



Storm Water Management Plan

Fort Hamilton, NY

September 2011

Project No. 32-EE-0EJH-11

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PHASE II STORM WATER MANAGEMENT PLAN CERTIFICATION

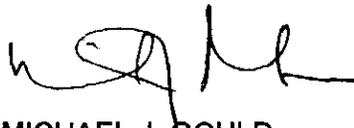
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. In accordance with the State Pollutant Discharge Elimination System, this Storm Water Management Plan will be implemented herein."



MICHAEL PAIDOUSSIS
Director, Directorate of Public Works

DELEGATION OF AUTHORITY

"Mr. Michael Paidoussis, Director, Directorate of Public Works for Fort Hamilton, is a duly authorized representative of the undersigned and is empowered to certify that this document and all its attachments were prepared in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. The above named individual is responsible for certifying that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete."

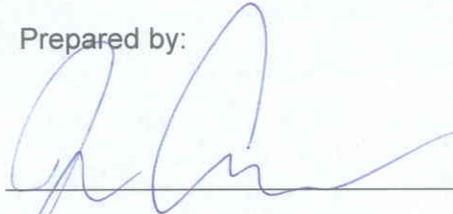


MICHAEL J. GOULD
Colonel, Field Artillery, Commanding

CONTRACTED ENTITY CERTIFICATION STATEMENT:

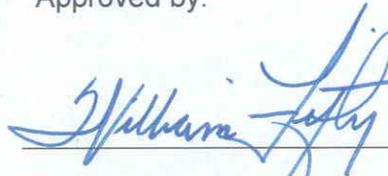
"As a third-party preparer of the Fort Hamilton Storm Water Management Plan, I certify that this document meets the requirements of the New York State Department of Environmental Conservation State Pollution Discharge Elimination System General Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems, permit number GP-0-10-002."

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LIST OF ACRONYMS AND ABBREVIATIONS

AR	Army Regulation
BBC	Balfour Beatty Communities
BMP	Best Management Practice
BMC	Base Maintenance Contractor
CFR	Code of Federal Regulations
DPW	Department of Public Works
EPA	Environmental Protection Agency
ICE	Interactive Customer Evaluation
LID	Low-Impact Development
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
ORI	Outfall Reconnaissance Inventory
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
POTW	Publicly Owned Treatment Works
RBS	Re-Engineered Business Solutions
RCI	Residential Communities Initiative
SPDES	State Pollutant Discharge Elimination System
SWMP	Storm Water Management Plan
TMDL	Total Maximum Daily Load

1.0 INTRODUCTION

1.1 REGULATION BACKGROUND

Phase I of the U.S. Environmental Protection Agency's (EPA) storm water program was promulgated in 1990 under the Clean Water Act. Phase I relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address storm water runoff from: 1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater; (2) construction activity disturbing 5 acres of land or greater; and (3) ten categories of industrial activity.

The Storm Water Phase II final rule (reference 1) requires NPDES permit coverage for all "small" MS4s, serving less than 100,000 people and located within a Bureau of Census-delineated urbanized area. An urbanized area is a central place (or places) and the adjacent densely settled surrounding territory, that together have a minimum residential population of 50,000 people and a minimum average density of 1,000 people per square mile. The purpose of the Phase II regulation is to provide a flexible approach for reducing environmental harm caused by storm water discharges from point sources that were not regulated under Phase I. Military installations that have separate storm sewer systems within an urbanized area are considered to be small MS4s and must meet the requirements of this rule. Requirements include development and implementation of best management practices (BMPs) that reduce pollutants to the maximum extent practicable, protect water quality, and satisfy EPA water quality criteria using each of the following minimum control measures:

- Public Education and Outreach,
- Public Participation and Involvement,
- Illicit Discharge Detection and Elimination,
- Construction Site Runoff Control,
- Post-Construction Runoff Control, and
- Pollution Prevention and Good Housekeeping.

The resultant Storm Water Management Plan (SWMP) must provide measurable goals (narrative or numeric) for each control measure, estimated dates of implementation, and the identified person(s) responsible for implementing the storm water program.

Fort Hamilton's original SWMP, created by Department of Public Works (DPW), was followed for the first year of permit compliance (reference 2). This SWMP serves as an update and is relevant for years 2-5 of the current general permit. Resources used in the development of this SWMP are located in Appendix A. No BMPs were removed from the previous SWMP.

1.2 INSTALLATION MISSION AND SITE DESCRIPTION

The mission of Fort Hamilton is to provide effective and efficient services, facilities and infrastructure to service members, families, and civilians; to engage and support our joint and interagency partners; and to support our community. Fort Hamilton is the U.S. Army's ambassador to New York City, serving full time active duty personnel, Army Reserve units, National Guard Units, military retirees, dependents, and numerous Department of Defense agencies throughout the greater New York City metropolitan area. The units supported by Fort

Hamilton include active duty personnel (including tenant and satellite units) in other locations within New York City and within the Counties of Nassau, Suffolk, Westchester, Rockland, Orange, Putnam, Dutchess, Ulster, Sullivan, Columbia, Green, and Delaware and their dependents.

Fort Hamilton occupies 120 acres and is situated at the western end of Long Island in the southwest corner of the Borough of Brooklyn, Kings County, City of New York. The installation is situated on the eastern shores of Gravesend Bay, approximately 6.5 miles south of the Battery, the southern tip of the Borough of Manhattan, New York. The installation is bounded by the Verrazano Narrows Bridge to the west, the Belt Parkway to the south, Dyker Beach Park and a Veterans Administration facility to the east, and Cropsey Avenue and Polytechnic Preparatory School to the north. The surrounding land area is heavily developed urban area, consisting of a mix of residential areas, retail operations, and some commercial operations. The adjacent Verrazano Narrows Bridge is the primary route from Brooklyn to Staten Island.

Storm water collected on-site is either discharged through a combined sewer system or directly to Waters of the State. Storm water collected from the western portion of Fort Hamilton is sent to a combined sanitary/storm sewer system and treated at the New York City Department of Environmental Protection (NYCDEP) Owl's Head Water Pollution Control Plant. The area serviced by this combined sewer system encompasses approximately 75 acres. The remaining 45 acres is serviced by a separate storm sewer system, which discharges through three outfalls to the Gravesend Bay. These three outfalls are regulated by Fort Hamilton's Phase II Storm Water General Permit. A large portion of the area that is discharged to Gravesend Bay is residential townhomes and apartment buildings. The AAFES Main Exchange, United States Army Corps of Engineers, Fitness Center, Post Theatre, Library, and Department of Emergency Services are also located in the MS4 area. Outfall maps, descriptions, and figures are located in Appendix B.

1.3 SPDES STORM WATER PHASE II PERMIT

The New York State Department of Environmental Conservation (NYSDEC) is the permitting authority for Fort Hamilton. The current State Pollution Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from MS4s (Permit No. GP-0-10-002) was issued by NYSDEC in April 2010 (reference 3). Fort Hamilton received continuing coverage under this permit by submitting their 2009 Annual Report, as stated in Part II.C. of GP-0-10-002. New York State (reference 4), Federal and U.S. Army (reference 5) regulatory language, including Fort Hamilton's MS4 General Permit, is located in Appendix C.

Annual reports are required for NPDES/SPDES permit compliance. These reports offer covered entities an opportunity to review BMPs and measurable goals to determine their effectiveness and continued applicability. Completed annual reports are due by June 1 of each reporting year. Completed annual reports can be filed electronically to the NYSDEC or mailed to:

NYSDEC "MS4 Coordinator"
Bureau of Water Permits
625 Broadway, 4th Floor
Albany, NY 12233-3505

Completed annual reports will be kept in Appendix D.

