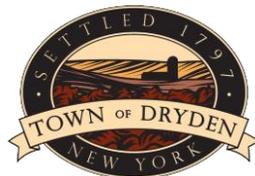


Town of Dryden, NY



Stormwater Management Program Plan



December, 2014

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List of Acronyms

BMP	Best Management Practice: defined by DEC as scheduled activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage and leaks, sludge or waste disposal, or drainage from areas that could contribute pollutants to stormwater discharges. BMPs are referred to in EPA's fact sheets and other materials. BMPs are also referred to as 'activities' or 'management practices' throughout the DEC SPDES general permit.
BSD	Better Site Design
CSI	Community Science Institute
DEC	Department of Environmental Conservation
EPA	Environmental Protection Agency
GH	Good Housekeeping
GP	General Permit
IDDE	Illicit Discharge Detection and Elimination
IO	Cayuga Lake Watershed Intermunicipal Organization
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable: defined by DEC as a technology-based standard established by Congress in the Clean Water Act §402(p)(3)(B)(iii). Because no precise definition of MEP exists, it allows for maximum flexibility on the part of MS4 operators as they develop their programs.
MS4	Municipal Separate Storm Sewer System
NYS	New York State
POC	Pollutant of Concern
PP	Pollution Prevention
SPDES	State Pollutant Discharge Elimination System
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TCSWCD	Tompkins County Soil and Water Conservation District

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Introduction

This Stormwater Management Program (SWMP) Plan has been developed to comply with the New York State Department of Environmental Conservation General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4; GP-0-10-002) for a Traditional Non-Land Use Control Municipality. US Environmental Protection Agency Stormwater Phase II Rule, issued in 1999, requires MS4 owners and operators, in US Census-defined urbanized areas and in additionally designated areas, to develop a Stormwater Management Program. There are six program elements designed to reduce the discharge of pollutants to the maximum extent practicable (MEP). The program elements, referred to as Minimum Control Measures (MCMs), include the following:

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

This document describes each MCM and the Best Management Practices (BMPs) that have been implemented to maintain compliance with the NYSDEC GP-0-10-002. The SWMP Plan will be reviewed on an annual basis and updated as necessary to account for progress made and in order to take into consideration the latest technologies and information while maintaining compliance with the NYSDEC GP-0-10-002.



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

1. Description of Minimum Control Measure

The Public Education and Outreach MCM consists of BMPs that focus on the development of educational materials, demonstration activities and training sessions designed to inform the public about the impacts that stormwater discharges have on local water bodies. The Public Education and Outreach program and BMPs, in combination, are expected to reach all of the constituents within the MS4's permitted boundary.

2. General Permit Requirements

At a minimum, *all* covered entities must:

- a. Identify Pollutants of Concern, waterbodies of concern, geographic areas of concern, target audiences.
 - **Pollutants of Concern:** Include sediment, nutrients, and pathogens. Sources of these pollutants include agricultural activities, stream bank erosion, failing on-site sewage treatment systems, chemicals used on residential lawns, and construction site runoff.
 - **Waterbodies of Concern:** Cayuga Lake, Six Mile Creek, Cascadilla Creek, Cayuga Inlet, Fall Creek, Owasco Inlet, Owego Creek.
 - **Geographic Area of Concern:** each of the six watersheds cited above and the Route 13 corridor.
 - **Target Audiences:** The Town of Dryden in cooperation with the Stormwater Coalition of Tompkins County and Soil and Water Conservation District target contractors, school students, residents, developers, industries, and municipal officials and staff.
- b. Implement an ongoing public education and outreach program;
- c. Modify measurable goals as needed;
- d. Select and implement appropriate education and outreach activities and measurable goals to ensure the reduction of all POC's in stormwater discharges to MEP.

3. Program Elements

Floating Classroom: The Floating Classroom (FC) offers educational programs to local schools and the general public aboard their boat, the M.V. Haendel. Educational programs offered include:

- Floating Classroom Trips for area schools – Students receive pre-cruise classroom presentations on watersheds and stormwater, plus 3 hours of programming on the lake.
- Eco-Cruises –the FC offers “Eco-cruises” to the general public on the weekends. The cruise features elements of a narrated tour and optional hands-on activities for all ages. The goal of the cruises is to help everyone develop an understanding of Cayuga Lake and the role it plays in our communities.
- Trout in the Classroom – from late October through May of the following year, FC sets up cold-water trout aquariums in participating classrooms throughout Tompkins County. Over 6 months, the students raise the trout, from eggs to fry, in their classroom. They care for the trout, monitor aquarium water quality and learn about streams. In the spring, the class releases the surviving trout fingerlings into adopted streams in their community.

TC3 Construction Class: TCSWCD provides education and outreach on the SPDES General Permit for Stormwater Discharges from Construction Activity. A presentation on this topic is given yearly to the construction students at Tompkins County Community College (TC3). Presentations are also given to others as requested.

Coalition Sponsored Trainings: The Stormwater Coalition of Tompkins County provides trainings to municipal members/staff and town/village/county boards on stormwater related topics. The following trainings have been offered: Green Infrastructure training focusing on green infrastructure practices and runoff reduction calculations (target municipal officials, consultants preparing SWPPP with post-construction controls), green infrastructure tour (targeting planning board members), and illicit discharge detection and elimination training.

