

Further Stormwater Management Information

Requirement to develop local law: *SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s)* [GP-02-02], Part IV C 4&5
<http://www.dec.state.ny.us/website/dow/MS4Permit.pdf>

Chapter 3: Developing Stormwater Management Local Laws

This chapter discusses the *Sample Stormwater Management Local Law* (Appendix 1) and legislative strategies for MS4s. (Table 3 on page 30 summarizes these legislative strategies).

Why Local Laws are Needed

Municipalities in New York State have power and responsibility for decisions that determine how the community uses not only its land, but also its water and other natural resources. Local land use decisions directly determine whether the community's resources will support a good quality of life.

The Stormwater Phase II program requires regulated MS4s to incorporate stormwater management into the local code. This requirement ensures that local stormwater management programs meet the community's objectives for protecting public health and welfare, and take into account the individual locality's natural resources.

It gives local boards direct input into landscaping, placement of structures, long-term maintenance, enforcement and other issues that are best determined locally.

The State of New York recommends that every community, whether or not it is regulated under Phase II, adopt a Stormwater Management Local Law. By adopting the language recommended in Appendix 1, regulated MS4 communities will meet the Phase II requirement for "an ordinance or other regulatory mechanism" to carry out Minimum Control Measures 4 and 5 for construction site and post-construction runoff.

Developing Local Laws for Stormwater Management

This section discusses features of local law development that may enhance the effectiveness of a community's Stormwater Management Local Law.

Home Rule Authority (Local Law vs. Ordinance)

The New York State Department of State recommends adopting a regulation for stormwater management as a local law under the Municipal Home Rule Law, rather than as an ordinance under New York General City Law, Town Law, and Village Law.

New York State Municipal Home Rule Law (Article 2, Section 10) provides the guidelines and procedure for adopting and amending local laws for a broad range of activities, including "protection and enhancement of the physical and visual environment." When adopted under the Municipal Home Rule Law, a local law has the same status as an act of the New York State Legislature. The local law must be filed with the Secretary of State, and it can be made effective immediately. Municipalities should consult with their legal counsel regarding the form of enactment, but enactment by local law has the benefit of constitutional and home rule authority.



Photo courtesy of New York Sea Grant, Eileen Keenan

Sediment from a construction site without erosion and sediment controls has eroded onto a nearby walkway. State and federal laws now require developers to prevent erosion during construction.

Recognizing the Cooperative Nature of Stormwater Management

Many different boards, agencies and personnel within the municipal government have roles in stormwater management. The best way to establish an effective stormwater management local law is for the local legislative body to create an inter-agency Stormwater Local Law Review Team that reflects these diverse roles and responsibilities. The team should include representatives from the Governing Board, Building Department, Planning Board, Zoning Board of Appeals, Conservation Advisory Council or Environmental Conservation Commission, Municipal Attorney, Municipal Engineer, Municipal Clerk, and Municipal Planning Department or consultant.

The Stormwater Local Law Review Team should review and comment on the draft local law and also should help create and recommend opportunities for public involvement, both in developing and implementing the local law and in carrying out the broader stormwater management program.

It should be noted that due to the land use implications and potential inter-municipal nature of stormwater regulation, any amendments to zoning, subdivision, site plan or similar land use regulations relative to stormwater review require the referral of proposed Local Law amendments to the County Planning Board pursuant to Section 239 l and m of General Municipal Law.

Designing a Legislative Strategy to Meet Phase II Requirements

Local land use law is the framework for carrying out the Phase II construction/post-construction stormwater management program. Authorization for local officials to make decisions on construction projects is found in the municipality's Zoning, Subdivision and Site Plan Laws.

Because stormwater management is a necessary part of all land development projects, the most straightforward way to establish local control of stormwater impacts during and after construction is to amend the existing laws and ordinances that govern zoning, subdivision and site plan review. By making use of existing local land use controls, the *Sample Stormwater Management Local Law* avoids creating a new permit for stormwater management.

Selecting Local Laws to be Amended or Supplemented: Using *Checklist 1* on page 10, municipal officials, staff or volunteer board members can inventory the municipality's current base of laws that can be amended for stormwater management. Municipalities can use Table 3 as a guide to select from the *Sample Stormwater Management Local Law* the provisions needed to bring their land use controls into line with the Phase II requirements.

- **Municipalities that have one or more of the three basic land use laws** (zoning, subdivision and site plan approval, or a zoning law that incorporates site plan and/or subdivision approval) can meet all the requirements of Phase II by adopting sections of the *Sample Stormwater Management Local Law* as shown in Table 3.
- **Municipalities that do not have any of the three basic land use laws** can adopt the *Sample Stormwater Management Local Law* as a stand-alone regulation.

The Sample Stormwater Management Local Law – Adopt or Adapt? The *Sample Stormwater Management Local Law* in Appendix 1 includes all of the requirements for regulated MS4 municipalities to meet Phase II Minimum Control Measures 4 and 5 (Construction Site Runoff Control and Post-Construction Runoff Control). Any local government in New York State, whether or not it is regulated under Phase II, can use the sample local law to manage the impact of stormwater on natural resources, revising the language of the sample local law to reflect local

needs.

MS4s discharging to 303(d)/TMDL waters that are impaired by stormwater discharges may need slightly different legislative language to comply with federal law. These municipalities are currently receiving individual guidance from DEC to help establish their local laws.

Fundamental to stormwater management is the Stormwater Pollution Prevention Plan (SWPPP) prepared by construction site operators, which prescribes steps to control runoff from the site during (and, if needed, after) construction. The language in the sample local law incorporates the SWPPP as part of the applicant's package for a local land use approval. The information below on legislative strategies for local governments with different combinations of existing local laws is summarized in Table 3.

- **Article 1 (General Provisions) and Article 2 (Stormwater Control)** of the sample local law must be adopted, to establish the stormwater management program and SWPPP requirements. Article 1 will be adopted as part of the body of the new stormwater management local law. Article 2 will be adopted as an amendment to the Zoning Law; if the municipality does not have zoning, Article 2 may be adopted as part of the local law itself or as an amendment to the Subdivision or Site Plan Review Law.
- **Article 3 (Subdivision Law Amendment)** should be adopted along with Articles 1 and 2 by all municipalities that have a Subdivision Law.
- **Article 4 (Site Plan Review Law Amendment)** should be adopted along with Articles 1 and 2 by all municipalities that have a Site Plan Law.
- **Article 5 (E&SC or Stormwater Management Law Update)** contains language to be used by municipalities that have previously adopted an Erosion & Sediment Control Law or a Stormwater Management Law, to replace the existing law with language that meets the updated requirements for controlling construction site runoff. Because Erosion and Sediment Control Laws do not address post-construction runoff control, municipalities that take this approach should also adopt Articles 1, 2, 3 and 4. These four articles provide for review and approval of stormwater pollution prevention plans, when these are needed to cover post-construction runoff control.
- **Article 6 (Administration and Enforcement)** contains enforcement-related provisions that are required by Phase II, but that may already exist in a municipality's local code. Regular inspection, enforcement of stormwater provisions, sanctions to ensure compliance, and performance guarantees are required under Minimum Measures 4 and 5. The Municipal Attorney should evaluate the adequacy of existing requirements for inspection, enforcement and performance guarantees to achieve the purposes of the stormwater management local law. The municipality may wish to revise or amend its local regulations to incorporate some or all of the language in Article 6.

Terminology in the Sample Local Law: The *Sample Stormwater Management Local Law* uses terms that are the basis of the stormwater program. The terms are defined in Article 2 of the sample local law. Several key terms important for implementing a municipal stormwater management program are also explained here.

Design Manual and ***Erosion Control Manual*** are short names for two publications, the *New York State Stormwater Management Design Manual* and the *New York Standards and Specifications for Erosion and Sediment Control* (for availability, see

References, Appendix 4). The language of the sample local law incorporates these manuals as the technical standard for controlling erosion and sedimentation on construction sites and for installing stormwater management practices appropriate for New York State soils and climate. MS4s are required to use these documents as the technical standard in stormwater management local laws. These manuals contain up-to-date practices, as well as easy-to-use checklists and community implementation tools.

Land development activity encompasses construction and post-construction activities that are regulated by the stormwater management local law. Construction activity includes clearing, grading, excavating, soil disturbance or placement of fill that results in land disturbance of equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development or sale, even though multiple separate and distinct land development activities may take place at different times on different schedules.

While the sample local law regulates any disturbance of one acre or more (as required by the Phase II regulations), **local governments have the option to regulate disturbances smaller than one acre**. Municipalities that already regulate disturbances of one acre or less can incorporate their existing minimum into the Stormwater Management Local Law. Municipalities that wish to introduce a more stringent limit can do so by changing the language of the sample local law.

Stormwater Management Officer is used to designate a municipal employee or officer who will accept and review SWPPPs and forward the plans to the Planning Board, Zoning Board or Town Board (depending on the local approval needed). The Governing Board will probably designate the Code Enforcement Officer, Building Inspector or another official in the municipality's Building Department to serve as Stormwater Management Officer. The Stormwater Management Officer may also conduct inspections of erosion control measures on construction sites and stormwater management practices; alternatively, this function may be delegated to the Municipal Engineer or a planning consultant. (Note: A consultant cannot be appointed as Stormwater Management Officer.)

Larger Common Plan of Development or Sale means a situation in which multiple construction activities are occurring, or will occur, on a contiguous area. Permit coverage is needed if disturbance of one or more acres is occurring or is anticipated to occur in conjunction with the initial disturbance. For discrete construction projects located within a larger common plan of development or sale that are at least one-quarter mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently disturbed.

Legislative Findings and Purposes: The nine findings and six purposes in the *Sample Stormwater Management Local Law* reflect the basic Phase II regulatory requirements for stormwater management-related objectives of the local law. These findings and purposes may be valuable in proving validity if the local law is challenged.

Ideally, the legislative findings should also reflect the individual community's natural resources and its capacity for carrying out a stormwater management program. A natural resource assessment is an excellent basis for developing legislative goals, and findings that will support an effective stormwater management local law and program.

Table 3—Stormwater Management Legislative Strategy

Based on your community's local land use controls (Checklist 1), use this table to determine which provisions of the Sample Stormwater Management Local Law to adopt and which existing local laws/regulations to examine for possible updating.

LOCAL LAND USE CONTROLS IN PLACE	STORMWATER MANAGEMENT SAMPLE LOCAL LAW PROVISIONS						
	Enacting Clause	Article 1 <i>General Provisions</i>	Article 2 <i>Amend Zoning</i>	Article 3 <i>Amend Subdivision Law</i>	Article 4 <i>Amend Site Plan Law</i>	Article 5 <i>Amend E&SC Law</i>	Article 6 <i>Administration</i>
Zoning, Subdivision, & Site Plan Review Laws	Adopt	Adopt	Adopt	Adopt	Adopt		Update Existing Provisions If Needed
Zoning & Subdivision Laws	Adopt	Adopt	Adopt	Adopt			Update Existing Provisions If Needed
Zoning & Site Plan Laws	Adopt	Adopt	Adopt		Adopt		Update Existing Provisions If Needed
Subdivision & Site Plan Laws	Adopt	Adopt	Adopt as part of Article 1 or 3	Adopt	Adopt		Update Existing Provisions If Needed
Subdivision Review Law Only	Adopt	Adopt	Adopt as part of Article 1 or 3	Adopt			Update Existing Provisions If Needed
Site Plan Review Law Only	Adopt	Adopt	Adopt as part of Article 1 or 4		Adopt		Update Existing Provisions If Needed
E&SC Law (With or Without Other Laws)	Adopt	Adopt	Adopt if Zoning Law in Place	Adopt if Subdivision Law in Place	Adopt if Site Plan Law in Place	Adopt	Update Existing Provisions If Needed
Construction Inspection	Adopt	Adopt					Update Existing Provisions If Needed
Performance Guarantees	Adopt	Adopt					Update Existing Provisions If Needed
Code Enforcement	Adopt	Adopt					Update Existing Provisions If Needed

Chapter 4: Implementing Construction/Post- Construction Stormwater Management

Adopting the local stormwater management law is the first step toward effective implementation of a local construction/post construction stormwater management program.

- **Regulated MS4s** not only must implement all the terms of their stormwater management laws, but also must put in place other program elements prescribed by Minimum Control Measures 4 and 5.
- **Non-regulated communities** can use the implementation steps listed in this section to promote effective management of construction/post-construction stormwater.

Involving the Public in Local Stormwater Management

Stormwater management public information/public involvement must begin during program development and continue for the life of the MS4's permit coverage under GP-02-02. This discussion lays out education and involvement requirements and recommendations for construction and post-construction stormwater management; the requirements and recommendations will satisfy Minimum Measures 1 and 2 for the construction/post-construction aspect of local stormwater management.

