STORMWATER MANAGEMENT PLAN

Town of Cortlandt

Last Updated

May, 2012

Prepared by:

Town of Cortlandt,

Westchester County, New York

APPENDICES

A. Stormwater Outfall map including NYCDEP Watershed and 303/TMDL Lake Meahagh Watershed.

B. Example of Outfall Inspection Sheet from Indra.

- Outfall Reconnaissance Inventory/Sample Collection Field Sheet
- Visual Inspection of Outfalls Physical Conditions

C. MM6 Inspection Sheets
- Facilities Management Report
- Grass Cutting Specifications
- Hazardous Materials Management
- Land Disturbance Inspection Map
- Parks Maintenance Form
- Road Maintenance Report
- Sweeper Log
- Training Documentation Form
- Vehicle Inspection Report.

INTRODUCTION

The Town of Cortlandt is identified as a Municipal Separate Storm Sewer System (MS4) municipality and under New York State Department of Environmental Conservation (NYSDEC) General Permit GP-02-02 obtained stormwater coverage in 2003.

The Town of Cortlandt Stormwater Management Plan is based on the requirements of the Phase II stormwater regulations as established by the United States Environmental Protection Agency (USEPA) and Clean Water Act. The Stormwater Management Plan has been developed to comply with the New York State Department of Environmental Conservation (NYSDEC) Phase II Stormwater Management Program for small Municipal Separate Stormwater Systems (MS4s).

There are currently two phases (Phase I and Phase II) of the Federal stormwater regulations. The aim of the Phase I and Phase II stormwater programs is intended to improve and protect the Waters of the United States by reducing the quantity of pollutants in stormwater discharges. Phase I of the Federal regulations (1990) required the control of stormwater discharges from "larger" communities (MS4s), (those with populations greater than 100,000), certain industrial activities and construction activities disturbing greater than 5 acres of land. Phase II of the Federal regulations (1999) required the control of stormwater discharges from "small" communities (MS4s), (those with populations less than 100,000) in certain designated (urbanized areas) or other designated areas and operators of construction activities disturbing between 5,000 square feet (within the East of Hudson New York City Department of Environmental Protection (NYCDEP) watershed) and 5 acres of land.

Under the Phase II requirements of the program permit coverage is required by the EPA under the National Pollutant Discharge Elimination System (NPDES) or by the delegated state NPDES permitting agency. The NPDES permitting agency for New York State is the New York State Department of Environmental Conservation. The NYSDEC issues permits under their State Pollutant Discharge Elimination System (SPDES) program.

The Phase II regulations require "small" MS4's to develop, implement, and enforce a Stormwater Management Program comprising of six elements designed to reduce the discharge of pollutants from MS4s to the "Maximum Extent Practicable" (MEP). "Maximum Extent Practicable" (MEP) is a technology-based standard established by Congress in the Clean Water Act. Since no precise definition of MEP exists, it allows for maximum flexibility on the part of the MS4 operators as they develop their programs. (40CFR 122.2; See also Stormwater Phase II Compliance Assistance Guide EPA 833-R-00-002, March 2000).

For each of these six elements, titled "Minimum Control Measures" the MS4s must identify measurable goals and select and implement management practices to achieve those measurable goals. The six minimum measures include:

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

The following pages summarize each minimum measure and outline the required measures and some activities and/or practices that can be used to fulfill the minimum measure.

The Stormwater Management Program must be fully developed and implemented within five years of the issuance date of the permit: January 8, 2008.

Certain components of this program have been codified into local law. These laws were adopted by the Town of Cortlandt in 2007.

An electronic version of this document, in conjunction with other links, are provided on the Town's website at www.townofcortlandt.com.

GENERAL DEFINITIONS AND REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

Industrial Waste - Unwanted materials from an industrial operation. It may be liquid, sludge, solid, or hazardous waste.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Standard Operation Procedures or Standards of Practice (SOPs) – Specific municipal operations impacted by the proposed operation and maintenance programs.

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

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

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

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

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

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

Surface Runoff – the flow of water across the land surface that occurs when the rainfall rate exceeds the ability of the soil to absorb the water. Also occurs on impervious surfaces, such as parking lots, where water cannot infiltrate at all.

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

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

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

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

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

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

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

LIST OF COMMONLY USED ABBREVIATIONS

BMPs – Best Management Practices **CWA** – Clean Water Act **GIS –** Geographic Information System **MCM** – Minimum Control Measure **MEP** – Maximum Extent Practicable **MS4** - Municipal Separate Storm Sewer System **NOI** – Notice of Intent **NPS** – Non-Point Source Pollutants **NPDES** – National Pollution Discharge Elimination System **NYSDEC** – New York State Department of Environmental Conservation **SOP** – Standard Operating Procedure or Standard of Practice **SPDES** – State Pollution Discharge Elimination System **SWMP** – Stormwater Management Plan/Program **SWPPP** – Stormwater Pollution Prevention Plan **TMDL** – Total Maximum Daily Load **USACOE** – United States Army Corps of Engineers **USEPA** – United States Environmental Protection Agency **NYCDEP** – New York City Department of Environmental Protection **NWWC** – Northern Westchester Watershed Coalition **CKWIC** – Croton Kensico Watershed Inter-Municipal Coalition **POC** – Pollutant of Concern

SECTION 1 - PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

1.1 Description of Minimum Control Measure

The Public Education and Outreach minimum control measure consists of Best Management Practices (BMPs) that focus on the development of educational materials designed to inform the public about the impacts that stormwater discharges have on local water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. These BMPs describe steps that the public can take to reduce the impact of stormwater pollutants. They also describe how the public, as individuals or collectively as a group, can participate in reducing pollutants and their impact on the environment. The Public Education and Outreach program and BMPs, in combination, are expected to reach all of the constituents within the MS4's permitted boundary. The target pollutant sources are construction site runoff, impacts from new and re-development projects, illicit discharges, and other pollutant sources as identified to be of local concern, i.e. approved TMDL parameters.

1.2 General Permit Requirements

Continue to plan and conduct ongoing public education and outreach programs designed to describe:

- The impacts of stormwater discharges on waterbodies.
- Pollutants of concern and their sources.
- Steps contributors of these pollutants can take to reduce pollutants in stormwater runoff
- Steps contributors of non-stormwater discharges can take to reduce pollutants.

Non-stormwater discharges are defined in the MS4 Permit and include:

- Waterline flushing.
- Landscape irrigation.
- Diverted stream flows.
- Rising ground waters.
- Uncontaminated ground water infiltration.
- Uncontaminated pumped ground water.
- Discharges from potable water sources.
- Foundation and footing drains.
- Air conditioning condensate.
- Irrigation water.
- Springs.
- Water from crawl space and basement sump pumps.
- Lawn watering runoff.
- Water from individual residential car washing.
- Flows from riparian habitats and wetlands.
- Dechlorinated swimming pool and water reservoir discharges.
- Discharges or flows from fire fighting activities.
- Any SPDES permitted discharge.

1.3 Methodology for Compliance with Permit Requirements

The Town of Cortlandt and Westchester County have developed many of the BMPs necessary for this MCM. These have included brochures, posters, webpage, education packages, and displays for community events.

1.4 Best Management Practices

1.4.1 Stormwater Pollution Prevention Posters

- Working with Westchester County and 38 other communities, develop brochures & public education posters to be displayed within municipal buildings, to target businesses, libraries and schools. Continue poster distribution to public libraries, and schools as requested. Display posters within municipal buildings, community centers, libraries, courts etc.

There are seven (7) posters that have been developed and are titled as follows:

1) Don't P on your Lawn: Phosphorus pollutes our water. Use lawn fertilizer with zero percent Phosphorus.
2) Halt before you Salt: Use less de-icer protect our water
3) Don't Pollute Our Water: Scoop the Poop
4) When you're washing your car in the driveway, remember you're not just washing your car in the driveway. Soap, dirt and oil can run into the street and storm drain. Then directly into our streams, lakes and reservoirs. And that causes pollution which is unhealthy for everyone, including fish.
5) Only rain down the drain: Wash your car on the grass or at the car wash- not pavement! Soap and oil runoff pollutes our water.
6) When your pet goes on the lawn, remember it doesn't just go on the lawn: When our pets leave those little surprises, rain can wash pet waste and bacteria into our storm drains. And then pollutes our streams, lakes and reservoirs. So what to do? Simple. Dispose of it properly, preferable in a toilet, but never in a storm drain. Then that little surprise gets treated like it should.
7) When your car's leaking oil on the street, remember it's not just leaking oil on the street. Leaking oil goes from your car to the street and is washed into a storm drain. Then directly into our streams, lakes and reservoirs. So please, fix oil leaks.