Contractor Trainings: TCSWCD sponsors multiple NYSDEC endorsed 4-Hour Erosion and Sediment Control Trainings for contractors and municipal staff each year. Tompkins County Highway holds a yearly training for contractors who would like to be added on the County’s list of approved contractors to install driveway culverts on County Roads. This training is mandatory.

TCSWCD newsletter: TCSWCD issues a newsletter 3 times a year. The newsletter contains stormwater related articles, announcements of stormwater trainings, announcements of recycling events/pollution prevention events (tire recycling), and notification of tree/shrub sale.

Town of Dryden newsletter: While most stormwater and illicit discharge information is disseminated through the Town website (see below), information can also be disseminated through the Town’s newsletter which is issued several times a year.

Town of Dryden Website: The Town’s website, www.dryden.ny.us, contains a Stormwater Management Page, which provides information for contractors and the public. Included on the page are the Town’s Local Laws prohibiting illicit discharge and connection to the MS4, the Town’s Stormwater Management, Erosion and Sediment Control Law, Notice of Ground Disturbance Form, annual

Stormwater reports, Town soil maps and links to relevant sites including NY State’s Stormwater Management Design Manual.

Coalition Website The Stormwater Coalition of Tompkins County (www.tcstormwater.org) developed a website in 2012 to provide information to the public and contractors in Tompkins County. The website went live in February 2013. The website is being further developed to include all local stormwater laws, procedures for SWPPP review, and actions homeowners can take to reduce stormwater pollution.

Watershed Forums: The Community Science Institute (CSI) holds a “What’s in Your Watershed Forum” once a year highlighting the work of volunteer water monitors and topics of interest or concern in that specific watershed. A forum is held in each watershed that is monitored. The watersheds monitored in Dryden w are Six Mile Creek and Fall Creek.

4. Measurable Goals

Overall Goal			
Stormwater education: Provide education to Town residents, contractors, public employees, and school students on stormwater, the importance of stormwater management, what pollutants could be carried in stormwater, and how waterbodies are impacted.			
Audience	Activity	Responsible Party	Measurable Goal
Town/County Residents	Stormwater information on website. Topics include: lawn chemical use; car washing; motor oil handling	Town , County, TCSWCD	Revisit website annually to update information, check links, add/delete information as necessary
	SW Articles in TCSWCD Newsletters, notices of training opportunities	TCSWCD	One SW article/year. TCSWCD mails newsletter to County residents.
County Residents	Watershed Education	Community Science Institute (Town contributes annually)	Hold watershed forums at least once a year, more if CSI funding and staffing allows
Contractors TC3 Construction Students	Conduct NYSDEC 4-hour contractor training Stormwater and Erosion & Sediment Control lecture	TCSWCD/ Stormwater Coalition	Hold two trainings/year, more added as needed. Hold one lecture annually in late August or early September.
Municipal staff: Code Enforcement Officers, Highway/DPW and Board Members	Coalition sponsored trainings.	Stormwater Coalition,	Hold one training annually.
School students	Trips on Floating Classroom	IO (Town is a member)	Continue support of the Floating Classroom. Annual report (when available) as appendix

Minimum Control Measure 2: Public Involvement / Participation

1. Description of Minimum Control Measure

The Public Involvement and Participation MCM consists of a set of BMPs that are focused on getting members of the local community involved in the MS4's municipal stormwater management program. Compliance with State and local public notice requirements will be maintained whenever public participation is sought or required.

2. General Permit Requirements

At a minimum, *all* covered entities must:

- a. Comply with State Open Meetings Law and local public notice requirements when implementing a public involvement / participation program;
- b. Implement a public involvement/participation program that:
 - i. Identifies key individuals and groups, public and private, who are interested in or affected by the SWMP;
 - ii. Identifies types of input the covered entity will seek from the key individuals and groups to support development and implementation of the SWMP program and how the input will be used;
 - iii. Describes the public involvement/participation activities the Town will undertake to provide program access to those who want it and to gather the needed input. The activities include a water quality hotline, stewardship activities (stream cleanups), storm drain marking, and volunteer water quality monitoring; and
 - iv. Provide the opportunity for the public to participate in the development, implementation, review and revision of the SWMP.
- c. Local Stormwater public contact;
- d. Annual Report Presentation;
- e. Record, periodically assess and modify as needed measurable goals;
- f. Select and implement appropriate public involvement / participation activities to ensure the reduction of all the POC's stormwater discharges to the MEP.

3. Program Elements

Stormwater Annual Report Public Meeting / Water Resources Council: The Stormwater Annual Report is presented to Town Board members and Town residents in May and to the Tompkins County Water Resources Council (WRC) and interested members of the public in June. Each of those meetings provides a forum for public input and comment on the annual report.

Riparian Buffer Plantings: Tompkins County Planning Department organizes riparian buffer plantings with youth (cub scouts, school groups) and other volunteers. Volunteers help with planting of vegetation to create riparian buffers.

Stream Cleanups: The Cayuga Lake Network organizes stream cleanups on a yearly basis.

Pharmaceutical Collection: The Coalition for Safe Medicine Disposal holds multiple events through the year to collect unwanted medication from households in Tompkins County. The medication is sent for incineration. By incinerating the collected medications, they are removing the pollutant risk to water resources. The Coalition is made up of community volunteers and representative from: Community Coalition for Healthy Youth, Ithaca Area Wastewater Treatment Facility, Lifelong, Tompkins County Administration, Tompkins County Health Department, and Tompkins County Sheriff's Department.