Target Audiences for Outreach and Involvement

Broadly speaking, successful management of construction/post-construction stormwater runoff in a municipality requires actions by three groups:

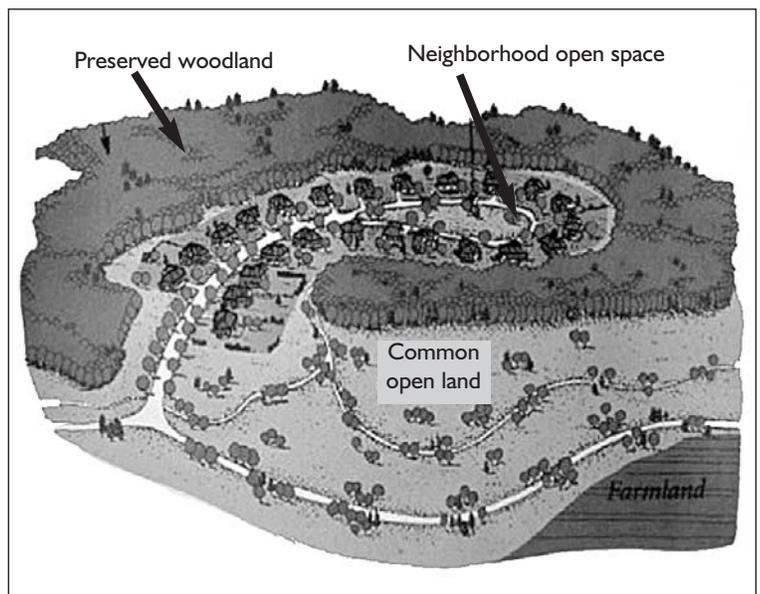
- **Construction site operators**, who must develop, submit and follow SWPPPs.
- **Owners/operators of properties with post-construction stormwater management facilities**, who must follow pollution prevention practices during operation and maintenance. (This group includes municipal government and private sector employees who operate and maintain stormwater systems.)
- **Citizens** who may observe stormwater problems. The support and actions of residents and property owners are needed to ensure the effectiveness of local stormwater management.

Further Stormwater Management Information

Implementing the Minimum Measures: *Overview of the Municipal Separate Storm Sewer Systems (MS4) Phase II Stormwater Permit Program*, Chapter 3 NYSDEC, February 2003, rev. August 2003, http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4_overview.pdf

MS4 Stormwater Management Programs in different municipal situations: *Guidelines for Completing the Notice of Intent, Selecting Management Practices, Setting Measurable Goals Based on SPDES General Permit (GP-02-02) for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems*, Chapter 4; NYSDEC, February 2003 rev. August 2003, http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4_guidelines.pdf

Local control of land development means that municipalities can encourage conservation subdivisions and other development approaches that preserve vegetated areas, maximizing storm water absorption .



Courtesy of Center for Watershed Protection

The identities and viewpoints of the people in each of these three groups vary from community to community. Each municipality must identify the best ways to reach local target audience(s), what the audience(s) need to know about stormwater, and the actions needed from each group for successful stormwater management. Ongoing involvement of these groups in stormwater management is a key contributor to the success of the local program.

Requirements/Recommendations for Education and Involvement

Public education and involvement in construction/post-construction stormwater management should begin with the MS4's Notice of Intent and local law development and continue as long as the MS4 permit remains in force. Informed and involved citizens can help ensure that appropriate construction and post-construction runoff controls are installed and maintained on all regulated construction sites.

Public Education and Outreach: Phase II requires a regulated MS4 to keep stormwater management continually before the public. Because routine activities are the source of many stormwater problems, education and outreach should also remain active on a routine basis. Table 2 (page 22) summarizes the Phase II public education and outreach requirements.

Requirements: Under Phase II, the regulated MS4 must:

- **Conduct an ongoing public education and outreach program** that covers topics specific to construction/post-construction stormwater management, such as: how stormwater behaves on construction sites and on developed lands that have impervious cover; the need for and nature of stormwater management facilities and practices during and after construction within that specific municipality; how to spot a failure in a stormwater management practice or facility.
- **Develop measurable public education/outreach goals and select appropriate activities** to ensure that construction/post-construction stormwater management achieves control of all pollutants of concern in stormwater discharges to the maximum extent practicable, and of runoff volume and rate.

Recommendations: Public education activities for construction/post-construction stormwater management might include:

- **Offer information to the public** about stormwater dynamics and resource conditions within the municipality.
- **Make presentations** to community and professional groups (stakeholders and the Local Law Review Team can identify appropriate audiences).
- **Solicit newspaper** and broadcast coverage.
- **Display posters and sponsor events** featuring stormwater management.
- **Provide information and training** for construction site operators and municipal employees.

Construction site inspection is key to effective local stormwater management.

Photo courtesy of NYSDEC, Karen Williamson.



Public Participation and Involvement: Regulated MS4s must include the public in developing, implementing, and evaluating their stormwater management programs. Public participation activities for the construction/post-construction stormwater management program should emphasize involvement in the development of the local law and should encourage citizens to report stormwater-related problems observed within the municipality.

Requirements: Phase II stipulates certain broad obligations for regulated MS4 construction/post-construction stormwater management programs:

- **Design and conduct a public involvement/participation program** that identifies key individuals and groups who are interested in or affected by construction/post-construction stormwater management, identifies the type of input sought and describes activities to provide program access and gather input.
- **Involve the public in developing stormwater management goals.**
- **Establish and publish the name of a stormwater management contact person.** This contact person should be responsible for involving the public in local law development, for following up citizen complaints about stormwater problems and for seeing to it that the information provided by citizens is incorporated into the stormwater management program. The stormwater management contact can be, but is not required to be, the same person as the Stormwater Management Officer (see Article 1, Section 4 of the *Sample Stormwater Management Local Law*).
- **Comply with state and local public notice rules** for local law development and other decisions regarding stormwater, and, where the federal law applies, with federal Clean Water Act public participation and involvement provisions. Details of the rules for public notice can be found in the *Conducting Public Meetings and Public Hearings*, published by the New York State Department of State and available online at <http://www.dos.state.ny.us/lgss/pdfs/public.pdf>.
- **Conduct public hearings as stipulated by law before adopting the Stormwater Management Local Law.** Ideally, interested parties should be invited to participate in drafting or reviewing the local law. The *New York State Local Government Handbook* gives detailed information on public hearing requirements of New York State municipalities. The handbook is available online at: <http://www.dos.state.ny.us/lgss/pdfs/handbook.pdf>.
- **Conduct a public review of the Stormwater Management Annual Report.**
- **Develop measurable public involvement/participation goals and select appropriate activities.**

Recommendations: Include the public as the construction/post-construction stormwater management program proceeds.

- **Encourage citizens to report their observations** of conditions in the local watersheds and water bodies, as well as of flooding, washouts, standing water, natural resource damage and other effects of stormwater runoff. This adds to the municipality's data about its local resources and stormwater problems and helps keep the public actively involved in managing stormwater runoff.
- **Sponsor volunteer activities**, such as beach cleanups, storm drain stenciling, stream monitoring and field surveys, which promote citizen involvement and help to inform the public about local conditions and stormwater management needs.

- **Form a Stormwater Management Advisory Committee.**
- **Seek out stakeholders with a special interest** in participating in stormwater management decisions.

Establishing Procedures and Practices for Construction/Post-Construction Stormwater Management

Once the stormwater management local law has been adopted, the municipality must put it into effect. This is done through:

- **Procedures for review of SWPPPs**, and for receipt and consideration of information submitted by the public.
- **Procedures for site inspections** and enforcement of control measures.
- **Ongoing training** in construction/post-construction stormwater management for construction site operators and people responsible for operating and maintaining stormwater management facilities and practices.

The procedures established by the regulated MS4, in particular by MS4s that are municipalities, will determine the long-term effectiveness of stormwater management. Regulated MS4s must address each provision of the local law and GP-02-02 with procedures that ensure that the provision is carried out.

Review of Stormwater Pollution Prevention Plans

It is the responsibility of applicants for local land use permits to prepare a SWPPP and submit the SWPPP for local government review. Effective local review of stormwater plans is critical to the success of stormwater management.

Requirements: The sample local law does not introduce a new permit or review process for municipal government. The SWPPP should be submitted and reviewed as part of the application for a subdivision, site plan, special use permit, erosion control permit, or other local approval for a land development project. Procedures for stormwater plan review that are not established in the Stormwater Management Local Law must be set forth separately by the Governing Body. It is the Governing Body's responsibility to provide adequate funding for stormwater plan review.

Engineering expertise is required for stormwater plan review—municipalities should plan either to assign reviews to municipal engineers or to contract for engineering review. Local officials should not review stormwater plans without proper training, technical qualifications or technical assistance.

Recommendations: Stormwater Plan review procedures should establish a review sequence for the plan documents, and ensure timely circulation of plan documents to all responsible officials. Designating a Stormwater Management Officer as suggested in the *Sample Stormwater Management Local Law* will clarify responsibility for coordinating SWPPP reviews. The municipality's Stormwater Management Officer will forward the SWPPP to the appropriate municipal board, who will then include the SWPPP in its public review processes already prescribed in zoning, subdivision and/or site plan law. Providing an opportunity for public comment on SWPPPs at public hearings for land use permits or State Environmental Quality Review (SEQR) helps to meet the requirement to involve the public in SWPPP review.

To ensure that the review takes into account all necessary elements, localities may adopt the checklist for SWPPP preparation and review in the *New York State Stormwater Design Manual*, Appendix E.

Reviewing Stormwater Plans for Water Quality Impacts:

Requirement: For regulated MS4s discharging to 303(d) water bodies and TMDL watersheds, reviewers of SWPPPs must assure themselves that the stormwater management practices proposed meet the standard of no increase of the listed pollutant(s) of concern to these waters. For development projects disturbing five acres or more, and for commercial and multi-family residential construction disturbing one acre or more, meeting the no increase standard requires post-construction stormwater controls.

Recommendation: Data from water quality monitoring, modeling or other measurements may be needed to determine whether the stormwater management measures and practices proposed in the SWPPP will enable the discharge to meet the permit requirements. Reviewers should coordinate with watershed groups or county agencies that operate water quality monitoring programs to ensure that stormwater controls are based on the most reliable and accurate data available.

Public Access to SWPPPs:

Requirements: Regulated MS4s are required to ensure that SWPPPs submitted as part of land use applications are readily available for public review. No special comment process is required for SWPPPs—public review will be accomplished through land use permit and State Environmental Quality Review Act (SEQRA) hearings and comment.

Recommendation: Public review of SWPPPs will be most productive if educational materials are available explaining the program requirements, local water quality status, construction/post-construction management practices and stormwater plan terminology.

Coordination of State and Local Reviews of Stormwater Plans:

Requirement: Under Phase II, construction site operators must notify DEC of intent to obtain coverage under GP-02-01 by submitting a Notice of Intent (NOI) before construction begins. State law requires every developer or permittee to prepare a SWPPP and

Further Stormwater Management information

Checklist for reviewing SWPPPs: *New York State Stormwater Design Manual*, NYSDEC, October 2001, Appendix E; <http://www.dec.state.ny.us/website/dow/toolbox/swmanual/index.html>

DOS Training Courses for Municipal Officials, including Stormwater Control for Project Review Boards: <http://www.dos.state.ny.us/lgss/landuse.htm/#hotbutton> (scroll down)

Photo courtesy of NYSDEC, Scott Cuppett



Specially designed raingardens landscaped or planted with native plants provide attractive natural places for rainwater to collect and soak into the ground. Rain from rooftops and paved areas can be diverted into raingardens.



A silt fence is an effective practice for controlling construction site erosion/sedimentation if properly installed and maintained.

NOI, and to send the SWPPP and NOI to the local governing authority. DEC can decide to review any SWPPP; developers must make plan documents available to the department for review upon request. The department will require the applicant to revise any SWPPP that does not conform with state standards. DEC's review power provides a backstop for local reviewers, with the ability to impose greater penalties.

Recommendation: Adopt the *Sample Stormwater Management Local Law* in Appendix 1, with the language needed to require conformance with state standards.

Site Inspections and Enforcement

Requirements: Regulated MS4s are required to establish and implement procedures for inspections and enforcement of construction and post-construction stormwater management practices, and must allocate

adequate resources for effective inspections of development and redevelopment sites and enforcement of SWPPPs. MS4s are required to periodically revisit post-construction facilities and measures to check condition, operation and maintenance.

Inspection procedures and enforcement standards can be established in the local law, as given in Article 2, Section 4 of the *Sample Stormwater Management Local Law*. The sample local law also contains language that would require establishment of maintenance easements for inspection and repair of post-construction stormwater controls. Provisions for construction inspection, performance guarantees and bonds, and enforcement (such as those given in Article 6 of the sample local law) are important to include in a stormwater control program if they do not already exist in local law.

