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**DRAFT REPORT**

**Initial Stormwater Management  
Program for "Small" Municipal  
Separate Storm Sewer Systems  
(MS4s)**

**County of Putnam  
State of New York**

**March 2003**



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C NYSDEC Priority Waterbodies List  
D NYSDOT Highway Inventory For County Roads

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## 1. Introduction

This report serves as the Initial Stormwater Management Program (SWMP) for the County of Putnam, as required by the United States Environmental Protection Agency (EPA)/New York State Department of Environmental Conservation (NYSDEC) Phase II Stormwater Management Program for “small” municipal separate stormwater sewer systems (MS4s). Attached to this report are the following items:

- NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit For Stormwater Discharges from MS4s (Permit No. GP-02-02) - see Appendix A
- Notice of Intent (NOI) for Coverage Under GP-02-02 – see Appendix B

### 1.1. Overview

The EPA is moving forward on the Phase II implementation of its Stormwater Management Program under the Clean Water Act (CWA). The Phase I Stormwater Management Program, implemented in 1990, regulates “large” and “medium” MS4s, several categories of industry, and construction sites that disturb five acres or more.

The expanded Phase II program requires operators of “small” MS4s in automatically designated (urbanized areas) or additionally designated areas, and operators of “small” construction sites to implement programs and practices to control stormwater discharges. Implementation of the Phase II requirements relies on permits issued by the EPA under the National Pollutant Discharge Elimination System (NPDES) or by the delegated state NPDES permitting authority.

For New York State, the NPDES permitting authority is the NYSDEC. The NYSDEC issues permits under their SPDES program.

Urban stormwater runoff, which often drains into stormwater sewer systems, is a main source of non-point source pollution and can contain sediment, suspended solids, nutrients (phosphorus and nitrogen), heavy metals, pathogens, toxins, oxygen-demanding substances (organic material), and floatables. Due to impervious surfaces, stormwater runoff from urbanized areas is often higher in volume and at higher temperatures than runoff from undeveloped areas. Thus, unabated stormwater sewer system discharges from developed areas are detrimental to water quality and can cause habitat alteration and destruction.

The goal of the Phase I and Phase II Stormwater Programs is to protect the water quality of waterbodies in the United States by reducing the contamination caused by discharges from stormwater sewer systems.

### 1.2. Communities and Facilities Affected

Under the Phase I Stormwater Management Program, the EPA required NPDES permit coverage for stormwater discharges from:

- “medium” and “large” MS4s located in incorporated places or counties with populations of 100,000 or more
- eleven categories of industrial activity, one of which is construction activity that disturbs five or more acres of land

The Phase II Stormwater Management Program, requires automatic permit coverage for stormwater discharges from:

- “small” MS4s located within an urbanized area (defined by the Census Bureau utilizing 2000 census data as “a land area comprising one or more places – central place(s) – and the adjacent densely settled surrounding area – urban fringe – that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile”). These are “automatically designated” areas
- industrial activities operated by municipalities with populations of less than 100,000 people
- “small” construction activity disturbing between one and five acres of land. Construction sites that disturb less than one acre can be included if the EPA or the NYSDEC determines that stormwater controls are necessary

The Phase II Stormwater Management Program also requires coverage for “small” MS4s located outside of urbanized areas, if the EPA or the NYSDEC determines that stormwater controls are necessary. The decision to include these additionally designated areas is based on the following criteria:

- i. discharge to sensitive waters (i.e. waterbodies on the *1999 Lower Hudson River Basin Waterbody Inventory and Priority Waterbodies List, 2002 Section 303 (d) List of Impaired Waters Requiring a TMDL*, and/or waterbodies that have been determined to require a TMDL)
- ii. high population density
- iii. high growth or growth potential
- iv. contiguity to an urbanized area
- v. significant contributor of pollutants to waters of the United States
- vi. ineffective protection of water quality by other programs

The County of Putnam contains areas that are automatically designated because they are classified as urbanized areas, and portions that are classified by the NYSDEC as additionally designated areas. These additionally designated areas are the portions of the County that are within the New York City East-of-the-Hudson Watershed.

### **1.3. Phase II Requirements**

#### **1.3.1. “Small” MS4 Requirements**

The Phase II Stormwater Management Program requirements for “small” MS4s are as follows:

- Notification to the NYSDEC in accordance with the SPDES General Stormwater Permit No. GP-02-02, or the acquisition of a project-specific NYSDEC permit.
- Development, implementation, and enforcement of a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants to the “maximum extent practicable”.
- Six minimum control measures:
  - i. public education and outreach on stormwater impacts
  - ii. public involvement/participation
  - iii. illicit discharge detection and elimination
  - iv. construction site stormwater runoff control
  - v. post-construction stormwater management
  - vi. pollution prevention/good housekeeping for municipal operations
- Identification of best management practices (BMPs) and measurable goals to be included in periodic reports to the NYSDEC.

#### **1.3.2. “Small” Construction Requirements**

The Phase II Stormwater Management Program requirements for “small” construction activities are as follows:

- Notification to the NYSDEC in accordance with the SPDES Stormwater Permit No. GP-02-01, or the acquisition of a project-specific NYSDEC permit.
- Implementation and maintenance of stormwater controls.

#### **1.3.3. Municipal Industrial Activity Requirements**

Under the Phase I Stormwater Management Program, industrial activity (with the exception of power plants, airports, and uncontrolled sanitary landfills) operated by municipalities of less than 100,000 people were temporarily exempted from obtaining a SPDES stormwater discharge permit. The Phase II Stormwater Management Program ended this temporary exemption.

The Phase II Stormwater Management Program requirements for municipally operated industrial activity are as follows:

- Submission of a NYSDEC Notice of Intent, Transfer or Termination (NOITT) Form for Stormwater Discharges Associated with Industrial Activity Except Construction Activity under the NYSDEC SPDES General Stormwater Permit No. GP-98-03 and implementing a SWMP as required by the permit.
- Submission of a NYSDEC “No Exposure” Certification Form in lieu of the NOITT, if industrial materials at the municipally operated facility is not exposed to precipitation or runoff.

### 1.4. Setting

The County of Putnam is located in the southeastern portion of New York State (see Figure 1-1).