Household Hazardous Waste Collection: The Tompkins County Solid Waste Management Division (TCSWMD) offers a permanent location to accept HHW from Tompkins County residents and qualified businesses and organizations that are Conditionally Exempt Small Quantity Generators (CESQG). Material is accepted at the Recycling and Solid Waste Center's D.E.P.O.T. - Don't Empty Pollutants in Our Trash. Approximately 6 events are held throughout the year.

Floating Classroom: The Floating Classroom (FC) offers educational programs to local schools and the general public aboard their boat, the M.V. Haendel. Educational programs offered include:

- Floating Classroom Trips for area schools – Students receive pre-cruise classroom presentations on watersheds and stormwater, plus 3 hours of programming on the lake.
- Eco-Cruises –the FC offers “Eco-cruises” to the general public on the weekends. The cruise features elements of a narrated tour and optional hands-on activities for all ages. The goal of the cruises is to help everyone develop an understanding of Cayuga Lake and the role it plays in our communities.
- Trout in the Classroom – from late October through May of the following year, FC sets up cold-water trout aquariums in participating classrooms throughout Tompkins County. Over 6 months, the students raise the trout, from eggs to fry, in their classroom. They care for the trout, monitor aquarium water quality and learn about streams. In the spring, the class releases the surviving trout fingerlings into adopted streams in their community.

4. Measurable Goals

Overall Goal			
Public participation: Provide opportunities for public participation and input on stormwater management programs to encourage broad public participation and partnership to improve the water quality of Cayuga Lake and tributary streams.			
Audience	Activity	Responsible Party	Measurable Goal
Town/County Residents	Stormwater information on website	Town, County, TCSWCD	Revisit website annually to update information, check links, add/delete information as necessary
	Water quality monitoring, watershed forums	CSI (Town contributes funding annually)	Conduct 4 monitoring events a year in each watershed. Hold one or more watershed forums a year
	Annual report public meeting	TCSWCD, WRC, Town,	Hold the stormwater annual report meeting at the May Water Resources Council Meeting to obtain input from the WRC and the public. Present annual report and summary to Town Board in June.
	Plant riparian buffers to protect/improve water quality	County Planning	Track riparian buffer planting as implemented by County Planning.
Town/County Residents	Stream clean-ups	CLW Network	Hold X stream clean-ups a year
	Pharmaceutical Collection	Coalition for Safe Medicine Disposal, (the County is part of)	Hold Pounds of medicine collected/ # of people dropping off medicine.
Town/County Residents	Household Hazardous Waste Collection	Tompkins County Solid Waste	Hold six hazardous waste collection events annually
School students	Trips on Floating Classroom	IO (Town contributes funding)	Offer “Eco-Cruises” from July – September for the public. Conduct floating classroom charters with local schools

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

1. Description of Minimum Control Measure

The Illicit Discharge Detection and Elimination minimum control measure focuses on the detection and elimination of illicit discharges into the MS4. Federal regulations define illicit discharge as any discharge to an MS4 that is not composed entirely of stormwater. Some exceptions include discharges related to emergencies (firefighting) and clean water releases not associated with storm events.

2. General Permit Requirements

At a minimum, the Town must:

- a. Develop (for newly authorized MS4s), implement and enforce a program to detect and eliminate illicit discharges into the small MS4;
- b. Develop (for newly authorized MS4s) and maintain a map, at a minimum within the Town's jurisdiction in the urbanized area and additionally designated area, showing:
 - i. the location of all *outfalls* and the names and location of all surface waters of the State that receive discharges from those outfalls;
 - ii. by March 9, 2010, the preliminary boundaries of the covered entity's storm sewersheds determined using GIS or other tools, even if they extend outside of the urbanized area (to facilitate trackdown), and additionally designated area within the covered entity's jurisdiction; and
 - iii. when grant funds are made available or for sewer lines surveyed during an illicit discharge trackdown, the covered entity's storm sewer system in accordance with available State and EPA guidance.
- c. Field verify outfall locations;
- d. Conduct an outfall reconnaissance inventory, as described in the EPA publication entitled *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment*, addressing every outfall within the urbanized area and additionally designated area within the covered entity's jurisdiction at least once every five years, with reasonable progress each year;
- e. Map new outfalls as they are constructed or discovered within the urbanized area or additionally designated area;
- f. Prohibit illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions below, as applicable:

- i. effectively prohibit, through a law, ordinance, or other regulatory mechanism, illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions; and
- ii. the law, ordinance, or other regulatory mechanism must be equivalent to the State's model IDDE local law "NYSDEC Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems" developed by the State, as determined and certified to be equivalent by the attorney representing the small MS4.

3. Program Elements

Local Law No. 1 of 2008: In 2008 the Town of Dryden adopted and enforces a local law to prohibit illicit discharges and connections to the Municipal Separate Storm Sewer System.

Respond to Illicit Discharge Complaints: Tompkins County Health Department responds to complaints of failed septic systems, investigates per the County Sanitary Code. Complaints and septic system replacements are tracked. Town Code Enforcement Officers (CEO's) and the Town Supervisor receive copies of replacements and complaint investigations. CEO's are empowered to issue a Notice of Violation for failed systems. Other illicit discharge complaints are directed to and investigated by the SMO.

