Guidelines for Completing the Notice of Intent (NOI)

(Including - Selecting Management Practices and Setting Measurable Goals)

Based on SPDES General Permit (GP-02-02) for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s)

February 2003
Revised August 2003
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Chapter 1 - Principles and Guidelines

Below are general guidelines to follow in completing the Notice of Intent (NOI) for coverage under SPDES General Permit (GP-02-02) for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

**Principles and Guidelines:**

1. The MS4 permit states that all MS4s must develop and implement a Stormwater Management Program. Specifically, the permit states: “Operators must develop, implement, and enforce a Stormwater Management Program (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. The SWMP must include the minimum control measures described in section (C) of this Part.” (MS4 Permit Part IV.B.)

2. Operators should tailor their SWMP to meet the water quality and quantity needs of the community while satisfying the requirements of the permit.
   - Protection of resources - state water quality standards may not be contravened
   - Solve quality problems - improve quality where standards are not met
   - Manage quantity - flood plain management and water conservation

   SWMP complexity and intensity will be shaped by potential impacts of stormwater on water quality and quantity as well as the need to maintain a functioning stormwater management system.

3. An acceptable NOI can serve as an initial SWMP (a first draft program for the five years of the life of the permit). The SWMP will be modified and updated as conditions change. Modifications should be indicated in the annual report. Annual reports will be expected to show development of and progress toward full implementation of the SWMP.

4. MS4s are encouraged to cooperate whenever and wherever possible in developing their SWMPs. Working together will result in greater environmental and economic benefits for all involved. If MS4s have established cooperative agreements by the deadline for submitting the NOI, they should note that in section E of the NOI. Cooperative agreements can still be established subsequent to submitting the NOI and should then be detailed in the Annual Report.

5. Chapter 3 lists the Six Minimum Measures required for all SWMPs, along with program
requirements under each. Additional program activities and management practices can be found under each Minimum Measure in Section C of the NOI. Required management practices are highlighted in bold type-face on the NOI under each minimum control measure. The SWMP must include ALL required activities and management practices. If the submitted NOI does not have all sections completed and required SWMP activities and management practices documented, it may be deemed incomplete (i.e. all sections not completely filled out) or unacceptable (i.e. insufficient management practices documented). If the NOI is declared incomplete, the MS4 will be notified by the Department and will be required to re-submit a complete NOI before it can be legally covered under the MS4 permit.
Chapter 2 - Stormwater Pollutants of Concern

In order to select appropriate management practices, it is important to assess local water quality conditions, understand what the pollutants of concern are and what the existing and potential sources are of these pollutants.

To assess local water quality conditions, review the Department’s Priority Waterbodies List, the Department’s 303(d) list, and any other local, state or federal information (government or non-government) that may be useful.

Principal pollutants of concern that are commonly associated with stormwater are:
- **Floatables** - Street litter that floats on or near the surface.
- **Settleables** - Soil/dirt particles that fall to the bottom quickly. Common sources include construction, soil erosion and municipal operations.
- **Suspended Solids** - Smaller soil particles that make water cloudy. Common sources include construction, soil erosion and municipal operations.
- **Phosphorus** - Attaches to soil particles. A common source is fertilizer used in household, business or municipal operations.
- **Coliform** - Pathogens, possibly from illicit discharges and pet wastes left on paved surfaces.
- **Oil and Grease** - A common source is illicit discharges to storm sewers or runoff from roads and parking lots.

Other pollutants of concern that are sometimes associated with stormwater are:
- **Nitrogen** - Dissolved in water. Common sources include fertilizers and atmospheric deposition.
- **Metals (and other chemicals)** - May come from illicit discharges, municipal operations and atmospheric deposition.
- **BOD** - Bio-degradable materials, that consume dissolved oxygen in water as they decay. Sources include illicit discharges and municipal operations.

The Priority Waterbody List and the 303(d) list are available from the DEC Bureau of Water Assessment Research and Management at 625 Broadway, Albany, NY 12233-3502 and from county Soil and Water Conservation Districts. The 303(d) list is available on the web at: http://www.dec.state.ny.us/website/dow/303dcalm.html.
Chapter 3 - Completing the NOI

Smaller or less developed communities may have fewer management practices identified in their NOIs than larger or more heavily developed communities. However, the choice of management practices may be affected by the existence of stormwater discharges to sensitive waters such as drinking water supplies, trout streams or shellfish beds or to a receiving water requiring controls on specific pollutants (e.g. phosphorus, bacteria) specified by a Total Maximum Daily Load (TMDL) limit. Any of these cases may indicate a need for additional stormwater controls.

For each minimum control measure there are specific requirements in the permit that everyone must meet. However, there are many management practices that can be used to meet the permit requirements. (See Section C of the NOI, checklisted items in regular type). The specific choice of management practices will depend on water quality needs, known pollutant discharge, and the resources available to implement them. A municipality should take credit on the NOI for any management practices it has already instituted.

The Six Minimum Measures - Program Requirements

Summarized below are Stormwater Management Program (SWMP) requirements that all MS4s must meet. They are taken from the MS4 permit (GP-02-02) and EPA regulations (40 CFR 122.34). Please refer to the permit for complete wording of each item.

Public Outreach and Education on Stormwater Impacts (Section C, #1 on the NOI):

1. Plan and conduct an ongoing public education and outreach program designed to describe:
   • the impacts of stormwater discharges on waterbodies
   • the pollutants of concern and their sources
   • steps contributors of stormwater and non-stormwater discharge can take to reduce pollutants.

2. Develop measurable goals and select appropriate education and outreach activities to ensure the reduction of all pollutants of concern in stormwater discharges to the Maximum Extent Practicable.

Public Involvement/Participation (Section C, #2 on the NOI):

1. Comply with State and local public notice requirements and provisions of the Clean Water Act when implementing a public involvement/participation program.

2. Design and conduct a public involvement/participation program that:
• identifies key individuals and groups, public and private, who are interested in or affected by the stormwater permitting program;
• identifies the types of input an MS4 would seek from them to support development and implementation of the program and how it is used; and
• describes the public involvement/participation activities the MS4 will undertake to provide program access to those who want it and gather needed input.