There are several areas in the County that are classified as an “Urban Area”. Urbanized areas are automatically designated and must obtain coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-02. Automatically designated areas within the County are shown in Figure 1-2.

The eastern portion of Putnam County is located within the New York City Department of Environmental Protection (NYCDEP) East-of-the-Hudson Watershed. These areas are defined as additionally designated areas which require coverage under NYSDEC SPDES General Stormwater Permit No. GP-02-02 (see Figure 1-2).

The following New York City Reservoir Basins are partially or entirely within the County of Putnam:

- Amawalk
- Bog Brook
- Boyds Corners
- Croton Falls
- Diverting
- East Branch
- Middle Branch
- Muscoot
- West Branch

The lands within the NYCDEP watersheds account for approximately 57% of the total County area. All areas of the County that are within the boundaries of the New York City watershed and not classified as “Urban Areas” have been selected as additionally designated areas that are regulated and therefore require coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-02.

## 1.5. Water Resources

The County of Putnam contains numerous waterbodies, ranging from small watercourses and ponds to large lakes, reservoirs and rivers. The Hudson River is located on the west side of Putnam County. The eastern and central portion of Putnam County is located within the New York City Watershed. For the purpose of this report, the major waterbodies focused on are classified into three categories: NYSDEC Priority Waterbodies, NYSDEC Impaired Waters and NYSDEC TMDL Waterbodies.

### 1.5.1. NYSDEC Priority Waterbodies

The following waterbodies within the County of Putnam are on the NYSDEC's 1999 *Lower Hudson River Basin Waterbody Inventory and Priority Waterbodies List* (1999 PWL). The 1999 PWL identifies use impairments, type of pollutants, and pollution sources for waterbodies in the Lower Hudson River Basin.

**Table 1.5.1.**  
**COUNTY OF PUTNAM-NYSDEC PRIORITY WATERBODIES**

<b>AUTOMATICALLY DESIGNATED AREAS</b>
Bog Brook Reservoir Croton Falls Reservoir East Branch Croton River Lake Carmel Lake Gilead Lake Gleneida Lake Mahopac Lake Tonetta Michaels Brook Middle Branch Reservoir Muscoot River, Upper Peach Lake Putnam Lake Oscawana Lake Peekskill Hollow Brook Roaring Brook Lake
<b>ADDITIONALLY DESIGNATED AREAS</b>
Boyds Corners Reservoir Diverting Reservoir East Branch Reservoir Muddy Brook West Branch Reservoir
<b>OTHER AREAS</b>
Barger Pond Hudson River Lake Tibet

Refer to Appendix C for detailed information regarding each Priority Waterbody.

**1.5.2. NYSDEC Impaired Waters**

The following waterbodies within the County of Putnam are on the NYSDEC's 2002 Section 303 (d) List of Impaired Waters Requiring a TMDL (303-d List), as a waterbody for which there is a high priority for a Total Maximum Daily Load (TMDL) development by the NYSDEC:

**Table 1.5.2.  
COUNTY OF PUTNAM-IMPAIRED WATERS**

<b>WATERBODY</b>	<b>POLLUTANT OF CONCERN</b>
Peach Lake	Phosphorus, Pathogens
Oscawana Lake	Phosphorus
Hudson River	PCB's, Cadmium
Boyd's Corners Reservoir	Mercury
Lake Carmel	Phosphorus

**1.5.3. NYSDEC TMDL Waterbodies**

As previously mentioned in this report, the eastern and central portion of Putnam County lies within the New York City Watershed. For the New York City Watershed reservoirs, the NYSDEC has submitted Phase II TMDLs to the EPA, which were subsequently approved on October 2000, and thus these waterbodies have been removed from the 303-d List.

**Table 1.5.3.  
COUNTY OF PUTNAM-TMDL WATERBODIES**

<b>WATERBODY</b>	<b>POLLUTANT OF CONCERN</b>	<b>PHOSPHORUS GUIDANCE VALVE (µg /L)</b>
Croton Falls Reservoir	Phosphorus	15
Middle Branch Reservoir	Phosphorus	20
West Branch Reservoir	Phosphorus	15
Boyd's Corners Reservoir	Phosphorus	20
Diverting Reservoir	Phosphorus	20
Bog Brook Reservoir	Phosphorus	20
East Branch Reservoir	Phosphorus	20

The primary pollutant of concern for these reservoirs is phosphorus. The Phase II TMDLs for these reservoirs were developed assuming a maximum allowable phosphorus guidance value (water concentration) of 15 µg/l for source water reservoirs, and 20 µg/l for upstream reservoirs.

The Phase II TMDLs address total non-point phosphorus load reductions per reservoir basin. Town specific non-point load reductions have not been discussed at this time. Two options for allocating load reductions to individual towns are as follows:

- Assigned load reduction proportional to the town's land within reservoir basin.
- Assigned load reduction proportional to the town's current load to the reservoir basin

The County of Putnam is not committing to meeting any assigned Phase II TMDL non-point phosphorus load reductions.

#### **1.5.4. Wetlands and Streams**

The County of Putnam is dotted with numerous streams and wetlands, ranging from small intermittent watercourses to large wetlands such as the Great Swamp.

Every town within the County has incorporated some form of wetland control laws to provide protection of wetlands, watercourses, and waterbodies.

## **1.6. Population**

Based on the 2000 census, an estimated 95,745 persons lived in Putnam County. This population is 14.1% higher than the County's population of 83,941, as reported in the 1990 census.

The highest densities of population in the County are generally the developments surrounding Lake Communities. These areas have population densities that meet the definition of "Urbanized Area" as previously discussed.