Outfall Mapping: Outfall mapping began in 2007 by the Town of Ithaca. Outfalls in the "urbanized area" of each municipality in the Stormwater Coalition (including outfalls on County roads within these urbanized areas) were mapped. GPS template of outfalls was completed in 2011.

Public Education: A website is currently under development for the Stormwater Coalition. One of the pages will specifically address illicit discharges and improper disposal of waste. The website will highlight the County programs already in place to prevent illicit discharges such as the household hazardous waste recycling program and the pharmaceutical collection program. The Town's website will be revised to include information regarding illicit discharge.

Sewershed mapping: Rudimentary sewershed mapping was completed in 2014. As an aid in tracking down illicit discharge, each sewershed map should be enhanced as data becomes available. A GIS technician, or equivalent, will be needed for this task.

Hotspot Inventory: An inventory of potential hotspots including gas stations, auto repair facilities,, industrial facilities, laundries and car ashes will be developed, maintained and updated as necessary. Potential hotspots shall be ranked by proximity to stormwater conveyances

4. Measurable Goals

Standards	Responsible Party	Measurable Goal
<p>Respond to IDDE Complaints: Respond to complaints of failed septic systems within the town. Respond to all other IDDE complaints. When appropriate, direct complaints to the DEC's spill response division.</p>	Tompkins County Health Department/Town CEO or SMO	TCHD responds to 100% of failed septic complaints. Town shall issue violation notices and suspend occupancy if necessary, to 100% of property owners who fail to undertake corrective action. Respond to 100% of all other IDDE complaint
<p>Hotspot Inventory: Inventory automotive repair facilities and other similar facilities in proximity to MS4 or waterbodies.</p>	Town SMO	Develop list of potential hot spots in 2015. Inspect 10% of identified properties/year.
<p>Outfall mapping: Develop and maintain a map showing outfall locations and receiving water body; update map with new or newly discovered outfalls.</p>	Town SMO	Town of Ithaca completed MS4 mapping (including Dryden) in 2007. Town of Dryden completed town wide mapping in 2011.
<p>Storm sewershed mapping: Determine boundaries of storm sewersheds that originate in urbanized area.</p>	Town SMO	Sewershed mapping was completed in 2014. Refine 10% of one sewershed map/year.
<p>Identify illicit connections during dry weather survey: Conduct an outfall reconnaissance inventory, addressing each outfall at least once every five years.</p>	Town SMO	Conduct outfall reconnaissance on 25% of the outfalls each year.
<p>Prohibit illicit discharges into the storm sewer system: Adopt a local law (Storm Sewer System and Surface Waters Protection), update as necessary.</p>	Town	Local Law #1 was adopted January 2008.
<p>Public education: Develop a stormwater program website for businesses and County residents that includes information on illegal discharges and improper disposal of waste.</p>	TCSWCD per contract with Stormwater Coalition of Tompkins County is currently developing a website. Will highlight County programs in place to prevent illicit discharges (household hazardous waste recycling, pharmaceutical collection)	In progress

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

1. Description of Minimum Control Measure

The Construction Site Stormwater Runoff MCM consists of BMPs that focus on the reduction of pollutants to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activities disturbing less than one acre will be considered if they are part of a larger common plan of development or sale that would disturb one acre or more.

2. General Permit Requirements

At a minimum the Town must:

a. Develop, implement, and enforce a program that:

- i. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities, unless more stringent requirements are contained within this SPDES general permit ;
- ii. addresses stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre;
- iii. incorporates mechanisms for construction runoff requirements from new development and redevelopment projects to the extent allowable under State and local law that meet the State's most current technical standards:
 - through available mechanisms (ie. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies);
 - procedures or policies must be developed for implementation and enforcement of the mechanisms;
 - a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for construction projects that occur on property owned, under easement to, within the right-of-way of, or under the maintenance jurisdiction by the covered entity or within the maintenance jurisdiction of the MS4; and
 - the mechanisms and directive must be equivalent to the to the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.
- iv. allows for sanctions to ensure compliance to the extent allowable by State law;
- v. describes procedures for receipt and follow up on complaints or other in information submitted by the public regarding construction site stormwater runoff;

- vi. educates construction site operators, design engineers, municipal staff and other individuals to whom these regulations apply about the construction requirements in the covered entity's jurisdiction, including the procedures for submission of SWPPPs, construction site inspections, and other procedures associated with control of construction stormwater;
- vii. Ensures that construction site contractors have received erosion and sediment control training, including the trained contractors as defined in the SPDES general permit for construction, before they do work within the covered entity's jurisdiction:
- viii. establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information;
- ix. develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and
- x. select and implement appropriate construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.

3. Program Elements

Notice of Ground Disturbance Form: Every construction project that involves a ground disturbance or footprint change is required to submit a Ground Disturbance Tally Form as part of the Building Permit Application. CEO's determine if and what erosion and sediment controls will be required. The tally forms are entered into a database for later analysis and program updates. (Appendix ??? Tally Form & instructions)*****

SWPPP Review: After it is determined that a project will require a Basic or Full SWPPP, the project sponsor submits a plan to the SMO and town's contractual engineer for review. The plan is reviewed for conformance to state standards as well as the town's specific stormwater standards.