3. Identify and publish the name of a contact person for the Stormwater Management Program.

4. Prior to submitting the annual report, present a draft annual report at a meeting that is open to the public. Make public the agenda of the meeting, the opportunity for public comment, the date and time of the meeting, and the availability of the draft report for prior review.

5. Include a summary of comments and the MS4’s intended response in the annual report and make the final report available for public inspection.

6. Develop measurable goals and select appropriate public involvement activities to ensure the reduction of all the pollutants of concern in stormwater discharges to the Maximum Extent Practicable.

Illicit Discharge Detection and Elimination (Section C, #3 on the NOI):

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

2. Develop and maintain a map showing the location of all outfalls and the names and location of all waters of the U.S. that receive discharges from those outfalls.

3. Prohibit, through an ordinance or other regulatory mechanism, illicit discharges into the storm sewer system.

4. Develop and implement a plan to detect and address non-stormwater discharges including illegal dumping to the system.

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

6. Address the non-stormwater discharges listed in IV.C.3.f of the permit as necessary.

7. Develop measurable goals and select appropriate management practices to ensure the reduction of all pollutants of concern from illicit discharges to the stormwater system to the
Maximum Extent Practicable.

**Construction Site Stormwater Runoff Control** (See Section C, #4 on the NOI):

1. Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of one acre or more.

2. Include construction activities on less than one acre in the program if: 1) it is part of a larger common plan of development or 2) if controlling such activities in a particular watershed is required by the DEC.

3. Develop a program that, at a minimum, provides protection equivalent to that of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.

4. Develop a program that includes the development and implementation of:
   - an ordinance or other regulatory mechanism to require erosion and sediment controls;
   - requirements for construction site operators to implement erosion and sediment control management practices;
   - sanctions to ensure compliance;
   - requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality procedures;
   - procedures for site plan review which incorporate consideration of potential water quality impacts and review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements;
   - procedures for receipt and consideration of information submitted by the public;
   - procedures for site inspections and enforcement of control measures; and
   - education and training measures for construction site operators about requirements.

5. Develop measurable goals and select appropriate management practices to ensure the reduction of all pollutants of concern in stormwater discharges to the Maximum Extent Practicable.

**Post-Construction Stormwater Management** (See Section C, #5 of the NOI):

1. Develop and implement strategies which:
   - include a combination of management practices that will reduce the discharge of pollutants to the Maximum Extent Practicable from new development, redevelopment and existing conditions;
   - adopt an ordinance or other regulatory mechanism to address post-construction runoff from development and redevelopment; and
   - ensure adequate long-term operation and maintenance of management practices including monitoring.
2. Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb one or more acres that discharge into your small MS4.

3. Include construction sites on less than one acre in the program if: 1) they are part of a larger common plan of development or sale, or 2) the site has been designated by the DEC to protect water quality.

4. Ensure that controls are in place to protect water quality and reduce the discharge of pollutants to the Maximum Extent Practicable.

5. Develop, implement, and provide adequate resources for a program to inspect development and re-development sites and to enforce and penalize violators.

6. Develop measurable goals and select appropriate management practices to ensure the reduction of all pollutants of concern in stormwater discharges to the Maximum Extent Practicable.

**Pollution Prevention/Good Housekeeping for Municipal Operations (Section C, # 6 on the NOI):**

1. Develop and implement an operation and maintenance program that is designed to reduce and prevent the discharge of pollutants to the Maximum Extent Practicable from municipal activities such as park and open space maintenance, fleet and building maintenance, roadway maintenance, hydrologic habitat modification, and marine operations.

2. Include a training component in the operation and maintenance program.

3. Follow management practices identified in the *NYS Management Practices Catalogue for Nonpoint Source Pollution Prevention* or other equivalent guidance materials available from the EPA, New York State, Tribe or other organization.

4. Develop measurable goals and select appropriate management practices to ensure the reduction of all pollutants of concern in stormwater discharges to the Maximum Extent Practicable.

Chapter 4 presents hypothetical examples of how these Minimum Measures can be fulfilled by implementing required activities and management practices together with optional activities and management practices listed on the NOI itself.
Chapter 4 - Sample Scenarios By Size/Type of Municipality

Hypothetical scenarios are provided below to help an MS4 select management practices for each minimum control measure in the MS4 permit. Scenarios are provided for four categories of municipal types:

- small town or village with no sanitary sewer;
- suburban and rural towns with sanitary sewers and generally not fully encompassed within the Urbanized Area and outlying villages within them; and
- cities and urban towns (and villages within them), generally fully encompassed within the Urbanized Area.

More detailed guidance can be found in two EPA documents accessible on the web: The Stormwater Phase II Compliance Assistance Guide can be found at www.epa.gov/npdes/pubs/comguide.pdf and the Measurable Goals Guidance for Phase II Small MS4s can be found at http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm.
Small Town or Village with no Sanitary Sewer

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

Guiding Principles

- Identify pollutants of concern for the MS4 by looking at the Priority Waterbodies List and any other relevant water quality information.

- Choose management practices based on water quality and quantity needs and the kinds of activities taking place in the municipality.

- Identify key audiences and choose appropriate outreach techniques to encourage them to implement management practices.

- Consistent with the principle of Maximum Extent Practicable, choose more outreach techniques and management practices than shown in the examples below if water quality and quantity conditions call for it.

Note: Outreach and Education activities undertaken to fulfill this minimum measure can fulfill requirements of other minimum measures as well.

Scenario

The Town of Jones’ local waters may be suffering impacts of over use of fertilizers, dumping of used oil and old paint into storm sewers, and litter in waterways.