Fort Hamilton's General Permit requires additional pollution prevention measures in order to limit pollutants of concern into impaired waters requiring a Total Maximum Daily Load (TMDL). Gravesend Bay is a listed impaired water body for polychlorinated biphenyls (PCB) and other toxins on the New York State (NYS) Final 2010 303(d) List of Impaired Waters Requiring a TMDL, see Table 1.1 for an excerpt from the listing. There is only one PCB-contaminated transformer at Fort Hamilton. It is one of the three transformers located in the transformer shed that provides power for the boiler room, Building 137 (see Figure 1.1). The boiler room is located in the area of the installation that discharges storm water to the NYCDEP Owl's Head Water Pollution Control Plant. The possibility of this transformer contaminating storm water is extremely low; in the case of a spill coming in contact with storm water, the NYCDEP would be notified. There are no records of spills involving PCBs at Fort Hamilton. Additionally, there are no sources of the "other toxins" (e.g. mercury, dioxins/furans, PAHs, pesticides and other heavy metals) on Fort Hamilton.

Figure 1.1 Transformer Shed for Boiler Room



Table 1.1 Excerpt from the NYS 2010 Section 303(d) List of Impaired/TMDL Waters

Water Index Number	Water Body Name	County	Type	Class	Cause/Pollutant	Source	Year
(MW1.1) LB/GB	Lower New York/Gravesend Bay (1701-0179)	Kings	Estuary	I	PCBs, other toxins*	Contam. Sediment, Urban	2002

*In addition to the contaminants for which there are specific health advisories for the consumption of fish, other contaminants have also been identified as contributing to the fish consumption impairment. These substances may include mercury, dioxins/furans, PAHs, pesticides and other heavy metals.

1.4 POINTS OF CONTACT

Fort Hamilton's General Permit requires a list of points of contact and their responsibilities to be included in this SWMP. This list is located in Table 1.2.

Table 1.2 Points of Contact

POC	Responsibilities
Installation Environmental Staff	<ul style="list-style-type: none"> • Assume overall responsibility for implementation of the plan • Perform annual evaluations of SWMP to ensure all objectives and BMPs are completed • Act as storm water contact for installation residents, (718) 630-4485
Public Affairs Office	<ul style="list-style-type: none"> • Act as storm water public contact for non-residents, (718) 630-4783
Balfour Beatty Communities (BBC)	<ul style="list-style-type: none"> • Perform duties required of Residential Communities Initiative (RCI) Partner • Act as liaison between DPW and community residents • Maintain and repair storm sewer system inside of housing area
Installation Base Maintenance Contractor (BMC)	<ul style="list-style-type: none"> • Maintain and repair storm sewer system outside of housing area
Installation Businesses	<ul style="list-style-type: none"> • Be aware of storm water related issues • Share educational materials with employees
Installation Residents	<ul style="list-style-type: none"> • Be aware of storm water related issues
Developers/Contractors	<ul style="list-style-type: none"> • Work with Fort Hamilton Environmental Staff on storm water compliance issues • Conform with NYSDEC requirements for development and construction

As required by the NYSDEC SPDES General Permit Part IV.G., any third parties relied upon to develop or implement any portion of the SWMP are required to provide adequate assurance of compliance with permit requirements applicable to the work performed. Work completed by BBC or the BMC is assured compliance through a signed contractual agreement.

2.0 PUBLIC EDUCATION AND OUTREACH

Information distribution and community outreach are a means to raise the awareness of the installation residents and employees as to how their actions impact storm water runoff and water quality. Appropriate BMPs include activities such as storm drain stenciling programs, Earth Day activities, and distributing information (posters, brochures, and fact sheets) to installation businesses and high traffic areas, such as the commissary, Post Exchange, fitness center, and Welcome Center. Figure 2.1, located on the next page, illustrates the current stenciling at Fort Hamilton. Examples of educational material are located in Appendix E. The Fort Hamilton produced educational slideshow is included in electronic form with the enclosed CD.

Figure 2.1 Example of Stencil in MS4 Area



BBC is the current Fort Hamilton RCI partner. Much of the educational materials are required to go through RCI then to BBC before reaching installation residents.

Proposed Public Education and Outreach BMPs and measurable goals for the remaining life of this permit can be located in Table 2.1.

Table 2.1 Public Education and Outreach Measurable Goals and BMPs – Year 2-5

Goal	Metric for Goal	Schedule	Responsible Organization
Distribute storm water informational brochures and advertise storm water informational website to residents in Newcomer Briefing Packets	Number of packets distributed	As packets are distributed	BBC
	Deliver storm water brochures quarterly to BBC. Request counts of Newcomer Packets distributed.		
Continue requesting BBC present Fort Hamilton's storm water educational slideshow during town hall meetings	Residents in attendance	Annually, by 9 March	BBC
Continue storm drain stenciling program	Percentage of storm drains inspected	Annually, by 9 March	BBC and BMC
	Inspect 20% of stenciled storm drains annually to ensure stenciling is legible. This will ensure all storm drains are inspected during the 5 year SWMP cycle. This BMP can be cross-listed with Pollution Prevention/ Good Housekeeping.		
Promote and advertise Fort Hamilton's Environmental Compliance Hotline and e-mail address	Environmental concerns raised	9 March 2012	Env Office
	If advertisement increases community use, continue in years 3-5. This BMP can be cross-listed with Public Involvement/ Participation.		
Create storm water informational website	Web-site created	9 March 2012	Env Office
	Add a section in the Fort Hamilton Environmental Division website to address common storm water concerns, post educational material, and provide contact information.		

3.0 PUBLIC PARTICIPATION AND INVOLVEMENT

This MCM involves activities and tasks to be performed in coordination with the on-post population. Involvement in Fort Hamilton's storm water program will develop a sense of ownership in local watersheds. Gathering community members to participate in Town Hall Meetings, creating an "Adopt a Storm Drain" program, and making annual reports public information are all ways that allow individuals to become involved.

Table 3.1 contains the measurable goals and BMPs for the remaining life of the permit.

Table 3.1 Public Participation and Involvement Measurable Goals and BMPs – Year 2-5

Goal	Metric for Goal	Schedule	Responsibility
Make annual report available to the public before submittal	Comments received, web-site hits	Annually	Env Office
	Make annual reports available at the Fort Hamilton Public Library and at the BBC building, as required by Part VII.A.2.d.		
Organize an adopt-a-storm drain program using volunteers	Storm drains adopted	Begin: 9 March 2012; End: 9 March 2013	Env Office w/ BBC
	Advertise program by displaying temporary signs around storm drains in community high traffic areas requesting resident sponsors participate in an “Adopt-a-Storm Drain” program. Train volunteers to contact Environmental Personnel when storm drains require debris removal, maintenance, or when an illicit discharge is suspected. If program is effective, continue implementation in years 4 and 5. This BMP can be cross-listed with illicit discharge detection and elimination.		
Establish residents watch for illicit discharges and illegal dumping	Illicit discharges reported	Monthly	Env Office

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

This MCM requires a system to identify and eliminate non-storm water discharges. Illicit discharges are those not made entirely of storm water and not otherwise allowed. The purpose of the program is to determine the types and sources of illicit discharges and effectively eliminate them. Examples of illicit discharges are domestic and industrial wastewater, paint, chemicals, auto fluids, vehicle wash water, and fuel spills. Examples of non-storm water discharges that *are* allowed include NPDES permitted discharges, firefighting activities, 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, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. If Fort Hamilton identifies one of these latter discharges as a significant source of pollutants to the storm sewer system, that discharge would need to be controlled or permitted.

The NYSDEC requires an Outfall Reconnaissance Inventory (ORI) be completed for each storm water outfall. Completed ORIs can be found in Appendix F.

Table 4.1 contains the measurable goals and BMPs for the remaining life of the permit.

Table 4.1 Illicit Discharge Detection and Elimination – Year 2-5

Goal	Metric for Goal	Schedule	Responsibility
Perform storm water outfall assessment on all outfalls at compliance manholes identified in Appendix B	ORIs completed	9 March 2015	Env Office
Complete non-storm water certification	Inspections completed	Monthly	BMC and BBC
	Request BMC and BBC document monthly outfall checks.		

5.0 CONSTRUCTION SITE RUNOFF CONTROL

The purpose of this control measure is to develop, implement, and enforce a program to reduce pollutants in storm water runoff from construction activities between 1 and 5 acres. Sediment in storm water runoff from construction sites is a major source of surface water pollution in many areas. The objective is to reduce or prevent sediment and other pollutants from running off construction sites and entering nearby receiving waters.