Contractor Education: The Tompkins County Highway Department conducts a yearly training for contractors on driveway culvert installation. The training addresses erosion and sediment control and the SPDES General Permit for Stormwater Discharges from Construction Activity. The training is a requirement for contractors installing driveway culverts on County roads. This element is included in the Town Plan because many miles of TC roads are within the Town.

Employee Training: Town employees attend DEC Erosion & Sediment Control training. Training certificates are valid for 3 years.

Hydroseeding: A used hydroseeder is available to Coalition members in order to immediately address cleaned road ditches. Following cleaning of road ditches the Town hydro seeds the banks to stabilize the banks and prevent erosion and downstream sedimentation.

4. Measurable Goals

Activity	Timeframe	Measurable Goal
<p>Require Ground Disturbance Tally Form for all Building Permits. Require Full (>= 5 acres), Basic (>= 1 acre), or Simple (>= 5000 sq ft or SMO's discretion) sq ft or SMO's discretion.</p>	Ongoing	Review & verify 100% of Ground Disturbance Forms submitted, require appropriate E & S C plan or SWPPP for all disturbances.
<p>Review and certify SWPPP.</p>	Ongoing	Review 100% of SWPPPs submitted.
<p>County Maintain list of qualified driveway culvert installers.</p> <p>Town employees installing driveway culverts on Town roads are DEC certified in E & S control.</p>	Ongoing	<p>Require proof of driveway permits for 100% of driveway culvert installs on County roads (within Town).</p> <p>Maintain list of DEC certified Town employees.</p>
<p>Hydroseeding of open road ditches:</p>	Ongoing	Volume of grass seed (lb)/ year; volume of hydroseed material/year

Minimum Control Measure 5: Post-Construction Stormwater Management

1. Description of Minimum Control Measure

The Post Construction Stormwater Management MCM consists of goals that focus on the prevention or minimization of water quality impacts from both new and re-development projects that disturb one acre or more. This includes projects less than one acre that are part of a larger common plan of development, or sale that discharge into the MS4.

2. General Permit Requirements

At a minimum the Town must:

- a. Develop (for newly authorized MS4s), implement, and enforce a program that:
 - i. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities, unless more stringent requirements are contained within this SPDES general permit;
 - ii. addresses stormwater runoff from new development and redevelopment projects to the small MS4 from projects that result in a land disturbance of greater than or equal to one acre. Control of stormwater discharges from projects of less than one acre must be included in the program if:
 - that project is part of a larger common plan of development or sale; and
 - if controlling such activities in a particular watershed is required by the Department;
 - iii. incorporates enforceable mechanisms for post construction runoff control from new development and redevelopment projects to the extent allowable under State or local law that meet the State's most current technical standards:
 - through available mechanisms (i.e. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies);
 - A mechanisms;
 - a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance with and enforcing the mechanisms for construction projects that occur on property owned by the covered entity or within the maintenance jurisdiction of the MS4; and
 - the mechanisms and directive must assure compliance with the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities;

- iv. includes a combination of structural or non-structural management practices (according to standards defined in the most current version of the NYS Stormwater management Design Manual that will reduce the discharge of pollutants to the MEP. In the development of environmental plans such as watershed plans, open space preservation programs, local laws, and ordinances covered entities must incorporate principles of Low Impact Development (LID), Better Site Design (BSD) and other Green Infrastructure practices to the MEP.
- v. Covered entities must consider natural resource protection, impervious area reduction, maintaining natural hydrologic condition in developments, buffers or set back distances for protection of environmentally sensitive areas such as streams, wetlands, and erodible soils in the development of environmental plans.
 - if a stormwater management practice is designed and installed in accordance with the New York State Stormwater Management Design Manual or has been demonstrated to be equivalent and is properly operated and maintained, then MEP will be assumed to be met for the post construction stormwater discharged by the practice;
- vi. establish and maintain an inventory of post-construction stormwater management practices to include at a minimum practices discharging to the small MS4 that have been installed since March 10, 2003, those owned by the small MS4, and those found to cause water quality standard violations.
 - the inventory shall include, at a minimum: location of practice (street address or coordinates); type of practice; maintenance needed per the NYS Stormwater Management Design Manual, SWPPP, or other provided documentation; and dates and type of maintenance performed.
- vii. ensures adequate long-term operation and maintenance of management practices by trained staff, including assessment to ensure that the practices are performing properly.
 - The assessment shall include the inspection items identified in the maintenance requirements (NYS Stormwater Management Design Manual, SWPPP, or other maintenance information) for the practice. Covered entities are not required to collect stormwater samples and perform specific chemical analysis.
- viii. Covered entities may include in the SWMP Plan provisions for development of a banking and credit system. MS4s must have an existing watershed plan based on which offsite alternative stormwater management in lieu of or in addition to on-site stormwater management practices are evaluated. Redevelopment projects must be evaluated for pollutant reduction greater than required treatment by the state standards. The individual project must be reviewed and approved by the Department. Use of a banking and credit system for new development is only acceptable in the impaired watersheds to achieve the no net increase requirement and watershed improvement strategy areas to achieve pollutant reductions in accordance with watershed plan load reduction goals.

b. Develop (for newly authorized MS4s), implement, and provide adequate resources for a program to inspect development and redevelopment sites by trained staff and to enforce and employ sanctions;

c. Develop (for newly authorized MS4s), record, annually assess and modify as needed measurable goals; and

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

3. Program Elements

Inspection, Maintenance and Easement Agreement: Stormwater law requires that developer execute an inspection, maintenance and easement agreement that is binding on subsequent landowners benefited by a stormwater facility. The agreement must provide Town access to facilities for inspection and possible maintenance.