To address these issues the Town of Jones might want to encourage the following management practices:

- Proper lawn and garden care
- Proper disposal of household hazardous wastes
- Trash management

The outreach techniques the Town of Jones might use to reach appropriate audiences are:

- **Plan and conduct an ongoing public education and outreach program (required)**
- Printed materials (flyer in tax bill to describe trash disposal options and impacts on wetlands and streams of littering and dumping trash, brochure available at garden centers, libraries, etc. to describe proper lawn care)
- Events (hold household hazardous waste collections, perhaps in cooperation with other towns in your county)
- Speakers for community groups (e.g. garden clubs, scout troops)
- School programs (provide basic information about sources and effects of runoff pollution).
<table>
<thead>
<tr>
<th>By end of</th>
<th>Sample Measurable Goals (Public Education and Outreach on Stormwater Impacts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Collect and review Priority Waterbodies List and other information on water quality conditions. Identify pollutants of concern and sources in this municipality. Identify target audiences. Draft public education and outreach plan and complete printed materials.</td>
</tr>
<tr>
<td>2 years</td>
<td>Train volunteer speakers and address <em>(quantify)</em> groups. Hold first household hazardous waste collection day.</td>
</tr>
<tr>
<td>3 years</td>
<td>Train <em>(quantify)</em> teachers in Project WET school program. Observe less litter entering waterways.</td>
</tr>
<tr>
<td>4 years</td>
<td><em>(quantify)</em> percent of households are participating in regular hazardous waste collection days, and there is a noticeable improvement in the clarity of local waters.</td>
</tr>
</tbody>
</table>
**Minimum Measure # 2: Public Involvement/Participation**

**Guiding Principles**

- Choose involvement techniques and participation activities based on the key interested and affected groups and individuals who want to or should participate in SWMP development and implementation. Determine the kind of input wanted/needed from them.

- Consistent with the principle of Maximum Extent Practicable, choose more activities and techniques than shown in the examples if needed.

**Scenario**

The Village of Sunrise Heights has an active citizen watershed protection organization and it wishes to partner with nearby jurisdictions to implement some of the minimum measure provisions. Litter makes its way from the streets to local waterways. Streams may be impaired by over use of fertilizers.

To get key groups and individuals involved the Village of Sunrise Heights might select the following public involvement techniques.

- **Public notice and access to documents and information** (required)
- **Public presentation and comments received on SWMP and on annual reports** (required)
- **Public involvement and participation program** (required)
- **Contact person identified** (required)
- Mailing list development and use to keep people who are interested in water quality activities informed of participation opportunities and upcoming decisions, etc.
- Advisory/partner committees that bring together municipal and citizen representatives to build partnerships and help develop the SWMP.

To encourage citizen participation in the SWMP, the Village of Sunrise Heights might select the following activities.

- Stream cleanups to help citizens understand the role of litter in stormwater pollution
- Volunteers to speak to community groups about proper household and garden care including septic system maintenance
- Wetlands planting
Sample Measurable Goals (Public Involvement/Participation)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Identify key interested parties. Identify and publish stormwater contact person. Develop mailing list. Design attitude survey. Hold 1st advisory committee meeting. Identify public involvement needs and messages and complete public involvement plan.</td>
</tr>
<tr>
<td>2 years</td>
<td>Hold meeting on 1st annual report and prepare responsiveness summary. Organize stream clean up. Complete, compile and interpret attitude survey. Train speakers and begin presentations.</td>
</tr>
<tr>
<td>3 years</td>
<td>Hold meeting on 2nd annual report and prepare responsiveness summary. Plan and hold wetlands planting. Begin planning for programs/activities based on attitude survey results.</td>
</tr>
<tr>
<td>4 years</td>
<td>Hold meeting on 3rd annual report and prepare responsiveness summary. Implement programs from survey results.</td>
</tr>
</tbody>
</table>
Minimum Measure # 3: Illicit Discharge Detection and Elimination

Guiding Principles

• Based on what is known or suspected about illicit discharges that may be entering the system, select appropriate detection and elimination activities and the types of discharges to target.

• Consistent with the principle of Maximum Extent Practicable, choose more detection/elimination activities and types of discharges to target than shown in the scenarios if conditions warrant.

Note: Actions planned under this minimum measure could change significantly as knowledge of the system and illicit discharge situation improves.

Scenario

The Town of Jones contains areas of older development and low traffic roads where dumping could go unnoticed.

The Town of Jones may want to target the following types of discharges:
• Failing septic systems,
• Illegal dumping, and
• Laundry waste waters.

The Town of Jones may undertake the following detection and elimination activities:
• Outfall mapping (required)
• Illicit discharges prohibited (required)
• Public, employees, businesses informed of hazards from illicit discharges (required)
• Illicit discharges identified (required)
• Dye testing
<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete sewer system map.</td>
</tr>
<tr>
<td>2 years</td>
<td>Ordinance is in place: Train public employees. Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges.</td>
</tr>
<tr>
<td>3 years</td>
<td>Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. <em>(Quantify)</em> percent of households participating in quarterly household hazardous waste special collection days.</td>
</tr>
<tr>
<td>4 years</td>
<td>Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. Detect and eliminate most sources of illicit discharges.</td>
</tr>
</tbody>
</table>
Minimum Measure # 4: Construction Site Stormwater Runoff Control

Guiding Principles

• Management practices for control of construction runoff are selected on a site-specific basis. The *NYS Standards and Specifications for Erosion and Sediment Control* is the definitive source of information for selecting appropriate management practices.

• Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenarios below, if conditions require it.

• The municipal program must be at least as stringent as NYS SPDES GP-02-01.

Scenario

The Town of Jones has occasional development, typically residential in nature.

The Town of Jones might identify the following management practices to reduce pollutants in stormwater runoff from construction sites:

• **Require erosion and sedimentation controls (required)**
• **Provide opportunity for comment on construction plans (required)**
• **Require construction site plan review (required)**
• **Require overall construction site waste management (required)**
• **Site inspections and enforcement (required)**
• **Education and training of construction site operators (required)**

Based on *NYS Standards and Specifications for Erosion and Sediment Control*, implement/require management practices such as:

• Construction entrances
• Contractor certification and inspector training
• Dust control
• Grass-lined channels
• Permanent seeding
• Preserving natural vegetation
• Silt fence
• Enact a local erosion and sediment control ordinance.
Sample Measurable Goals (Construction Site Stormwater Runoff Control)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Have ordinance or other regulatory mechanism in place. Have procedures for handling information submitted by the public in place.</td>
</tr>
<tr>
<td>2 years</td>
<td>Implement procedures for site inspections. Achieve a compliance rate of <em>(quantify)</em> percent by real estate development firms and construction contractors.</td>
</tr>
<tr>
<td>3 years</td>
<td>Ensure maximum compliance with ordinance. Clarity is improved and sedimentation reduced in local waterbodies.</td>
</tr>
<tr>
<td>4 years</td>
<td>Observe increased numbers of sensitive aquatic organisms in local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 5: Post-Construction Stormwater Management

Guiding Principles

- Prior planning and design for post-construction stormwater runoff control is the most cost effective approach. The *NYS Stormwater Management Design Manual* provides information on selecting management practices for a site.