- Continue brochure & poster distribution through public outreach events, and seminars.
- Utilize web page to allow businesses, municipalities, schools, and the general public to request additional brochures or download the brochures directly.

Responsibility -

Stormwater Management Officer

- Annually inventory existing stock of brochures and replenish as needed.
- Annually check posters for damage and outdated information. Replace damaged posters with new posters as they become available.

Westchester County

- Develop new posters and deliver to each MS4, all public libraries, and schools on an as needed basis
- Annually provide additional brochures to local MS4s upon request.
- Annually provide additional brochures to businesses, schools, and the general public upon request.

1.4.2 Webpage

Maintain the web site that was designed to educate the public on the impacts of stormwater runoff on local waterbodies. The list of subjects for inclusion and discussion in the website is based on consideration of the following subjects:

- Citizen reporting under the illicit discharge and construction programs including publication of Stormwater Hotline number.
- Water quality impacts of stormwater runoff to local water bodies

- Steps the public can take to reduce stormwater pollution
- Public involvement programs
- Maintain the website in accordance with the website maintenance schedule.
- Post new information to the website as necessary.

In addition to the above information the Town's website also provides:

- Information targeting stormwater pollution prevention for households. This includes available video and audio public service announcements developed by Westchester County.
- Printed public service announcements developed by the Westchester County have been posted at local libraries.
- Invitation for public to review draft Annual Report (sample Town Board Agenda item)
- Invitation for Community Cleanup Events (See Town website & Westchester County Website)

Responsibility - **Stormwater Management Officer**

- Annually update and maintain the MS4 website as necessary relative to stormwater education. Post the SWMP on the Town's website. Maintain a link from the Town's site to the Westchester County website and the NYSDEC website.

1.4.3 Public Education Display for Community Events

Westchester County has developed a display that consists of a poster board, public education materials, the Enviroscape watershed model, and promotional items including:

- Magnets- Protect our lakes, streams, wildlife and water
  Only RAIN down the storm drain!
- Bookmarkers- Only rain down the storm drain!
- Note pad- Only rain down the storm drain
- Sheet of stickers- Chester Trout says, "Stick it to Stormwater Pollution!"
- Scoop the Poop: Environmentally friendly bags

Use of the items listed will depend on the audience and venue.

- The County maintains the public education display to be used by the local MS4s at their community events. The County maintains a reservation system that was established to mitigate potential conflicts between municipalities requesting the display for the same time period.

Responsibility - **Stormwater Management Officer**

- Annually use various materials to display at a community event (Family Fun Day/Earth Day)

1.4.4 Public Information Postings as part of Recreation/Sanitation Brochures

The Town of Cortlandt has developed several pages of public information related to Stormwater and pollution prevention. This material is published annually and available to all 15,000 parcels in the Town. Information includes reference to the Town's website, Stormwater Hotline and invitation for public participation. The brochure is used extensively by Town residents and posted on the Towns website.

Responsibility - **Stormwater Management Officer**

Annually document the distribution and content of the brochures. Documents per year will vary.

Enhanced Requirements:

New York City East of Hudson Watershed MS4s (NYCDEP Watershed Area)

1. Public Education and Outreach on Stormwater Impacts

a. Continue to conduct ongoing public education and outreach programs designed to describe the impacts of phosphorus (the *POC*) on waterbodies. The program must identify potential sources of phosphorus in *stormwater* runoff and describe steps that contributors can take to reduce the concentration of this *POC* in *stormwater* runoff. The program must also describe steps that contributors of non□*stormwater* discharges can take to reduce phosphorus.

b. *Stormwater Pollution Prevention Posters*

i. Working with Westchester County and 38 other communities, we have developed brochures & public education posters to be displayed within municipal buildings, to target businesses, libraries and schools. Continue poster distribution to public libraries, and schools as requested. See previous section for details on content of posters. Targeted displays were posted within the area of Cortlandt that is within the NYCDEP Watershed.

ii. All education materials developed by Westchester County for use within the 38 municipality consortium addressed the following topics:

- Understanding the Phosphorus issue.
- Septic systems as a source of Phosphorus.
- Phosphorus concerns with fertilizer use.
- Phosphorus concerns with grass clippings and leaves entering streets and storm sewers.
- Construction sites as a source of phosphorus.
- Phosphorus concerns with detergent use.

c. *Targeted Public Outreach "Code Red" to NYC East of Hudson MS4 area (NYCDEP Watershed) of Cortlandt*

i. The Town of Cortlandt has contracted with Emergency Communications Network, Inc. of Ormond Beach, Florida, for its CodeRED high speed telephone emergency notification system. The CodeRED system gives Town officials the ability to deliver pre-recorded emergency telephone notification to targeted areas or the entire Town. The CodeRED system will only be activated for emergency notifications.

ii. At least annually, mail information to property owners in the NYSDEC Watershed regarding phosphorus concerns.

SECTION 2 - PUBLIC PARTICIPATION / INVOLVEMENT

2.1 Description of Minimum Control Measure

The Public Involvement/Participation minimum control measure (MCM) consists of Best Management Practices (BMPs) that focus on involving the local public in development and implementation of the SWMP. Compliance with State and local public notice requirements will facilitate involvement of the public in development and implementation of the public involvement/participation program. The BMPs describe the plan to actively involve the public in development and implementation of the SWMP and the types of public involvement activities included in the program. The target audiences for the public involvement program are all groups that may have an interest in the particular BMPs in addition to all ethnic and economic groups and the general public located within the permitted boundary.

2.2 General Permit Requirements

- Comply with State and local public notice requirements when implementing a public involvement/participation program.
- Comply with public participation and involvement provisions of the CWA as applicable.
- Design and conduct a public involvement/participation program which:
- Identifies key individuals and groups, public and private, who are interested in or affected by the stormwater permitting program.
- Identifies types of input the MS4 would seek from them to support development and implementation of the program and how it is used.
- Describes the public involvement/participation activities the MS4 will undertake to provide program access to those who want it and to gather the needed input.
- Identify a local point of contact for public concerns regarding stormwater management and compliance with this permit. The name or title of this contact and the telephone number must be published in public outreach and public participation materials and kept updated.
- Prior to submitting the annual report, present the draft annual report at a meeting that is open to the public where the public attendees are able to ask questions about and make comments on the report. This can be a regular meeting of an existing board within the MS4, such as planning, zoning, or the Town Board, etc. Recommendations for publicizing this public review opportunity are available from the NYSDEC and USEPA websites.

Make public the following information:

The placement of the report on the agenda of this meeting
The opportunity for public comment
The date and time of the meeting
The availability of the draft report for prior review
Include a summary of comments and intended responses in the annual report and make the final report available for public inspection.

2.3 Methodology for Compliance with Permit Requirements

In order to comply with this MCM, each municipality must involve the local public in their SWMP. By participating with Westchester County, there were 38 municipalities who each formed a consortium for public outreach materials including Public Service Announcement Videos, posters, rain barrel displays, and an enviroscape model to be shared. Each municipality can comply with certain aspects of the SWMP such as public participation at meetings, incorporating a feedback mechanism into the webpage, community cleanup events, and public meetings in targeted Watersheds. MS4s will be responsible for allowing public review of the SWMP and Annual Report.

2.4 Best Management Practices

2.4.1 Contact Person for Stormwater Program

The Stormwater Management Officer is responsible for the management of the MS4's stormwater management program. In Cortlandt, our Stormwater Management Officer is Ed Vergano, P.E., Director of the Department of Technical Services.

Responsibility - **Municipal Board**

- Annually update the designated person as Stormwater Management Officer as necessary.

2.4.2 Public Participation in Targeted Watersheds to foster public Involvement. Northern Westchester Watershed Committee (NWWC) and Croton Kensico Watershed Inter-municipal Coalition.(CKWIC)

This is a Committee of 12 communities that meets monthly for the purposes of planning and environmental impacts to the Croton-Kensico Watershed. All meetings are open to the public. The Town of Somers and Supervisor Mary Beth Murphy are lead.

Responsibility - **Town of Somers (as lead of 12 communities) for NWWC**

- Monthly notify public of their invitation to participate in NWWC planning meetings.

2.4.3 Public Meetings in Targeted Watersheds to Foster Public Involvement in Town of Cortlandt

Throughout the Town of Cortlandt there are multiple watersheds including Croton, Hudson River, Kensico, Periodically the Town meets with various committees where information is disseminated and public comments are received.

Responsibility - **Stormwater Management Officer**

Periodically publish a notice for each public meeting notifying the public of their invitation to participate.

