
- Acres of parking lots swept
- Miles of streets swept
- Number of post-construction stormwater management practices inspected/cleaned
- Number of training sessions/number of staff trained

BMPs

Municipal Vehicle and Equipment Maintenance:

- All maintenance activities are performed inside the building, spills are cleaned up immediately and without water whenever possible
- All liquid cleaning is done in one area of the highway garage. Drip pans are used to prevent migration of pollutants from leaks.
- Vehicles are monitored for leaks. Drip pans used until vehicles are repaired.
- Storm drains are covered in the event of a spill

Parking Lot and Street Cleaning:

- Maintain street sweeping schedule
- Record amount of waste collected
- Sweepings properly stored at Highway garage, non-hazardous materials reused for general fill

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Roadway and Bridge Maintenance:

- Paving performed only in dry weather
- Storm drains covered during paving operations
- Drip pans used to limit leaks of paving materials and fluids from pavers
- Re-vegetation of eroded soils along shoulders

Winter Road Maintenance:

- Snow plows are calibrated to release adequate amount of salt (prevents over-salting)

Salt Storage:

- Salt stored in covered salt shed

Storm Drain System Cleaning:

- Maintain schedule
- Keep log of cleaned storm drains using GIS map
- Properly store/dispose of debris at Highway garage. Dried material reused for general fill.

Solid Waste Management:

- Use covered dumpsters appropriately
- Keep trash out of storm sewer system
- Participate in waste reduction and recycling

Hazardous Materials Storage:

- Secondary containment provided for oil drums
- Provide adequate storage space
- Provide appropriate location of materials (away from high traffic areas, storm drains, etc.)

Materials Management:

- Keep inventory of materials (cleaners, oil, paints, fertilizers, etc.)
- Perform routine cleaning and inspection of facilities where materials are stored

Spill Response and Prevention:

- Identify contact person (Highway Superintendent)
- Post and train employees on procedures for containing, isolating and cleanup of spills, including emergency contact information

New Municipal Construction and Land Disturbance:

- Follow all associated erosion and sediment control guidelines (Blue Book)
- Incorporate green infrastructure techniques where possible

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Municipal Building:

- Train janitorial employees on pollution prevention and good housekeeping practices
- Store cleaning chemicals appropriately (secondary containment, capped, labeled, etc.)
- Spill prevention and response

Parks and Open Space:

- Grass clippings are to be left in place
- Leaves and other debris such as tree trimmings are to be stockpiled for composting
- No fertilizers or other chemicals shall be used on municipal properties

Turf Management Program

As previously stated, the Village does not use any fertilizers or any other chemicals for landscaping on municipal properties and therefore, does not require a turf management program.