Permitted construction projects occurring during the remaining life of the current permit are listed in Appendix G.

Table 5-1 contains the measurable goals and BMPs for the remaining life of the permit.

Table 5.1 Construction Site Runoff Control – Years 2-5

Goal	Metric for Goal	Schedule	Responsibility
Establish regular inspection program for all construction sites, with guidelines for report preparation and submission	Inspection program is established	Beginning 9 March 2012	Env Office
	Perform a monthly walk-through of construction sites to ensure compliance with BMPs outlined in Construction Site Specific Storm Water Pollution Prevention Plan, Sediment and Erosion Plan, NYS Storm Water Management Design Manual, and the Fort Hamilton Master Plan.		
Notify contractors of construction site storm water BMPs	Contractor notification	Ongoing	Env Office
	Ensure storm water BMP requirements are included in all contracts.		

6.0 POST-CONSTRUCTION RUNOFF CONTROL

The purpose of this control measure is to develop, implement, and enforce a program to reduce pollutants and maintain natural runoff cycles from new development and redevelopment projects between 1 and 5 acres. A post-construction program can help increase infiltration and decrease runoff effects with the use of low-impact development (LID), site-specific storm water designs, and inspections of storm water controls.

Table 6.1 contains the measurable goals and BMPs for the life of the permit.

Table 6.1 Post-Construction Runoff Control – Year 2-5

Goal	Metric for Goal	Schedule	Responsibility
Establish program requiring post-construction BMP review for completed construction sites	Inspection program is established	9 March 2012	Env Office
	Inspect recently completed construction sites for effective site drainage, minimal erosion, proper material storage, and correct waste disposal monthly for one year after construction completion. Completed construction sites should comply with New York State Storm Water Management Design Manual, as well as other post-construction design guides (Fort Hamilton Installation Master Plan, Low Impact Design manuals, Better Site Design and other design guides). These practices should be approved prior to construction.		
Develop and distribute LID guide for contractors at Fort Hamilton	LID guide completion	9 March 2013	Env Office

7.0 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

This control measure is designed to examine and modify work practices to include pollution prevention and good housekeeping to improve storm water quality. NYSDEC's Municipal Pollution Prevention and Good Housekeeping Program Assistance publication is a valuable reference for potential BMPs. The Fort Hamilton Spill Prevention, Control, and Countermeasure (SPCC) plan can also be used to identify good housekeeping measures.

Table 7.1 contains measurable goals and BMPs for the remaining life of the permit.

Table 7.1 Pollution Prevention and Good Housekeeping – Year 2-5

Goal	Metric for Goal	Schedule	Responsibility
Maintain hydrodynamic separators	Inspections completed	Bi-annually	BBC
	Inspect Vortechs system in housing area twice per year. System should be cleaned when sediment depth has reached 12-18 inches of dry weather surface elevation. A vacuum truck is the most efficient method of cleaning the system.		
Perform regular street sweeping	Acres of parking lots swept, miles of streets swept	After spring snowmelt, after fall leaf drop, as needed	BBC and BMC
	Street sweeping should be conducted to remove sediment, salt, sand, and litter from roadways where they can be transported to storm sewer system. Areas of concern where sediment or litter is likely to accumulate and high-traffic areas should be swept on a more frequent basis.		
Ensure deicing materials are stored in order to limit contact with storm water	No metric	Winter Months	BBC and BMC
Inspect and maintain storm water conveyance system	Number of catch basins inspected and, where necessary, cleaned	Monthly	BBC and BMC
	Storm water conveyance systems should be free of debris that may cause blockages and back-ups, and kept in good condition.		
Flush storm water conveyance system	No metric	Annually, in June	BBC and BMC
Encourage reduction, elimination, or judicious use of fertilizers	Reduction in lbs of phosphorus and nitrogen applied in fertilizer	Ongoing	Env Office, BMC
Encourage reduction, elimination, or judicious use of pesticides	Reduction in lbs of pesticides/ herbicides applied as pure product	Ongoing	Env Office, BMC
Clean facility areas as needed to reduce debris and trash	No metric	Ongoing	Env Office, BMC
	Notify buildings that regularly require maintenance of Fort Hamilton's environmental policies.		

Table 7.1 Pollution Prevention and Good Housekeeping – Year 2-5 (Continued)

Maintain trash storage areas	No metric	Ongoing	Env Office, BMC and BBC
	Ensure new construction projects include properly designed trash storage areas. Inspect solid waste containers for damage, repair or replace as necessary. Ensure wastes are disposed of properly and that waste containers are not filled with washout water.		
Provide adequate litter receptacles	No metric	Ongoing	BMC
	Ensure high pedestrian traffic areas, recreation facilities, and community events have proper trash and recycling facilities.		
BMC employee training	No metric	Ongoing	BMC
	The BMC is required to develop and implement an employee storm water training program.		

Appendix A:
References

1. EPA. *Report to Congress on the Phase II Storm Water Regulations*, 1999. Washington, DC: Government Printing Office, 1999.
2. Fort Hamilton Directorate of Public Works. *Fort Hamilton Stormwater Management Plan*, 2010.
3. NYSDEC. *SPDES General Permit for Storm Water Discharges from MS4s*, 2010. Albany, NY: NYSDEC, 2010.
4. NYSDEC. *Environmental Conservation Law*. Albany, NY: NYSDEC, 2010.
5. United States Department of the Army. "*Army Regulation 200-1: Environmental Protection and Enhancement*", 2007. Department of the Army, December 2007.

Appendix B:
Site Map and Outfall Descriptions

Appendix C:
Applicable Fort Hamilton Storm Water Regulations

1.0 REGULATORY BODIES

As a United States Army installation located in New York City, Fort Hamilton is required to comply with all Federal, New York State, and Army regulations.

1.1 FEDERAL REGULATIONS

Federal Phase II Storm Water regulations are described in the Stormwater Phase II Final Rule (64 FR 68722), which was finalized 8 December 1999 and put into effect 7 February 2000. This rule is enforced on the federal level by the EPA. The EPA allows primacy for state run regulation authorities, which allows states to develop and implement their own storm water permitting program, as long as the state ran program meets all federal requirements.

1.2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

The NYSDEC is the holder of primacy for storm water permitting in the state of New York. A copy of the NYSDEC SPDES General Permit for Storm Water Discharges from Small and Medium MS4s (Permit No. GP-0-10-002) is located at the end of this appendix.

1.3 UNITED STATES ARMY ENVIRONMENTAL REGULATIONS

Fort Hamilton is required to comply with the United States Army Regulation (AR) 200-1. AR 200-1 is summarized as a regulation that covers environmental protection and enhancement and provides the framework for the Army Environmental Management System. The pertinent regulations are:

AR 200-1. Para 4-2 e. Wastewater and stormwater.

(3) Major program goals. The Army's wastewater and stormwater management goals are to reduce the pollutant loadings in point source and non-point source discharges and to ensure efficient water reuse.

(4) Program requirements.

(a) Obtain and comply with NPDES and/or State discharge permits, to include all required plans. (LD: 40 CFR 122)

(d) Develop and implement a stormwater management plan for a regulated Municipal Separate Stormwater Sewer System (MS4) as required in accordance with the installation's general permit. (LD: 40 CFR 122.26)

(e) Develop and implement a Stormwater Pollution Prevention Plan(s) (SWPPP) as required, in accordance with the installation's industrial, construction, or Municipal Separate Storm Sewer (MS4) storm water permit(s). (LD: 40 CFR 122.26)

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

**MUNICIPAL SEPARATE STORM SEWER SYSTEMS
(MS4s)**

Permit No. GP-0-10-002

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

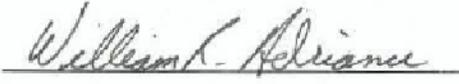
Effective Date: May 1, 2010

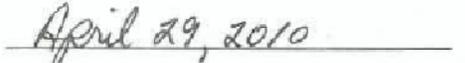
Expiration Date: April 30, 2015

William R. Adriance
Chief Permit Administrator

Address:

NYS DEC
Div. Environmental Permits
625 Broadway
Albany, N.Y. 12233-1750


Authorized Signature


Date

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), operators of *small municipal separate storm sewer systems* (“small MS4s”), located in *urbanized areas* (“UA”) and those *additionally designated* by New York State are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System* (“NPDES”) permit or by a state permit program. New York’s *State Pollutant Discharge Elimination System* (“SPDES”) is an NPDES-approved program with permits issued in accordance with the *Environmental Conservation Law* (“ECL”).