Riparian Buffer Policy: Tompkins County implemented a stream buffer policy in 2006 to promote protection of stream banks thereby supporting stream water quality. A model ordinance, easement, buffer agreement, and planting guides were developed in 2009. These tools have been successfully utilized to protect, plant, or enhance 12,185 linear feet of stream edge. The Town Planning Department recommends riparian protection for all land development activities requiring Board approvals

Stream Stabilization Projects: The Town has partnered with TCSWCD on stream stabilization projects in the vicinity of County roads and bridges. These projects stabilize the stream, thereby reducing and preventing further erosion, in turn improving water quality.

4. Measurable Goals

Activity	Timeframe	Measurable Goal
Require post-construction stormwater runoff controls for land disturbance >1 acre listed in Table 2 of GP-0-10-001:	Ongoing.	Review 100% of SWPPPs requiring post-construction controls.
Inventory post-construction stormwater management practices: add to spreadsheet as needed.	Update as new practices are added.	Inventory 100% of post construction controls.
Inspect post-construction stormwater management practices: annual inspection of practices.	Ongoing.	Inspect 25% of practices each year.
Stream Buffer Policy Recommendation	Natural Resources Conservation Plan/Open Space Plan is being considered.	Town Conservation Board will include stream buffer policy recommendations in the upcoming Open Space Plan. Conservation/planting efforts are tracked on a yearly basis (square feet of buffers planted). Materials are available for municipalities and the public on the County Planning website.
Provide Development Project Reviews	Ongoing	Planning Department staff recommends stream buffer protection for 100% of projects requiring Board approvals.
Stream Stabilization Projects (county-wide)	Ongoing	16 projects have been completed. Please see Appendix B for a detailed list of project and resources provided by TC Highway.

Minimum Control Measure 6: Pollution Prevention and Good Housekeeping

1. Description of Minimum Control Measure

The Pollution Prevention / Good Housekeeping (PP/GH) minimum control measure consists of Best Management Practices (BMPs) that focus on training and the prevention or reduction of pollutant runoff from municipal operations.

2. General Permit Requirements

At a minimum, the MS4 must:

- a. Develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that:
 - i. addresses municipal operations and facilities that contribute or potentially contribute POCs to the small MS4 system. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification, or other;
 - ii. includes the performance and documentation of a self-assessment of all municipal operations to:
 - determine the sources of pollutants potentially generated by the covered Entity's operations and facilities;
 - and identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already;
 - iii. determines management practices, policies, and procedures that will be developed and implemented to reduce or prevent the discharge of (potential) pollutants.
 - iv. prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and covered entity's capabilities;
 - v. addresses pollution prevention and good housekeeping priorities;
 - vi. includes an employee pollution prevention and good housekeeping training program and ensure that staff receive and utilize training;
 - vii. requires third party entities performing contracted services, including but not limited to, street sweeping, snow removal, lawn / grounds care, etc., to make the necessary certification in Part IV.G; and

viii. requires municipal operations and facilities that would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges to prepare and implement provisions in the SWMP that comply with Parts III. A, C, D, J, K and L of the MSGP. The covered entity must also perform monitoring and record keeping in accordance with Part IV of the MSGP. Discharge monitoring reports must be attached to MS4 annual report. Those operations or facilities are not required to gain coverage under the MSGP. Implementation the above noted provisions of the SWMP will ensure that MEP is met for discharges from those facilities;

b. Consider and incorporate cost effective runoff reduction techniques and green infrastructure in the routine upgrade of the existing stormwater conveyance systems and municipal properties to the MEP. Some examples include replacement of closed drainage with grass swales, replacement of the existing islands in parking lots with rain garden, or curb cuts to route the flow through below grade infiltration areas or other low cost improvements that provide runoff treatment or reduction.

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

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

e. Adopt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as potential impacts to surface water.

3. Program Elements

Training for Highway Department Staff: All highway staff is required to attend “MSDS” and “Right to Know” training on a yearly basis. The MSDS training covers substances that are used and can be found in Town facilities and how to appropriately handle these substances and what to do if a spill occurs. The Right to Know training covers the Town’s responsibilities in relation to what information needs to be given to employees and where the information is located. Cornell Local Roads Training and Dig Safe NY training for all new hires. All crew members are DEC contractor trained.

Street Sweeping: Street sweeping of Town roads and parking lots occurs yearly, on an as needed basis.

Town Vehicle Maintenance: The Town maintains and repairs all vehicles. The Town owns an oil/water separator.

Storm sewer System Cleaning: Town Highway Departments cleans the storm sewer systems as needed. Cleaning includes ditches and the piped stormwater conveyance system. The Town owns a vacuum truck that is used to clean the pipe storm sewer system.