**Table 1.6.1.  
POPULATION TRENDS IN PUTNAM COUNTY**

TOWN	POPULATION				PERCENTAGE CHANGE		
	1970	1980	1990	2000	1970-1980	1980-1990	1990-2000
Putnam County	56,696	77,193	83,941	95,745	36.2%	8.7%	14.1%
Town of Putnam Valley	5,209	8,994	9,094	10,686	72.7%	1.1%	17.5%
Town of Carmel	21,639	27,948	28,816	33,006	29.2%	3.1%	14.5%
Town of Kent	8,106	12,433	13,183	14,009	53.4%	6.0%	6.3%
Town of Patterson	4,124	7,247	8,679	11,306	75.7%	19.8%	30.3%
Town of Philipstown	7,717	9,155	9,242	9,422	18.6%	1.0%	2.0%
Town of Southeast	9,901	11,416	14,927	17,316	15.3%	30.8%	16.0%

**Source:** Putnam County Division of Planning, U.S. Bureau of the Census.

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## 2. Municipal Separate Stormwater Sewer Systems (MS4s)

To abate flooding during rain events, impervious surfaces created by development require particular attention to stormwater management. Areas with significant impervious surfaces include highways, commercial/industrial areas, and high-density residential areas.

Storm sewer systems assist in collecting and conveying stormwater runoff and often discharge directly to a receiving waterbody. In general, storm sewer systems consist of swales, gutters, catch basins, ditches, and/or underground piping.

### 2.1. Definition

A municipal separate stormwater sewer system (MS4) is a stormwater sewer system that is owned or operated by a state, city, town, borough, county, or other public body. MS4s can be storm sewer systems in use for local jurisdictions, state departments of transportation, universities, local sewer districts, hospitals, military bases, and prisons.

### 2.2. Sources of Flows

#### 2.2.1. Wet Weather

Wet weather flows in MS4s typically consist of collected stormwater surface runoff, which is precipitation that does not percolate into the ground and flows over-ground during a storm event and for a short period after a storm event. Structures and pipelines of MS4s collect stormwater runoff and convey the flow to an acceptable discharge point.

#### 2.2.2. Dry Weather

Dry weather flows in MS4s can originate from stormwater and non-stormwater sources. Examples of stormwater dry weather sources are snowmelt, detention basin storage, and stormwater that is pumped out of basements and building foundations.

Dry weather flows in MS4s can also originate from non-stormwater discharges that are not usually major sources of pollution. The following sources fall into this category:

- water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters

- uncontaminated ground water infiltration
- uncontaminated pumped ground water
- discharges from potable water sources
- foundation drains
- air conditioning condensation
- irrigation water
- springs
- water from crawl space pumps
- footing drains
- lawn watering
- individual residential car washing
- flows from riparian habitats and wetlands
- dechlorinated swimming pool discharges
- street wash water

### **2.2.3. Illicit Connections**

MS4 flows that are not from precipitation, and contain high levels of pollutants, are considered illicit. Examples of illicit sources are as follows:

- sanitary wastewater
- effluent from septic tanks
- car wash wastewater
- radiator flushing disposal
- laundry wastewater
- spills from roadway accidents
- improper disposal of auto and household toxic substances

The above sources can be discharged to MS4s through direct piped connections, either unknowingly or deliberately, or indirectly through infiltration, or through the dumping or spilling of pollutants into storm drains.

Illicit discharges are detrimental to water quality, since they can contain heavy metals, toxic materials, oil and grease, solvents, nutrients, viruses and bacteria. MS4s are not designed for the removal of these pollutants. As a result, illicit flows to MS4s are discharged to the environment essentially untreated.

## **2.3. Pollutants of Concern in MS4 Discharges**

Urban runoff picks up pollutants as it flows over impervious surfaces. MS4 discharges, therefore, often contain sediment, suspended solids, nutrients (phosphorus and nitrogen), heavy metals, pathogens, toxins, oxygen-demanding substances (organic material), and floatables.

Pollutants of concern in Putnam Valley include sediment, suspended solids, nutrients, and oxygen demanding substances. Shown below is a

short description of these pollutants and their possible effects on water quality.

### **2.3.1. Sediment**

Sediment consists of unsupported soil, and construction materials that are washed away by stormwater runoff. Sediment laden runoff can cause streambed scour, stream bank erosion, and destruction of stream vegetation, and can lead to loss of habitat, loss of reservoir storage capacity, and loss of waterway navigational capacity.

### **2.3.2. Suspended Solids**

Suspended solids is the solids content of stormwater that will not pass through a filter (typically glass fiber) with a nominal pore size of about 1.2- $\mu\text{m}$ . When discharged into an aquatic environment, suspended solids can lead to sludge deposits and anaerobic conditions.

### **2.3.3. Nutrients**

Nutrients such as carbon, nitrogen, and phosphorus are essential for biological growth. In aquatic environments, the discharge of these nutrients can cause the excessive growth of nuisance organisms, such as algal blooms, and can lead to the eutrophication of the receiving waterbody. Phosphorus is the limiting nutrient in the East-of-the-Hudson Watershed and in Oscawana Lake.

### **2.3.4. Oxygen Demanding Substances**

Oxygen demanding substances include biodegradable materials, such as proteins, carbohydrates, and fats, and some inorganic compounds. The decomposition/oxidation of these materials can lower the dissolved oxygen concentration of receiving waterbodies and lead to septic conditions.

## **2.4. Types of Improvements**

Pollutants and flows discharged from existing MS4s can be reduced through the use of non-structural and structural Best Management Practices (BMPs).

Non-structural BMPs consists of public education, and appropriate planning and zoning. Public education can help reduce pollutants entering a MS4 by informing the community of the detrimental effects, (to the water quality of local waterbodies) that are caused by illicit discharges. Proper zoning and planning allow for the siting of commercial, industrial, and residential areas in areas where these facilities and communities would have minimal impacts on water quality. Zoning and planning can also be used to preserve undeveloped areas and riparian zones.

Structural BMPs involve the construction of stormwater detention and treatment facilities. Examples of stormwater storage structures are wet ponds, dry basins, and catch basins. In addition to providing storage,

these stormwater retention basins also serve to settle out solids. Other structural BMPs consist of the use of infiltration basins/trenches, drywells, and porous pavements to increase the amount of runoff that percolates into the soil. Grass swales, filter strips, artificial wetlands, and rain gardens are examples of vegetative structural BMPs that can serve to provide pollutant removal and control runoff.

### 2.5. Existing Systems

Most areas of development within Putnam County includes some level of stormwater facilities. These systems vary in extent, complexity, condition, and effectiveness.

County roads contain swales, catch basins and related piping to convey the flow of stormwater. There are very limited stormwater treatment facilities associated with the County's MS4s.