Only those *small MS4 operators* who *develop* and *implement* a *stormwater management program* (SWMP) and obtain permit coverage in accordance with Part II of this *SPDES general permit* are authorized to *discharge stormwater* from their *small MS4* under this *SPDES general permit*.

A *covered entity* authorized under GP-0-08-002 as of the effective date of GP-0-10-002, shall be permitted to discharge in accordance with the renewed permit, GP-0-10-002, upon the submission of their Annual Report, unless otherwise notified by the *Department*.

An *operator* not authorized under GP-0-10-002 may¹ obtain coverage under this *SPDES general permit* by submitting a Notice of Intent (NOI) to the address provided on the NOI form. For newly regulated MS4s, authorization under this *SPDES general permit* is effective upon written notification from the *Department* of the receipt of a complete NOI. Copies of this *SPDES general permit* and the NOI for New York are available by calling (518) 402 - 8109 or at any Department of Environmental Conservation (*Department*) regional office (Appendix A). They are also available on the *Department’s* website:

<http://www.dec.ny.gov/permits/6045.html>

Submitting an NOI is an affirmation that an initial *SWMP* has been *developed* and will be *implemented* in accordance with the terms of this *SPDES general permit*.

*** Note: all italicized words within this *SPDES general permit* are defined in Part X. Acronyms and Definitions.**

¹ The term “may” is used to recognize that there are circumstances under which the *operator* is ineligible for coverage under this *SPDES general permit* because of exclusionary provisions of this permit. *Operators* that are excluded from coverage under this *SPDES general permit* as provided for in Part I, for example, are not authorized to *discharge* under this permit. This clarification also applies to situations in which an NOI has been submitted; submission of an NOI by an entity excluded from *SPDES general permit* coverage does not authorize the *small MS4* to *discharge stormwater* runoff under the authority of this *SPDES general permit*.

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 SPDES GENERAL PERMIT FOR DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

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Part I. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

1. This *SPDES general permit* authorizes *discharges* of stormwater from *small municipal separate storm sewer systems* (“MS4”s) as defined in 40 CFR 122.26(b)(16), provided all of the eligibility provisions of this *SPDES general permit* are met.
2. Exempt Non-Stormwater Discharges. The following non-stormwater *discharges* are exempt from the need for *SPDES general permit* coverage unless the *Department* has determined them to be substantial contributors of pollutants to a particular *small MS4* applying for coverage under this *SPDES general permit*. If the *Department* determines that one or more of the *discharges* listed below is a substantial contributor of pollutants to a *small MS4*, the identified *discharges* will be considered *illicit*. In that event, the *covered entity* must eliminate such discharges by following the *illicit discharge* minimum control measure (“MCM”) requirements (See Part VII.A.3 or VIII.A.3, and Part IX.A.3, B.3, C.3, and D.3 where applicable).
 - a. water line flushing
 - b. landscape irrigation
 - c. diverted stream flows
 - d. rising ground waters
 - e. uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
 - f. uncontaminated ground water
 - g. discharges from potable water sources
 - h. foundation drains
 - i. air conditioning condensate
 - j. irrigation water
 - k. springs
 - l. water from crawl space and basement sump pumps
 - m. footing drains
 - n. lawn and landscape watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer’s product label;
 - o. water from individual residential car washing
 - p. flows from riparian habitats and wetlands
 - q. dechlorinated swimming pool discharges
 - r. residual street wash water
 - s. discharges or flows from fire fighting activities

(Part I.A.2.)

- t. dechlorinated water reservoir discharges
- u. any SPDES permitted discharge.

Even if the non-stormwater discharges are determined not to be substantial contributors of pollutants, the *Department* recommends that the *covered entity's stormwater management program* ("SWMP") include public education and outreach activities directed at reducing pollution from these discharges.

B. Limitations on Coverage

The following are not authorized by this *SPDES general permit*:

1. *Stormwater discharges* whose unmitigated, direct, indirect, interrelated, interconnected, or interdependent impacts would jeopardize a listed endangered or threatened species or adversely modify designated critical habitat;
2. *Stormwater discharges* or *implementation* of a *covered entity's SWMP*, which adversely affect properties listed or eligible for listing in the National Register of Historic Places, unless the covered entity is in compliance with requirements of the National Historic Preservation Act and has coordinated with the appropriate State Historic Preservation Office any activities necessary to avoid or minimize impacts;
3. *Stormwater discharges* to territorial seas not of the State of New York, the contiguous zone, and the oceans unless such *discharges* are in compliance with the ocean *discharge* criteria of 40 CFR 125 subpart M;
4. *Stormwater discharges*, the permitting of which is prohibited under 40 CFR 122.4 and/ or the *ECL*;

C. Exemption Criteria

For *stormwater discharges* from a designated *small MS4* that are mixed with non-*stormwater* or *stormwater* associated with *industrial activity*, the *Department* may determine them to be exempt from the requirements of this *SPDES general permit* if the *discharges* are:

1. Effectively addressed by and in compliance with a different *SPDES general permit* or an *individual SPDES permit*; or
2. Identified by and in compliance with Part I.A.2 of this *SPDES general permit*.

Part II. OBTAINING PERMIT COVERAGE

A. Permit coverage is obtained by submission of a complete and accurate Notice Of Intent.

B. Permit coverage is public noticed by the Department.

NOIs will be public noticed and an opportunity for public comment provided on the contents of submitted NOIs.

- a. NOIs and the location of the SWMPs and Annual Reports for existing MS4s will be posted in the Environmental Notice Bulletin (ENB).
- b. A deadline of 28 calendar days from the posting in the ENB will be provided for receiving comments.
- c. After the public comment period has expired, the *Department* may extend the public comment period, require submission of an application for an individual SPDES permit or alternative *SPDES general permit*, or accept the NOI or SWMP as complete.

C. Continuance of Permit Coverage for Covered Entities Authorized by GP-0-08-002 (Continuing Covered Entities)

As of May 1, 2010, entities with coverage under GP-0-08-002 will continue to have authorization to discharge on an interim basis for up to 180 days from the effective date of this *SPDES general permit*. Covered entities may gain coverage under this *SPDES general permit* by submission of their 2009 Annual Report due in June 2010. For public participation purposes, the updated Annual Report will be considered equivalent to submission of an NOI.

When the operator changes, a new operator is added, or the individual responsible for the SWMP changes, these changes must be indicated on the MCC form submitted in accordance with Part V.D. It is not necessary to submit a revised Notice of Intent (NOI).

D. Permit Coverage for Covered Entities Newly Designated Under GP-0-10-002 (Small MS4s not Previously Authorized by GP-0-08-002)

Certain *small MS4s* designated by 40CFR Section 122.32(a)(1) were not authorized by GP-0-08-002, but are now required to gain coverage under this *SPDES general permit*. The *small MS4s* were not previously authorized because they were either:

- required to gain coverage under GP-0-08-002, but were granted a waiver from that requirement;
- were not required to gain coverage under GP-0-08-002 based on the designation criteria, but they are now within an *Additionally Designated Area*; or

(Part II.D.)