4. Measurable Goal

Activity	Timeframe	Measurable Goal
Training for Highway Department Staff:	Yearly Training, all staff required to attend	MSDS Training is held yearly for all highway staff MSDS has a column for handling clean up. /Right to Know Training: All employees are required to attend this training. The training covers the Town's responsibilities and where the pertinent information is located. Dig Safe NY/ Cornell Local Roads Training./ DEC contractor training
Street Sweeping:	Ongoing, beginning each Spring	# of hours sweeper is in use/# of miles of road swept. (Town sweeps approximately 80-110 miles/year.)
Vehicle Maintenance: the town purchased an Oil/Water Separator	Ongoing	Inspection and maintenance of separator 1/year.
Storm sewer system cleaning:	As needed	Ditches and piped storm sewer system are cleaned annually. Vacuum trucks are used to clean the pipe system. Ditches are hydroseeded following cleaning.

APPENDICES

Appendix A: Intermunicipal Agreement

MEMORANDUM OF AGREEMENT TO CREATE
THE STORMWATER COALITION OF TOMPKINS COUNTY

WHEREAS, the United States (U.S.) Environmental Protection Agency (EPA) promulgated the Phase II stormwater regulations (regulations) in 1999 that require owners and operators of small Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas to obtain a permit to discharge stormwater to the waters of the U.S.; and

WHEREAS, the EPA requires MS4s in New York State to obtain permit coverage under the New York State Pollutant Discharge and Elimination System (SPDES) General Permit for Stormwater Discharges from MS4s (GP-02-02); and

WHEREAS, to maintain coverage under GP-02-02, regulated MS4s must prepare and implement a stormwater management program that includes the six minimum control measures as described in GP-02-02, or demonstrate that the program provides at least equivalent protection; and

WHEREAS, the MS4s in Tompkins County receiving GP-02-02 coverage have been meeting since October 2003 to identify common elements and collaborate on the implementation of their stormwater management plans, and

WHEREAS, by working collaboratively and cooperatively to meet the requirements of GP-02-02, MS4s can make more efficient use of resources allocated to meet the requirements of GP-02-02; and

WHEREAS, Article 5-G of the New York State General Municipal Law authorizes municipal corporations to enter into agreements for the performance of their respective functions, powers and duties on a cooperative basis; and

WHEREAS, this Memorandum of Agreement (Agreement) among the regulated MS4s will create the Stormwater Coalition of Tompkins County (Coalition); and

WHEREAS, the members of the Coalition will work collectively to meet the requirements of the U.S. EPA Phase II stormwater regulations (40 C.F.R. Sections 122 and 123) and the New York State Department of Environmental Conservation's (NYSDEC) SPDES General Permit for Stormwater Discharges from MS4s (GP-02-02), and any amendments thereto;

NOW, THEREFORE BE IT RESOLVED, that in consideration of the mutual covenants and agreements hereinafter set forth, members of the Coalition agree as follows:

TERM. The term of this agreement shall commence on the date of the first signature and terminate on March 31, 2008, so as to coincide with the terms of GP-02-02, unless otherwise extended, renewed, or revised by a writing signed by all parties, except nothing herein shall authorize more than a five (5) year term for any initial or renewal term of this agreement.

PURPOSE. The purpose of the Coalition is to:

Exchange information and foster cooperation among MS4s to assist MS4s in complying with the EPA Phase II stormwater regulations;

Facilitate the use of resources to assist MS4s in meeting the requirements of the U.S. EPA Phase II stormwater regulations and the permit conditions of GP-02-02 issued by the NYSDEC;

Identify funding mechanisms to meet the financial needs of complying with the Phase II Stormwater regulations and GP-02-02;

Protect and/or improve local water quality in accordance with Federal, State, County, and local water quality regulations, planning documents and policies; and,

Facilitate consistency of stormwater management and regulations across municipal boundaries.

MEMBERSHIP

A. The members of the Coalition shall be the municipal corporations that are signatories to this agreement.

B. Each member shall designate a representative and one or more alternates to serve on the Coalition. These representatives will act on behalf of the Coalition members on matters such as facilitating the payment of the annual membership fee, making decisions about financial matters related to the activities of the Coalition within the parameters set out in this agreement, and other administrative matters.

C. The Coalition may admit non-permitted MS4s and municipalities as members at the discretion of the Coalition so long as these members agree to undertake all rights and responsibilities included in this Agreement and sign this agreement, and further conditioned upon payment of the full annual membership fee for that calendar year.

D. The Coalition may also approve ex officio non-voting representatives of agencies that provide technical or advisory assistance to the MS4s in meeting these regulations.

E. The Coalition shall adopt by-laws relating to the conduct of its proceedings and such other administrative matters as it may deem appropriate.

4. FINANCIAL OBLIGATION

A. Each MS4 Coalition member shall pay an annual membership fee, which will be used to help fulfill the requirements of GP-02-02, such as training, grant applications, and other activities consistent with those listed under Section 2 above. The initial fee schedule is detailed in the "Proposal to Fund the Tompkins County Stormwater Working Group in 2006 (approved by the Stormwater Working Group on

August 24, 2005)", which is attached as Exhibit A. Future fee schedules shall be proposed by the Coalition pursuant to the by-laws for the Coalition and shall be approved by the members.

B. The Coalition shall submit an invoice for the fee to each Coalition member annually.

The Coalition shall designate and authorize the fiscal officer of one of its members to hold and manage separate accounts on behalf of the Coalition, where the annual fees and other funds shall be deposited. These accounts shall be created explicitly for the use of the Coalition. Such designation shall be reviewed and re-authorized on an annual basis.

The Coalition's budget shall be approved by the members. The fiscal officer of the member with custody of the Coalition's funds shall be authorized to make expenditures on audit pursuant to the procedures of the member of which he or she is the fiscal officer.