New York State and Town/Village roadways in Putnam County generally include catch basins and piping for the collection and conveyance of stormwater. These stormwater systems connect to County stormwater systems in many areas.

The State, County, and local stormwater collection and conveyance systems within automatically or additionally designated areas are considered regulated MS4s. These MS4s are controlled by their respective municipal entities, and as such the State, County, and Towns/Villages are required to implement the requirements of the NYSDEC SPDES General Stormwater Permit No. GP-02-02.

As the Putnam County SWMP is implemented, opportunities for coordination with the State's and/or the Town's/Village's SWMP will be explored.

### 2.6. Existing Municipal Facilities

The stormwater systems operated by the County are mostly a part of the 118 miles of County roads owned and maintained by the County. Appendix 'D' contains the NYSDOT Highway Inventory for the County roads.

In addition to these County roads the County operates the following facilities:

**Table 2.6.1.  
PUTNAM COUNTY MUNICIPAL FACILITIES**

<b>FACILITY</b>	<b>ADDRESS</b>
Historical Courthouse	44 Gleneida Avenue, Carmel, NY
District Attorney	20 Fair Street, Carmel, NY
Law Department	48 Gleneida Avenue, Carmel, NY
County Office Building	40 Gleneida Avenue, Carmel, NY
Sheriff's Dept./Correctional Facility	3 County Center, Carmel, NY
Mental Health	1808 Route 6, Carmel, NY
Donald B. Smith Government Campus:	110 Old Route 6, Carmel, NY
Charles House	547 Drewville Road, Carmel, NY
Highway 6N Garage	600 Route 6N, Mahopac Falls, NY
Senior Citizen Center	180 Route 6, Mahopac, NY
County Park (Upper Park)	192 Gipsy Trail Road, Carmel, NY
Park Caretaker House	199 Gipsy Trail Road, Carmel, NY
County Park	201 Gipsy Trail Road, Carmel, NY
Fire Training Center	200 Neuner Drive, Carmel, NY
Planning Department & Bus Facility	841 Fair Street, Carmel, NY
Department of Highways & Facilities Office and Garage	842 Fair Street, Carmel, NY
Kern Building	1 Geneva Road, Brewster, NY
Old NYSEG Building (Records Center)	121 Main Street, Brewster, NY
Route 6N Salt Shed	454 Route 6N, Mahopac Falls, NY
Tilly Foster Farm	98-112 Route 312, Carmel, NY
1816 House	Route 6, Carmel, NY
Old Putnam Motors Building	34 Gleneida Avenue, Carmel, NY
Sheriff's Department Substation	22 Peekskill Hollow Road, Putnam Valley, NY
Nelsonville Fire House	Route 301, Cold Spring, NY

As part of the implementation of this Initial SWMP each facility will be reviewed to determine the extent of its stormwater system and what (if any) controls need to be implemented.

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### **3. NYSDEC SPDES General Stormwater Permit No. GP-02-02 Requirements**

The NYSDEC SPDES General Stormwater Permit No. GP-02-02 requires six minimum control measures for “small” MS4s, as described in this section.

#### **3.1. Public Education and Outreach on Stormwater Impacts**

Regulated municipalities are required to implement a public education program to distribute educational materials to the community, or to conduct equivalent outreach activities about the impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff. Implementation should include a combination of the following BMPs:

- Formation of cost-effective partnerships (governmental, environmental, civic, and industrial) that rely on existing programs.
- Use of educational materials and strategies relevant to local situations and issues that promote maximum coverage, and reach diverse audiences.

#### **3.2. Public Involvement/Participation**

Regulated municipalities are required to comply with state, tribal, and local public notice requirements, when implementing a public involvement/participation program. Implementation should include a combination of the following BMPs:

- Soliciting broad public support of the SWMP.
- Use of citizen volunteers.
- Coordination with other community and government programs to promote economies of scale.

#### **3.3. Illicit Discharge Detection and Elimination**

Regulated municipalities are required to develop, implement, and enforce a program to detect and eliminate illicit discharges into “small” MS4s (i.e., any discharge to an MS4 that is not composed entirely of stormwater with some exceptions, such as discharges from SPDES-permitted industrial sources and fire fighting activities). Implementation should include a combination of the following BMPs:

- Creation of stormwater system maps to demonstrate a basic awareness of intake and discharge points of the systems.
- Attainment of the necessary authority to establish and enforce an ordinance, or other regulatory mechanism prohibiting illicit discharges.
- Developing a plan to detect and address illicit discharges.
- Reaching out to public employees, businesses, property owners, the general community, and elected officials regarding ways to detect and eliminate illicit discharges.

### **3.4. Construction Site Stormwater Runoff Control**

Regulated municipalities are required to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to “small” MS4s from construction activities that result in land disturbance of greater than or equal to one acre. Implementation should include a combination of the following BMPs:

- Creating an ordinance or other regulatory mechanism to require erosion and sediment controls (E&SC), as well as sanctions to promote compliance.
- Creating procedures for municipal site plan review that incorporate consideration of potential water quality impacts
- Creating procedures for receipt and consideration of information submitted by the public.
- Creating procedures for site inspection and enforcement of control measures.

### **3.5. Post-Construction Stormwater Management**

Regulated municipalities are required to develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre. Implementation should include a combination of the following BMPs:

- Constructing community/site appropriate structural BMPs.
- Implementing community/site appropriate non-structural BMPs.
- Creating an ordinance or other regulatory mechanism to address post-construction runoff from development and redevelopment projects.
- Creating procedures for addressing long-term operation and maintenance of BMPs.

### **3.6. Pollution Prevention/Good Housekeeping for Municipal Operations**

Regulated municipalities are required to develop, and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from

municipal operations. Implementation should include a combination of the following BMPs:

- Performing regular maintenance activities
- Compiling maintenance schedules.
- Performing long-term inspection procedures for structural and non-structural controls.
- Introducing controls for reducing or eliminating discharge of pollutants from areas such as roads, maintenance and storage yards, waste transfer stations, and municipal parking lots.
- Creating procedures for proper disposal of waste (i.e., dredge spoil, accumulated sediments, floatables, and other debris).
- Creating provisions to assess water quality impacts from new flood management projects.