2.4.4 Incorporate Feedback Mechanism into Webpage

Through either the NWWC and/or the municipality's website, provide a means for public input/comment regarding the stormwater management program in the watershed.

Responsibility - **Stormwater Management Officer**

- Annually document input and comments or complaints received, and actions taken.

- Maintain a form on the website that interested residents can provide their input/comments on the municipality's stormwater management program. Provide a means for comments to be emailed directly to the municipal Stormwater Management Officer.

2.4.5 Public Review of Annual Report

All regulated MS4s must submit an annual report by June 1 of each year that updates the NYSDEC on the status of their stormwater management program. Before submittal of the annual report to NYSDEC, a draft report must be prepared and made available to the public for their review and comment.

Responsibility - **Stormwater Management Officer**

- Annually publish a notice to notify residents of their opportunity to review the draft annual report.

2.4.6 Public Review of Stormwater Management Plan

Provide the public with an opportunity to review and comment on the Stormwater Management Plan. Evaluation of its effectiveness, in conjunction with the public, will be measured.

Responsibility - **Stormwater Management Officer**

- Annually provide an opportunity for the public to comment on the effectiveness of the Stormwater Management Plan, and offer suggestions for improvements. This will be accomplished during the required public meeting to review the Annual Report.

2.4.7 Community Cleanup Event

Inform and encourage residents about the many opportunities that exist to participate in area community cleanup events: the "Citizens Volunteer Monitoring Program" sponsored by Westchester County that encourages local volunteers to be trained twice per year to help test water quality at local streams; and locally sponsored annual volunteer cleanup activities such as "Earth Day Shoreline Cleanup" events. Green Team events throughout the year.

Responsibility - **Stormwater Management Officer and/or Westchester County**

- Have information on local cleanup opportunities available at Town Hall; advertise these events on the Town and/or County website.
- Schedule at least one stream or roadside cleanup per year.

2.4.8 Identify Key Individuals and Groups who are Interested in/or Affected by the Permitting Program

Environmental groups identified as having an interest in the Town of Cortlandt's Stormwater Management Program include: Municipal Conservation Advisory Committees (CACs), The Riverkeeper (Hudson), local community groups including Cortlandt Watch and Verplanck Residents Association and local environmental groups like Clearwater, Scenic Hudson, Green Team and others.

Responsibility - **Stormwater Management Officer**

- Annually as needed, outreach to the groups regarding the activities and how the groups may assist with their local Stormwater Management Program.

2.4.9 Identify Types of Input the MS4 would seek from the Individuals or Groups to Support Development and Implementation of the Program

Environmental groups identified as having an interest in the Town of Cortlandt's Stormwater Management Program will be enlisted to assist with its implementation through participation in public education and public involvement workgroup. These groups will be encouraged to:

- Attend Stormwater Coalition meetings.

- Assist with developing public education materials/activities.
- Publicize and staff community cleanup events.
- Assist with public education activities.
- Review the Draft Annual Report.

Responsibility - **Stormwater Management Officer**

- Continue to utilize municipal CACs and other volunteers by contacting them at least annually to assist with their local MS4 Stormwater Program activities.

SECTION 3 - ILLICIT DISCHARGE DETECTION & ELIMINATION

3.1 Description of Minimum Control Measure

The Illicit Discharge Detection and Elimination minimum control measure consists of Best Management Practices (BMP's) that focus on the detection and elimination of illicit discharges into the MS4. The BMP's describe outfall mapping and updating procedures; the legal authority mechanism that will be used to effectively prohibit illicit discharges; enforcement procedures and actions to ensure that the regulatory mechanism is implemented; the dry weather screening program and procedures for tracing and locating the source of an illicit discharge; procedures for locating priority areas; and procedures for removing the source of the illicit discharge.

3.2 General Permit Requirements

- Continue to develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4
- Continue to develop and maintain a map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls.
- To the extent allowable under State or local law effectively prohibit, through ordinance or other regulatory mechanism, illicit discharges into the storm sewer system and implement appropriate enforcement procedures and actions.
- Continue to develop and implement a program to detect and address non-stormwater discharges, including illegal dumping, to the system.
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

The following discharges are exempt from discharge prohibitions established by local law unless the NYSDEC or the Municipality determines them to be a significant contributor of pollutants:

- Waterline flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation and footing drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space and basement sump pumps
- Lawn watering runoff
- Water from individual residential car washing
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool and water reservoir discharges
- Discharges or flows from fire fighting activities

- Any SPDES permitted discharge

Although these discharges are exempt, many operations will still be monitored and/or require Town notification prior to allowing the discharge.

3.3 Methodology for Compliance with Permit Requirements

The Town of Cortlandt has developed a digital map showing the location of each outfall as well as a table describing the pertinent properties associated with each outfall. New York State has also developed a model ordinance for adoption by each MS4. The MS4's are responsible for implementing the Illicit Discharge Detection and Elimination Program according to the adopted ordinance.

3.4 Best Management Practices

3.4.1 Outfall Mapping/Outfall Information Management

Maintain a map of storm sewer outfalls within the regulated boundaries of the MS4. The map identifies each outfall with a unique identifier, and link the outfall to a table of outfall properties that records pertinent properties of each outfall within our GIS mapping system.

Update information to the base outfall map during routine maintenance visits, scheduled outfall inspections, and responses to complaints. Outfall mapping is managed by the Town of Cortlandt and their respective consultants and the GIS mapping is updated accordingly.

Responsibility - ***Stormwater Management Officer***

Annually submit accrued outfall mapping update forms to the Stormwater Management Officer by the annual deadline he establishes.

3.4.2 Outfall Surveillance

Continue to implement a plan to detect illicit discharges by conducting routine visual inspections of every mapped outfall. The plan sets criteria for the inspection process.

Continue to maintain a schedule for outfall inspections. At a minimum, all outfalls must be inspected once over the course of a five year cycle. An initial outfall mapping project was conducted by the Town of Cortlandt GIS Consultant in 2009-2010.

Continue to prepare and maintain a prioritized list of outfalls for inspection, ranked on a 5-tier priority basis as follows:

- Priority 1: (Highest Priority): Outfalls in which previous inspections indicated evidence of illicit discharge such as dry weather discharge, color, odor, etc. OR Outfalls in areas where repeated complaints were received.

- Priority 2: Outfalls in heavy industrial or commercial areas or construction sites OR Outfalls in environmentally sensitive areas OR Outfalls to areas of impaired waters in which ambient water quality sampling indicated high levels of particular contaminants.

- Priority 3: Outfalls in which previous inspections indicated structural deficiencies.

- Priority 4: Outfalls in older areas of the municipality.

- Priority 5: (Lowest Priority): Others than listed above.

Responsibility - **Stormwater Management Officer**

Annually ensure that outfalls are being inspected and that inspections are documented.

Annually submit accrued outfall mapping update forms for all outfalls that have been altered since mapping was established to the Town of Cortlandt, Engineering Division.

Sample Inspection Forms in Appendix B. Outfall Reconnaissance Inventory/Sample Collection Field Sheet Visual Inspection of Outfalls Physical Conditions

3.4.3 Pollutant Source Tracking Procedures

Investigate and confirm the source of pollutants when water quality issues arise due to public complaints or by scheduled inspection of outfalls.

Customize the Town of Cortlandt sampling procedure and program to track down sources of pollution to meet the Town's needs.

Implement enforcement action per our Local Law to prohibit illicit discharges, activities and connections to separate storm sewer system (refer to BMP 3.4.4).

Responsibility - **Stormwater Management Officer**

Additional Information

1. Tracking Discharges to a Source.
2. Sample Protocol Considerations.
3. Specific Considerations for Industrial Sources of Inappropriate Pollutant Entries to the Storm Drainage System.

More specific information can be found with the Stormwater Management Officer.

3.4.4 Ordinance or Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System

Continue to implement the Town's ordinance, Chapter 263 of the Town Code, which prohibits illicit discharges, and includes enforcement procedures and actions where needed.

Continue to identify measures to prohibit illicit discharges.

Continue enforcement actions for contributors of illicit discharges including those caught dumping illegally. Enforcement action includes notification procedures, time constraints on violators to remediate problem, fines or other forms of retribution, and identification of appropriate authorities to carry out enforcement action.

Responsibility- **Stormwater Management Officer & Municipal Board**

Annually review the ordinance and adjust as necessary to maintain compliance with NYS standards and requirements.

Annually review the enforcement action procedures and revise as needed.