- were otherwise not permitted under GP-0-08-002.
- 1. In order for *stormwater discharges* from *small MS4s* to be newly authorized under this *SPDES general permit*, an operator must:
 - a. within 180 days of receiving written notification from the *Department* that a permit for discharges from MS4s is required, prepare an NOI using the form provided by the *Department* (or a photocopy thereof); and
 - b. submit the NOI, signed in accordance with Part VI.J of this *SPDES general permit*, to:

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, NY 12233-3505**

- 2. *Operators* who submit a complete NOI in accordance with the requirements of this *SPDES general permit* are authorized to *discharge stormwater* from *small MS4s*, under the terms and conditions of this *SPDES general permit*, upon written notification from the Department that a complete NOI has been received.

E Small MS4s Not Required to Gain Coverage

Operators of unregulated *small MS4s* may apply for coverage under this *SPDES general permit* at any time, per Part II.B.

F. Extension of Permit Coverage to Covered Entity's Full Jurisdiction

Operators of traditional land use control MS4s must extend the implementation of minimum control measures (MCMs) 4 and 5 in accordance with *Criterion 3* of the Designation Criteria or apply for a waiver, if eligible.

Operators of all regulated *small MS4s* may also extend the implementation of any of the six MCMs to areas under their control, but outside of the existing area covered by this *SPDES general permit*. This may be done by describing the program components (MCMs) being extended and the geographic extent to which they are being extended in the annual report (Part V.C.) and indicating in the Municipal Compliance Certification (MCC) form (Part V.D.) that the program was extended to the *covered entity's* full jurisdiction.

(Part II.)

G. Single Entity to Cover the MS4

A single entity may gain coverage for, and on behalf of, one or more regulated MS4s to implement a part of an MCM, one, or all the MCMs. A single entity shall be defined by watershed, municipal boundaries, special district boundaries, or other specifically defined boundaries. The single entity must demonstrate to the *Department* that it was formed in accordance with applicable state and/or local legislation, and that it has the legal authority and capacity (financial, resources, etc.) to meet the requirements of this *SPDES general permit*. Depending on the MCM(s) implemented, the single entity shall demonstrate that it has the following capacities, as applicable for each MCM that the single entity is seeking coverage under this *SPDES general permit*:

1. Initiate and administer appropriate enforcement procedures,
2. Collect, finance, bond or otherwise borrow money for capital projects,
3. Control the management and operation of the storm sewer system,
4. Implement best management practices at all municipal facilities discharging to the MS4, and
5. Obtain access to property that may be necessary for siting stormwater management facilities and/or practices.

The single entity must submit a complete NOI form to the *Department*, detailing which of the regulated MS4s it will gain coverage for and which of the MCMs, or parts of MCMs, it will implement for each particular regulated MS4. A copy of the document forming the single entity, and detailing the legal authority and capacity of the single entity, must be attached to the NOI. Prior to the single entity gaining coverage under this *SPDES general permit*, each regulated MS4, for which the single entity will implement one or more MCM must submit a complete notice of termination (NOT). This notice shall specify which of the minimum control measures the single entity will implement for the MS4 and which of the minimum control measures the MS4 will implement.

Part III. SPECIAL CONDITIONS

A. Discharge Compliance with Water Quality Standards

Where a *discharge* is already authorized under this *SPDES general permit* and is later determined to directly or indirectly cause or have the reasonable potential to cause or contribute to the violation of an applicable *water quality standard*, the *Department* will notify the *covered entity* of such violation(s) and may take enforcement actions for such violations. The *covered entity* must take all necessary actions to ensure future *discharges* do not directly or indirectly cause or contribute to the violation of a *water quality standard*, and the *covered entity* must document these actions in the *SWMP*.

(Part III.A.)

Compliance with this requirement does not preclude, limit, or eliminate any enforcement activity as provided by the Federal and / or State law for the underlying violation. Additionally, if violations of applicable water quality standards occur, then coverage under this *SPDES general permit* may be terminated by the *Department* in accordance with 750-1.21(e), and the *Department* may require an application for an alternative *SPDES general permit* or *individual SPDES permit* may be issued.

B. Impaired Waters

1. Impaired Waters Without Watershed Improvement Strategies or Future TMDLs

If a *small MS4 discharges* a stormwater pollutant of concern (POC) to an *impaired* water listed in Appendix 2, the covered entity must ensure no net increase in its *discharge* of the listed *POC* to that water.

By January 8, 2013, *covered entities* must assess potential sources of discharge of stormwater *POC(s)*, identify potential stormwater pollutant reduction measures, and evaluate their progress in addressing the *POC(S)*. Newly authorized covered entities must perform the above tasks within 5 years after gaining coverage under this *SPDES general permit*. Covered entities must evaluate their *SWMP* with respect to the *MS4's* effectiveness in ensuring there is no net increase discharge of stormwater *POC(s)* to the impaired waters for *storm sewersheds* that have undergone non-negligible changes such as changes to land use and impervious cover greater than one acre, or stormwater management practices during the time the *MS4* has been covered by this *SPDES general permit*. This assessment shall be conducted for the portions of the *small MS4 storm sewershed* that *discharge* to the listed waters (see Appendix 2). The assessment shall be done using *Department* supported modeling of pollutant loading.

If the modeling shows increases in loading of the *POC*, the *SWMP* must be modified to reduce the loading to meet the no net increase requirement. The subsequent annual reports must contain an assessment of priority stormwater problems, potential management practices that are effective for reduction of stormwater *POC(s)*, and document a gross estimate of the extent and cost of the potential improvements.

2. Watershed Improvement Strategies

The *SWMPs* for *covered entities* in the watersheds listed below must be modified to comply with the following requirements and the watershed improvement strategies. *Covered entities* implementing the pollutant-specific *BMPs* in addition to the *BMPs* required of all *covered entities* will be taking satisfactory steps towards achieving compliance with *TMDL* requirements. *Covered entities* under the *MS4 SPDES general*

(Part III.B.2.)

permit are required to make best efforts to participate in locally based watershed planning efforts that involve the NYSDEC, other covered entities, stakeholders and other interested parties for implementation of load reduction BMPs. Covered entities may form a Regional Stormwater Entity (RSE) to implement stormwater retrofits collectively. The *covered entities* must ensure that discharges of the *POC* to the *TMDL* waterbody are reduced through these or additional changes to the *SWMP* so that the waste load allocation is met.

MS4s are required to meet the reduction of the POC defined by the TMDL program defined in Part IX of this *SPDES general permit*. By the deadlines defined in Part IX of the general permit, *covered entities* must assess their progress and evaluate their *SWMP* to determine the *MS4's* effectiveness in reducing their discharges of *TMDL POC(s)* to *TMDL* water bodies. Newly designated watershed improvement strategy areas must perform the assessment within 5 years from authorization under this *SPDES* general permit. This assessment shall be conducted for the portions of the *small MS4 storm sewershed* that are within the *TMDL* watershed. The assessment shall be done using *Department* supported modeling of pollutant loading from the *storm sewershed*. The *covered entities* or an RSE must prepare and implement, participate in or utilize the results of existing or ongoing ambient water quality monitoring programs to validate the accuracy of models and evaluate the effectiveness of the additional *BMPs* for watershed improvement strategies.

If the modeling shows that loading of the POC is not being reduced to meet the waste load allocation, the *SWMP* must be modified to reduce the pollutant loading to meet the waste load allocation.

Each regulated MS4 is responsible for an individual load reduction, which is a fraction of the total required load reduction in the TMDL. If MS4s form an RSE and stormwater retrofits are approached collectively, the *Department* would allow compliance with this condition of the *SPDES* general permit to be achieved on a regional basis.

In this case the load reduction requirement for each participating MS4 will be aggregated, to create an RSE load reduction, to allow design and installation of retrofits where they are most feasible, without restricting MS4s to site retrofit projects within their municipal boundaries.

Each member of an RSE is in compliance if the aggregate reduction number associated with the retrofit plans is met. If the aggregate number is not met, each of the participating MS4s would be deemed non-compliant until such time as they had met their individual load reduction requirements.