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## 4. Proposed Stormwater Management Controls

The NYSDEC Stormwater General Permit No. GP-02-02 requires the municipality to implement management practices to meet the permit's minimum measures. The permit requires certain management practices, while others are to be selected by the municipality based on water quality needs, pollutants of concern, and available resources. The County of Putnam held several meetings to discuss the program requirements and to select appropriate management practices. On February 19, 2003 and February 28, 2003 the Town held workshop meetings to discuss the program and select appropriate management practices. The meeting was attended by a diverse group with representatives from the Putnam County Executive, Putnam County Department of Highways and Facilities, Putnam County Department of Health, Putnam County Watershed Information Coordinator, and Putnam County Division of Planning and Development. The following is a listing of the management controls selected by the County and definition of the implementation dates:

Each control includes an implementation date which is defined below:

Year 1	March 10, 2003	to	March 9, 2004
Year 2	March 10, 2004	to	March 9, 2005
Year 3	March 10, 2005	to	March 9, 2006
Year 4	March 10, 2006	to	March 9, 2007
Year 5	March 10, 2007	to	March 9, 2008

### 4.1. Public Education and Outreach on Stormwater Impacts

#### 4.1.1. Plan and conduct an ongoing public education and outreach program

- Gather existing brochures, fact sheets, posters and other available materials from regional sources including Putnam County Soil and Water Conservation District, Cornell Cooperative Extension, New York City Department of Environmental Protection, New York State Department of Environmental Conservation and regional planning groups. This data shall target proper lawn and garden care, trash management, and proper disposal of household wastes. (Year 1)
- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues. (Years 1, 2, 3, 4, & 5)

**4.1.2. Webpage**

- Create a webpage for stormwater management on the County website including listing of available education materials, and notice of upcoming regional presentations and related stormwater management events. (Year 2)
- Expand stormwater webpage to include two stormwater management publications targeting selected management practices each year. (Years 3, 4, & 5)

**4.1.3. Printed material**

- Each year print two brochures on a specific stormwater management practice. Make the brochures available at the County Building, Planning Department, and Department of Highways & Facilities. (Years 2, 3, 4, & 5)

**4.1.4. Library of educational materials**

- Develop library of educational stormwater management materials. Organize the materials in a designated location in the Planning Department which is available to County staff and the public. (Year 2)
- Update, weed and maintain library of materials. (Years 3, 4, & 5)

**4.1.5. Speakers to community groups**

- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern. (Years 1, 2, 3, 4, & 5)

**4.2. Public Involvement/Participation**

**4.2.1. Public notice and access to documents and information**

- Provide public notice by way of , posting a notice in the local newspaper for key County events and upcoming stormwater meetings. (Years 1, 2, 3, 4, & 5)
- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper. (Years 1, 2, 3, 4, & 5)

- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP. (Years 1, 2, 3, 4, & 5)

#### **4.2.2. Public presentation and comments received on SWMP and on annual reports**

- Hold public hearing on County's initial SWMP (Year 1)
- Hold public hearing on 1<sup>st</sup> Annual Report. (Year 2)
- Hold public hearing on 2<sup>nd</sup> Annual Report. (Year 3)
- Hold public hearing on 3<sup>rd</sup> Annual Report. (Year 4)
- Hold public hearing on 4<sup>th</sup> Annual Report. (Year 5)
- Hold public hearing on 5<sup>th</sup> Annual Report. (Post Year 5)

#### **4.2.3. Public involvement/participation program**

- Continue the "adopt a road program" for County roads. (Years 1, 2, 3, 4, & 5)
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner. (Years 1, 2, 3, 4, & 5)
- Encourage reforestation through promotion of annual sale of tree seedlings. (Years 1, 2, 3, 4, & 5)

#### **4.2.4. Contact person identified**

- Identify County stormwater contact person. (Year 1)
- Identify key contact person from each MS4 within the County to coordinate and publicize participation events. (Year 1)
- Develop a mailing list of key contact people from each Village/Town MS4 within the County for distribution of County SWMP information. (Year 2)

### **4.3. Illicit Discharge Detection and Elimination**

#### **4.3.1. Outfall mapping**

- Prepare an initial map of the County's stormwater discharges within the automatically designated areas of the County. (Year 2)

- Expand the stormwater map to include the County's stormwater discharges within the additionally designated areas (NYCDEP watershed) of the County. (Year 3)

#### **4.3.2. Illicit discharges prohibited**

- Obtain and review model ordinances and existing County law addressing illicit discharges into the stormwater system. Also review regulations of Putnam County Department of Health (PCDOH) relative to illicit discharges. (Year 1)
- Adopt amendments (if necessary) to existing County law addressing illicit discharges into the stormwater system. (Year 2)

#### **4.3.3. Public, employees, businesses informed of hazards from illicit discharges**

- Conduct initial training for County employees regarding illicit discharges into the stormwater system. (Year 1)
- Conduct training for County employees following the adoption of amendments (if necessary) of existing County law addressing illicit discharges. (Years 2, 3, 4, & 5)

#### **4.3.4. Illicit discharges identified**

- Review and assess first quartile of the County MS4 for illicit discharges. (Year 2)
- Identify source and eliminate all illicit discharges identified. (Year 2)
- Review and assess second quartile of the County MS4 for illicit discharges. (Year 3)
- Identify source and eliminate all illicit discharges identified. (Year 3)
- Review and assess third quartile of the County MS4 for illicit discharges. (Year 4)
- Identify source and eliminate all illicit discharges identified. (Year 4)
- Review and assess last quartile of the County MS4 for illicit discharges. (Year 5)
- Identify source and eliminate all illicit discharges identified. (Year 5)

#### **4.3.5. Septic system repair program**

- Research and develop a septic system repair program utilizing NYCDEP Water Quality Funds for program start up. (Year 1)
- If deemed feasible implement program for correction of falling or substandard septic systems from a prioritized list of target areas. (Implementation date to be determined)

### **4.4. Construction Site Stormwater Runoff Control**

#### **4.4.1. Require erosion and sedimentation controls through an ordinance or other regulatory mechanism**

- Draft County requirements for project stormwater management controls to be consistent with Stormwater General Permit No. GP-02-01. (Year 1)
- Adopt requirements for project stormwater management controls. (Year 2)