3.4.5 Addressing Categories of Non-Stormwater Discharges

The items in the list in Section 3.2 are exempt from discharge prohibitions established by local law unless the NYSDEC or the municipality has determined them to be substantial contributors of pollutants. Such exempt discharges shall be made in accordance with an appropriate plan for reducing pollutants. Although these discharges are exempt, many operations will still be monitored and/or require Town notification prior to allowing the discharge.

Responsibility - **Stormwater Management Officer**

Annually update non-stormwater discharge list as necessary such that no exempt stormwater discharge is a substantial contribution of pollutants.

Enhanced Requirements:

New York City East of Hudson Watershed MS4s (NYCDEP Watershed Area)

Illicit Discharge Detection and Elimination

a. Mapping -

The entire Town of Cortlandt Stormwater Conveyance System has been mapped and is available to the Town Staff in GIS format for use Town Wide.

At this time the map and/or supportive documentation for the conveyance system includes the following information:

1. Type of conveyance system, closed pipe or open drainage.
2. For closed pipe systems - pipe material, shape, and size.
3. Locations for open drainage systems.
4. Drop inlet, catch basin and manhole locations.
5. Number and size of pipe connections (inlets/outlets) to catch basins and manholes with direction of flow.

All information shall be maintained in digital format suitable for use in GIS software and in accordance with the *Town of Cortlandt* guidance on Illicit Discharge Detection and Elimination.

b. On-site wastewater systems

In Conjunction with Westchester County, develop implement and enforce a program that ensures that on-site sanitary systems designed for less than 1000 gallons per day (septic systems, cesspools, including any installed absorption fields) are inspected at a minimum frequency of once every five years and, where necessary, maintained or rehabilitated. Regular field investigations and inspections should be done in accordance with the most current version of the EPA publication entitled "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment" to detect the presence of ongoing and/or intermittent on-site sanitary discharges to the storm sewer system. An advanced system inspection requiring completion by a certified professional is not required by this permit, but may be used where site specific conditions warrant. Program development shall include the establishment of the necessary legal authority to implement the program.

SECTION 4 - CONSTRUCTION SITE RUNOFF CONTROL

4.1 Description of Minimum Control Measure

The Construction Site Runoff minimum control measure consists of Best Management Practices (BMPs) that focus on the reduction of pollutants in any stormwater runoff 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 activity disturbing less than one acre will be considered if it is part of a larger common plan of development or sale that would disturb one acre or more. The BMPs describe the legal authority mechanism that will be used to require erosion and sediment controls; enforcement procedures and actions to ensure compliance; requirements for construction site operators to implement appropriate erosion and sediment control BMPs; requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site; procedures for site plan review which incorporate the consideration of potential water quality impacts; procedures for receipt and consideration of information submitted by the public; and procedures for site inspection and enforcement of control measures.

The stormwater regulations for Construction Site Runoff Control apply to both privately-owned and managed projects, and MS4-owned and managed projects. Therefore, the BMPs described in this section have application to both types of projects.

4.2 General Permit Requirements

Continue to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance equal to or greater than one acre.

Control of stormwater discharges from construction activity disturbing less than one acre must be included in the program if:

- The construction activity is part of a larger common plan of development or sale that disturbs equal to or greater than one acre.
- Controlling such activities in a particular watershed is required by the NYSDEC.
- At a minimum, the program provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities and includes the development and implementation of:

    - An ordinance or other regulatory mechanism to require erosion and sediment controls
    - Procedures for site plan review that incorporate consideration of potential water quality impacts and review of individual preconstruction site plans to ensure consistency with local sediment and erosion control requirements
    - Procedures for receipt and consideration of information submitted by the public
    - Education and training measures for construction site operators about the requirement to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) and any other requirements they must meet for construction sites within the MS4's jurisdiction.
    - Requirements for construction site operators to implement erosion and sediment control management practices
    - Procedures for site inspections and enforcement of control measures including steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water
    - Sanctions to ensure compliance to the extent allowable by State or local law

4.3 Methodology for Compliance with Permit Requirements

The Town of Cortlandt has adopted a local law, Chapter 262, entitled “Stormwater Management and Erosion Sediment Control”. This ordinance authorizes the MS4 to enforce a program that reduces pollutant runoff from land development activities.

As an MS4 the Town is responsible for reviewing SWPPPs, inspecting construction sites, and enforcing the permit requirement on applicants that do not comply with the regulations.

The Town of Cortlandt will continue to provide training to participating MS4 personnel that will be responsible for inspecting the construction sites and enforcing the permit requirements.

Responsibility - **Stormwater Management Officer**

4.4 Best Management Practices

4.4.1 - Ordinance or other regulatory mechanism that requires erosion and sediment controls.

The Town requires a Stormwater Pollution Prevention Plan (SWPPP) for applications pertaining to certain land development activities. The Town of Cortlandt has adopted a local law, Chapter 262, entitled "Stormwater Management and Erosion Sediment Control".

4.4.2 – Enforce procedures for site plan review that incorporate consideration of potential water quality impacts and review of individual preconstruction site plans to ensure consistency with local sediment and erosion control requirements.

The Town requires applications for land development activities to include a stormwater pollution prevention plan (SWPPP). The Town's Stormwater Management Officer (SMO) shall accept, and at his discretion, (1) review the plans, (2) or engage the service of a professional consultant to review the plans, specifications and related documents, to be paid for by the applicant. Once the plans are reviewed and approved by the Town the SMO shall forward the SWPPP to the applicable municipal board. The Town requires the SWPPP to include a description of the pollution control measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in stormwater runoff. In addition, the SWPPP is required to include a description of controls to reduce pollutants from the above materials, including storage practices to minimize exposure of the materials to stormwater and spill prevention and response.

4.4.3 – Implement procedures for receipt and consideration of information submitted by the public.

The Town allows for public comment thru different means. As part of the Subdivision process the Planning Board allows for notice to the public and an opportunity for them to review and comment on the proposed design at a public hearing. As part of the building permit process public comment is requested through a notice to the adjoining property owners allowing them to review and comment on the proposed design when a steep slope or wetland permit is required.

4.4.4 – Continue education and training measures for construction site operators about the requirement to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) and any other requirements they must meet for construction sites within the MS4's jurisdiction.

The Town holds a pre-construction meeting with the applicant and contractor for the individual projects requiring a SWPPP. The Contractor who will be involved in soil disturbance and/or stormwater management practice installation shall sign a certification statement prior to undertaking any land development activity. A copy of the certification statement becomes part of the SWPPP and is retained on site during construction.

4.4.5 - Implement requirements for construction site operators to implement erosion and sediment control management practices.

The Town requires the implementation and maintenance of erosion and sediment control practices to ensure continuous and effective operation of the erosion and sediment control practice.

4.4.6 - Implement procedures for site inspections and enforcement of control measures including steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water.

Proposed land development activities are evaluated on a case by case basis. The Town requires weekly site inspections (or as necessary) to determine compliance with the SWPPP plan requirements. At the time of the inspections the portion of the work completed may be approved or the applicant is notified wherein the work fails to comply with the SWPPP requirements.

4.4.7 - Sanctions to ensure compliance to the extent allowable by State or local law.

A verbal warning will be issued as a first step. However, The Town Code allows, a written notice of violation when the land development activity is not being carried out in accordance with the requirements of the SWPPP. The secondary course of action will be a stop-work order whereas all land development activities shall halt, except those activities that address the violation(s) leading to the stop-work order. Failure to address a stop-work order may result in a penalty in accordance with the enforcement measures as outlined in the Town Code.

Responsibility - **Stormwater Management Officer**

Enhanced Requirements:

New York City East of Hudson Watershed MS4s (NYCDEP Watershed Area)

Construction Site Stormwater Runoff Control

The Town of Cortlandt will continue to enforce a program to reduce pollutants in *stormwater* runoff to the *small MS4* from construction activities that result in a land disturbance of greater than or equal to five thousand (5000) square feet within the "NYCDEP" watershed area. At a minimum, the program must provide equivalent protection to the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity and must include the development and implementation of:

1. On October 12, 2007 the Town adopted Local Law 12 of 2007, **"Stormwater Management and Erosion and Sediment Control Ordinance"** which requires erosion and sediment controls designed in accordance with the most current version of the technical standard New York State Standards and Specifications for Erosion and Sediment Control for all construction activities that disturb between five thousand (5000) square feet and one acre of land. For construction activities that disturb between five thousand (5000) square feet and one (1) acre of land, one of the standard erosion and sediment control plans included in Appendix E (Erosion & Sediment Control Plan For Small Homesite Construction) of the New York Standards and Specifications for Erosion and Sediment Control may be used as the Stormwater Pollution Prevention Plan (SWPPP).