The state permit for construction sites, GP-02-01, requires that each SWPPP “provide a maintenance schedule to ensure continuous and effective operation of each post-construction stormwater control practice.” When operators apply for termination of permit coverage, they are required to report who has responsibility for long-term maintenance of these practices and what maintenance will be needed. This information forms the basis for the MS4's ongoing oversight of post-construction stormwater management practices, and identifies the responsible party against whom the MS4 should enforce if controls fail.

Recommendations: MS4 inspection and enforcement procedures should include steps to identify priority sites for inspection and enforcement based on the nature of the construction or post-construction activities, topography and characteristics of soils and receiving waters. The site inspection checklists in Appendix F of the *New York State Stormwater Design Manual* are examples of procedures for inspecting stormwater management practices.

To take advantage of economy of scale, several communities can enter into an intermunicipal agreement to share the cost of a “dedicated” inspector, who will conduct the inspections and perform enforcement duties.

Training in Construction/Post-Construction Stormwater Management Requirements and Practices

Requirement: Regulated MS4s must assure formal training in stormwater management practices and the requirements of the Phase II program for operators of construction sites and for municipal employees who have operation or maintenance responsibility for municipally-owned stormwater management practices, roads and other facilities that generate runoff.

Recommendations for Training Construction Site Operators: The local Stormwater Management Officer has an important role in training, as does the municipal stormwater management contact person. The MS4 should provide educational materials for construction site operators discussing the requirements of the local stormwater management program and the rationale for the municipality's approach to stormwater management. To prevent contamination of stormwater by construction wastes, educational materials should emphasize construction site waste management.

Recommendations for Training Municipal Officials and Employees: Initial training of municipal employees should be conducted in a group setting, and periodic refreshers should be offered. MS4s may find it effective to specify stormwater management duties in work programs and evaluations. Stormwater management practice operation and maintenance should also be included in municipal work plans and protocols.

To help with local training needs, the NYS Department of State (DOS) offers a 1½-hour course titled *Storm Water Control for Local Elected Officials*, which presents information on the implementation of local storm water control programs. Trainers will identify local and regional sources of technical assistance and review appropriate regulatory mechanisms. Also discussed will be comprehensive planning to identify critical development areas. Long-term implications of stormwater regulation will be covered, including ongoing costs, maintenance, enforcement issues. Application of regulations to specific sites will be illustrated.

DOS also offers a 2 ½ hour course titled *Storm Water Control for Project Review Boards*. This session targets local review boards as they strive to implement local storm water programs and meet their obligations under state and federal regulations. Trainers will explain the potential environmental and economic impacts of stormwater, look at the importance of land use planning in developing local water protection strategies, and examine the regulatory tools for carrying out these strategies. This session will apply the principles and practices of stormwater management to the review of development projects. Information about these DOS courses can be found by scrolling down at at <http://www.dos.state.ny.us/lgss/landuse.html#hotbutton>.

In addition, county Soil and Water Conservation Districts can help provide and coordinate training opportunities on a county or watershed basis.

Recommendations for Training Operation and Maintenance Personnel: It is in the MS4's best interest to offer training to operation and maintenance personnel working within the municipality who have ongoing responsibility for post-construction stormwater measures and practices on both government-owned and private-sector sites. Training sessions and educational materials offered to municipal employees could also be made available to operation and maintenance personnel in the private sector.

Funding Construction/Post-Construction Stormwater Management

Effective stormwater management will have many economic benefits, and could help avoid significant local expenditures for washouts, flooding and erosion. Still, MS4s will need to budget for: program development and creation of the local law; technical services for stormwater plan review; the Stormwater Management Officer and Contact Person, and site inspections and enforcement.

Possible sources of funding for these functions include:

- **Grants.** To help cover basic costs of starting the regulated MS4 program, the state has earmarked some Environmental Protection Fund (EPF) funding for regulated MS4s implementing the Stormwater Phase II General Permit. DEC anticipates that additional assistance will be available in future years as regulated MS4s move to full implementation of their stormwater management programs.
- **Stormwater management authorities or districts.** Stormwater management authorities or districts could charge back management costs based on the amount of impervious area on the property. Stormwater districts can also be used to fund operation and maintenance on stormwater facilities that the municipality has accepted from a private developer.
- **Other sources of funds.** Some municipalities are considering increased permit fees to support review of stormwater management plans and other program functions. Article 6 of the *Sample Stormwater Management Local Law* contains language authorizing such fees.
- **Municipal ownership and maintenance of facilities.** Cities, towns, villages and counties may construct and develop drainage facilities, and may levy charges for conveyance and disposal of stormwater, as provided under General Municipal Law Article 5-E.

Maintaining Facilities, Practices and Measures

Requirement: Phase II requires regulated MS4s to assure completion and ongoing operation and maintenance of any stormwater management facilities, practices and measures during and, where needed, after all construction projects.

Recommendations: The *Sample Stormwater Management Local Law* includes provisions establishing financial performance guarantees for completion of construction and for maintenance of stormwater management facilities, practices and measures. Schedule B of the sample local law contains a sample Stormwater Control Facility Maintenance Agreement that localities may wish to use to ensure long term maintenance of post-construction stormwater controls. Periodic inspections of sites with permanent post-construction stormwater controls should be made part of the municipal stormwater management program, with sanctions imposed for failure to perform. Training of operation and maintenance personnel will increase the efficacy of the inspection program.

Intermunicipal Cooperation

Intermunicipal cooperation could play an important role in the success of local stormwater management, both in program effectiveness and in cost saving. DEC recommends that municipalities and institutions consider sharing elements of their stormwater management programs with neighboring jurisdictions in the same watershed. Working through the County Water Quality Coordinating Committee can open opportunities to network and share resources.

Intermunicipal agreements are allowed under General Municipal Law Article 5-G, which states that two or more municipalities may enter into an agreement to undertake any activity that is allowed for individual municipalities under general or special laws.

Sharing Costs Through Stormwater Drainage Districts: Two or more municipalities may enter into an intermunicipal agreement to create a drainage district, sharing costs and services, as authorized by General Municipal Law, Article 5-E. An example is a project presently being considered by the Long Island Sound Watershed Intermunicipal Council in Westchester County to use a Stormwater District to manage stormwater on a regional basis. The Stormwater District would be governed by a District Board. Fees would be allocated based on impervious area and other factors, with credits given for installing pollution prevention devices. A watershed-based stormwater district provides a long-term management tool with a dedicated funding mechanism for managing water resources and protecting public health, safety and welfare.

Sharing Training: Projects to provide stormwater management training are among the most promising opportunities for intermunicipal cooperation in stormwater management. Most New York communities will find themselves employing stormwater management programs and techniques that are very similar to those used by neighboring communities. These common threads of stormwater management can be embodied in generic training courses and materials, with costs shared among neighboring communities, leaving only elements that are specific to an individual community to be developed by that community.

Sharing Resource Assessment and Planning: Communities that share a watershed can work together to prepare watershed assessments and plans. This approach would be particularly fruitful in the case of a TMDL watershed, where close study of conditions, possibly even including local water quality monitoring and testing, is necessary to meet no-increase requirements.

Shared Inspectors for Construction Sites and Post-Construction Measures: To take advantage of economy of scale, several communities can enter into an intermunicipal agreement to share the cost of a “dedicated” inspector, who will conduct the inspections and perform enforcement duties.

All storm drains are not created equal. Instead of carrying the stormwater that falls on this large parking lot to a distant lake or stream, this drain moves it to an infiltration basin, where it replenishes the local groundwater.



Photo courtesy of NYSDEC, Karen Williamson.

Doing the Best Job of Stormwater Management

A vision of life in a community where stormwater management is working

Public Outreach and Involvement

Citizens understand the harm done by stormwater runoff, what pollutants damage resources and how to prevent pollution. They know how to recognize stormwater-related problems.

Citizens understand their community's stormwater management program. They encourage developers to manage construction sites and post-construction stormwater, and support partnerships among citizens, government and business to help manage stormwater.

It is easy for citizens to obtain and review SWPPPs and annual reports. All economic and ethnic groups can participate in decisions involving stormwater, which receive full legal notice.

The public contributes information about stormwater problems; the municipality follows up on complaints and adds information from the public to its data about local conditions

Citizens hold municipal officials and property owners accountable for ongoing good performance of stormwater management facilities and practices.

Illicit Discharge Detection and Elimination

No harmful substances reach surface waters through storm sewers; dischargers comply with the illegal discharge elimination plan and statutory prohibition. Maps showing discharge points to the storm sewer system are publicly available.

Construction/Post-Construction Runoff Control

Under a stormwater management local law, erosion and sediment controls are functioning during every regulated construction project. Environmentally sound land use practices minimize stormwater runoff.

Effective control of runoff from construction sites is accomplished through SWPPPS prepared by construction site operators and reviewed during local permitting. Inspections ensure that erosion and sediment controls are in place and functioning during and, where necessary, after construction.

Construction site operators routinely implement stormwater plans. Architects, engineers and designers follow state technical standards for stormwater control measures. Permanent controls remain on the site as needed after construction.

Pollution Prevention/Good Housekeeping

Activities like road construction and maintenance do not contribute polluted stormwater or excess runoff. The municipality or public institution maintains its own stormwater management facilities/practices, improving stormwater systems when the opportunity arises.

Municipal and institutional employees use good housekeeping and pollution prevention. Training, plus good housekeeping standards in project plans and employee evaluations, keep stormwater at the forefront of awareness.

Environmentally friendly road construction, plus restoration/protection of stream buffers and wetlands, make management of stormwater runoff easier, and provide models of best management practices for developers to follow.

Program Management

Resource assessment provides continually-updated information for stormwater management, and local planning takes stormwater runoff into account.

Stormwater program management is characterized by efficient integration and coordination within municipal government and by intermunicipal watershed management and program cooperation.

Appendices

Appendix 1 - Sample Stormwater Management Local Law

Appendix 2 - Land Use Planning and Stormwater Management

Appendix 3 - Local Law for Utilization of the Beecher Creek
Detention Facility, Town of Elmira

Appendix 4 - Stormwater Management Resources

Appendix 5 - Glossary of Stormwater Management Terms

Sample Local Law for Stormwater Management and Erosion & Sediment Control

A local law to amend the (**Zoning Law/Subdivision Law/Site Plan Review Law/Erosion and Sediment Control Law**) of the ((**City/Town/Village**) of _____), Local law Number _____ of the Year _____.

☞Article 1 and Article 2 must be adopted for proper implementation. The municipality and its legal counsel, after reviewing their local codes and this model language, should pick additional provisions from Articles 3, 4, 5 and 6 to ensure review and enforcement of stormwater pollution prevention plans at the local level.

Be it enacted by the (**City Council/Town Board/Village Board of Trustees**) of the ((**City/Town/Village**) of _____) as follows:

Article 1. General Provisions

Section 1. Findings of Fact

It is hereby determined that:

- 1.1 Land development activities and associated increases in site impervious cover often alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, stream channel erosion, or sediment transport and deposition;
- 1.2 This stormwater runoff contributes to increased quantities of water-borne pollutants, including siltation of aquatic habitat for fish and other desirable species;
- 1.3 Clearing and grading during construction tends to increase soil erosion and add to the loss of native vegetation necessary for terrestrial and aquatic habitat;
- 1.4 Improper design and construction of stormwater management practices can increase the velocity of stormwater runoff thereby increasing stream bank erosion and sedimentation;
- 1.5 Impervious surfaces allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream baseflow;
- 1.6 Substantial economic losses can result from these adverse impacts on the waters of the municipality;
- 1.7 Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from land development activities;
- 1.8 The regulation of stormwater runoff discharges from land development activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will minimize threats to public health and safety.
- 1.9 Regulation of land development activities by means of performance standards governing stormwater management and site design will produce development compatible with the natural functions of a particular site or an entire watershed and thereby mitigate the adverse effects of erosion and sedimentation from development.

Sample Local Law for Stormwater Management and Erosion & Sediment Control

Introduction

This model local law is intended to be a guidance tool for communities that are subject to the Municipal Separate Storm Sewer System (MS4) Phase II stormwater management requirements of the National Pollutant Discharge Elimination System (NPDES) regulations, administered by New York State through the State Pollutant Discharge Elimination System (SPDES) regulations. The goal of providing this model law is to assist communities in amending existing laws and ordinances and/or adopting new provisions of local law to meet the new federal and state guidelines for stormwater control. In designing a model stormwater law for a New York State audience, we include suggestions for standard language and concepts that we believe a good stormwater management program should contain. This local law should not be construed as an exhaustive listing of all the language needed for a local law, but represents a good base that communities can build upon and customize to be consistent with the local conditions and staff resources available in their municipality.