#### **4.4.2. Provide opportunity for public comment on construction plans**

- Adopt a procedure to require public notice on County projects to permit public comment on construction plans for County projects requiring coverage under General Permit GP-02-01. (Year 2)

#### **4.4.3. Require construction site plan review**

- Adopt a procedure that will require the County Engineering Division to review County project stormwater management plans. (Year 1)

#### **4.4.4. Require overall construction site waste management**

- Adopt a procedure to require County projects to establish an overall construction site waste management plan. (Year 2)

#### **4.4.5. Site inspections and enforcement**

- Adopt a procedure to define County site inspection and enforcement authority on County projects. (Year 1)
- Establish and implement procedures for site inspections relative to County project stormwater management. (Year 2)

#### **4.4.6. Education and training of construction site operators**

- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with

project construction superintendents to review the project's stormwater management plan. (Years 1, 2, 3, 4, & 5)

- Develop information pamphlet addressing construction site stormwater runoff control for construction site operators. (Year 2)
- Distribute information pamphlet addressing construction site stormwater runoff control for construction sites with all Highway Work Permits, and Water/Sewer Permits. (Years 2, 3, 4, & 5)

### **4.5. Post-Construction Stormwater Management**

#### **4.5.1. Assess existing conditions throughout the MS4 and identify appropriate management practices to reduce pollutant discharge to the maximum extent practicable**

- Prepare preliminary inventory of water quality problem areas and pollutants of concern within the County's regulated MS4. (Year 1)
- Identify stormwater discharges contributing to water quality problem areas within the County's regulated MS4. (Year 1)
- Develop strategies and prioritize structural and non-structural management practices to address County MS4 water quality problems. (Year 2)
- Implement County MS4's first priority management practices to reduce pollutant discharge to maximum extent practicable. (Year 3)
- Implement County MS4's second priority management practices to reduce pollutant discharge to maximum extent practicable. (Year 4)
- Implement County MS4's third priority management practices to reduce pollutant discharge to maximum extent practicable. (Year 5)

#### **4.5.2. Regulate post-construction runoff from development through an ordinance or other regulatory mechanism**

- Adopt a law to regulate post-construction runoff from development contributing to the County MS4. (Year 2)

#### **4.5.3. Develop management practice inspection and maintenance program**

- Develop management practice inspection and maintenance program for the County MS4. (Year 1)

- Implement management practice inspection and maintenance program for the County MS4. (Years 2, 3, 4, & 5)

#### **4.6. Pollution Prevention/Good Housekeeping for Municipal Operations**

##### **4.6.1. Prevent discharge of pollutants from municipal operations**

- Prepare preliminary inventory of County operations contributing to water quality problems and pollutants of concern. (Year 1)

##### **4.6.2. Follow NYSDEC NPS Management Practices Catalog, or equivalent**

- Identify appropriate Best Management Practices (BMPs) to address County operations contributing to water quality problems and pollutants of concern. The following management practices should be addressed: street cleaning, catch basin and storm drain system cleaning, hazardous and waste materials management, landscaping and lawn care, road salt storage, roadway maintenance, and County owned septic system management. (Year 2)
- Implement first third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern. (Year 3)
- Implement second third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern. (Year 4)
- Implement final third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern. (Year 5)

##### **4.6.3. Conduct employee pollution prevention training**

- Based on identified County operations contributing to water quality problems, pollutants of concern, and selected BMPs, conduct County employee pollution prevention training. (Years 2, 3, 4, & 5)

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## 5. Implementation and Inter-municipal Cooperation

The County's Stormwater Management Program (SWMP) must be implemented during the permit term from January 8, 2003 to January 8, 2008. The permit requires constant progression of implementation during the permit term. The following sections break down the SWMP elements by implementation year. The implementation years are defined as follows:

Year 1	March 10, 2003	to	March 9, 2004
Year 2	March 10, 2004	to	March 9, 2005
Year 3	March 10, 2005	to	March 9, 2006
Year 4	March 10, 2006	to	March 9, 2007
Year 5	March 10, 2007	to	March 9, 2008

The County's SWMP acknowledges the potential benefits of inter-municipal cooperation to implement certain program elements.

### 5.1. Implementation – Year 1

During year 1 (March 10, 2003 to March 9, 2004) the County shall implement the following program elements:

- Gather existing brochures, fact sheets, posters and other available materials from regional sources including Putnam County Soil and Water Conservation District, Cornell Cooperative Extension, New York City Department of Environmental Protection, New York State Department of Environmental Conservation and regional planning groups. This data shall target proper lawn and garden care, trash management, and proper disposal of household wastes.
- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues.
- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern.
- Provide public notice by way of , posting a notice in the local newspaper for key County events and upcoming stormwater meetings.
- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper.

- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP.
- Hold public hearing on County's initial SWMP.
- Continue the "adopt a road program" for County roads.
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner.
- Encourage reforestation through promotion of annual sale of tree seedlings.
- Identify County stormwater contact person.
- Identify key contact person from each MS4 within the County to coordinate and publicize public participation events.
- Obtain and review model ordinances and existing County law addressing illicit discharges into the stormwater system. Also review regulations of Putnam County Department of Health (PCDOH) relative to illicit discharges.
- Conduct initial training for County employees regarding illicit discharges into the stormwater system.
- Research and develop a septic system repair program utilizing NYCDEP Water Quality Funds for program start up.
- Draft County requirements for project stormwater management controls to be consistent with Stormwater General Permit No. GP-02-01.
- Adopt a procedure that will require the County Engineering Division to review County project stormwater management plans.
- Adopt a procedure to define County site inspection and enforcement authority on County projects.
- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with project construction superintendents to review the project's stormwater management plan.
- Prepare preliminary inventory of water quality problem areas and pollutants of concern within the County's regulated MS4.
- Identify stormwater discharges contributing to water quality problem areas within the County's regulated MS4.

- Develop management practice inspection and maintenance program for the County MS4.
- Prepare preliminary inventory of County operations contributing to water quality problems and pollutants of concern.