2. The Town of Cortlandt shall perform compliance inspections at all sites with a disturbance between five thousand (5000) square feet and one (1) acre of land within the NYCDEP Watershed areas.

SECTION 5 - POST-CONSTRUCTION STORMWATER MANAGEMENT

5.1 Description of Minimum Control Measure

The Post-Construction Stormwater Management minimum control measure consists of Best Management Practices (BMP's) that focus on the prevention or minimization of water quality impacts from new development and redevelopment projects that disturb greater than or equal to one acre, including phased projects with an aggregate disturbance over one acre that discharge stormwater runoff into the MS4. The BMP's describe structural and/or non-structural practices; the legal authority mechanism that will be used to address post-construction runoff from new development and redevelopment projects; and procedures to ensure long term operation and maintenance of BMP's.

5.2 General Permit Requirements

Continue to enforce a program that includes a combination of structural and/or non-structural management practices appropriate for the community that will reduce the discharge of pollutants to the maximum extent practicable.

The program implements the following:

- Maintain an ordinance or other regulatory mechanism to address post-construction runoff from new development and re-development projects to the extent allowable under State or local law.

- Ensure adequate long-term operation and maintenance of management practices, including monitoring to determine whether the practices are reducing the discharge of pollutants to the maximum extent practicable.

- Implement and enforce the program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre. This includes projects of less than one acre that are part of a larger common plan of development, or that have been designated by the NYSDEC to protect water quality, and to control water quantities that discharge into an MS4.

- The program must ensure that controls are in place that would protect water quality and reduce the discharge of pollutants to the maximum extent practicable. MS4's are encouraged to follow applicable guidance available from the NYSDEC or USEPA.

- Provide adequate resources for a program to inspect development and re-development sites and to enforce and penalize violators.

5.3 Methodology for Compliance with Permit Requirements

On September 18, 2007 the Town of Cortlandt adopted Chapter 262, of the Town of Cortlandt Town Code entitled "Stormwater Management and Erosion and Sediment Control". This ordinance authorizes the MS4 to enforce a program that reduces pollutant runoff from newly developed and redeveloped sites. Each MS4 is responsible for inspecting the sites for proper operation and maintenance and enforcing the permit requirements for properties that are not in compliance. In this manner, the MS4 can ensure adequate long-term management practices for both public and private facilities.

5.4 Best Management Practices:

5.4.1 Local Law for Stormwater Management and Erosion and Sediment Control

This ordinance establishes minimum stormwater management requirements and controls to protect the general health, safety, and welfare of the public.

The stormwater ordinance addresses issues relating to:

- Erosion and Sediment Control.
- Stormwater Design Requirements.
- Construction Requirements.
- Fees for municipal services relating to SWPPP reviews, inspections, and maintenance.

Responsibility - **Stormwater Management Officer & Municipal Town Board**

Revise the fee structure, enforcement, penalties and ordinance as needed.
Adjust the stormwater ordinance as necessary to maintain compliance with NYS standards and requirements.

5.4.2 Inspection Program for Newly Developed and Redeveloped Sites

Maintain an inspection program for newly developed and re-developed sites for compliance with the post-construction regulations.

Continue to develop & maintain a list of items to incorporate in the inspection of project sites based on the final post-construction runoff control regulations including consideration of the following:

- Construction of controls according to approved development plans and specifications.
- Adherence to any legal commitment to operate or maintain permanent stormwater quality structures.
- Conformance to open space and landscaping requirements.
- Conformance to local development standards.
- Maintain post-construction inspection forms and procedures.
- Continue to develop & maintain internal tracking procedures for tracking development projects that are under construction and/or have been completed.
- Inspect qualifying project sites using adopted inspection forms and procedures to ensure conformance with local post-construction runoff regulations.
- Issue enforcement actions to owners or operators of local development projects that are not in compliance with local post-construction runoff regulations.
- Maintain records of development project site inspections, enforcement actions, and corrective actions performed by local development project owners.

5.4.3 Asset Management Program (GIS) for Existing Storm Drainage Facilities

Continue the development and implementation of an asset management program for all public existing storm drainage systems.

The program would include the following:

- Identify the location of each storm drainage facility including:
- Current Condition.
- Maintain a list of performance indicators that will enable a measurable evaluation of the system.
- Continue using inspection forms and procedures for inspection of existing facilities.
- Maintain a comprehensive list of approved maintenance, rehabilitation, and replacement practices.
- Use the prioritized list to determine approved projects for the next budget year.

Responsibility - **Stormwater Management Officer**

Enhanced Requirements:

New York City East of Hudson Watershed MS4's (NYCDEP Watershed Area)

Post-Construction Stormwater Management

1. Construction stormwater program

   On October 12, 2007 the Town adopted Local Law 12 of 2007, Chapter 262 entitled "Stormwater Management and Erosion and Sediment Control Ordinance" which requires post-construction stormwater management controls designed in accordance with the most current version of the technical standards the New York State Stormwater Management Design Manual including the Enhanced Phosphorus Removal Design Standards. The Town of Cortlandt will ensure that their ordinance or other mechanism requires post-construction stormwater management controls to be designed in accordance with the final version of the Enhanced Phosphorus Removal Design Standards for all proposed projects within the East of Hudson New York City DEP watershed.

2. Retrofit program

   On June 17, 2008, the Town of Cortlandt entered into an Inter-municipal Agreement (IMA) with eleven other Communities, Towns of Bedford, Harrison, Lewisboro, Mt. Pleasant, New Castle, North Castle, North Salem, Pound Ridge, Somers and Yorktown and the Village of Mt. Kisco with respect to East Of Hudson New York City DEP watershed efforts.

   The above municipalities have joined together to form the "Croton Kensico Watershed Inter-Municipal Coalition" (CKWIC) to advise and inform its members on methods to accomplish the enhanced phosphorous removal from the entire East Of Hudson New York City DEP watershed cooperative region.

   The CKWIC group developed and submitted plans and schedules for completing retrofit projects, including identification of potential funding sources. The NYS DEC has approved the plans and schedules as submitted and the CKWIC group is currently working on the selection of entity to design and oversee the retrofit program as approved by the NYSDEC.

SECTION 6 - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

6.1 Description of Minimum Control Measure

The Pollution Prevention / Good Housekeeping minimum control measure consists of Best Management Practices (BMPs) that focus on training and on the prevention or reduction of pollutant runoff from municipal operations. The BMPs describe the training program; specific municipal operations that are impacted by the proposed operation and maintenance programs (Standard Operating Procedures, or SOPs); maintenance activities, schedules, and long term inspection procedures for controls to reduce floatables and other pollutants; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations; and procedures for the proper disposal of waste removed from the MS4 and municipal operations, including accumulated sediments, floatables and other debris.

6.2 General Permit Requirements

- Continue to develop and implement an operation and maintenance program, as it pertains to their municipal operations, that is designed to reduce and prevent the discharge of pollutants to the maximum extent practicable from municipal activities within the regulated MS4 boundary, including but not limited to park and open space maintenance, fleet and building maintenance, new

construction and land disturbances, stormwater system maintenance, roadway and right-of-way maintenance, marine operations, and hydrologic habitat modification. The operation and maintenance program must include a training component.

- Follow management practices identified in the *NYS Management Practices Catalogue for Nonpoint Source Pollution Prevention* (Catalogue) or other equivalent guidance materials. The Catalogue includes nine individual documents, and is available from the NYSDEC. Another NYSDEC publication, *Municipal Pollution Prevention and Good Housekeeping Program Assistance* (May, 2006) includes descriptions of many guidance documents available from the EPA, New York State, or other organizations.

6.3 Methodology for Compliance with Permit Requirements

The New York State Department of Environmental Conservation (NYSDEC) has developed a guidance document, *Overview of the Municipal Separate Storm Sewer Systems (MS4) Phase II Stormwater Permit Program,* for use by each participating MS4. Also, NYSDEC will provide training to the municipal personnel of participating MS4s. These personnel will be responsible for implementing the BMPs into their everyday activities.

The scope of permit requirements is limited to the regulated MS4 area. According to the *Designation Criteria for Identifying Regulated Municipal Separate Storm Sewer Systems (MS4s)*, (NYSDEC, January 2003), only the area of the municipality that is in the regulated MS4 area is covered under Phase II requirements. For the Town of Cortlandt, the regulated MS4 area extends inland from the Hudson River, as shown on the Stormwater Map in the appendices.