Throughout the local law, there are sections in which you must insert the name of your municipality and the agency that you have given regulatory power over stormwater management issues. These sections are denoted by **bold** text placed in brackets. By using this document and customizing these sections, you can create a viable local law with minimal editing. Municipalities should work with their municipal attorney throughout the process.

Italicized text with this symbol ☞ should be interpreted as comments, instructions, or information to assist the local law writer. This text *should not appear* in your final local law.

Local Law Contents

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Section 2. Purpose

The purpose of this local law is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction and to address the findings of fact in Section 1 hereof. This local law seeks to meet those purposes by achieving the following objectives:

- 2.1 Meet the requirements of minimum measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit no. GP-02-02 or as amended or revised;
- 2.2 Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities GP-02-01 or as amended or revised;
- 2.3 Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels;
- 2.4 Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality;
- 2.5 Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and
- 2.6 Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.

☞ *The above list is a general set of objectives to reduce the impact of stormwater on receiving waters. Section 2.1 applies to regulated MS4s; a municipality not currently under this program may wish to leave this objective out, although the community may become regulated in the future. The advantage to adopting a local law for all municipalities is that the local government then has control over review and approval of Stormwater Pollution Prevention Plans (SWPPPs) during subdivision and site plan review. The local government may also wish to set some more specific objectives, based on priority water quality (refer to New York State 303 (d) list of priority waters at www.dec.state.ny.us/website/dow/303dcalm.html) and habitat problems (e.g., to reduce phosphorus loads being delivered to recreational lakes, to sustain a Class TS trout fishery).*

Section 3. Statutory Authority

In accordance with Article 10 of the Municipal Home Rule Law of the State of New York, the **(City Council/Town Board/Village Board of Trustees of _____)** has the authority to enact local laws and amend local laws and for the purpose of promoting the health, safety or general welfare of the **((City/Town/Village) of _____)** and for the protection and enhancement of its physical environment. The **(City Council/Town Board/Village Board of Trustees of _____)** may include in any such local law provisions for the appointment of any municipal officer, employees, or independent contractor to effectuate, administer and enforce such local law.

Section 4. Applicability

- 4.1 This local law shall be applicable to all land development activities as defined in this local law, Article 2, Section 1.
- 4.2 The municipality shall designate a Stormwater Management Officer who shall accept and review all

stormwater pollution prevention plans and forward such plans to the applicable municipal board. The Stormwater Management Officer may (1) review the plans, (2) upon approval by the ((City Council/Town Board/Village Board of Trustees) of the (Town/Village/City) of _____), engage the services of a registered professional engineer to review the plans, specifications and related documents at a cost not to exceed a fee schedule established by said governing board, or (3) accept the certification of a licensed professional that the plans conform to the requirements of this law.

- 4.3 All land development activities subject to review and approval by the **(applicable board of the (City/Town Village) of _____)** under **(subdivision, site plan, and/or special permit)** regulations shall be reviewed subject to the standards contained in this local law
- 4.4 All land development activities not subject to review as stated in section 4.3 shall be required to submit a Stormwater Pollution Prevention Plan (SWPPP) to the Stormwater Management Officer who shall approve the SWPPP if it complies with the requirements of this law.

Section 5. Exemptions

The following activities may be exempt from review under this law.

☞ *The municipality may elect to include some or all of the exemptions in Section 5.*

- 5.1 Agricultural activity as defined in this local law.
- 5.2 Silvicultural activity except that landing areas and log haul roads are subject to this law.
- 5.3 Routine maintenance activities that disturb less than five acres and are performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility.
- 5.4 Repairs to any stormwater management practice or facility deemed necessary by the Stormwater Management Officer.
- 5.5 Any part of a subdivision if a plat for the subdivision has been approved by the **((City/Town/Village) of _____)** on or before the effective date of this law.
- 5.6 Land development activities for which a building permit has been approved on or before the effective date of this law.
- 5.7 Cemetery graves.
- 5.8 Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles.
- 5.9 Emergency activity immediately necessary to protect life, property or natural resources.
- 5.10 Activities of an individual engaging in home gardening by growing flowers, vegetable and other plants primarily for use by that person and his or her family.
- 5.11 Landscaping and horticultural activities in connection with an existing structure.

Article 2. Zoning Law Amendment: Stormwater Control

☞ *Municipalities that do not have zoning should add the language in Article 2 to Article 3 (Subdivision Regulation Amendment) or Article 4 (Site Plan Review Law Amendment) as applicable for their municipality.*

The Zoning Law is hereby amended to include Article ____, a new supplemental regulation titled Stormwater Control.

Section 1. Definitions

The terms used in this local law or in documents prepared or reviewed under this local law shall have the meaning as set forth in this section.

☞ Definitions should be incorporated into the appropriate section of the municipality's zoning law which contains definitions.

Agricultural Activity - the activity of an active farm including grazing and watering livestock, irrigating crops, harvesting crops, using land for growing agricultural products, and cutting timber for sale, but shall not include the operation of a dude ranch or similar operation, or the construction of new structures associated with agricultural activities.

Applicant - a property owner or agent of a property owner who has filed an application for a land development activity.

Building - any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

Channel - a natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

Clearing - any activity that removes the vegetative surface cover.

Dedication - the deliberate appropriation of property by its owner for general public use.

Department - the New York State Department of Environmental Conservation

Design Manual - the *New York State Stormwater Management Design Manual*, most recent version including applicable updates, that serves as the official guide for stormwater management principles, methods and practices.

Developer - a person who undertakes land development activities.

Erosion Control Manual - the most recent version of the "New York Standards and Specifications for Erosion and Sediment Control" manual, commonly known as the "Blue Book".

Grading - excavation or fill of material, including the resulting conditions thereof.

Impervious Cover - those surfaces, improvements and structures that cannot effectively infiltrate rainfall, snow melt and water (e.g., building rooftops, pavement, sidewalks, driveways, etc).

Industrial Stormwater Permit - a State Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

Infiltration - the process of percolating stormwater into the subsoil.

Jurisdictional Wetland - an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.

Land Development Activity - construction activity including clearing, grading, excavating, soil disturbance or placement of fill that results in land disturbance of equal to or greater than one acre (*see Note*), or activities disturbing less than one acre of total land area that is part of a larger common plan of development or sale, even though multiple separate and distinct land development activities may take place at different times on different schedules.

☞ A community should review their local site plan, subdivision, zoning and erosion & sediment control laws and ordinances to see if there are minimum land disturbance requirements already specified in those laws. To meet the SPDES guidelines under GP-02-02, the municipality must require SWPPPs for construction activities that result in land disturbance equal to or greater than one acre, or activities disturbing less than one acre if they are part of a larger common plan of development or sale or in a specified watershed. The municipality may wish to reduce this threshold to a lesser amount of disturbance to conform to local standards which may be stricter than the standards set forth in the state regulations. Many communities regulate land disturbance activities of more than 5000 square feet (1/8 acre), with an exemption if the amount of impervious cover created does not exceed 1000 square feet.

Landowner - the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

Maintenance Agreement - a legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

Nonpoint Source Pollution - pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources.

Phasing - clearing a parcel of land in distinct pieces or parts, with the stabilization of each piece completed before the clearing of the next.

Pollutant of Concern - sediment or a water quality measurement that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the land development activity.

Project - land development activity

Recharge - the replenishment of underground water reserves.

Sediment Control - measures that prevent eroded sediment from leaving the site.

Sensitive Areas - cold water fisheries, shellfish beds, swimming beaches, groundwater recharge areas, water supply reservoirs, habitats for threatened, endangered or special concern species.

SPDES General Permit for Construction Activities GP-02-01 - A permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to developers of construction activities to regulate disturbance of one or more acres of land.

SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems GP-02-02 - A permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to municipalities to regulate discharges from municipal separate storm sewers for compliance with EPA established water quality standards and/or to specify stormwater control standards

Stabilization - the use of practices that prevent exposed soil from eroding.

Stop Work Order - an order issued which requires that all construction activity on a site be stopped.

Stormwater - rainwater, surface runoff, snowmelt and drainage

Stormwater Hotspot - a land use or activity that generates higher concentrations of hydrocarbons, trace metals or toxicants than are found in typical stormwater runoff, based on monitoring studies.

Stormwater Management - the use of structural or non-structural practices that are designed to reduce stormwater runoff and mitigate its adverse impacts on property, natural resources and the environment.

Stormwater Management Facility - one or a series of stormwater management practices installed, stabilized and operating for the purpose of controlling stormwater runoff.

Stormwater Management Officer - an employee or officer designated by the municipality to accept and review stormwater pollution prevention plans, forward the plans to the applicable municipal board and inspect stormwater management practices.

☞The Stormwater Management Officer would likely be the Code Enforcement Officer or his/her staff. A consultant cannot be appointed as Stormwater Management Officer. Plan reviews and site inspections may be delegated to a consultant paid for through the applicant's escrow account, however the final approval must be made by a municipal employee or board member.

Stormwater Management Practices (SMPs) - measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing flood damage and preventing or reducing point source or nonpoint source pollution inputs to stormwater runoff and water bodies.

Stormwater Pollution Prevention Plan (SWPPP) - a plan for controlling stormwater runoff and pollutants from a site during and after construction activities.

Stormwater Runoff - flow on the surface of the ground, resulting from precipitation

Surface Waters of the State of New York - lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Storm sewers and waste treatment systems, including treatment ponds or lagoons which also meet the criteria of this definition are not waters of the state. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the state (such as a disposal area in wetlands) nor resulted from impoundment of waters of the state.

Watercourse - a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

Waterway - a channel that directs surface runoff to a watercourse or to the public storm drain.

Section 2. Stormwater Pollution Prevention Plans

2.1. Stormwater Pollution Prevention Plan Requirement

No application for approval of a land development activity shall be reviewed until the appropriate board has received a Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with the specifications in this local law.

2.2 Contents of Stormwater Pollution Prevention Plans

- 2.2.1 All SWPPPs shall provide the following background information and erosion and sediment controls:
1. Background information about the scope of the project, including location, type and size of project.
 2. Site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map should show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharges(s);
↻ Site map should be at a scale no smaller than 1"=100' (e.g. 1"=500" is smaller than 1"=100")
 3. Description of the soil(s) present at the site;
 4. Construction phasing plan describing the intended sequence of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance. Consistent with the New York Standards and Specifications for Erosion and Sediment Control (Erosion Control Manual), not more than five (5) acres shall be disturbed at any one time unless pursuant to an approved SWPPP.
↻ A municipality may choose to reduce the amount of land that may be exposed at any one time.
 5. Description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in stormwater runoff;
 6. Description of construction and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response;
 7. Temporary and permanent structural and vegetative measures to be used for soil stabilization, runoff control and sediment control for each stage of the project from initial land clearing and grubbing to project close-out;
 8. A site map/construction drawing(s) specifying the location(s), size(s) and length(s) of each erosion and sediment control practice;
 9. Dimensions, material specifications and installation details for all erosion and sediment control practices, including the siting and sizing of any temporary sediment basins;
 10. Temporary practices that will be converted to permanent control measures;
 11. Implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and duration that each practice should remain in place;
 12. Maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practice;
 13. Name(s) of the receiving water(s);
 14. Delineation of SWPPP implementation responsibilities for each part of the site;

15. Description of structural practices designed to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable; and

16. Any existing data that describes the stormwater runoff at the site.

2.2.2 Land development activities as defined in Section 1 of this Article and meeting Condition “A”, “B” or “C” below shall also include water quantity and water quality controls (post-construction stormwater runoff controls) as set forth in Section 2.2.3 below as applicable:

Condition A - Stormwater runoff from land development activities discharging a pollutant of concern to either an impaired water identified on the Department’s 303(d) list of impaired waters or a Total Maximum Daily Load (TMDL) designated watershed for which pollutants in stormwater have been identified as a source of the impairment.

Condition B - Stormwater runoff from land development activities disturbing five (5) or more acres.

Condition C - Stormwater runoff from land development activity disturbing between one (1) and five (5) acres of land during the course of the project, exclusive of the construction of single family residences and construction activities at agricultural properties.

2.2.3 SWPPP Requirements for Condition A, B and C:

1. All information in Section 2.2 .1 of this local law
2. Description of each post-construction stormwater management practice;
3. Site map/construction drawing(s) showing the specific location(s) and size(s) of each post-construction stormwater management practice;
4. Hydrologic and hydraulic analysis for all structural components of the stormwater management system for the applicable design storms
5. Comparison of post-development stormwater runoff conditions with pre-development conditions
6. Dimensions, material specifications and installation details for each post-construction stormwater management practice;
7. Maintenance schedule to ensure continuous and effective operation of each post-construction stormwater management practice.
8. Maintenance easements to ensure access to all stormwater management practices at the site for the purpose of inspection and repair. Easements shall be recorded on the plan and shall remain in effect with transfer of title to the property.
9. Inspection and maintenance agreement binding on all subsequent landowners served by the on-site stormwater management measures in accordance with Article 2, Section 4 of this local law.