- Under this minimum control measure, the MS4 should assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable.

- Using the Priority Waterbodies List and other relevant water quality information, identify those waters that are/may be receiving discharges of pollutants of concern from the MS4 (the system map developed under the 3rd minimum control measure may help match MS4 discharges to particular waters).

- Identify and implement structural and non-structural management practices to address the pollutants of concern.

- Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenario below if conditions require it.

Scenario

The Village of Sunrise Heights has occasional development with little to no redevelopment. Typical construction is residential.

The Village of Sunrise Heights might choose the following management practices:

- **Assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable** (required)
- **Regulate post-construction runoff from new development through an ordinance or other regulatory mechanism** (required)
- **Develop management practice inspection and maintenance program** (required)

Based on the *NYS Stormwater Management Design Manual*, require/implement management practices such as:

- Buffer zones
- Conservation easements
- Grassed swales
- Grassed Filter strips
- On-lot treatment
- Open space design
- Ordinances for post-construction runoff
- Zoning and site plan review

**Sample Measurable Goals** (Post-Construction Stormwater Management)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete preliminary inventory of water quality problems/pollutants of concern. Identify MS4 discharges contributing to water quality problems/pollutants of concern. Develop strategies that include structural and/or non-structural management practices to address water quality problems/pollutants of concern from existing, new and re-development.</td>
</tr>
<tr>
<td>2 years</td>
<td>Use ordinance or other regulatory mechanism to codify strategies. Begin design of structural practices for existing development.</td>
</tr>
<tr>
<td>3 years</td>
<td>Reduce percentage of impervious surfaces associated with new development projects. Implement nonstructural management practices and begin construction of structural management practices for existing development.</td>
</tr>
<tr>
<td>4 years</td>
<td>Develop and implement maintenance plans for structural and nonstructural management practices for existing development. Observe improved clarity and reduced sedimentation in local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Guiding Principles

- The *NYS Management Practices Catalogue for Nonpoint Source Pollution Prevention* describes management practices for pollution prevention from many municipal activities.

- Consistent with the principle of Maximum Extent Practicable, choose more management practices than shown in the scenario below if conditions require it.

Scenario

The Town of Jones has a town garage where municipal vehicles are serviced, a mosquito spraying program and a rail crossing of a local freight line.

Based on these types of operations and the water quality impacts which may occur due to these operations, the Town of Jones might choose the following management practices.

- Prevent discharge of pollutants from municipal operations (required)
- Follow DEC NPS Management Practices Catalog or equivalent (required)
- Conduct employee pollution prevention training (required)
- Vehicle maintenance and washing
- Catch basin and storm drain system cleaning
- Spill response and prevention
- Integrated pest management
### Sample Measurable Goals (Pollution Prevention/Good Housekeeping for Municipal Operations)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete pollution prevention plan (new BMPs and procedures). Gather or develop employee training materials. Put procedures in place for periodic catch basin cleaning and regular street sweeping.</td>
</tr>
<tr>
<td>2 years</td>
<td>Complete training for appropriate employees. Fully implement recycling program. Establish pest management program.</td>
</tr>
<tr>
<td>3 years</td>
<td>Incorporate some pollution prevention BMPs into master plan. Reduce pesticide and sand/salt use by <em>(quantify)</em> percent. Establish maintenance schedule for BMPs.</td>
</tr>
<tr>
<td>4 years</td>
<td>Reduce floatables discharged by <em>(quantify)</em> percent. For all areas of concern achieve a <em>(quantify)</em> percent compliance rate with maintenance schedules for BMPs and controls in place.</td>
</tr>
</tbody>
</table>
Suburban and Rural Towns with Sanitary Sewers

In general, towns which are not fully encompassed within the Urbanized Area (UA) and outlying villages within them.

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

Guiding Principles

- Identify pollutants of concern for the MS4 by looking at the Priority Waterbodies List and any other relevant water quality information.

- Choose management practices based on water quality and quantity needs and the kinds of activities taking place in the municipality.

- Identify key audiences and choose appropriate outreach techniques to encourage them to implement the management practices.

- Consistent with the principle of Maximum Extent Practicable, choose more outreach techniques and management practices than shown in the examples below if water quality and quantity conditions call for it.

Note: Outreach and Education activities undertaken to fulfill this minimum measure can fulfill requirements of other minimum measures as well.

Scenario

In the Town of Brook, potential impacts on water quality may be coming from construction site runoff, pesticide use and pet waste.

To address these issues the Town of Brook might want to encourage the following management practices:

- Pollution prevention for businesses (in this case construction)
- Proper pesticide use
- Pet waste management

The outreach techniques the Town of Brook might use to reach appropriate audiences are:

- **Plan and conduct an ongoing public education and outreach program (required)**
- Program for construction operators on sediment control
- Printed materials detailing proper pesticide use to put in water bill
- Signs encouraging cleaning up after pets in key locations (parks, curbs)
- Display at local garden shops on pesticide use/proper garden practices
• Speaker to community groups on stormwater runoff impacts
• Economic incentives for construction operators/companies who pass inspections
**Sample Measurable Goals** (Public Education and Outreach on Stormwater Impacts)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 years</td>
<td>Train volunteer speakers. Hold first household hazardous waste collection. Collect materials for construction training.</td>
</tr>
<tr>
<td>3 years</td>
<td>Volunteer speakers address <em>(quantify)</em> groups. Less litter entering waterways. Prepare economic incentives for construction. Begin construction training.</td>
</tr>
<tr>
<td>4 years</td>
<td>Train <em>(quantify)</em> percent of real estate development firms and construction contractors. Approve economic incentives. Observe noticeable improvement in the clarity of local waters.</td>
</tr>
</tbody>
</table>
Minimum Measure # 2: Public Involvement/Participation

Guiding Principles

- Choose involvement techniques and participation activities based on the key interested and affected groups and individuals who want to or should participate in SWMP development and implementation and the kinds of input wanted/needed from them.