6.4 Best Management Practices

6.4.1 Municipal Training Program

Provide training to each member of the municipality whose work may potentially impact stormwater. For the Town of Cortlandt this includes the Highway, Facilities, Parks, and Water departments. Several members of the Town, trained through Westchester and Putnam Counties Association of Town Superintendents of Highways, will be responsible for training the remaining members of their municipality, as necessary.

Standard Operating Procedures

- Annually provide refresher training for employees.
- Provide training to new employees when hired.

Responsibility - **Stormwater Management Officer -** Refresher training, and training for new employees.

Documentation Form

The Municipal Training Program Documentation Form following this section is provided to record training of employees.

6.4.2 Landscaping and Lawn Care

Reduce the discharge of landscaping and lawn care waste from Town owned facilities through better mowing and landscaping maintenance practices. Report annually on the activities conducted under this program.

Standard Operating Procedures

- Maintain an inventory of landscaping and lawn care areas that are owned by the Town within the MS4 regulated area.
- Evaluate current landscaping and lawn care activities in order to identify opportunities to reduce the discharge of the following:
    - Fertilizers
    - Leaf litter and tree trimmings
    - Litter and floatable materials
    - Equipment fluids
- Ensure that proper litter collection is scheduled prior to any mowing activities.
- Train employees in the proper application of lawn care products.
- Use all herbicides, pesticides, and fertilizers in accordance with manufacturers' instructions for application rates and quantities.
- Purchase only enough lawn care products necessary for one year – store properly to avoid waste generation (spills, leaks).
- Use slow release or naturally derived (organic) fertilizers
- Eliminate or drastically reduce the use of Phosphorus fertilizers
- Evaluate methods for containing and/or composting trimmings and grass clippings.
- Develop zero input/low input lawns that require minimal or no herbicide/pesticide application.
- Consider alternative landscape techniques (i.e. naturescaping – landscaping with native plants to reduce water, energy, and chemical usage; xeriscaping – landscaping with native and drought resistant plants to reduce irrigation needs).
- Plant trees away from sewer lines or other underground utilities.
- Use drip irrigation techniques for landscaping.
- Continue to maintain a monitoring program to promptly identify problems with vegetation.
- Continue to maintain a maintenance program to accomplish the following:
    - Minimize/eliminate fertilizer application.
    - Leave grass clippings on lawn.
    - Water lawns no more than 1 inch per week.
    - Mow with sharpened blades set at or higher than 2.5 inches.
- Post signage that dissuades the public from leaving excrement from their pets on public property.
- Rinse grass from lawn care equipment on permeable (grassed) areas.

Responsibility - **Parks Foreman -** Annually review monitoring and maintenance program and revise as necessary.

Inspection Form

The Lawn Care Contract and Lawn Care/Pest Management Schedule following this section is provided to document lawn maintenance to prevent erosion and contamination of stormwater.

6.4.3 Vehicle/Equipment Maintenance

Maintain municipal owned vehicles according to manufacturer's specifications and identify and eliminate significant vehicle fluid leaks.

Standard Operating Procedures

- Conduct routine maintenance on all vehicles according to manufacturer's specifications.
    - During routine maintenance of Town owned vehicles, inspect vehicles for the presence of fluid leaks.
    - Schedule repairs for vehicles determined to have significant fluid leaks.
    - Maintain vehicle maintenance records and document fluid leak repair activities.
- Conduct maintenance indoors whenever possible.

- For maintenance performed outside, guard against spillage of materials that could discharge to storm receivers.
- If possible, discharge floor drains from Town garages to oil water separators.
- Initiate single purpose use of vehicle bays that have no or sealed floor drains for repairs and maintenance.
- Clean up spilled materials immediately, using “dry” methods.
- Install pretreatment systems (oil/water separators) where necessary in storm sewer lines to capture contaminants (oil, grit), and maintain as needed.
- Never leave vehicles unattended while refueling.
- Identify appropriate recycling/disposal options for wastes.
- Use non-hazardous cleaners. Use non-chlorinated solvents instead of chlorinated solvents.
- Use steam cleaning / pressure washing instead of solvents for parts cleaning.
- Store batteries in leak proof, compatible (i.e. non-reactive) containers.

Responsibility - **Mechanic Foreman**

- Maintain an inventory of Town owned vehicles.
- Require municipal vehicle operators to conduct daily inspections of vehicles to check for fluid leaks.
- Review vehicle inspection and maintenance records to evaluate conformance to vehicle manufacturer service specifications and local stormwater program requirements.

Inspection Form

The Vehicle/Equipment Maintenance and Inspection Form following this section is provided to document inspections for and repair of fluid leaks, and manufacturer’s specified routine maintenance.

6.4.4 Vehicle/Equipment Washing

Wash municipal owned vehicles and equipment to prevent discharge of pollutants to the municipal storm sewer system or local water bodies.

Standard Operating Procedures

- Maintain an inventory of Town owned vehicles and equipment.
- Inspect floor drain systems regularly – use only those that discharge to a sanitary sewer or those that are permitted by the regulatory agency. Identify the need for cleaning of catch basins, oil/water separators.
- Initiate single purpose use of vehicle bays - dedicate only one bay for washing (with floor drain system).
- Perform cleaning with pressurized cold water, without the use of soaps, if wastewater will flow to a storm sewer system.
- Use minimal amounts of biodegradable soap only if wastewaters will discharge to a sanitary sewer system.
- Rinse with hoses that are equipped with automatic shutoff devices and spray nozzles.
- Steam clean (without soap) where wastes can be captured for proper disposal (i.e. oil/water separator).
- Map storm drain locations accurately to avoid illegal discharges.

Responsibility – Deputy **Director of DES (Highway), General Forman – Mechanics, Parks Foreman, Water Foreman, Sanitation Foreman**

6.4.5 Building Maintenance

Conduct building maintenance activities such that they do not impact the stormwater systems and local water bodies.

Standard Operating Procedures

- Maintain a list of the maintenance activities required inside and outside of each municipal building, and identify which activities have an impact on stormwater.
- Implement mitigation measures for each activity that impacts stormwater.

Responsibility - **Parks Foreman -** Annually review the mitigation measures for each activity and revise as necessary.

6.4.6 Hazardous and Waste Materials Management

Prevent the discharge of hazardous and waste materials from impacting municipal stormwater systems and local waterbodies.

- Hazardous wastes include:
    - Lube oils
    - Coatings and their components (paints, thinners, etc.)
    - Anti freeze
    - Cleaning agents
    - Fuels (gas, diesel, kerosene)

Standard Operating Procedures

- Maintain an inventory of existing hazardous and waste materials and their storage locations.
- Plan for proper storage of hazardous and waste materials that are not currently stored properly.
- Implement plan for proper storage of all hazardous and waste materials.
- Repair or replace any leaking/defective containers, and replace labels as necessary.
- Maintain caps and/or covers on containers.
- Maintain aisle space for inspection of products/wastes.
- Ensure that all materials are stored in closed, labeled containers – if stored outside, drums should be placed on pallets, away from storm receivers – inside storage areas should be located away from floor drains.
- Eliminate floor drain systems that discharge to storm drains, if possible.
- Use a pretreatment system to remove contaminants prior to discharge.
- Reduce stock of materials “on hand” – use “first in/first out” management technique.
- Use the least toxic material (i.e. non hazardous) to perform the work.
- Install/use secondary containment devices where appropriate.
- Eliminate wastes by reincorporating coating/solvent mixtures into the original coating material for reuse.
- Recycle materials if possible, or ensure proper disposal of wastes.
- Annually inspect material storage areas (inside and outside).
- Annually inspect cleaning of oil/water separators by qualified contractor.
- Annually inspect stormwater discharge locations (for contaminants, soil staining, plugged discharge lines).

Responsibility – **Director of Department of Environmental Services, Working Superintendent of Highway, Parks Foreman, Mechanic Foreman, Sanitation Foreman**

Inspection Form

The Hazardous Materials Management Form following this section is provided to document inspections for hazardous and waste materials storage.

6.4.7 Operational By Products/Wastes

Prevent the potential for leaching of toxic and biological contaminants from dump areas from reaching the municipal stormwater system or local waterbodies.

Standard Operating Procedures

- Post “no dumping” signs where needed.
- Illuminate area if possible.
- Prevent access – erect barriers where needed.
- Identify the by-products/wastes that should be recycled (i.e. paper, cardboard) or can be legally disposed of on municipal lands (i.e. deer carcasses) by referencing NYSDEC regulations (6NYCRR PART 360).
- Store mulch and leaves on high ground to mitigate contact with stormwater.
- Clean up and dispose of “illegally dumped” materials, trash/debris in accordance with environmental regulations.
- Cut and remove vegetation from dump areas.
- Regularly schedule inspections for areas of maintenance concerns.
- Coordinate with police for unscheduled patrolling of dump areas.