2.3 Plan Certification

The SWPPP shall be prepared by a landscape architect, certified professional or professional engineer and must be signed by the professional preparing the plan, who shall certify that the design of all stormwater management practices meet the requirements in this local law.

2.4 Other Environmental Permits

The applicant shall assure that all other applicable environmental permits have been or will be acquired for the land development activity prior to approval of the final stormwater design plan.

2.5 Contractor Certification

- 2.5.1 Each contractor and subcontractor identified in the SWPPP who will be involved in soil disturbance and/or stormwater management practice installation shall sign and date a copy of the following certification statement before undertaking any land development activity : “I certify under penalty of law that I understand and agree to comply with the terms and conditions of the Stormwater Pollution Prevention Plan. I also understand that it is unlawful for any person to cause or contribute to a violation of water quality standards.”
 - 2.5.2 The certification must include the name and title of the person providing the signature, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.
 - 2.5.3 The certification statement(s) shall become part of the SWPPP for the land development activity.
- 2.6 A copy of the SWPPP shall be retained at the site of the land development activity during construction from the date of initiation of construction activities to the date of final stabilization.

Section 3. Performance and Design Criteria for Stormwater Management and Erosion and Sediment Control

All land development activities shall be subject to the following performance and design criteria:

3.1 Technical Standards

For the purpose of this local law, the following documents shall serve as the official guides and specifications for stormwater management. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this law:

- 3.1.1 The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation, most current version or its successor, hereafter referred to as the Design Manual)
- 3.1.2 New York Standards and Specifications for Erosion and Sediment Control, (Empire State Chapter of the Soil and Water Conservation Society, 2004, most current version or its successor, hereafter referred to as the Erosion Control Manual).

3.2 Water Quality Standards

- 3.2.1 Any land development activity shall not cause an increase in turbidity that will result in substantial visible contrast to natural conditions in surface waters of the state of New York.
☞ *The New York State technical guidance documents may be ordered from The Department. An order form as well as downloadable versions of the Manuals are available on the Internet at: <http://www.dec.state.ny.us/website/dow/toolbox/escstandards/index.html>*

Section 4. Maintenance and Repair of Stormwater Facilities

4.1 Maintenance During Construction

- 4.1.1 The applicant or developer of the land development activity shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the applicant or developer to achieve compliance with the conditions of this local law. Sediment shall be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by fifty (50) percent.
- 4.1.2 The applicant or developer or their representative shall be on site at all times when construction or

grading activity takes place and shall inspect and document the effectiveness of all erosion and sediment control practices. Inspection reports shall be completed every 7 days and within 24 hours of any storm event producing 0.5 inches of precipitation or more. The reports shall be delivered to the Stormwater Management Officer and also copied to the site log book.

4.2 Maintenance Easement(s)

Prior to the issuance of any approval that has a stormwater management facility as one of the requirements, the applicant or developer must execute a maintenance easement agreement that shall be binding on all subsequent landowners served by the stormwater management facility. The easement shall provide for access to the facility at reasonable times for periodic inspection by the ((City/Town/Village) of _____) to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this local law. The easement shall be recorded by the grantor in the office of the County Clerk after approval by the counsel for the ((City/Town/Village) of _____).

4.3 Maintenance after Construction

The owner or operator of permanent stormwater management practices installed in accordance with this law shall be operated and maintained to achieve the goals of this law. Proper operation and maintenance also includes as a minimum, the following:

- 4.3.1 A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the owner or operator to achieve the goals of this law.
- 4.3.2 Written procedures for operation and maintenance and training new maintenance personnel.
- 4.3.3 Discharges from the SMPs shall not exceed design criteria or cause or contribute to water quality standard violations in accordance with Article 2, section 3.2.

4.4 Maintenance Agreements

The ((City/Town/Village) of _____) shall approve a formal maintenance agreement for stormwater management facilities binding on all subsequent landowners and recorded in the office of the County Clerk as a deed restriction on the property prior to final plan approval. The maintenance agreement shall be consistent with the terms and conditions of Schedule B of this local law entitled Sample Stormwater Control Facility Maintenance Agreement. The ((City/Town/Village) of _____), in lieu of a maintenance agreement, at its sole discretion may accept dedication of any existing or future stormwater management facility, provided such facility meets all the requirements of this local law and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

Section 5. Severability and Effective Date

5.1 Severability

If the provisions of any article, section, subsection, paragraph, subdivision or clause of this local law shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this local law.

5.2 Effective Date

This Local Law shall be effective upon filing with the office of the Secretary of State.
Approved by: _____ Date _____

Article 3. Subdivision Regulation Amendment

Sections ___ and ___ of the Subdivision Regulations of the ((City/Town/Village) of _____) are hereby amended by adding the following to the information requirements:

A. For Preliminary Subdivision Plat add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan (SWPPP) consistent with the requirements of Article 1 and 2 of this local law shall be required for Preliminary Subdivision Plat approval. The SWPPP shall meet the performance and design criteria and standards in Article 2 of this local law. The approved Preliminary Subdivision Plat shall be consistent with the provisions of this local law.

B. For Final Subdivision Plat approval add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan consistent with the requirements of Article 1 and 2 of this local law and with the terms of preliminary plan approval shall be required for Final Subdivision Plat approval. The SWPPP shall meet the performance and design criteria and standards in Article 2 of this local law. The approved Final Subdivision Plat shall be consistent with the provisions of this local law.

➤ *If the municipality has only one requirement for a final plan (no preliminary) then use Paragraph A language only.*

Article 4. Site Plan Review Regulation Amendment

Sections ___ and ___ of the Site Plan Review regulations of the ((City/Town/Village) of _____) are hereby amended by adding the following to the information requirements:

For Site Plan Approval add: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan consistent with the requirements of Article 1 and 2 of this local law shall be required for Site Plan Approval. The SWPPP shall meet the performance and design criteria and standards in Article 2 of this local law. The approved Site Plan shall be consistent with the provisions of this local law.

Article 5. Erosion & Sediment Control Law Amendment

The Erosion & Sediment Control Law of the ((City/Town/Village) of _____) is hereby repealed and replaced with the New York State Model Erosion and Sediment Control Ordinance, March 2003.

➤ *The New York State Model Erosion and Sediment Control Law should be tailored to the municipality by inserting municipality name where appropriate and removing comment lines.*

OR

Section _____ of the Erosion & Sediment Control Law of the ((City/Town/Village) of _____) is hereby amended by adding the following clause: Stormwater Pollution Prevention Plan: A Stormwater Pollution Prevention Plan consistent with the requirements of Article 1 and 2 of this local law shall be required. The SWPPP shall meet the performance and design criteria and standards in Article 2 of this local law. The approved erosion control permit shall be consistent with the provisions of this local law.

➤ *For both options in Article 5, the municipality must also adopt Articles 1, 2, 3 and 4 (as applicable for their municipality) in order to address post-construction stormwater runoff control in stormwater pollution prevention plans.*

Article 6. Administration and Enforcement

∴The following provisions for construction inspection, performance guarantees and bonds, and enforcement are important to include in a stormwater control program, but may already exist in local law. Therefore the municipality and its counsel should review their existing provisions for these activities, compare them with the following provisions, and consider whether revisions or amendments are necessary to achieve the purposes of this local law.

Section 1. Construction Inspection

1.1 Erosion and Sediment Control Inspection

The ((City/Town/Village) of _____) Stormwater Management Officer may require such inspections as necessary to determine compliance with this law and may either approve that portion of the work completed or notify the applicant wherein the work fails to comply with the requirements of this law and the stormwater pollution prevention plan (SWPPP) as approved. To obtain inspections, the applicant shall notify the ((City/Town/Village) of _____) enforcement official at least 48 hours before any of the following as required by the Stormwater Management Officer:

- 1.1.1 Start of construction
- 1.1.2 Installation of sediment and erosion control measures
- 1.1.3 Completion of site clearing
- 1.1.4 Completion of rough grading
- 1.1.5 Completion of final grading
- 1.1.6 Close of the construction season
- 1.1.7 Completion of final landscaping
- 1.1.8 Successful establishment of landscaping in public areas.

If any violations are found, the applicant and developer shall be notified in writing of the nature of the violation and the required corrective actions. No further work shall be conducted except for site stabilization until any violations are corrected and all work previously completed has received approval by the Stormwater Management Officer.

1.2 Stormwater Management Practice Inspections

The ((City/Town/Village) of _____) Stormwater Management Officer, is responsible for conducting inspections of stormwater management practices (SMPs). All applicants are required to submit “as built” plans for any stormwater management practices located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a professional engineer.

1.3 Inspection of Stormwater Facilities After Project Completion

Inspection programs shall be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the SPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other stormwater management practices.

∴Inspections may be performed by local government staff or the local government may designate an inspector required to have a Professional Engineer’s (PE) license or Certified Professional in Erosion and Sediment Control (CPESC) certificate, as long as the designated inspector is required to submit a report.

1.4 Submission of Reports

The ((City/Town/Village) of _____) Stormwater Management Officer may require monitoring and reporting from entities subject to this law as are necessary to determine compliance with this law.

1.5 Right-of-Entry for Inspection

When any new stormwater management facility is installed on private property or when any new connection is made between private property and the public storm water system, the landowner shall grant to the ((City/Town/Village) of _____) the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection as specified in paragraph 1.3.

Section 2. Performance Guarantee

2.1 Construction Completion Guarantee

In order to ensure the full and faithful completion of all land development activities related to compliance with all conditions set forth by the ((City/Town/Village) of _____) in its approval of the Stormwater Pollution Prevention Plan, the ((City/Town/Village) of _____) may require the applicant or developer to provide, prior to construction, a performance bond, cash escrow, or irrevocable letter of credit from an appropriate financial or surety institution which guarantees satisfactory completion of the project and names the ((City/Town/Village) of _____) as the beneficiary. The security shall be in an amount to be determined by the ((City/Town/Village) of _____) based on submission of final design plans, with reference to actual construction and landscaping costs. The performance guarantee shall remain in force until the surety is released from liability by the ((City/Town/Village) of _____), provided that such period shall not be less than one year from the date of final acceptance or such other certification that the facility(ies) have been constructed in accordance with the approved plans and specifications and that a one year inspection has been conducted and the facilities have been found to be acceptable to the ((City/Town/Village) of _____). Per annum interest on cash escrow deposits shall be reinvested in the account until the surety is released from liability.

2.2 Maintenance Guarantee

Where stormwater management and erosion and sediment control facilities are to be operated and maintained by the developer or by a corporation that owns or manages a commercial or industrial facility, the developer, prior to construction, may be required to provide the ((City/Town/Village) of _____) with an irrevocable letter of credit from an approved financial institution or surety to ensure proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction, and until the facilities are removed from operation. If the developer or landowner fails to properly operate and maintain stormwater management and erosion and sediment control facilities, the ((City/Town/Village) of _____) may draw upon the account to cover the costs of proper operation and maintenance, including engineering and inspection costs.

2.3 Record keeping

The ((City/Town/Village) of _____) may require entities subject to this law to maintain records demonstrating compliance with this law.

Section 3. Enforcement and Penalties

3.1 Notice of Violation.

When the ((City/Town/Village) of _____) determines that a land development activity is not being carried out in accordance with the requirements of this local law, it may issue a written notice of violation to the landowner. The notice of violation shall contain :

- 3.1.1 the name and address of the landowner, developer or applicant;

- 3.1.2 the address when available or a description of the building, structure or land upon which the violation is occurring;
- 3.1.3 a statement specifying the nature of the violation;
- 3.1.4 a description of the remedial measures necessary to bring the land development activity into compliance with this local law and a time schedule for the completion of such remedial action;
- 3.1.5 a statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed;
- 3.1.6 a statement that the determination of violation may be appealed to the municipality by filing a written notice of appeal within fifteen (15) days of service of notice of violation.

3.2 Stop Work Orders

The ((City/Town/Village) of _____) may issue a stop work order for violations of this law. Persons receiving a stop work order shall be required to halt all land development activities, except those activities that address the violations leading to the stop work order. The stop work order shall be in effect until the ((City/Town/Village) of _____) confirms that the land development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a stop work order in a timely manner may result in civil, criminal, or monetary penalties in accordance with the enforcement measures authorized in this local law.

3.3 Violations

Any land development activity that is commenced or is conducted contrary to this local law, may be restrained by injunction or otherwise abated in a manner provided by law.