- Consistent with the principle of Maximum Extent Practicable, choose more activities and techniques than shown in the examples if involvement needs indicate it.

Scenario

The Town of Good has a high rate of growth (construction), pockets of strip and mall development with high percentages of impervious surfaces, and other areas of residential development (lawns and pets). The County Water Quality Coordinating Committee is setting up a subcommittee to foster cooperation and information sharing amongst municipalities.

To get key groups and individuals involved, the Town of Good might select the following public involvement techniques:

- Public notice and access to documents and information (required)
- Public presentation and comments received on SWMP and on annual reports (required)
- Public involvement/participation program (required)
- Contact person identified (required)
- Mailing list development and use to keep people who are interested in water quality activities informed of participation opportunities and upcoming decisions etc.
- Attitude survey to gather information on public views on water quality and heighten awareness of the program and opportunities for involvement
- Stakeholder meetings to get input on new ordinances from those who would be subject to them (e.g. construction operators)
- Participation in the CWQCC subcommittee

To further participation in SWMP activities the Town of Good might select the following involvement activities:

- Stormdrain stenciling program to reduce dumping
- Volunteer speakers speak to community groups about proper household and garden care
- Roadway cleanups
<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Identify key interested parties. Identify and publish name of stormwater contact person. Develop mailing list. Design attitude survey. Hold first stakeholders meeting. Identify public involvement needs and messages. Complete public involvement plan and select reps for CWQCC.</td>
</tr>
<tr>
<td>2 years</td>
<td>Hold meeting on first annual report and prepare responsiveness summary. Organize stream clean up. Complete, compile and interpret attitude survey. Train speakers and begin presentations. Design storm drain stenciling program.</td>
</tr>
<tr>
<td>3 years</td>
<td>Hold meeting on second annual report and prepare responsiveness summary. Plan and hold roadway cleanup. Plan programs/activities resulting from survey. Stencil (quantify) storm drains. Volunteer speakers make (quantify) presentations.</td>
</tr>
<tr>
<td>4 years</td>
<td>Hold meeting on third annual report and prepare responsiveness summary. Implement programs from survey.</td>
</tr>
</tbody>
</table>
Minimum Measure # 3: Illicit Discharge Detection and Elimination

Guiding Principles

• Based on what is known or suspected about what illicit discharges may be entering the system, select appropriate detection and elimination activities and the types of discharges to target.

• Consistent with the principle of Maximum Extent Practicable, choose more detection/elimination activities and types of discharges to target than shown in the scenarios, if conditions warrant.

Note: Actions planned under this minimum measure could change significantly as knowledge of the system and illicit discharge situation improves.

Scenario

The Town of Lyle contains an industrial complex, as well as areas where dumping could easily occur.

The Town of Lyle may want to target the following types of discharges:
• Illegal dumping,
• Industrial/business connections, and
• Wastewater connections to the storm drain system.

The Town of Lyle may undertake the following detection and elimination activities:
• Outfall mapping (required)
• Illicit discharges prohibited (required)
• Public, employees, businesses informed of hazards from illicit discharges (required)
• Illicit discharges identified (required)
• Shoreline survey
• System inspections
**Sample Measurable Goals** (Illicit Discharge Detection and Elimination)

<table>
<thead>
<tr>
<th>By end of</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete sewer system map.</td>
</tr>
<tr>
<td>2 years</td>
<td>Establish ordinance and complete training for public employees. Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges.</td>
</tr>
<tr>
<td>3 years</td>
<td>Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. <em>(Quantify)</em> percent of households participate in quarterly household hazardous waste collection days.</td>
</tr>
<tr>
<td>4 years</td>
<td>Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. Detect and eliminate most illicit discharge sources.</td>
</tr>
</tbody>
</table>
Minimum Measure # 4: Construction Site Stormwater Runoff Control

Guiding Principles

- Management practices for control of construction runoff are selected on a site specific basis. The *NYS Standards and Specifications for Erosion and Sediment Control* is the definitive source of information for selecting appropriate management practices.

- Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenarios below if conditions require it. The municipal program must be at least as stringent as NYS SPDES GP-02-01.

Scenario

The Town of Quality is seeing a boom in construction due to urban sprawl and the influx of mega shopping centers.

The Town of Quality might identify the following management practices to reduce pollutants in stormwater runoff from construction sites:

- **Require erosion and sedimentation controls** (required)
- **Provide opportunity for comment on construction plans** (required)
- **Require construction site plan review** (required)
- **Require overall construction site waste management** (required)
- **Site inspections and enforcement** (required)
- **Education and training of construction site operators** (required)

Based on the *NYS Standards and Specifications for Erosion and Sediment Control*, implement/require management practices such as:

- Check dams
- Construction entrances
- Construction sequencing
- Contractor certification and inspector training
- Dust control
- Grass lined channels
- Permanent seeding
- Preserving natural vegetation
- Sediment filters and sediment chambers
**Sample Measurable Goals** (Construction Site Stormwater Runoff Control)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Establish ordinance or other regulatory mechanism. Establish procedures for handling information submitted by the public.</td>
</tr>
<tr>
<td>2 years</td>
<td>Implement procedures for site inspections. Achieve a <em>(quantify)</em> percent rate of compliance from real estate development firms and construction contractors.</td>
</tr>
<tr>
<td>3 years</td>
<td>Achieve maximum compliance with ordinance. Observe improved clarity and reduced sedimentation of local waterbodies.</td>
</tr>
<tr>
<td>4 years</td>
<td>Observe increased numbers of sensitive aquatic organisms in local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 5: Post-Construction Stormwater Management

Guiding Principles

• Prior planning and design for post-construction stormwater runoff control is the most cost effective approach. The *NYS Stormwater Management Design Manual* provides information on selecting management practices for a site. Under this minimum control measure the MS4 should assess existing conditions throughout its area and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable.