Responsibility – **DES Director & Deputy Director**

6.4.8 Roadway and Bridge Maintenance

Assess roadway and bridge maintenance activities and modify procedures to reduce stormwater quality impacts.

Standard Operating Procedures

- Pave in dry weather only.
- Stage road operations and maintenance activity (patching, potholes) to reduce spillage. Cover catch basins and manholes during this activity.
- Clean up fluid leaks or spills from paving equipment/materials immediately.
- Restrict the use of herbicides/pesticide application to roadside vegetation.
- Use porous asphalt for shoulder work.
- Sweep and vacuum paved roads and shoulders as necessary to remove debris and particulate matter.
- Maintain roadside vegetation; select vegetation with a high tolerance to road salt.
- Identify “alternative” maintenance practices that would reduce the discharge of road-materials during construction or maintenance activities (e.g. repairing leaking/defective containers or equipment on paving equipment).
- Revise roadway maintenance specifications according to identified alternative practices.
- Maintain records of road maintenance activities and the use of alternative maintenance practices.
- Incorporate preventive maintenance in planning for regular operations & maintenance activities.
- Clean out bridge scuppers and catch basins regularly.
- Direct water from bridge scuppers to vegetated areas.

Responsibility – **DES Director &** Deputy Director

Inspect roads and bridges for implementation of applicable BMPs.

Evaluate roadway maintenance program annually and revise roadway maintenance specifications according to identified alternative practices.

Inspection Form

The Roadway Maintenance and Inspection Form following this section are provided to document paving and other operations.

6.4.9 Road Salt Storage and Application

Provide proper storage and application of road salt to reduce the impact of salt on plants, aquatic life, and the local water bodies.

Standard Operating Procedures

- Train operators on environmental hazards of over-salting roads.
- Identify areas particularly susceptible to contamination in the MS4 area.
- Use covered facility for salt storage (prevents lumping and run-off loss), sized properly for seasonal needs.
- Store salt on highest ground elevation to mitigate contact with stormwater.
- Calibrate salt spreaders as necessary.
- Consider alternative deicing materials (i.e. calcium chloride, magnesium chloride).
- If possible, use a wetting agent with salt to minimize "bouncing" during application.
- Unload salt deliveries directly into storage facility, or if not possible, move inside immediately.
- Inspect salt storage shed for leaks, other problems. Repair as needed.
- Inspect salt piles for proper coverage, and/or tarps for leaks or tears. Replace tarps as needed.
- Inspect salt application equipment.
- Inspect salt regularly for lumping or water contamination.
- Inspect surface areas for evidence of runoff – salt stains on ground near and around the salt shelter, loading area, or downslope.
- Inspect for excessive amounts of salt on roads.
- Inspect equipment to verify proper operation. Service trucks and calibrate spreaders regularly to ensure accurate, efficient distribution of salt.

Responsibility – **DES Director &** Deputy Director

6.4.10 Catch Basin and Storm Drain System Cleaning

Reduce sediment and floatable material discharges by routinely cleaning municipal catch basins and stormwater inlet structures.

Standard Operating Procedures

- Identify areas where catch basins, surface inlets, and/or storm sewer manholes should be periodically cleaned to reduce discharge of floatable materials, sediment, and other materials.
- Prioritize storm drain systems and catch basins (e.g. catch basins on steep grades may need more frequent cleaning).
- Develop a schedule for inspection and cleaning of inlet structures, catch basins, and manholes.
- Inspect catch basins, (below grade) storm sewer systems, and open ditches for need of maintenance or cleaning.
- Clean catch basins when depth of deposits is > 1/3 to bottom of pipe.
- Storm event inspection – identify pollution problems (i.e. sediments).
- Post storm event inspection – identify problems (i.e. blockage).
- Evaluate the catch basin cleaning schedule on an annual basis.
    - Increase frequency of cleaning as necessary.

- Catch basins and floor drain systems inside of buildings should be either:
    - Sealed to prevent discharge
    - Permitted by NYSDEC
    - Discharged to sanitary sewers
- Repair/replace storm drain receiver and catch basin receiver grates as necessary.
- Maintain slope of drainage ditches.
- Maintain vegetation in drainage ditches by cutting (to capture sediment).
- Remove obstacles/ debris from drainage ditches.
- After excavation /ditch scraping, reseed ditch.

Responsibility - **DES Director and** Deputy Director

Inspection Form

The Storm Drain System Inspection Form following this section is provided to document maintenance operations including inspections and cleaning of catch basins and ditches.

6.4.11 New Construction and Land Disturbance

Comply with the Town's construction and post-construction minimum control measures.

Standard Operating Procedures
- Provide education material and training opportunities to the municipal work crews to inform them of the local, state, and/or federal regulations that will impact their projects.
- Plan the construction and/or land clearing activities so that soil is not exposed for long periods of time.
    - Minimize compaction of soils.
    - Minimize impervious cover.
    - Maximize opportunities for infiltration.
- Install sediment control devices before disturbing soil.
- Limit grading to small areas.
- Stabilize site to protect against sediment runoff.
- Protect against sediment flowing into storm drains.
- Maintain native vegetation (especially near waterways).
- Install sediment barriers on slopes or divert stormwater.
- Inspect erosion and sediment controls (ES&C) devices.
- Inspect ES&C devices during storm or snow melt events.

Responsibility – **Stormwater Management Officer,** DES Director & Deputy Director

Inspection Form

The Land Disturbance Inspection Form following this section is provided to document inspections of erosion and sediment control devices.

6.4.12 Hydrologic Habitat Modification

Develop requirements for the municipal work crews to abide by during hydrologic habitat modification such as stream and ditch modifications, and wetland disturbance. Provide training to the local municipal work crews regarding the requirements associated with any habitat modification.

Standard Operating Procedures

- Identify any potential habitat modification to the NYSDEC and USACOE through their Joint Application for Permit Program.

- Comply with all requirements of the NYSDEC and USACOE permits for work within freshwater wetlands and streams.
- Comply with the construction and post-construction requirements within the stormwater regulations.

Responsibility - **DES Director & Deputy Director**

Where applicable, provide the NYSDEC and USACOE with the required information in the Joint Application for Permit to obtain their approval prior to proceeding.

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

6.4.13 Street Cleaning and Maintenance

Develop requirements for the sweeping of streets and roadways in order to reduce the amount of sediment and associated pollutants discharged to the MS4 from roadways.

Standard Operating Procedures
- Identify the type of roadways that should be swept to remove sediment and other pollutants.
- Curbed roads should be swept to remove debris that could otherwise migrate to catch basins.
- Roads treated with salt/ sand/ stone mixture during the winter should be swept in the spring to remove sediment.
- Schedule and implement street sweeping of identified roadways.
- Perform operations such as paving in dry weather only.
- Maintain records of streets that have been cleaned.
- Adjust sweeping schedules according to program needs.
- Prior to road reconstruction, consider/evaluate the use of “shouldered roads” instead of “curbed roads”.
- Maintain roadside vegetation; select plants/trees that can withstand the action of road salt. Direct runoff to these areas.

Responsibility - **DES Director & Deputy Director**

Inspection Form

The Roadway Maintenance and Inspection Form following this section are provided to document roadway sweeping/cleaning operations.

6.4.14 Marina Operations

Provide for proper operation and maintenance of marinas in order to mitigate the contamination of the stormwater system and local waterbodies.

Standard Operating Procedures

- Minimize the impact of the following items:
    - Liquids associated with boat maintenance products (oils, fuels, antifreeze, wood preservatives, etc.) and particulate matter (i.e. boat bottom paint from hull sanding).
    - Boat sewage.
    - Sedimentation from barren soils.
- Implement the following:
    - Stabilize shoreline.
    - Minimize impervious areas – install vegetated buffer strips (i.e. grass, shrubs).
    - Provide covered trash receptacles.
    - Educate (posters, signage) boaters and other marina users of potential problems.

- Identify areas of runoff that lack vegetation.
- Regularly check (and empty as necessary) trash cans.

Responsibility - **Parks Foreman**

6.4.15 Pest Control

Reduce the discharge of pesticides from Town owned facilities as they may harm aquatic life and may contaminate local water bodies and sediment.