3.4 Penalties

In addition to or as an alternative to any penalty provided herein or by law, any person who violates the provisions of this local law shall be guilty of a violation punishable by a fine not exceeding three hundred fifty dollars (\$350) or imprisonment for a period not to exceed six months, or both for conviction of a first offense; for conviction of a second offense both of which were committed within a period of five years, punishable by a fine not less than three hundred fifty dollars nor more than seven hundred dollars (\$700) or imprisonment for a period not to exceed six months, or both; and upon conviction for a third or subsequent offense all of which were committed within a period of five years, punishable by a fine not less than seven hundred dollars nor more than one thousand dollars (\$1000) or imprisonment for a period not to exceed six months, or both. However, for the purposes of conferring jurisdiction upon courts and judicial officers generally, violations of this local law shall be deemed misdemeanors and for such purpose only all provisions of law relating to misdemeanors shall apply to such violations. Each week's continued violation shall constitute a separate additional violation.

3.5 Withholding of Certificate of Occupancy

If any building or land development activity is installed or conducted in violation of this local law the Stormwater Management Officer may prevent the occupancy of said building or land.

3.6 Restoration of lands

Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the ((City/Town/Village) of _____) may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

Section 4. Fees for Services

The ((City/Town/Village) of _____) may require any person undertaking land development activities regulated by this law to pay reasonable costs at prevailing rates for review of SWPPPs, inspections, or SMP maintenance performed by the ((City/Town/Village) of _____) or performed by a third party for the ((City/Town/Village) of _____) .

Schedule A

Stormwater Management Practices Acceptable for Water Quality <i>(From: New York State Stormwater Management Design Manual, Table 5.1)</i>		
Group	Practice	Description
Pond	Micropool Extended Detention Pond (P-1)	Pond that treats the majority of the water quality volume through extended detention, and incorporates a micropool at the outlet of the pond to prevent sediment resuspension.
	Wet Pond (P-2)	Pond that provides storage for the entire water quality volume in the permanent pool.
	Wet Extended Detention Pond (P-3)	Pond that treats a portion of the water quality volume by detaining storm flows above a permanent pool for a specified minimum detention time.
	Multiple Pond System (P-4)	A group of ponds that collectively treat the water quality volume.
	Pocket Pond (P-5)	A stormwater wetland design adapted for the treatment of runoff from small drainage areas that has little or no baseflow available to maintain water elevations and relies on groundwater to maintain a permanent pool.
Wetland	Shallow Wetland (W-1)	A wetland that provides water quality treatment entirely in a shallow marsh.
	Extended Detention Wetland (W-2)	A wetland system that provides some fraction of the water quality volume by detaining storm flows above the marsh surface.
	Pond/Wetland System (W-3)	A wetland system that provides a portion of the water quality volume in the permanent pool of a wet pond that precedes the marsh for a specified minimum detention time.
	Pocket Wetland (W-4)	A shallow wetland design adapted for the treatment of runoff from small drainage areas that has variable water levels and relies on groundwater for its permanent pool.
Infiltration	Infiltration Trench (I-1)	An infiltration practice that stores the water quality volume in the void spaces of a gravel trench before it is infiltrated into the ground.
	Infiltration Basin (I-2)	An infiltration practice that stores the water quality volume in a shallow depression before it is infiltrated into the ground.
	Dry Well (I-3)	An infiltration practice similar in design to the infiltration trench, and best suited for treatment of rooftop runoff.
Filtering Practices	Surface Sand Filter (F-1)	A filtering practice that treats stormwater by settling out larger particles in a sediment chamber, and then filtering stormwater through a sand matrix.
	Underground Sand Filter (F-2)	A filtering practice that treats stormwater as it flows through underground settling and filtering chambers.
	Perimeter Sand Filter (F-3)	A filter that incorporates a sediment chamber and filter bed as parallel vaults adjacent to a parking lot.
	Organic Filter (F-4)	A filtering practice that uses an organic medium such as compost in the filter in place of sand.
	Bioretention (F-5)	A shallow depression that treats stormwater as it flows through a soil matrix, and is returned to the storm drain system.
Open Channels	Dry Swale (O-1)	An open drainage channel or depression explicitly designed to detain and promote the filtration of stormwater runoff into the soil media.
	Wet Swale (O-2)	An open drainage channel or depression designed to retain water or intercept groundwater for water quality treatment.

Schedule B

**SAMPLE STORMWATER CONTROL FACILITY
MAINTENANCE AGREEMENT**

Whereas, the Municipality of _____ ("Municipality") and the _____ ("facility owner") want to enter into an agreement to provide for the long term maintenance and continuation of stormwater control measures approved by the Municipality for the below named project, and

Whereas, the Municipality and the facility owner desire that the stormwater control measures be built in accordance with the approved project plans and thereafter be maintained, cleaned, repaired, replaced and continued in perpetuity in order to ensure optimum performance of the components. Therefore, the Municipality and the facility owner agree as follows:

1. This agreement binds the Municipality and the facility owner, its successors and assigns, to the maintenance provisions depicted in the approved project plans which are attached as Schedule A of this agreement.
2. The facility owner shall maintain, clean, repair, replace and continue the stormwater control measures depicted in Schedule A as necessary to ensure optimum performance of the measures to design specifications. The stormwater control measures shall include, but shall not be limited to, the following: drainage ditches, swales, dry wells, infiltrators, drop inlets, pipes, culverts, soil absorption devices and retention ponds.
3. The facility owner shall be responsible for all expenses related to the maintenance of the stormwater control measures and shall establish a means for the collection and distribution of expenses among parties for any commonly owned facilities.
4. The facility owner shall provide for the periodic inspection of the stormwater control measures, not less than once in every five year period, to determine the condition and integrity of the measures. Such inspection shall be performed by a Professional Engineer licensed by the State of New York. The inspecting engineer shall prepare and submit to the Municipality within 30 days of the inspection, a written report of the findings including recommendations for those actions necessary for the continuation of the stormwater control measures.
5. The facility owner shall not authorize, undertake or permit alteration, abandonment, modification or discontinuation of the stormwater control measures except in accordance with written approval of the Municipality.
6. The facility owner shall undertake necessary repairs and replacement of the stormwater control measures at the direction of the Municipality or in accordance with the recommendations of the inspecting engineer.
7. The facility owner shall provide to the Municipality within 30 days of the date of this agreement, a security for the maintenance and continuation of the stormwater control measures in the form of (a Bond, letter of credit or escrow account).
8. This agreement shall be recorded in the Office of the County Clerk, County of _____ together with the deed for the common property and shall be included in the offering plan and/or prospectus approved pursuant to _____.
9. If ever the Municipality determines that the facility owner has failed to construct or maintain the stormwater control measures in accordance with the project plan or has failed to undertake corrective action specified by the Municipality or by the inspecting engineer, the Municipality is authorized to undertake such steps as reasonably necessary for the preservation, continuation or maintenance of the stormwater control measures and to affix the expenses thereof as a lien against the property.
10. This agreement is effective _____ .

From: Lake George Park Commission Model Stormwater Management Ordinance, Schedule E

Land Use Planning and Stormwater Management

Comprehensive Planning

The Comprehensive Plan serves three key functions:

- **Expression of a community's desires:** Concerned with values and methods.
- **Guide to Decision-makers:** Implementation strategies adopted based on the plan's recommendations.
- **Legal Document:** Provides evidence of coordinated effort and rationale for adoption of specified actions.

Steps in Comprehensive Planning

There are five primary steps or phases in the comprehensive planning process:

1. **Research** - Includes study and analysis; issue identification; assessment of existing characteristics/present state of events and probable future trends/directions; analysis of environmental and economic constraints/potential problems.
2. **Community Goals and Objectives** - Determine the municipality's basic goals, or the balances the community wants/needs to achieve; base goals on values and statutory requirements. Planning goals should not be contradictory and should have a reasonable chance of actually coming to pass.
3. **Plan/Policy Preparation and Formulation** - Assess the options available to achieve defined goals and objectives and consider their respective costs and merits. Assess direct and indirect costs, risks/benefits associated with different options.
4. **Plan Implementation** - Identify the tools available to carry out the plans, including: zoning ordinances; land subdivision regulations; capital improvements programs, and general guidelines for private development and public investment. Within each of these general options, there are a range of tools in the toolbox for the community's consideration and adoption.
5. **Review and Updating** - Conduct a periodic review of problems and progress, which includes evaluation to determine if goals are realistic, if the pattern of development is occurring as anticipated, whether unforeseen occurrences are taking shape. Goals may change as realities both inside and outside the municipality change. Planning activity and responsibility is dynamic and ongoing and not static.

It is important to understand that planning is not just a series of orderly steps; rather, it is constantly interwoven into a continuous process that requires oversight and management.

Citizen Education and Involvement

An important component of the planning process is to educate and involve citizens in identifying the challenges the community faces and the resources available to achieve the desired goals and objectives. Citizen participation and input should occur throughout each phase of the planning process. The data collected should be communicated to the stakeholders and their ideas considered.

The process of setting goals and objectives should be an open one that includes citizens and groups who have a stake in the outcome. Stakeholders should also be included in the assessment of options and in evaluating the types of regulations and other actions the locality plans to initiate. This involvement secures community support and avoids future litigation.

Planning for Productive Local Reviews. Successful comprehensive plan development requires blend, balance and understanding of the inter-relationships among issues, avoiding specialization and segregation and stressing the interdependence and diversity of issues encountered during the planning process. Review

processes should be “horizontal,” rather than the traditional “vertical” review approach.

An example of the need to balance the diverse viewpoints represented in a typical local government review process is the question of pavement widths to be used in municipal projects. Fire safety officials support wider pavements, while environmental boards may propose reducing the area of impervious surfaces to facilitate stormwater management. Establishing an understanding of these issues and policies during comprehensive planning allows for a coordinated response during the project review phase to determine the best actions. The planning process allows the community to address an issue before it becomes a problem rather than managing a problem that could have been avoided.

How Municipalities Shape Land Use

There are two broad categories of direct actions by which a municipality can shape its land use pattern: public capital investments and land use controls.

Public Capital Investments

Public capital investments, from roads to water and sewer lines to schools, create very powerful economic forces that shape development. Accessibility is an important determinant of land value and the availability of public water and sewer can remove significant environmental constraints and permit a much higher density of development. Unlike land use controls, public investments are not easily altered. A decision to build a roadway or extend water and sewer lines is there to stay for many decades. Public acquisition of land can also be important, because by permanently rendering that land undevelopable, it diverts and channels the flow of development.

Planning is important in helping the community to avoid conflicting goals or implementation strategies. For instance if there is a recommendation to minimize development in a particular part of town, then that policy should not be contradicted by a recommendation that public water and sewer services be extended to that same area.

Land Use Control Measures

Although land use control measures are not quite so powerful at shaping land use as is public investment, they are still extremely important. There are three primary types of regulations: subdivision, zoning and site plan review. Within these general categories, there is a range of other tools available to encourage land development and conservation. The comprehensive plan can be implemented by adopting an appropriate combination of regulatory and non-regulatory land development strategies. By combining these techniques in creative ways, local governments can encourage both land development and resource conservation in conformance to the comprehensive plan.

State law does not require the adoption of a comprehensive plan. However, if a community has an adopted plan, all local land use regulations must be consistent with the community’s comprehensive plan. State statutes do not outline required components of a comprehensive plan; rather, they specify what may be included in a comprehensive plan.

Though public hearings are required prior to the plan’s adoption, the state law does not explain how to undertake the process or whom to engage during the plan’s preparation. The comprehensive plan must be subjected to environmental review, must be consistent with any agricultural district in the community and must be submitted to the county or regional planning board for review and comment. The Plan must also be adopted by the local legislature and upon its adoption, filed in accordance with the law. Where localities have a recently adopted comprehensive plan and conform their regulations to the plan, the regulations are insulated from attack and a successful court challenge¹.

New York is a strong home rule state, which means that each city, town, and village is delegated the responsibility to enact land use regulations. Though authorized, local governments are not required to adopt land use regulations. If a community adopts land use regulations, it may create a planning board and other special boards to serve in an advisory capacity or as a final review authority for specified actions. Planning

boards must be formed if a subdivision law is adopted, but are not required for site plan review. However, if the local legislature adopts a zoning ordinance, it must create a zoning board of appeals to review appeals of administrative opinions and requests for variances. When the zoning board of appeals hears appeals or grants variances, it is acting in a quasi-judicial capacity. Appeals of their decision go directly to the Courts through an Article 78 proceeding and not to the elected legislative body.

Tools for Achieving a Balanced Land Development Pattern

There are three basic types of control measures and any number of tools and techniques that can be adopted to achieve a balanced land development pattern and to protect the natural resources within a community: The three primary regulatory measures are Zoning, Subdivision Review and Site Plan review.

Generally speaking, there are two parts to the zoning ordinance. The first part is the map that divides the community into a number of zones. The second part is the text, which specifies in detail what uses are permitted in each zone, requirements for structural characteristics, site layout requirements and procedural matters. In New York State, all of the cities, 88 percent of the villages, and 69 percent of the towns have adopted zoning laws².