• Using the Priority Waterbodies List and other relevant water quality information, identify those waters that are/may be receiving discharges of pollutants of concern from the MS4 (the system map developed under the 3rd minimum control measure may help match MS4 discharges to particular waters). Identify and implement structural and non-structural management practices to address the pollutants of concern.

• Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenario below if conditions require it.

Scenario

The Town of Tailor is seeing a boom in construction due to urban sprawl and the influx of mega shopping centers. Construction involves both new development and redevelopment.

The Town of Tailor might choose the following management practices:
• *Assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable (required)*
• *Regulate post-construction runoff from new development through an ordinance or other regulatory mechanism (required)*
• *Develop management practice inspection and maintenance program (required)*

Based on the *NYS Stormwater Management Design Manual*, require/implement management practices such as:
• Alternate turnarounds
• Buffer zones
• Dry extended detention ponds
• Eliminating curbs and gutters
• Grassed swales
• Grassed filter strips
• Green parking
• Infrastructure planning
• On lot treatment
• Open space design
• Storm water wetland
• Ordinances for post-construction runoff
• Zoning and site plan review
Sample Measurable Goals (Post-Construction Stormwater Management)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Conduct preliminary inventory of water quality problems/pollutants of concern. Identify MS4 discharges contributing to water quality problems/pollutants of concern. Develop strategies that include structural and/or non-structural management practices to address water quality problems/pollutants of concern from existing, new and re-development.</td>
</tr>
<tr>
<td>2 years</td>
<td>Use ordinance or other regulatory mechanism to codify strategies. Begin design of structural practices for existing development.</td>
</tr>
<tr>
<td>3 years</td>
<td>Reduce the percent of impervious surfaces associated with new development projects. Implement nonstructural management practices and begin construction of structural management practices for existing development.</td>
</tr>
<tr>
<td>4 years</td>
<td>Develop and implement maintenance plans for structural and nonstructural management practices for existing development. Observe improved clarity and reduced sedimentation of local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Guiding Principles

• The *NYS Management Practices Catalogue for Nonpoint Source Pollution Prevention* describes management practices for pollution prevention from many municipal activities.

• Consistent with the principle of Maximum Extent Practicable, choose more management practices than shown in the scenario below if conditions require it.

Scenario

The Town of Winter has a large fleet of municipal vehicles. It also manages many park areas and is located in a heavy snow area and has lots of roadway.

Based on these types of operations and the water quality impacts which may occur due to these operations, the Town of Winter might choose the following management practices.

• **Prevent discharge of pollutants from municipal operations** (required)
• **Follow DEC NPS Management Practices Catalog or equivalent** (required)
• **Conduct employee pollution prevention training** (required)
• Catch basin and storm drain system cleaning
• Integrated pest management
• Landscaping and lawn care
• Road salt storage
• Vehicle maintenance and washing
**Sample Measurable Goals** (Pollution Prevention/Good Housekeeping for Municipal Operations)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete pollution prevention plan (new BMPs and procedures).</td>
</tr>
<tr>
<td></td>
<td>Gather or develop employee training materials. Establish procedures</td>
</tr>
<tr>
<td></td>
<td>for periodic catch basin cleaning and regular street sweeping.</td>
</tr>
<tr>
<td>2 years</td>
<td>Complete training for appropriate employees. Draft integrated pest</td>
</tr>
<tr>
<td></td>
<td>management plan. Establish landscaping and lawn care procedures.</td>
</tr>
<tr>
<td>3 years</td>
<td>Incorporate some pollution prevention BMPs into master plan.</td>
</tr>
<tr>
<td></td>
<td>Achieve a <em>(quantify)</em> percent reduction in pesticide and sand/salt use.</td>
</tr>
<tr>
<td></td>
<td>Establish a maintenance schedule for BMPs.</td>
</tr>
<tr>
<td>4 years</td>
<td>Achieve <em>(quantify)</em> percent reduction in floatables discharged.</td>
</tr>
<tr>
<td></td>
<td>Achieve <em>(quantify)</em> percent compliance rate, for BMP maintenance schedules.</td>
</tr>
<tr>
<td></td>
<td>Controls are in place for all areas of concern.</td>
</tr>
</tbody>
</table>
Cities and Urban Towns (and villages within them)

In General, cities, towns and villages which are fully encompassed within the Urbanized Area (UA).

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

Guiding Principles

- Identify pollutants of concern for the MS4 by looking at the Priority Waterbodies List and any other relevant water quality information.

- Choose management practices based on water quality and quantity needs and the kinds of activities taking place in the municipality.

- Identify key audiences and choose appropriate outreach techniques to encourage them to implement management practices.

- Consistent with the principle of Maximum Extent Practicable, choose more outreach techniques and management practices than shown in the examples below if water quality and quantity conditions call for it.

Note: Outreach and Education activities undertaken to fulfill this minimum measure can fulfill requirements of other minimum measures as well.

Scenario

In the City of Smith Falls, water quality and quantity impacts may be occurring from sources including pet waste, dumping of restaurant grease into storm drains, litter, garage drains connected to storm sewers, and dumping of household hazardous waste.

To address these issues, the City of Smith Falls might want to encourage the following management practices:

- Pollution prevention for businesses,
- Proper trash management,
- Pet waste management,
- Correcting illicit discharges, and
- Proper lawn and garden care.