### 5.2. Implementation – Year 2

During year 2 (March 10, 2004 to March 9, 2005) the County shall implement the following program elements:

- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues.
- Create a webpage for stormwater management on the County website including listing of available education materials, and notice of upcoming regional presentations and related stormwater management events.
- Print two brochures on a specific stormwater management practice. Make the brochures available at the County Building, Planning Department, and Department of Highways & Facilities.
- Develop library of educational stormwater management materials. Organize the materials in a designated location in the Planning Department which is available to County staff and the public.
- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern.
- Provide public notice by way of, posting a notice in the local newspaper for key County events and upcoming stormwater meetings.
- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper.
- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP.
- Hold public hearing on 1<sup>st</sup> Annual Report.
- Continue the “adopt a road program” for County roads.
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner.

- Encourage reforestation through promotion of annual sale of tree seedlings.
- Develop a mailing list of key contact people from each Village/Town MS4 within the County for distribution of County SWMP information.
- Prepare an initial map of the County's stormwater discharges within the automatically designated areas of the County.
- Adopt amendments (if necessary) to existing County law addressing illicit discharges into the stormwater system.
- Conduct training for County employees following the adoption of amendments (if necessary) of existing County law addressing illicit discharges.
- Review and assess first quartile of the County MS4 for illicit discharges.
- Identify source and eliminate all illicit discharges identified.
- Adopt requirements for project stormwater management controls.
- Adopt a procedure to require public notice on County projects to permit public comment on construction plans for County projects requiring coverage under General Permit GP-02-01.
- Adopt a procedure to require County projects to establish an overall construction site waste management plan.
- Establish and implement procedures for site inspections relative to County project stormwater management.
- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with project construction superintendents to review the project's stormwater management plan.
- Develop information pamphlet addressing construction site stormwater runoff control for construction site operators.
- Distribute information pamphlet addressing construction site stormwater runoff control for construction sites with all Highway Work Permits, and Water/Sewer Permits.

- Develop strategies and prioritize structural and non-structural management practices to address County MS4 water quality problems.
- Adopt a law to regulate post-construction runoff from development contributing to the County MS4.
- Implement management practice inspection and maintenance program for the County MS4.
- Identify appropriate Best Management Practices (BMPs) to address Town operations contributing to water quality problems and pollutants of concern. The following management practices should be addressed: street cleaning, catch basin and storm drain system cleaning, hazardous and waste materials management, landscaping and lawn care, road salt storage, roadway maintenance, and County owned septic system management.
- Based on identified County operations contributing to water quality problems, pollutants of concern, and selected BMPs, conduct County employee pollution prevention training.

### 5.3. Implementation – Year 3

During year 3 (March 10, 2005 to March 9, 2006) the County shall implement the following program elements:

- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues.
- Expand stormwater webpage to include two stormwater management publications targeting selected management practices each year.
- Print two brochures on a specific stormwater management practice. Make the brochures available at the County Building, Planning Department, and Department of Highways & Facilities.
- Update, weed and maintain the library of materials.
- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern.
- Provide public notice by way of, posting a notice in the local newspaper for key County events and upcoming stormwater meetings.

- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper.
- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP.
- Hold public hearing on 2<sup>nd</sup> Annual Report.
- Continue the “adopt a road program” for County roads.
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner.
- Encourage reforestation through promotion of annual sale of tree seedlings.
- Expand the stormwater map to include the County’s stormwater discharges within the additionally designated areas (NYCDEP watershed) of the County.
- Conduct training for County employees following the adoption of amendments (if necessary) of existing County law addressing illicit discharges.
- Review and assess second quartile of the County MS4 for illicit discharges.
- Identify source and eliminate all illicit discharges identified.
- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with project construction superintendents to review the project’s stormwater management plan.
- Distribute information pamphlet addressing construction site stormwater runoff control for construction sites with all Highway Work Permits, and Water/Sewer Permits.
- Implement County MS4’s first priority management practices to reduce pollutant discharge to maximum extent practicable.
- Implement management practice inspection and maintenance program for the County MS4.
- Implement first third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern.

- Based on identified County operations contributing to water quality problems, pollutants of concern, and selected BMPs, conduct County employee pollution prevention training.

### 5.4. Implementation – Year 4

During year 4 (March 10, 2006 to March 9, 2007) the County shall implement the following program elements:

- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues.
- Expand stormwater webpage to include two stormwater management publications targeting selected management practices each year.
- Print two brochures on a specific stormwater management practice. Make the brochures available at the County Building, Planning Department, and Department of Highways & Facilities.
- Update, weed and maintain the library of materials.
- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern.
- Provide public notice by way of, posting a notice in the local newspaper for key County events and upcoming stormwater meetings.
- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper.
- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP.
- Hold public hearing on 3<sup>rd</sup> Annual Report.
- Continue the “adopt a road program” for County roads.
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner.
- Encourage reforestation through promotion of annual sale of tree seedlings.

- Conduct training for County employees following the adoption of amendments (if necessary) of existing County law addressing illicit discharges.
- Review and assess third quartile of the County MS4 for illicit discharges.
- Identify source and eliminate all illicit discharges identified.
- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with project construction superintendents to review the project's stormwater management plan.
- Distribute information pamphlet addressing construction site stormwater runoff control for construction sites with all Highway Work Permits, and Water/Sewer Permits.
- Implement County MS4's second priority management practices to reduce pollutant discharge to maximum extent practicable.
- Implement management practice inspection and maintenance program for the County MS4.
- Implement second third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern.
- Based on identified County operations contributing to water quality problems, pollutants of concern, and selected BMPs, conduct County employee pollution prevention training.

### **5.5. Implementation – Year 5**

During year 5 (March 10, 2007 to March 9, 2008) the County shall implement the following program elements:

- County will fund the Lake Management Grant Program which will contain an educational component addressing non point source (NPS) pollution issues.
- Expand stormwater webpage to include two stormwater management publications targeting selected management practices each year.
- Print two brochures on a specific stormwater management practice. Make the brochures available at the County Building, Planning Department, and Department of Highways & Facilities.
- Update, weed and maintain the library of materials.