Subdivision regulations control the manner in which land may be converted into building lots. Before building lots can be sold or improvements made, the municipality must approve a plat map of the property that shows, at a minimum, lot lines, streets, and utility easements. Subdivision regulations also stipulate the specification requirements for the improvements to meet community standards. In New York State, 92 percent of the cities, 71 percent of the towns, and 66 percent of the villages have adopted subdivision regulations³.

Site plan review typically applies to developments over a certain size. It provides the community an opportunity to review site characterizes such as internal circulation, adequacy of parking, stormwater management, and buffering from adjacent land uses prior to the issuance of a building permit. Site plan review does not supersede zoning. Rather, it is another layer of review primarily applied to commercial and multi-family development proposals.

Many other measures are available to protect a community's resources and to balance development and conservation. An excellent resource document is the publication entitled *Well Grounded; Using Local Land Use Authority to Achieve Smart Growth* by John Nolon, Professor of Law and Director of the land Use Center at the Pace University School of Law.

Stormwater Management and the Municipal Comprehensive/Master Plan

Amending the Comprehensive Plan to Reflect Stormwater Management

The Comprehensive Plan (also known as the Master Plan) adopted by a municipality is the basis for land use planning in the community. While not required, adoption of a Comprehensive Plan is encouraged in General City Law Section 28-a, Town Law Section 272-a and Village Law Section 7-722. Since New York State law requires that local land use regulations reflect the Comprehensive plan, it is recommended that municipalities that are considering adopting a local law also adopt a short amendment to these plans to reflect the need for stormwater management regulations. If the Comprehensive Plan that is in place already mentions the need to protect the health and welfare of its citizens and natural resources from the impacts of stormwater runoff from development, this would not be necessary.

The following is draft language that localities can use for amending the Comprehensive Plan:

Draft Comprehensive Plan Amendment

Stormwater Management

Proper stormwater practices reduce potential damage to properties due to flooding and erosion and can significantly affect stream quality, wildlife habitat and groundwater recharge. The provisions for stormwater management are contained in the _____ (**Subdivision, Site Plan, Zoning and/or Erosion & Sediment Control**) regulations and were recently updated to emphasize the use of Best Management Practices.

Existing neighborhoods should be examined for stormwater management problems and steps should be taken to rectify any problems. New development should be strictly scrutinized to incorporate well planned stormwater systems to reduce the impacts of runoff and promote groundwater recharge through the most applicable techniques. All proposed developments should be consistent with the recently updated provisions of the _____ (**Subdivision, Site Plan, Zoning and/or Erosion & Sediment Control**) regulations.

(This amendment was adapted from the North Coventry, Pennsylvania Comprehensive Plan Amendment)

Other Tools for Natural Resource Protection

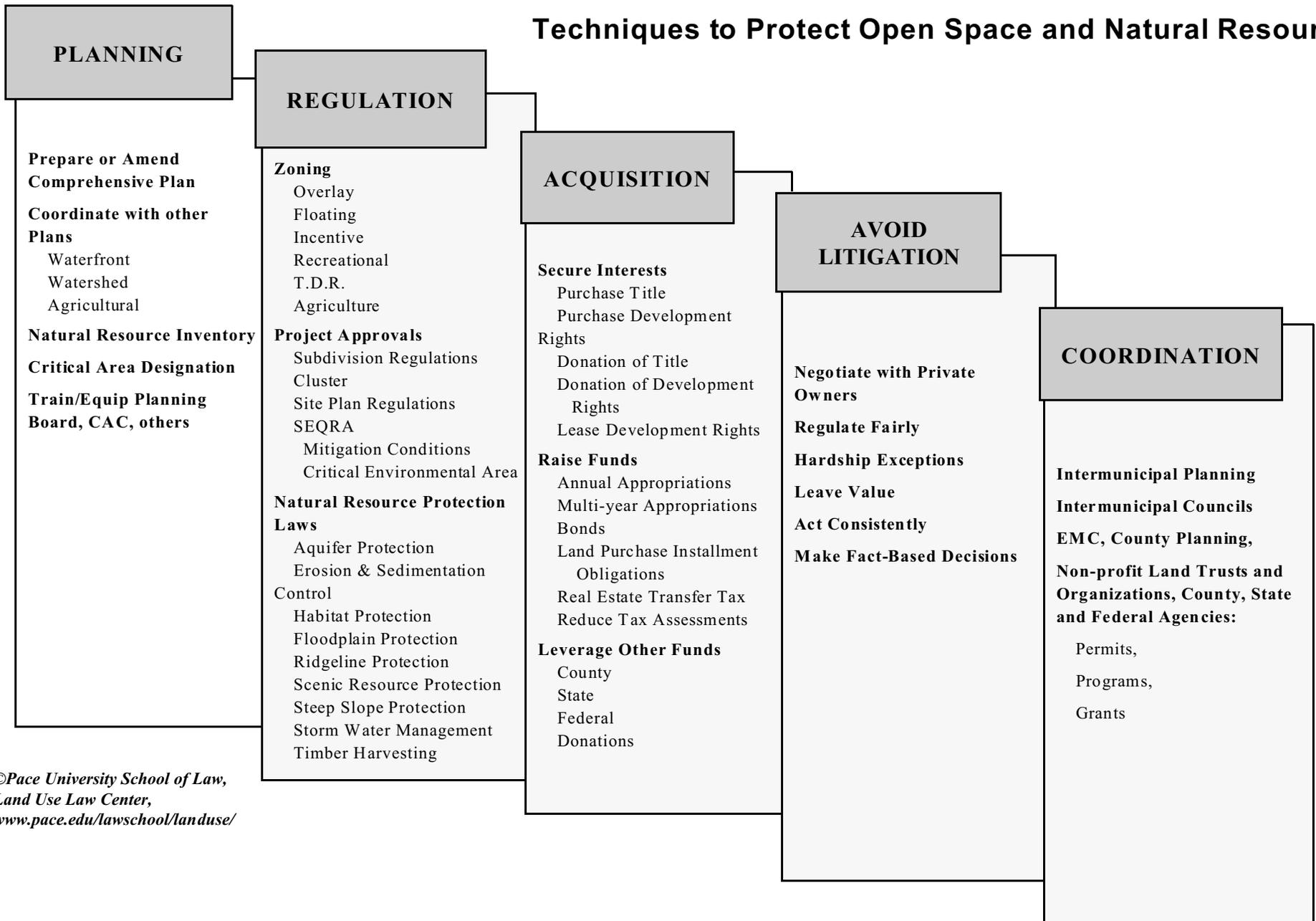
Protecting natural resources is an ongoing task best done by employing as many as possible of the tools available to local governments. The tools listed in the following chart, prepared by Pace University Land Use Law Center, are effective for managing stormwater, as well as for protecting open space.

Footnotes:

1, 2 and 3

Nolan, John R.: *Well Grounded; Using Local Land Use Authority to Achieve Smart Growth*

Techniques to Protect Open Space and Natural Resources



Appendix 3

Local Law for Utilization of Beecher Creek Detention Facility, Town of Elmira

SECTION 1: SHORT TITLE

This Local Law shall be known as the "Local Law for Utilization of the Beecher Creek Detention Facility."

SECTION 2: FINDINGS

The Town of Elmira regulates stormwater runoff from developing areas in order to minimize the adverse effects that may result from changes in the land cover and grade. Policies have been adopted by the Town of Elmira for the expressed purpose of protecting public and private property from damages that may result from flooding, erosion, and water quality impairment. The management of stormwater runoff is the responsibility of the developer, who assumes the cost of implementing all necessary measures at the time of development.

The Town of Elmira has constructed the Beecher Creek Detention Facility on property owned by the Elmira Country Club. This facility was designed to protect existing development located downstream of the project from flood damages. The volume of water that can be contained by the Beecher Creek Detention Facility exceeds the volume necessary to provide downstream protection. This EXCESS CAPACITY can be utilized to detain increased stormwater discharges from upstream development sites.

SECTION 3: STATEMENT OF PURPOSE

The purpose of this Local Law is to provide a mechanism by which developers of property located upstream of the Beecher Creek Detention Facility can utilize the EXCESS CAPACITY of this facility to manage the increased stormwater runoff that results from their development activities. Permission to utilize the Beecher Creek Detention Facility will be granted by the Town of Elmira to developers who pay a UTILIZATION FEE to the Town, as specified in this Local Law. Participating developers will retain responsibility for preparing a stormwater management plan meeting stormwater quality standards, implementing interior drainage, and managing stormwater flow into the Beecher Creek Detention Facility. Developers who chose not to utilize the EXCESS CAPACITY of the Beecher Creek Detention Facility will be responsible for managing stormwater runoff in some other manner, as required by Town of Elmira Zoning Ordinance, Subdivision Regulations, and Local Laws.

The anticipated benefits to upstream developers include: (1) reduced costs for the design of stormwater management systems, (2) reduced costs for construction of stormwater management structures, (3) increased ability to utilize property since space need not be preserved for on-site retention/detention of stormwater, and (4) reduced maintenance responsibilities since the Town of Elmira has assumed responsibility for maintenance of the Beecher Creek Detention Facility.

SECTION 4: DEFINITIONS

CONSTRUCTED CAPACITY: The actual volume of stormwater that can be contained by the Beecher Creek Detention Facility during the 100-year, 24-hour storm. The initial CONSTRUCTED CAPACITY is 17.16 acre-feet or 747,490 cubic feet. This may be increased subsequent to project completion by expansion of the facility.

DESIGN CAPACITY: The volume of stormwater that the Beecher Creek Detention Facility is designed to contain during the 100-year, 24-hour storm to avoid exceeding the design outflow volume of the facility. This is based on the land uses and runoff characteristics that exist at the time of project design.

EXCESS CAPACITY: The difference in volume between the CONSTRUCTED CAPACITY and the DESIGN CAPACITY of the Beecher Creek Detention Facility.

IMPERVIOUS AREA: Impermeable surfaces, such as pavement or rooftops, that prevent the percolation of water into the soil.

INCREASED STORMWATER VOLUME: The calculated volume of additional stormwater runoff (in excess of the pre-development stormwater runoff) that will be released into the Beecher Creek Detention Facility during the 100-year, 24-hour design storm as a result of a development project.

MINOR DEVELOPMENT: Minor construction activities for which hydrologic computation of surface runoff volumes is not needed to insure compliance with the stormwater management requirements of the Town of Elmira Zoning Ordinance, Town of Elmira Subdivision Regulations, Town of Elmira Local Laws, or New York State Regulations (State Pollutant Discharge Elimination System, SPDES).

TOWN ENGINEER: The person licensed as a professional engineer by the State of New York who is duly authorized by the Town of Elmira Town Board to act in the capacity specified in this Local Law.

UTILIZATION FEE: A fee that will be paid to the Town of Elmira for utilization of the Beecher Creek Detention Facility to manage the INCREASED STORMWATER VOLUME resulting from a development project.

SECTION 5: LANDS TO WHICH THIS LOCAL LAW APPLIES

This Local Law applies to properties within the upper portions of the Beecher Creek Watershed from which surface runoff naturally drains into Beecher Creek upstream of the dam for the Beecher Creek Detention Facility. The tax parcel identification numbers (as identified on the date of this Law) for parcels located partially or completely within this area are:

88.00-1-6.2	88.00-1-12.24	88.00-1-15	88.00-1-12.11	88.00-1-12.25	88.00-1-16
88.00-1-12.12	88.00-1-12.26	88.00-1-17.1	88.00-1-12.2	88.00-1-13.2	88.00-1-31.1
88.00-1-12.22	88.00-1-13.3	88.00-1-32	88.00-1-12.23	88.00-1-14	

SECTION 6: BASIS FOR DETERMINING THE AMOUNT OF EXCESS CAPACITY AVAILABLE FOR UTILIZATION

The *As-Built Drawings for the Beecher Creek Detention Facility* indicate that the initial EXCESS CAPACITY of this facility is 1.4 acre-feet, which is equivalent to 60,984 cubic feet. The total utilization of the Beecher Creek Detention Facility for stormwater detention shall not exceed this EXCESS CAPACITY unless the facility is expanded. The Town of Elmira will retain records pertaining to the design and construction of the Beecher Creek Detention Facility and all subsequent increases in the stormwater discharge into this facility.

In the event that upstream development utilizes all of the EXCESS CAPACITY of the Beecher Creek Detention Facility and additional capacity is desired for further development, the Town of Elmira may choose to expand the facility. The increased capacity provided by such an expansion would be added to the EXCESS CAPACITY of the facility and would become available for utilization by upstream developers in accordance with the provisions of this Local Law.