The outreach techniques the City of Smith Falls might use to reach appropriate audiences are:

- Plan and conduct an ongoing public education and outreach program (required)
- Outreach to commercial entities on their role in keeping pollutants out of stormwater
• Printed materials for restaurant owners about dumping grease, distributed in conjunction with annual health department inspection
• Signs encouraging cleaning up after pets in key locations (parks, curbs)
• School program: storm drain stenciling
• Speaker to community groups on stormwater runoff impacts
• Economic incentives for correcting illicit discharges
• Media campaign to reduce litter
• Event: household hazardous waste collection
### Sample Measurable Goals (Public Education and Outreach on Stormwater Impacts)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Collect and review the Priority Waterbodies List and other information on water quality conditions. Identify pollutants of concern and sources in this municipality. Identify target audiences. Draft public education and outreach plan. Complete printed materials. Install pet waste signs.</td>
</tr>
<tr>
<td>2 years</td>
<td>Train volunteer speakers. Hold first household hazardous waste collection. Prepare/collection materials for outreach to commercial entities. Design storm drain stenciling program/materials.</td>
</tr>
<tr>
<td>3 years</td>
<td>Volunteer speakers address (<em>quantify</em>) groups. Stencil (<em>quantify</em>) stormdrains. Design and prepare a media campaign. Propose economic incentives for illicit discharge remediation. Contact (<em>quantify</em>) commercial entities.</td>
</tr>
<tr>
<td>4 years</td>
<td>Train (<em>quantify</em>) percent of real estate development firms and construction contractors. Approve economic incentives. Begin media campaign. Observe noticeable improvement in the clarity and cleanliness (less litter) of waters.</td>
</tr>
</tbody>
</table>
Minimum Measure # 2: Public Involvement/Participation

Guiding Principles

• Choose involvement techniques and participation activities based on the key interested and affected groups and individuals who want to or should participate in SWMP development and implementation and the kinds of input wanted/needed from them.

• Consistent with the principle of Maximum Extent Practicable, choose more activities and techniques than shown in the examples if involvement needs indicate it.

Scenario

The City of Hay may have problems with illicit discharges into its storm sewer system. Within its boundaries are several high density commercial areas. It also has a core group of engaged citizens who are particularly interested in water quality issues.

To get key groups and individuals involved, the City of Hay might select the following public involvement techniques:

• **Public notice and access to documents and information (required)**
• **Public presentation and comments received on SWMP and on annual reports (required)**
• **Public involvement/participation program (required)**
• **Contact person identified (required)**
• Mailing list development and use to keep people who are interested in water quality activities informed of participation opportunities and upcoming decisions
• Attitude survey to gather information on public views on water quality, heighten awareness of the program, and promote opportunities for involvement.
• Stakeholder meetings to get input on new ordinances from those who would be subject to them (e.g. small business operators)
• Community hot line to encourage reporting of illicit discharge situations such as clogged storm drains, etc.
• **Advisory committee**

To further participation in SWMP activities, the City of Hay might select the following involvement activities:

• Stormdrain stenciling program to reduce dumping and pet waste disposal
• Volunteer speakers who will speak to business owners about proper disposal of wastes
• Roadway cleanups
• School monitoring program
• Implementing a citizen watch group
### Sample Measurable Goals (Public Involvement/Participation)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Identify key interested parties. Identify and publish name of stormwater contact person. Develop mailing list. Design attitude survey. Hold first stakeholders meeting. Establish advisory committee. Identify public involvement needs and messages. Complete public involvement plan. Establish community hot line.</td>
</tr>
<tr>
<td>2 years</td>
<td>Hold meeting on first annual report and prepare responsiveness summary. Organize stream clean up. Complete, compile and interpret attitude survey. Train speakers and begin presentations. Design storm drain stenciling program. Design school monitoring program.</td>
</tr>
<tr>
<td>3 years</td>
<td>Hold meeting on second annual report and prepare responsiveness summary. Plan and hold roadway cleanup. Plan programs/activities from survey results. Stencil <em>(quantify)</em> storm drains. Make <em>(quantify)</em> presentations by volunteer speakers. <em>(Quantify)</em> number of schools are participating in monitoring program. Develop citizen watch groups.</td>
</tr>
<tr>
<td>4 years</td>
<td>Hold meeting on third annual report and prepare responsiveness summary. Implement programs from survey. <em>(Quantify)</em> communities establish watch groups.</td>
</tr>
</tbody>
</table>
Minimum Measure # 3: Illicit Discharge Detection and Elimination

Guiding Principles

• Based on what is known or suspected about what illicit discharges may be entering the system, select appropriate detection and elimination activities and the types of discharges to target.

• Consistent with the principle of Maximum Extent Practicable, choose more detection/elimination activities and types of discharges to target than shown in the scenarios if conditions in warrant it.

Note: What actions are planned under this minimum measure could change significantly as knowledge of the system and illicit discharge situation improves.

Scenario
The City of Mann has a multitude of older buildings housing small businesses, and older residential development.

The City of Mann may want to target the following types of discharges:
• Industrial/business connections,
• Illegal dumping, and
• Wastewater connections to the stormdrain system.

The City of Mann may undertake the following detection and elimination activities:
• Outfall mapping (required)
• Illicit discharges prohibited (required)
• Public, employees, businesses informed of hazards from illicit discharges (required)
• Illicit discharges identified (required)
• Shoreline survey
• System inspections
• Dye testing
**Sample Measurable Goals** (Illicit Discharge Detection and Elimination)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete sewer system map.</td>
</tr>
<tr>
<td>2 years</td>
<td>Establish ordinance. Complete training for public employees. Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges.</td>
</tr>
<tr>
<td>3 years</td>
<td>Assess <em>(quantify)</em> percentage of sewer drainage areas for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. <em>(Quantify)</em> percent of households participate in quarterly household hazardous waste collection days.</td>
</tr>
<tr>
<td>4 years</td>
<td>Assess <em>(quantify)</em> percent of sewer drainage area for sources of illicit discharges. Detect <em>(quantify)</em> percent of illicit discharges. Eliminate <em>(quantify)</em> percent of illicit discharges. Detect and eliminate most sources of illicit discharges.</td>
</tr>
</tbody>
</table>
Minimum Measure # 4: Construction Site Stormwater Runoff Control

Guiding Principles

- Management practices for control of construction runoff are selected on a site-specific basis. The *NYS Standards and Specifications for Erosion and Sediment Control* is the definitive source of information for selecting appropriate management practices.

- Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenarios below if conditions require it. The municipal program must be at least as stringent as NYS SPDES GP-02-01.

Scenario

In the City of Rest, the majority of the property has been developed and construction activities are generally demolition and redevelopment.