E. The Coalition shall not incur any financial obligations in excess of the funds available to the Coalition.

F. Any Coalition member may withdraw from this Agreement upon adoption of a resolution by its legislative body and upon 60 days written notice to the full membership of the Coalition.

5. TERMS AND CONDITIONS

This Agreement may be modified or amended only by a writing duly executed by all Coalition members.

Each Coalition member shall be solely responsible and liable for its own activities under this Agreement, for obtaining and maintaining its permit coverage under the SPDES General Permit for Stormwater Discharges from MS4s (GP-O2-O2), and for the preparation, implementation, operation and maintenance of its own stormwater management program including, but not limited to, the required minimum control measures.

6. MISCELLANEOUS

A. This Agreement constitutes the entire Agreement among and between the Coalition members and supersedes any and all prior Agreements between the parties hereto for the services herein to be provided. The Agreement shall be governed by and construed in accordance with the laws of New York State.

If any provision, paragraph, sentence, or clause of this agreement shall, for any reason, be held to be invalid or unenforceable, the invalidity or unenforceability of such shall not affect the remainder of this Agreement and this Agreement shall be construed and enforced, consistent with its expressed purposes, as if such invalid and unenforceable provision, paragraph, sentence, or clause had not been contained herein.

If any member withdraws from the agreement pursuant to Section 4 above, the Agreement remains binding for remaining members.

Each Coalition member represents and warrants to the Coalition, and to the other Coalition members, that it has been fully authorized to execute and to perform this Agreement, and that its execution and performance of this Agreement will not violate any legal duty or restriction.

EXECUTION

IN WITNESS WHEREOF, this Agreement is signed by the duly authorized representatives of the regulated MS4s on the date written below.

Tompkins County

Town of Caroline

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:

Town of Dryden

Town of Ithaca

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:

Town of Lansing

Town of Newfield

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:

Town of Ulysses

City of Ithaca

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:

Village of Cayuga Heights

Village of Lansing

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:

Appendix B: Stream Stabilization Projects

Tompkins County Highway Department Stream/Bridge Projects

Vankirk Road Stream Stabilization Project. Upper Susquehanna Coalition Funded. Highway supplied labor/equip. – Finished in August 2009. 790 feet long.

Old Seventy Six Road Bridge Stabilization Project – Finished October 2012. DEC funded. Highway supplied labor and equipment. 120 feet long.

Salmon Creek Bridge Project (Salmon Creek Road) – Finished in January 2011. Highway Supplied labor/equipment. 150 feet long

Salmon Creek Debris Removal/Bank Stabilization (Ludlowville) – Finished in 2012. Highway supplied labor/equipment. 200 feet long

Central Chapel Road Stream Protection Project – Finished in 2011. Highway supplied labor/equipment. 500 feet long.

Boiceville Road Bridge Stabilization Project – Finished in 2012. Highway supplied labor/equipment. 100 feet long.

Banks Road/Sixmile Creek Remediation Project – Finished in 2012. Highway supplied funds for project. 2000 feet long.

Barrile 1 Stream Restoration Project – Completed in 2005. Highway supplied equipment. 2500 feet long.

German Cross Road Bridge excavation – Completed in 2006. Highway funded entire project. 100 feet long.

Shelter Valley Road Debris Removal Project – Completed in 2011. Highway supplied labor/equipment. 500 feet long.

Ryan's log vanes....Can't remember where he did those...they were ripped out in a storm though...ask ryan. Highway funded entire project

Fall Creek Restoration Project – Drake Residence in Maclean. Completed in 2007. 300 feet long. (Great Lakes Grant funded). Highway supplied labor and equipment.

Salmon Creek Restoration Project – Rock Vanes to protect house just outside Ludlowville. Completed in 2007. Tompkins County Flood Hazard Mitigation Funded. Highway supplied labor and equipment

Belle School Road Project – Planned for 2013

Lansingville Road Stormwater Retention pond project with stream stabilization downstream. Planned for 2013.

South Street Extension Project – surveying assistance and planning.

West Seneca Road over Boardman Creek Bridge Replacement, scheduled for Summer 2013 – rock vanes to channelize creek on bend through bridge to protect bridge substructure and creek banks.

Appendix C: Procedures

IDDE PROGRAM

Illicit discharges to the Town are handled on a complaint to complaint basis. An incident report form shall be used to track each incident. All reports of illicit discharges shall be directed to the Stormwater Management Officer, in person

GROUND DISTURBANCE TALLY FORM REVIEW

Town Code Enforcement Officers reviews each Ground Disturbance Form utilizing GIS data, environmental maps, assessment records and common knowledge of an area to determine what erosion and sediment controls measures may be necessary and/or what level of SWPPP is required.

SWPPP REVIEW

SMO and contracted engineer review SWPPPs for compliance.

PUBLIC COMMENTS ON CONSTRUCTION ACTIVITIES

Projects requiring Special Permitting, Site Plan approval or Zoning Board of Appeals approval are advertised through local newspapers and the Town website, per permit requirements.

Construction Site Inspections

During the course of inspections associated with Building Permits, CEO's inspect sites for E&S control compliance. SMO inspects sites SWPPP sites and reviews certified inspector reports. Tompkins County Highway staff inspects driveway culvert installations at completion