(Part III.B.2.)

a. New York City Watershed East of the Hudson River

Covered entities shall modify their *SWMP* to meet the additional requirements as set forth in Part IX.A to address phosphorus as the *POC* for the portion of their *storm sewershed* in the watershed. A map of the watershed is shown in Appendix 3.

b. Other Phosphorus Watersheds

Covered entities shall modify their *SWMP* to meet the additional requirements as set forth in Part IX.B to address phosphorus as the *POC* for the portion of their *storm sewershed* in the watershed. Maps of the watersheds are shown in Appendices 4, 5, and 10.

c. Pathogen Watersheds

Covered entities shall modify their *SWMP* to meet the additional requirements as set forth in Part IX.C to address pathogens as the *POC* for the portion of their *storm sewershed* in any of the watersheds. Maps of the watersheds are shown in Appendices 6, 7, and 9.

d. Nitrogen Watersheds

Covered entities shall modify their *SWMP* to meet the additional requirements as set forth in Part IX.D to address nitrogen as the *POC* for the portion of their *storm sewershed* in the watershed. Maps of the watersheds are shown in Appendix 8.

3. Future TMDL Areas

If a *TMDL* is approved in the future by EPA for any waterbody or watershed into which a *small MS4 discharges*, the *covered entity* must review the applicable *TMDL* to see if it includes requirements for control of *stormwater discharges*. If a *covered entity* is not meeting the *TMDL* wasteload allocations, it must, within 180 days of written notification from the *Department*, modify its *SWMP* to ensure that the reduction of the *POC* specified in the *TMDL* is achieved. It will be the *MS4's* obligation to meet the waste load allocations specified in the *TMDL* through modification of its *SWMP plan* according to the schedule of Part IX of this *SPDES general permit*.

Modifications must be considered for each of the six MCMs. Refer to assistance documents or enhanced requirements for specific pollutants in documents on the *Department's* website for modifications specific to the *TMDL*. Revised *SWMPs* must include updated schedules for implementation.

(Part III.B.3.)

Within three years of having modified its SWMP to ensure that reduction of the POC specified in the TMDL is achieved, covered entities in future TMDL areas must assess their progress and evaluate their SWMP to determine the MS4's effectiveness in reducing their discharges of TMDL POC(s) to TMDL water bodies. This assessment shall be conducted for the portions of the *small MS4 storm sewershed* that are within the TMDL watershed. The assessment shall be done using *Department* supported modeling of pollutant loading from the *storm sewershed*.

Part IV. Stormwater Management Program (SWMP) Requirements

A. SWMP Background

Covered entities must develop (for newly authorized MS4s , implement), and enforce a SWMP designed to reduce the discharge of pollutants from *small MS4s* to the *maximum extent practicable* ("MEP") in order to protect water quality and to satisfy the appropriate water quality requirements of the ECL and the CWA. The objective of the permit is for MS4s to assure achievement of the applicable water quality standards. *Covered entities* under GP-0-08-002 must have prepared a SWMP plan documenting modifications to their SWMP. See Part X.B. (Definitions) for more information about the SWMP and SWMP plan.

The SWMP and SWMP plan may be created by an individual *covered entity*, by a shared effort through a group or coalition of individual *covered entities*, or by a third party entity. The SWMP plan shall be made readily available to covered entity's staff, to the public and to *Department* and EPA staff.

B. Cooperation Between Covered entities Encouraged

The *Department* encourages *covered entities* to cooperate when *developing* and *implementing* their SWMP². However, each *covered entity* is responsible for obtaining its own permit coverage and for filing its own NOI. Irrespective of any agreements between *covered entities*, each individual *covered entity* remains legally responsible for satisfying all GP-0-10-002 requirements and for its own *discharges*. If one *covered entity* is relying on another *covered entity* to satisfy one or more of its permit obligations, that fact must be noted on the *covered entity's* MCC form. The other entity must, in fact, *implement* the MCM(s) and must agree to *implement* the MCM(s) on the first *covered entity's* behalf. This agreement between the two or more parties must be documented

² For example, villages are encouraged to cooperate with towns, towns with counties, and adjacent counties with each other. In addition, municipal governments are encouraged to coordinate and cooperate with *non-traditional MS4s* such as DOT, school and fire districts, Federal and State facilities located within and adjacent to their jurisdictions. Sewer boards, water boards, or other non-traditional entities are encouraged to partner with the municipality (municipalities) that they serve.

in writing and signed by both (all) parties. Part IV.G. below may apply if such an agreement

(Part IV.B.)

is not already in place. The agreement must be included in the *SWMP plan*, and be retained by the *covered entity* for the duration of this *SPDES general permit*, including any administrative extensions of the permit term.

Covered entities that are working together to *develop (for newly authorized MS4s)* or *implement* their *SWMPs* are encouraged to complete shared annual reports. *Covered entities* may also hold a group meeting to present their annual reports to the public and to receive comments on their annual reports. These options are discussed in more detail in Part V.C.2.

C. SWMP Coverage Area

At a minimum, *covered entities* are required to *develop (for newly authorized MS4s)* and *implement SWMPs* in the automatically designated *urbanized areas* (“UA”) and *additionally designated* areas (40CFR Section 122.32(a)(1) or 122.32(a)(2)) under their jurisdiction³.

SWMP coverage shall include all UA or additionally designated areas within the *covered entity's* jurisdiction that drain into their *small MS4* and subsequently *discharge* to *surface waters of the State* directly or through other *small MS4s*.

Operators of *small MS4s* whose jurisdiction includes regulated and unregulated areas are encouraged to include their entire jurisdiction in their *SWMP* (refer to Part II.D).

D. SWMP Development and Implementation for Covered entities Authorized by GP-0-08-002(Continuing Covered entities)

Covered entities authorized under GP-0-08-002 shall continue to fully *implement* their *SWMP*, unless otherwise stated in this *SPDES general permit*. A *covered entity* may modify its *SWMP* if it determines changes are needed to improve *implementation* of its *SWMP*. Any changes to a *SWMP* shall be reported to the *Department* in the *MS4's*

³ The purpose of this section is to minimize conflicts between adjacent *small MS4s*. For the purposes of this *SPDES general permit*, areas under the *covered entity's* jurisdiction shall mean areas where the legal authority exists for the subject *covered entity* to *develop* and *implement* an *SWMP* including the six MCMs. It is not a permit requirement for *covered entities* to *implement* and enforce any portion of their *SWMP* in any area that is under the jurisdiction of another *covered entity*. For example, if a portion of a town drains directly into a stormwater system owned and operated by the State DOT, and this area of the town is regulated, the DOT will not be required to implement and enforce any portion of a *SWMP* in the area lying outside of its right of way. In this case, the town would be required to implement the program in the subject area in accordance with this *SPDES general permit*, this despite the fact that the subject drainage does not directly enter the town's system.

annual report and Municipal Compliance Certification (MCC) form (See Part V.C and V.D).

(Part IV.)

E. SWMP Development and Implementation for Newly Regulated Covered entities (Small MS4s not Previously Authorized by GP-0-08-002)

Certain *small MS4s* designated by 40CFR Section 122.32(a)(1) were not authorized by GP-0-08-002, but are now required to gain coverage under this *SPDES general permit*. The *small MS4s* were not previously authorized because they were either:

- required to gain coverage under GP-0-08-002, but were granted a waiver from that requirement;
- were not required to gain coverage under GP-0-08-002 based on the designation criteria, but they now meet the additional designation criteria in NYS DEC “Designation Criteria for Identifying Regulated Municipal Separate Storm Sewer Systems” ; or
- were otherwise not permitted under GP-0-08-002.

Operators of small MS4s newly regulated under this *SPDES general permit* must *develop* an initial *SWMP* and provide adequate resources to fully *implement* the *SWMP* no later than three years from the date of the individual MS4's authorization.

A newly regulated *covered entity* may modify its *SWMP* to comply with the terms and conditions of this *SPDES general permit* if it determines changes are needed to improve *implementation* of its *SWMP*. Any changes to a *SWMP* shall be documented in the *SWMP plan* and reported to the *Department* in the annual report (See Part V.C).

Covered entities are required to make steady progress toward full *implementation* in the first three years after the date of authorization. Full *implementation* of *SWMPs* for newly regulated *small MS4s* is expected no later than three years from the date of coverage under this *SPDES general permit*.