Standard Operating Procedures

- Identify pests within municipality. Determine if levels are acceptable or if action needs to be taken to control them.
  - Assess each location for opportunities to implement alternative practices and to retrofit structures in order for non-pesticide methods of maintenance to become effective.
  - Develop a prioritized list of areas where retrofits and alternative pest control practices would reduce overall pesticide and herbicide application volumes.
- Maintain an inventory of areas designated for herbicide and pesticide application including the following:
  - Area of application
  - Type of pesticide or herbicide applied
  - Purpose of application
  - Pesticide and herbicide application schedule.
- Comply with local, state, and federal regulations associated with pesticide and herbicide application, e.g. licensing regulations.
- Purchase only enough pesticides necessary for one year – store properly to avoid waste generation (spills, leaks, product deterioration).
- Minimize/eliminate pesticide application, use lowest toxicity pesticides.
- Track the volume and type of pesticide or herbicide applied at each location.
- Do not apply pesticides immediately prior to or during rain events.
- Require pesticide contractor to be properly trained and certified in pesticide application techniques and safety.
- Develop zero input or low input lawns.
- Eliminate food, water, and shelter for pests
- Adopt integrated pest management (IPM) techniques.
- Adopt alternatives to pesticides options (use physical, mechanical, or biological controls).
- Inspect pest traps (bait boxes) regularly. Remove and properly dispose of dead pests.
- Block/eliminate access to buildings/structures for pests.
- Remove pests (insects).
- Follow NYSDEC regulations (6NYCRR Part 325).

Responsibility - **Parks Foreman**

6.4.16 Septic System Management

Prevent improperly treated wastewaters from Town-owned septic systems from impacting municipal stormwater systems and local waterbodies.

Standard Operating Procedures

- Divert stormwater runoff (i.e. from roof drains) away from septic system.
- Divert groundwater (sump pump) discharges away from septic system.
- Locate swimming pools away from the septic system (at least 20' from the septic tank, at least 35' from the closest edge of the leach field or sand filter system)
- Prevent problems caused by vegetation - growth of woody plants on the System.

- Prevent hydraulic overloading - "Spread out" the use of devices which use large volumes of water across the entire day. Repair leaky fixtures.
- Minimize water usage by using flow restrictors on potable water distribution devices (i.e. shower heads, water faucets)
- Develop an inventory of existing municipal sewage treatment systems.
- Prevent heavy equipment from driving on top of the system components.
- Assess each septic system on an annual basis for the following conditions:
    - "back up" of wastewater in sewer lines
    - sewage odors
    - leach field/sand filter - wetness/ponding on surface or overflow of wastes from system components
    - heavy vegetation (woody plants) growth on system components
- Determine the interval for pumping out each municipal septic tank.

Responsibility - **Parks Foreman**

6.4.17 Alternative Discharge Options for Chlorinated Water

Prevent the discharge of chlorinated water from impacting municipal stormwater systems and local waterbodies.

Standard Operating Procedures

- Train Town staff on the process for de-chlorinating pool water.
- De-chlorinate pool water before any discharge, whether over land or to the sanitary sewer, or allow the "disinfectant" to dissipate with sunlight, use, over-wintering, etc. prior to discharge.
- Check chlorine residuals in municipal pool prior to discharge if any chlorine might be present.
- Discharge pool water to the sanitary sewer rather than storm sewer if de-chlorination is not verified.
- Obtain permission from the municipal POTW prior to discharging any chlorinated pool waters to a sanitary sewer system.
- Do not discharge chlorinated water into the sanitary sewer system during periods of high flow.
- Backwash water should be discharged to the sanitary sewer, if available – if not available, discharge water over vegetated areas, not to surface waters.
- Maintain proper levels of chlorine residuals in pools.

Responsibility - **Parks Foreman**

Enhanced Requirements:

New York City East of Hudson Watershed MS4s (NYCDEP Watershed Area)

Pollution Prevention/Good Housekeeping For Municipal Operations

a. Continue to develop and implement a stormwater conveyance system inspection and maintenance program. At a minimum, the program shall include the following:

    1. Policy and procedures for the inspection and maintenance of catch basin and manhole sumps. Catch basin and manhole sumps should be inspected in the early spring and late fall for sediment and debris build up. If sediment and debris fills greater than 50% of the sump volume, the sump should be cleaned. All sediment and debris removed from the catch basins and manholes shall be properly disposed of;

    2. In June of 2008, the Town of Cortlandt began inspections of their stormwater *outfalls* to identify necessary repairs. All outfall protection and/or bank stability problems identified during the inspection have been corrected in accordance with the New York Standards and Specifications for Erosion and Sediment Control. This inspection process will continue and

repairs made as needed.

3. Policy and procedures for the inspection, maintenance and repair of a *covered entity's* stormwater management practices. The inspection and maintenance schedule for all stormwater management practices shall assure continued operation of stormwater management practices; and

4. Develop a Corrective Action Plan for each stormwater conveyance system component that has been identified as needing repair. A file of all corrective actions implemented and *illicit discharges* detected and repaired should be maintained for a period of not less than five years.

b. Continue to develop and implement a turf management practices and procedures policy. The policy shall address the following:

   1. Enforce procedures for proper fertilizer application on municipally-owned lands. The application of any phosphorus-containing fertilizer (as labeled) shall only be allowed following a proper soil test and analysis documenting that soil phosphorus concentrations are inadequate.

   2. Enforce procedures for the proper disposal of grass clippings from municipally-owned lawns where grass clipping collection equipment is used. Grass clippings shall be disposed of in a compost pile or a proper containment device so that they cannot enter the *small MS4* or surface waters.

   3. Enforce procedures for the proper disposal of leaves from municipally-owned lands where leaves are collected. Leaves shall be disposed of in a compost pile or a proper containment device so that they cannot enter *small MS4s* or surface waters; and the planting of wildflowers and other native plant material to lessen the frequency of mowing and the use of chemicals to control vegetation.

SECTION 7 – MEASURABLE GOALS

7.1 Summary of Yearly Measurable Goals

The New York State Department of Environmental Conservation Stormwater General Permits require the town to implement and constantly progress measurable goals for a period of five years from the latest General Permit date to meet the minimum measures as outlined in the permit. The town is currently working under GP-0-10-002. The following outlines the measurable goals for the period of the permit.

- Continue to update the Town of Cortlandt website with respect to stormwater management items including listing available education materials and upcoming stormwater presentations and events.
- Create presentation and information materials on stormwater management practices for distribution to the public. Include as part of these materials information with respect to the NYCDEP East of Hudson River Watershed and Phosphorous as a pollutant of concern.
- Continue monthly staff meetings to discuss and address stormwater issues.
- Continue to provide public notice for upcoming stormwater events thru the Town's public access channels.
- Continue to evaluate and address issues with outfalls.
- Continue to provide full access to the public to review and request copies of information with regard to the Town's Stormwater Management Plan.
- Continue to review Stormwater Pollution Prevention Plans (SWPPPs).
- Remain as an Inter-Municipal member of the Northern Westchester Watershed Coalition.
- Continue to compile, organize and locate stormwater management materials in a designated location in Town Hall and other public buildings within the town.
- Inspect at least 20% of the known outfall locations per year and incorporate it into a GIS database.

- Schedule and conduct public meetings on the annual report or post to the website for public comment.
- Continue to provide pollution prevention and stormwater management training to Town employees.
- Continue to identify and eliminate illicit discharge points.
- Continue to provide information to contractors addressing construction site stormwater runoff control.
- Continue to develop and implement stormwater management practices to mitigate Town operations contributing to water quality concerns and pollutants of concern.
- Continue to supply bid documents requiring compliance with the Phase II Stormwater General Permit.
- Continue to require stormwater inspections in accordance with the latest requirements of the applicable NYSDEC General Permit and Town Code.
- Continue to require all construction site operators on construction projects which disturb one acre or more (5,000 square feet or more in the NYSDEP East of Hudson Watershed) to have at least one individual on site daily while soil disturbance activities are being performed who has received four hours of NYSDEC – endorsed Erosion and Sediment Control Training.
- Update mapping for open drainage systems within NYCDEP watershed to include lining materials, shape and dimensions.
- Identify the water quality testing locations throughout Town based on the Indra studies.

The measurable goals will be evaluated on a per year basis for the term of the permit and adjustments to the program made accordingly. Modification of the measurable goals will be included in the annual report.

SECTION 8 - INTER- MUNICIPAL COOPERATION

The New York State Department of Environmental Conservation encourages MS4s to cooperate whenever and wherever possible in developing their SWMPs. Working together will result in greater environmental and economic benefits for involved MS4s. The Town of Cortlandt is a member of the Northern Westchester Watershed Coalition (NWWC) and the Croton Kensico Watershed Inter-municipal Coalition (CKWIC).