SECTION 7: BASIS FOR DETERMINING THE INCREASED STORMWATER VOLUME FOR A DEVELOPMENT PROJECT

Any developer who chooses to utilize the Beecher Creek Detention Facility for stormwater management must first determine the volume of increased stormwater that will be directed to this facility as a result of the proposed development. The design storm for these stormwater calculations will be the 100-year, 24-hour rainfall event. The developer may select either of the following procedures for calculating the INCREASED STORMWATER VOLUME that will be released into the Beecher Creek Detention Facility:

- 1) An estimate of the INCREASED STORMWATER VOLUME may be computed using the following formula. It is anticipated that this procedure will be used for MINOR DEVELOPMENT projects to avoid the expense of hydrologic modeling.

INCREASED STORMWATER VOLUME (ft³) = Increased impervious area (ft²) x 100-yr, 24-hr Precipitation (ft) where,
Increased Impervious Area = the increase in IMPERVIOUS AREA resulting from the development project; and 100-year, 24-hour Precipitation = 0.458 feet (5.5 inches).

- 2) The USDA-NRCS-TR-55 runoff curve number procedure can be used to calculate the INCREASED STORMWATER VOLUME that will be directed to the Beecher Creek Detention Facility as a result of the 100-year,

24-hour precipitation event (post-development runoff minus pre-development runoff). This calculation will be a part of the stormwater management plan for the proposed development and is the developer's responsibility.

The TOWN ENGINEER will review the calculation of INCREASED STORMWATER VOLUME for accuracy and to insure that the volume of stormwater that is proposed to enter the Beecher Creek Detention Facility does not exceed the available EXCESS CAPACITY of the facility. The TOWN ENGINEER may also utilize hydrologic modeling to evaluate the structure's response to the INCREASED STORMWATER VOLUME. The TOWN ENGINEER will provide the Town of Elmira Code Enforcement Officer and Town of Elmira Town Board with recommendations concerning the acceptability of the proposed stormwater management plan. All costs incurred by the Town of Elmira for review shall be reimbursed to the Town by the developer before any building permit is issued.

SECTION 8: BASIS FOR ESTABLISHING THE UTILIZATION FEE

The Town of Elmira will collect a UTILIZATION FEE from any developer whose stormwater management plan for a development project utilizes the Beecher Creek Detention Facility to manage increased stormwater runoff. This fee will be paid prior to issuance of a building permit by the Town.

The amount of the UTILIZATION FEE for the Beecher Creek Detention Facility prior to any expansion is \$25,641 per acre-foot or \$0.59 per cubic foot of INCREASED STORMWATER VOLUME.

If the Beecher Creek Detention Facility is expanded, the UTILIZATION FEE will be determined using the following formula:

$$\text{UTILIZATION FEE} = \frac{\text{Cost of Facility X INCREASED STORMWATER VOLUME}}{\text{CONSTRUCTED CAPACITY}}$$

where,

Cost of Facility = The cost of the Beecher Creek Detention Project. This includes design, construction, and expansion of the Beecher Creek Detention Facility. This cost is \$440,000 for initial design and construction of the facility plus the cost of any subsequent expansion.

INCREASED STORMWATER VOLUME = The storage capacity that will be utilized by the development project, determined using one of the procedures specified in Section 7 of this Local Law.

CONSTRUCTED CAPACITY = The initial CONSTRUCTED CAPACITY of the Beecher Creek Detention Facility of 17.16 acre-feet or 747,490 cubic feet (as specified in the As- Built Drawings for the Beecher Creek Detention Facility) plus the additional capacity enabled by any subsequent expansion of the facility.

SECTION 9: ENFORCEMENT

This Local Law shall be enforced by the Town of Elmira Code Enforcement Officer, in consultation with the TOWN ENGINEER. Decisions made by the Code Enforcement Officer can be appealed to the Town of Elmira Town Board, which shall hear and decide any appeals.

SECTION 10: VALIDITY

If any section, paragraph, subdivision or provision of this Local Law is declared invalid, such invalidity shall apply only to the section, paragraph, subdivision or provision adjudged invalid and the rest of this Local Law shall remain valid and effective.

SECTION 11: EFFECTIVE DATE

This Local Law shall take effect immediately upon filing in the office of the Secretary of State of the State of New York.

For Additional Information: TOWN OF ELMIRA CONTACTS, Paul Kingsbury, Drainage Officer (607) 732-7698; Gary Pateiunas, Code Enf. Officer (607) 734-1486; Southern Tier Central Planning Board Janet Thigpen, Flood Mitigation (607) 737-5271

Appendix 4

Stormwater Management Resources

New York State Department of Environmental Conservation Publications

Printed copies of the publications listed below are available from the New York State Department of Environmental Conservation, Division of Water, 625 Broadway, Albany, NY 12233. All publications needed for Stormwater permit compliance are available on DEC's Web site, through the menu displayed on <http://www.dec.state.ny.us/website/dow/mainpage.htm>.

SPDES Stormwater General Permits

SPDES General Permit for Stormwater Discharges from Construction Activity [GP-02-01]

SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) [GP-02-02]

Both General Permits are available at <http://www.dec.state.ny.us/website/dow/PhaseII.html>

Regulatory Guidance

Guidelines for Completing the Notice of Intent, Selecting Management Practices, Setting Measurable Goals for SPDES General Permit (GP-02-02) for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems; NYSDEC; February 2003, revised August 2003;
http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4_guidelines.pdf

Instruction Manual for Stormwater Construction Permit: How to Prepare a Notice of Intent (NOI) for Stormwater Discharges from Construction Activities in New York; Basic Stormwater Pollution Prevention Plan; Notice of Termination (NOT) to Cancel Construction Permit; NYSDEC February 2003, revised August 2003; http://www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

Overview of the Municipal Separate Storm Sewer Systems (MS4) Phase II Stormwater Permit Program: A Summary of MS4 Phase II Permit Requirements; February 2003, revised August 2003;
http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4_overview.pdf

New York State Phase II Stormwater Program, Frequently Asked Questions, Municipal Separate Storm Sewer Systems (MS4s) Covered by SPDES General Permit GP-02-02; July, 2003;
<http://www.dec.state.ny.us/website/dow/toolbox/ms4toolbox/ms4faqjuly.pdf>

Frequently Asked Questions About Permit Requirements Discharges from Construction Activity that Results in a Disturbance of One Acre or More Covered by SPDES General Permit, GP-02-01;
<http://www.dec.state.ny.us/website/dow/toolbox/constrfaq.pdf>

Technical Standards and Guidance

New York State Stormwater Management Design Manual, October, 2001;
<http://www.dec.state.ny.us/website/dow/toolbox/swmanual/index.html>

New York Standards and Specifications for Erosion and Sediment Control, Feb. 2005;
<http://www.dec.state.ny.us/website/dow/toolbox/escstandards/index.html>

New York State Management Practices Catalogue for Nonpoint Source Pollution Prevention, includes management practices for Hydrologic and Habitat Modification, Resource Extraction, Silviculture, Agriculture, On-Site Wastewater Treatment Systems, Leaks, Spills and Accidents, Urban/Stormwater Runoff, Construction, Road and Right-of-Way Maintenance, Marina Operations for Existing Facilities; printed copies available from the Division of Water, Bureau of Watershed Management, 518-402-8243; **not available on-line.**

Frequently Asked Questions About Technical Requirements of the SPDES General Permit (GP-02-01) for Stormwater Discharges from Construction Activities, Version 1.0; June 20, 2003;
<http://www.dec.state.ny.us/website/dow/toolbox/techfaq.pdf>

New York State Department of State Publications

New York State Local Government Handbook, NYS DOS; available on-line at <http://www.dos.state.ny.us/lgss/pdfs/handbook.pdf>

Conducting Public Meetings and Public Hearings, NYS DOS; available on-line at <http://www.dos.state.ny.us/lgss/pdfs/public.pdf>

Other Publications

Great Lakes Better Backroads Guidebook, Huron Pines Resource Conservation & Development Area, 501 Norway Street, Grayling, MI 49738; downloadable at <http://www.huronpines.org/Programs/backroads.htm>

Related Web Sites

<http://www.dos.state.ny.us/lgss/> Local Government Website of the New York State Department of State, with information about programs, publications and training available to municipalities.

http://www.epa.gov/npdes/pubs/sw_resource_list.pdf US EPA's list of stormwater-related pages, publications and Web sites.

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/menu.cfm> EPA's National Menu of Best Management Practices for Storm Water Phase II, intended to provide guidance to regulated small MS4s as to the types of practices they could use to develop and implement their storm water management programs.

<http://www.stormwatercenter.net> Created and maintained by the Center for Watershed Protection, the Stormwater Manager's Resource Center is designed for stormwater practitioners, local government officials and others needing technical assistance on stormwater management issues.

<http://www.lowimpactdevelopment.org> Website of the Low Impact Development (LID) Center, a nonprofit group promoting low impact development.

Glossary of Stormwater Management Terms

Best Management Practice (BMP): A structural or non-structural device designed to temporarily store or treat urban stormwater runoff in order to mitigate flooding, reduce pollution and provide other amenities. (Also called Stormwater Practice.)

Building: Any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal or property, and occupying more than 100 square feet of area.

Channel: A natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

Clearing: Any activity that removes the vegetative surface cover

Conservation Advisory Committee (CAC): A committee formed by the local legislative body under NYS General Municipal Law Article 12-F, section 239-x that prepares a natural resource inventory of the municipality and advises other local boards on environmental issues.

Cluster or Open Space Development: The use of designs that incorporate open space into a development site. These areas can be used for either passive or active recreational activity or preserved as naturally vegetated land.

Construction site operator: the person, persons or legal entity that owns or leases the property on which the construction activity is occurring.

Developer: A person who undertakes land development activities.

Drainage Area (Watershed): All land and water area from which runoff may run to a common (design) point.

Grading: Excavation or fill of material, including the resulting conditions thereof.

Impervious Cover: Those surfaces, improvements and structures that cannot effectively infiltrate rainfall, snow melt and water (e.g. building rooftops, pavement, sidewalks, driveways, etc.).

Land Development Activity: Construction activity including clearing, grading, excavating, soil disturbance or placement of fill that results in land disturbance of equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development or sale, even though multiple separate and distinct land development activities may take place at different times on different schedules.

Larger Plan of Development or Sale: a situation in which multiple construction activities are occurring, or will occur, on a contiguous area. Permit coverage is needed if disturbance of one or more acres is occurring or is anticipated to occur in conjunction with the initial disturbance. For discrete construction projects that are located within a larger common plan of development or sale that are at least one-quarter mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently disturbed.

Maintenance Agreement: A legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

Outfall: The point where water flows from a conduit, stream, or drain.

New York State 303(d) list: DEC prepares this list under Section 303(d) of the federal Clean Water Act. It identifies waters where designated uses are not fully supported by existing water quality. These “303(d) waters” are listed with the pollutant that is the cause of the water quality problem. If stormwater discharges to a 303(d) listed water, the stormwater management program must ensure no increase in the listed pollutant of concern to the water. The 303(d) list is updated every two years and is available on the DEC web site at www.dec.state.ny.us/website/dow/303dcalm.pdf

Nonstructural Stormwater Practices: Stormwater runoff treatment techniques that use natural measures to reduce pollution levels, do not require extensive construction efforts, and/or that promote pollutant reduction by eliminating the pollutant source.

Stormwater: Rainwater, surface runoff, snowmelt and drainage.

Stormwater Management: The use of structural or non-structural practices that are designed to reduce stormwater runoff and mitigate its adverse impacts on property, natural resources and the environment.

Stormwater Management Facility: One or a series of stormwater management practices installed, stabilized and operating for the purpose of controlling stormwater runoff

Stormwater Management Officer: An employee or officer designated by the municipality to accept and review stormwater pollution prevention plans, forward the plans to the applicable municipal board and inspect stormwater management practices.

Stormwater Management Practices (SMPs): Measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing flood damage and preventing or reducing point source or nonpoint source pollution inputs to stormwater runoff and water bodies.

Stormwater Pollution Prevention Plan (SWPPP): A plan for controlling stormwater runoff and pollutants from a site during and after construction activities.

Structural Stormwater Practices: Devices that are constructed to provide short-term storage and treatment of stormwater runoff.

Total Maximum Daily Load (TMDL): A numerical limit on the amount of a particular contaminant that can be discharged to a waterbody from all sources. If a TMDL requiring reduction of a pollutant associated with stormwater is approved by the US EPA for any waterbody or watershed into which the MS4 discharges, the stormwater management program (six minimum measures) must ensure reduction of the pollutant of concern specified in the TMDL.

Urbanized area: An area is automatically designated as urbanized for purposes of Phase II coverage if the population is at least 50,000 and there is an overall population density of at least 1,000 people per square mile, based on the 2000 US Census.