F. Minimum Control Measures

Each *covered entity* is required to develop (*for newly authorized MS4s*) and implement a *SWMP* that satisfies the requirements for each of six required program components, known as minimum control measures (MCMs).

The MCMs for *traditional land use control MS4s* are listed in Part VII. The MCMs for *traditional non-land use control MS4s* and *non-traditional MS4s* are listed in Part VIII. Additional MCMs that *covered entities* in watersheds with improvement strategies must address, referred to in Part III.B.2, are described in Part IX.

(Part IV.)

G. Reliance Upon Third Parties

This section applies when a *covered entity* relies upon any third party entity to *develop* or *implement* any portion of its *SWMP*. Examples of such entities include, but are not

limited to a non-government, commercial entity that receives payment from the *covered entity* for services provided (for example businesses that create policies or procedures for *covered entities*, perform illicit discharge identification and track down, maintain roads, remove snow, clean storm sewer system, sweep streets, etc as contracted by the covered entity).

The covered entity must, through a signed certification statement, contract or agreement provide adequate assurance that the third parties will comply with permit requirements applicable to the work performed by the third party. The certification statement, contract or other agreement must:

- provide adequate assurance that the third party will comply with permit requirements;
- identify the activities that the third party entity will be responsible for and include the name and title of the person providing the signature;
- the name, address and telephone number of the third party entity;
- an identifying description of the location of the work performed; and
- the date the certification statement, contract or other agreement is signed.

Example certification language is provided below:

Contracted Entity Certification Statement:

“I certify under penalty of law that I understand and agree to comply with the terms and conditions of the (covered entity’s name) stormwater management program and agree to implement any corrective actions identified by the (covered entity’s name) or a representative. I also understand that the (covered entity’s name) must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (“SPDES”) general permit for stormwater discharges from the Municipal Separate Storm Sewer Systems (“MS4s”) and that it is unlawful for any person to directly or indirectly cause or contribute to a violation of water quality standards. Further, I understand that any non-compliance by (covered entity’s name) will not diminish, eliminate, or lessen my own liability.”

Part V. PROGRAM ASSESSMENT, RECORD KEEPING, REPORTING AND CERTIFICATION REQUIREMENTS

A. Assessment

Covered entities are required to collect and report information about the *development* and *implementation* of their SWMPs. Specific information the *small MS4s* are required to collect is identified in Parts VII or VIII, depending on the type of *small MS4*. The *small MS4s* are encouraged to collect additional information that will help them evaluate their SWMP. Collection of information over time will facilitate the evaluation of the *covered entity's SWMP* by allowing the examination of trends in the information collected.

The *covered entity* must conduct an annual evaluation of its program compliance, the appropriateness of its identified *BMPs*, meeting new permit requirements, and progress towards achieving its identified *measurable goals*, which must include reducing the *discharge* of pollutants to the *MEP*.

Where the evaluation shows that the SWMP is not reducing discharges to the *MEP*, the SWMP shall be revised to reduce discharges to the *MEP*. Update to the SWMP and the SWMP plan must be completed within a year from the annual evaluation of their SWMP with an implementation schedule no later than 3 years from the annual evaluation.

B. Recordkeeping

The *covered entity* must keep records required by this *SPDES general permit* (records that document *SWMP*, records included in *SWMP plan*, other records that verify reporting required by the permit, NOI, past annual reports, and comments from the public and the *Department*, etc.) for at least five (5) years after they are generated. Records must be submitted to the *Department* within 5 business days of receipt of a *Department* request for such information. The *covered entity* shall keep duplicate records (either hard copy or electronic), to have one copy for public observation and a separate working copy where the *covered entity's* staff, other individuals responsible for the *SWMP* and regulators, such as *Department* and EPA staff can access them. Records, including the NOI and the *SWMP plan*, must be available to the public at reasonable times during regular business hours.

C. Annual Reporting

1. Annual Report Submittal

The annual reporting period ends March 9 of each year. The annual report must be received in the *Department's* Central Office, electronic or hard copy, no later than June 1 of each reporting year. If electronic, submit in accordance with procedures set forth by the *Department*. If mailed, send to the address below:

(Part V.C.1.)

**NYS DEC “MS4 Coordinator”
Bureau of Water Permits
625 Broadway, 4th Floor
Albany, NY 12233-3505**

Failure to submit a complete annual report and a complete MCC form (Part V.D) shall constitute a permit violation.

a. Annual Report Submittal for Newly Regulated Covered entities (Small MS4s not Previously Authorized by GP-0-08-002)

Newly regulated covered entities *developing* their *SWMP* are to submit their Annual Report in a format provided by the *Department*. They will provide, at a minimum, the information on the annual report form and the information required by Parts VII or VIII.

Newly regulated *covered entities* are required to submit their first annual report the year that authorization is granted if authorization is granted on or before December 31 of that reporting year.

b. Annual Report Submittal for Covered entities Authorized by GP-0-08-002 (Continuing Covered entities)

Beginning with annual reports due in 2010 *covered entities* implementing their *SWMP* shall submit, at a minimum, information specified by the *Department* in Part VII or VIII in a format provided by the *Department*.

2. Shared Annual Reporting and Submittal

Covered entities working together to *develop* (for newly authorized *MS4s*) and /or *implement* their *SWMPs* may complete a shared annual report. The shared annual report is an annual report that outlines and explains group activities, but also includes the tasks performed by individual *covered entities* (*BMPs*, *measurable goals*, schedules of planned activities, etc.). To facilitate the submission of one annual report for the entire group of *covered entities*, individual *covered entity*'s activities may be incorporated into the report by either:

- providing the details specific to their *small MS4(s)* to a person(s) who incorporates that information into the group report. That one group report is submitted to the *Department* for all participating *small MS4s*; or
- providing the details specific to their *small MS4(s)* on a separate sheet(s) that will be attached with the one group report.

(Part V.C.2.)

Regardless of the method chosen, each *covered entity* must, by June 1 of the annual reporting year:

- a. Provide their individual MCC form (see Part V.D) to be submitted with the shared annual report. Each *covered entity* must sign and submit an MCC form to take responsibility for all of the information in the annual report, which includes specific endorsement or acceptance of the shared annual report on behalf of the individual *covered entity*;
- b. Present their draft annual report at a meeting (see Part VII.A.2.d or Part VIII.A.2.d for more information). For completed shared annual reports, the report may be presented by each participating individual *covered entity* at an existing *municipal* meeting or may be made available for comments on the internet. Additionally, *covered entities* participating in shared annual reporting may combine meetings to have a group or regional meeting. While the group meeting is allowable, each *covered entity* shall ensure that local public officials and members of the public are informed about the program, activities and progress made; and
- c. Submit a summary of any comments received and (intended) responses on the individual *covered entity's* information or the shared annual report information, as applicable. This information should be included with the annual report submission. Changes made to the *SWMP* in response to comments should be described in the annual report.

3. Annual Report Content

The annual report shall summarize the activities performed throughout the reporting period (March 10 to March 9) and must include at a minimum:

- a. The status of compliance with permit conditions, including Watershed Improvement Strategy conditions;
- b. An assessment/evaluation of:
 - i. the appropriateness of the identified *BMPs*;
 - ii. progress towards achieving the statutory goal of reducing the *discharge* of pollutants to the *MEP*; and
 - iii. the identified *measurable goals* for each of the *MCMs*.
- c. Results of information collected and analyzed, monitoring data, and an assessment of the *small MS4's SWMP* progress toward the statutory goal of reducing the *discharge of pollutants* to the *MEP* during the reporting period. This could include results from required *SWMP* reporting, estimates of pollutant loading (from parameters such as identified illicit discharges, physically interconnected *small MS4s* that may contribute substantially to pollutant

(Part V.C.3.c.)

loadings from the *small MS4*) and pollutant load reductions (such as illicit discharges removed). This assessment may be submitted as an attachment;

- d. When required to be completed, results of assessments of effectiveness in meeting no net increase requirements or TMDL loadings as required by III. B.1 and 2. These results must be submitted in evaluation forms and as an attachment;
- e. A summary of the stormwater activities planned to be undertaken during the next reporting cycle (including an implementation schedule);
- f. Any change in identified *BMPs* or *measurable goals* and justification for those changes;
- g. Notice that a *small MS4* is relying on another entity to satisfy some or all of its permit obligations (if applicable);
- h. A summary of the public comments received on this annual report at the public presentation required in Part VII.A.2. or VIII.A.2. And, as appropriate, how the *small MS4* will respond to comments and modify the program in response to the comments;
- i. A statement that the final report and, beginning in 2009, the SWMP plan are available for public review and the location where they are available; and
- j. The information specified under the reporting requirements for each MCM (Part VII or VIII).