The City of Rest might identify the following management practices to reduce pollutants in stormwater runoff from construction sites:

- Require erosion and sedimentation controls (required)
- Provide opportunity for comment on construction plans (required)
- Require construction site plan review (required)
- Require overall construction site waste management (required)
- Site inspections and enforcement (required)
- Education and training of construction site operators (required)

Based on NYS Standards and Specifications for Erosion and Sediment Control, implement/require management practices such as:

- Construction entrances
- Contractor certification and inspector training
- Dust control
- Sediment filters and sediment chambers
- Sediment trap
- Sediment basins & rock dams
- Spill prevention and control plan
- Storm drain inlet protection
- Silt fence
- Vehicle maintenance and washing areas
- Model ordinance
## Sample Measurable Goals (Construction Site Stormwater Runoff Control)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Establish ordinance or other regulatory mechanism in place. Establish procedures for handling information submitted by the public.</td>
</tr>
<tr>
<td>2 years</td>
<td>Implement procedures for site inspections. Achieve a (<em>quantify</em>) percent rate of compliance by real estate development firms and construction contractors.</td>
</tr>
<tr>
<td>3 years</td>
<td>Achieve maximum compliance with ordinance. Observe improved clarity and reduced sedimentation of local waterbodies.</td>
</tr>
<tr>
<td>4 years</td>
<td>Observe increased numbers of sensitive aquatic organisms in local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 5: Post-Construction Stormwater Management

Guiding Principles

• Prior planning and design for post-construction stormwater runoff control is the most cost effective approach. The NYS Stormwater Management Design Manual provides information on selecting management practices for a site.

• Under this minimum control measure the MS4 should assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable.

• Using the Priority Waterbodies List and other relevant water quality information, identify those waters that are/may be receiving discharges of pollutants of concern from the MS4 (the system map developed under the third minimum control measure may help match MS4 discharges to particular waters).

• Identify and implement structural and non-structural management practices to address the pollutants of concern.

• Consistent with the principle of Maximum Extent Practicable, require/implement more management practices than shown in the scenario below if conditions require it.

Scenario

In the City of Port the majority of the property has been developed. Construction activities are generally demolition and redevelopment.

The City of Port might choose the following management practices:

• Assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharges to the Maximum Extent Practicable (required)

• Regulate post-construction runoff from new development through an ordinance or other regulatory mechanism (required)

• Develop management practice inspection and maintenance program (required)

Based on the NYS Stormwater Management Design Manual, require/implement management practices such as:

• Buffer Zones
• Dry extended detention ponds
• Eliminating curbs and gutters
• Infrastructure planning
• Manufactured products for storm water inlets
• On-lot treatment
• Ordinances for post-construction runoff
• Zoning and site plan review
## Sample Measurable Goals (Post-Construction Stormwater Management)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Perform preliminary inventory of water quality problems/pollutants of concern. Identify MS4 discharges contributing to water quality problems/pollutants of concern. Develop strategies that include structural and/or non-structural management practices to address water quality problems/pollutants of concern from existing, new and re-development.</td>
</tr>
<tr>
<td>2 years</td>
<td>Codify strategies through an ordinance or other regulatory mechanism. Begin design of structural practices for existing development.</td>
</tr>
<tr>
<td>3 years</td>
<td>Reduce the percent of impervious surfaces associated with new development projects. Implement nonstructural management practices and begin construction of structural management practices for existing development.</td>
</tr>
<tr>
<td>4 years</td>
<td>Develop and implement maintenance plans for structural and nonstructural management practices for existing development. Observe improved clarity and reduced sedimentation of local waterbodies.</td>
</tr>
</tbody>
</table>
Minimum Measure # 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Guiding Principles

- The NYS Management Practices Catalogue for Nonpoint Source Pollution Prevention describes management practices for pollution prevention from many municipal activities.
- Consistent with the principle of Maximum Extent Practicable, choose more management practices than shown in the scenario below if conditions require it.

Scenario

The City of Rounding has many high traffic (car and pedestrian) streets with storm drains that are often clogged with litter. It is located in a snow belt and on a large waterbody. A large municipal vehicle fleet is maintained in one large garage complex. This city has a number of commercial areas.

Based on the water quality impacts which may occur due to these operations, the City of Rounding might choose the following management practices.

- Prevent discharge of pollutants from municipal operations (required)
- Follow DEC NPS Management Practices Catalog or equivalent (required)
- Conduct employee pollution prevention training (required)
- Street cleaning
- Catch basin and storm drain system cleaning
- Vehicle maintenance
- Road salt storage
- Hazardous waste materials management
- Marina management
- Spill response and prevention
## Sample Measurable Goals (Pollution Prevention/Good Housekeeping for Municipal Operations)

<table>
<thead>
<tr>
<th>By end of:</th>
<th>The following will be complete (may have been started in prior years):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>Complete pollution prevention plan (new BMPs and procedures). Gather or develop employee training materials. Establish procedures for periodic catch basin cleaning and regular street sweeping.</td>
</tr>
<tr>
<td>2 years</td>
<td>Complete training for appropriate employees. Fully implement recycling program. Draft marina management plan.</td>
</tr>
<tr>
<td>3 years</td>
<td>Incorporate some pollution prevention BMPs into master plan. Reduce pesticide and sand/salt use by <em>quantify</em> percent. Establish a maintenance schedule for BMPs. Establish spill response plan.</td>
</tr>
<tr>
<td>4 years</td>
<td>Reduce floatables discharged by <em>quantify</em> percent. Achieve a <em>quantify</em> compliance rate with maintenance schedules for BMPs. Establish controls for all areas of concern.</td>
</tr>
</tbody>
</table>
This document was prepared in February 2003. For further information and updates, copies of the permits, NOIs and other materials, check the DOW website at www.dec.state.ny.us/website/dow/PhaseII.html.

- Permit information can also be obtained by calling 518-402-8265.
- Other information on implementation of the stormwater program can be obtained by calling 518-402-8232.
- You can also contact a DEC Regional office for further information and assistance.
- The Department will make available informational material to help MS4s complete their NOI and document their Stormwater Management Program. Please check the DEC website frequently.