- Schedule and conduct yearly public educational meetings. Each year concentrate on a different management practice targeted to pollutants of concern.
- Provide public notice by way of, posting a notice in the local newspaper for key County events and upcoming stormwater meetings.
- Provide public notice for all County SWMP related public hearings by posting notice in the local newspaper.
- Provide full access to the public to review and request copies of all information collected and developed as part of the County SWMP.
- Hold public hearing on 4<sup>th</sup> Annual Report.
- Continue the “adopt a road program” for County roads.
- Conduct annual household hazardous waste clean-up day where County residences can dispose of household hazardous wastes in an environmentally safe manner.
- Encourage reforestation through promotion of annual sale of tree seedlings.

Conduct training for County employees following the adoption of amendments (if necessary) of existing County law addressing illicit discharges.

- Review and assess last quartile of the County MS4 for illicit discharges.
- Identify source and eliminate all illicit discharges identified.
- Adopt a procedure for County projects where a representative from the County Department of Highways and Facilities will meet with project construction superintendents to review the project’s stormwater management plan.
- Distribute information pamphlet addressing construction site stormwater runoff control for construction sites with all Highway Work Permits, and Water/Sewer Permits.
- Implement County MS4’s third priority management practices to reduce pollutant discharge to maximum extent practicable.
- Implement management practice inspection and maintenance program for the County MS4.

- Implement final third of selected BMPs to address County operations contributing to water quality problems and pollutants of concern.
- Based on identified County operations contributing to water quality problems, pollutants of concern, and selected BMPs, conduct County employee pollution prevention training.

## **5.6. Inter-municipal Cooperation**

The NYSDEC 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 County will approach other MS4s who have similar goals in order to identify the potential for inter-municipal cooperation.

It is recommended that the County contact and discuss the possibility of inter-municipal cooperation with the following regulated MS4's:

- New York State Department of Transportation
- Dutchess County
- Westchester County
- Town of Philipstown
- Town of Putnam Valley
- Town of Kent
- Town of Patterson
- Town of Carmel
- Town of Southeast
- Village of Brewster

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## 6. Municipality Permitting and Administrative Requirements

To meet the requirements of the EPA/NYSDEC Phase II Stormwater Management Program, the County of Putnam must comply with the following permits, or submit an application for an individual permit.

- NYSDEC SPDES General Stormwater Permit No. GP-02-02 for regulated MS4s. This permit is part of the State Pollutant Discharge Elimination System (SPDES). The effective and expiration dates for the NYSDEC SPDES General Stormwater Permit No. GP-02-02 is January 8, 2003 and January 8, 2008, respectively.
- NYSDEC SPDES General Stormwater Permit No. GP-02-01 for Construction Activity. This permit is part of the State Pollutant Discharge Elimination System (SPDES). The effective and expiration dates for the NYSDEC SPDES General Stormwater Permit No. GP-02-01 is January 8, 2003 and January 8, 2008, respectively.
- NYSDEC SPDES General Permit for Storm Water Discharges Associated with Industrial Activity except Construction Activity Permit No. GP-98-03. The effective and expiration dates for the NYSDEC SPDES General Stormwater Permit No. GP-98-03 is November 1, 1998 and November 1, 2003, respectively. A “No Exposure” Certification can be obtained in lieu of obtaining permit coverage. Note that an expired general permit continues in force and effect until a new general permit is issued.

### 6.1. Permit Coverage/Compliance

#### 6.1.1. MS4 Coverage/Compliance

An Operator of a “small” MS4 can receive coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-02 by filing a NOI, which describes the SWMP (including Best Management Practices (BMPs) and measurable goals), by March 5, 2003 for permit coverage by March 10, 2003.

The County of Putnam, as an Operator of a “small” MS4, will receive coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-02 by filing a NOI (see Appendix B) based on this report, which serves as the initial SWMP, by the March 5, 2003 deadline.

The BMPs and measurable goals described in this report make up the required initial SWMP. The NYSDEC SPDES General Stormwater

Permit No. GP-02-02 requires the SWMP to be fully implemented by the end of the first permit term (January 8, 2008).

The NYSDEC can require a change of BMPs and measurable goals if they are found to be inconsistent with the Phase II Stormwater Management Program. The County of Putnam can also opt to make changes to the SWMP, if the program is not effective.

### **6.1.2. Construction Activity Coverage/Compliance**

Operators (including municipalities) of construction sites, which have disturbed area of one (1) acre or larger in size, can receive coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-01 by first preparing a SWMP that complies with all the requirements of the permit and then submitting a NOI. Permit coverage becomes effective five (5) business days after the NYSDEC receives the NOI.

For construction activities that discharge to a TMDL watershed or 303 (d) listed water, or for which the SWMP does not meet all the requirements of the NYSDEC SPDES General Stormwater Permit No. GP-02-01, the SWMP must be certified by a licensed professional. For these cases, permit coverage becomes effective sixty (60) business days after the NYSDEC receives the NOI.

Construction sites five (5) acres or larger in size that are currently covered under the NYSDEC SPDES General Stormwater Permit No. GP-93-06 can extend the coverage until August 1, 2003. However, construction activities that extend beyond this date must obtain coverage under the NYSDEC SPDES General Stormwater Permit No. GP-02-01. Coverage under GP-93-06 is not available to new applicants after January 8, 2003.

### **6.1.3. Municipally Operated Industry Coverage/Compliance**

There are no industrial facilities operated by the County of Putnam.

## **6.2. Administrative Requirements for MS4s**

### **6.2.1. Reports**

The NYSDEC SPDES General Stormwater Permit No. GP-02-02 requires an evaluation report to be submitted annually, no later than June 1<sup>st</sup> of each year during the first permit term. The County of Putnam will submit the following information in the required reports:

- Status of compliance with permit conditions, including an assessment of the selected BMPs and measurable goals.
- Results of any data collected and analyzed. Note that monitoring of discharges is not required unless requested by the NYSDEC.
- A summary of stormwater activities to be implemented during the next reporting period.

- Any changes of BMPs and measurable goals.
- Notice of inter-municipal agreement changes.

**6.2.2. Record Keeping**

Records generated from County of Putnam implementation of its SWMP will be kept by the County for a period of five years. These records will be made available at the Department of Planning and Development for public viewing during regular business hours.