D. Annual Report Certification

A signed original hard copy and a photocopy of the MCC form must be submitted to the *Department* no later than June 1 of each reporting year. If the annual report is mailed (Part V.C. above), the MCC form must be submitted with the annual report.

The MCC form, provided by the *Department*, certifies that all applicable conditions of Parts IV, VII, VIII and IX of this *SPDES general permit* are being *developed, implemented* and complied with. It must be signed by an individual as described in Part VI.J.2. The certification provided by the MCC form does not affect, replace or negate the certification required under Part VI.J(2)(d). If compliance with any requirement cannot be certified to on the MCC form, a complete explanation with a description of corrective measures must be included as requested on the MCC form.

Failure to submit a complete annual report (Part V.C.) and a complete MCC form shall constitute a permit violation.

Part VI. STANDARD PERMIT CONDITIONS

A. General Authority to Enforce

Three of the MCMs (illicit discharge detection and elimination, construction site *stormwater* runoff control and post-construction *stormwater* management) require local laws, ordinances or other regulatory mechanisms to ensure successful implementation of the MCMs. Some *covered entities*, however, are not enabled by state law to adopt local laws or ordinances. Those *covered entities* (typically non-traditional MS4s and traditional, non-land use control MS4s) are expected to utilize the authority they do possess to create or modify existing regulatory mechanisms, including but not limited to contracts, bid specifications, requests for proposals, etc. to ensure successful implementation.

B. Duty To Comply

A *covered entity* must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and the *ECL* and is grounds for enforcement action.

C. Enforcement

Failure of the *covered entity*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the *SPDES general permit* requirements contained herein shall constitute a permit violation. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Continuation of the Expired SPDES General Permit

This *SPDES general permit* expires five years from the effective date of this permit. However, an administratively extended *SPDES general permit* continues in force and effect until the *Department* issues a new permit, unless a *covered entity* receives written notice from the *Department* to the contrary. *Operators* of the *MS4s* authorized under the administratively extended expiring *SPDES general permit* seeking coverage under the new *SPDES general permit* must refer to the terms within the new *SPDES general permit* to continue coverage.

E. Technology Standards

Covered entities, in accordance with written notification by the *Department*, must comply with all applicable technology-based effluent standards or limitations promulgated by EPA pursuant to Sections 301 and 304 of the CWA. If an effluent standard or limitation more stringent than any effluent limitation in the *SPDES general permit* or controlling a pollutant not limited in the permit is promulgated or approved

(Part VI.E.)

after the permit is issued, the *SWMP plan* shall be promptly modified to include that effluent standard or limitation.

F. Need To Halt or Reduce Activity Not a Defense

It shall not be a defense for a *covered entity* in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this *SPDES general permit*.

G. Duty to Mitigate

The *covered entity* shall take all reasonable steps to minimize or prevent any *discharge* in violation of this *SPDES general permit* which has a reasonable likelihood of adversely affecting human health or the environment.

H. Duty to Provide Information

The *covered entity* shall, within five (5) business days, make available for inspection and copying or furnish to the *Department* or an authorized representative of the *Department* any information that is requested to determine compliance with this *SPDES general permit*. Failure to provide information requested shall be a violation of the terms of this *SPDES general permit* and applicable regulation.

I. Other Information

Covered entities who become aware of a failure to submit any relevant facts or have submitted incorrect information in the NOI or in any other report to the *Department* must promptly submit such facts or information.

J. Signatory Requirements

All NOIs, reports, certifications or information submitted to the *Department*, or that this *SPDES general permit* requires be maintained by the *covered entity*, shall be signed as follows:

1. Notices of Intent

All NOIs shall be signed by either a principal executive officer or ranking elected official. Principal executive officer includes (1) the chief executive officer of the municipal entity agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports Required and Other Information Requested

All reports required by this *SPDES general permit* and other information requested by the *Department*, including MCC forms (part V.D.), shall be signed by a person

(Part VI.J.2.)

described above or by a duly authorized representative of that person⁴. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in VI.J.1 above and submitted to the *Department*; and
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the *covered entity* (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the MCC form; and
- d. **Changes to authorization.** If an authorization to discharge is no longer accurate because a different *covered entity* has responsibility for the overall operation of another *covered entity's* program, these changes must be indicated on the MCC form submitted to the *Department* per Part V.D.
- e. **Initial signatory authorization or changes to signatory authorization.** The initial signatory authorization must be submitted to the *Department* with any reports to be signed by a signatory representative. If a signatory authorization under VI.J.2 is no longer accurate because a different individual, or position, has responsibility for the overall operation of the facility, a new signatory authorization satisfying the requirements of VI.J.2 must be submitted to the *Department* with any reports to be signed by an authorized representative.
- f. **Certification.** Any person signing documents under paragraph VI.H shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the

⁴ Positions that must be duly authorized include, but are not limited to, Environmental Directors, Deputy Supervisors, Safety and Environmental Managers, Assistant Directors, and Chief Health and Safety Officers.

(Part VI.J.2.f.)

information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information."

Under Part VI.J. (Signatory Requirements), it shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, and/or reports.

K. Penalties for Falsification of Reports

Article 17 of the *ECL* provides a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and / or imprisonment for falsifying reports required under this permit..

L. Oil and Hazardous Substance Liability

Nothing in this *SPDES general permit* shall be construed to preclude the institution of any legal action or relieve the *covered entity* from any responsibilities, liabilities, or penalties to which it is or may be subject under section 311 of the CWA or section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

M. Property Rights

The issuance of this *SPDES general permit* does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations, nor does it limit, diminish and / or stay compliance with any terms of this permit.

N. Severability

The provisions of this *SPDES general permit* are severable, and if any provision of this *SPDES general permit*, or the application of any provision of this *SPDES general permit* to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

O. Requiring an Individual Permit or an Alternative General Permit

1. In its sole discretion, the *Department* may require any person authorized by this *SPDES general permit* to apply for and/or obtain either an *individual SPDES permit* or an alternative *SPDES general permit*. Where the *Department* requires a *covered entity* to apply for an *individual SPDES permit*, the *Department* will notify such

(Part VI.O.1.)

person in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for filing the application, and a deadline not sooner than 180 days from covered entity's receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The *Department* may grant additional time to submit the application upon request of the applicant.

2. Any *covered entity* authorized by this *SPDES general permit* may request to be excluded from the coverage of this *SPDES general permit* by applying for an *individual SPDES permit* or an *alternative SPDES general permit*. In such cases, a *covered entity* must submit an individual application or an application for an alternative *SPDES general permit* in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to the *Department* at the address for the appropriate Regional Office. The request may be granted by issuance of any *individual SPDES permit* or an *alternative SPDES general permit* if the reasons cited by the *covered entity* are adequate to support the request.
3. When an individual *SPDES permit* is issued to a discharger authorized to discharge under a *SPDES general permit* for the same discharge(s), the general permit authorization for outfalls authorized under the individual permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

P. Other State Environmental Laws

1. Nothing in this *SPDES general permit* shall be construed to preclude the institution of any legal action or relieve a *covered entity* from any responsibilities, liabilities, or penalties established pursuant to any applicable *State* law or regulation under authority preserved by section 510 of the CWA.
2. No condition of this *SPDES general permit* releases the *covered entity* from any responsibility or requirements under other environmental statutes or regulations.

Q. Proper Operation and Maintenance

A *covered entity* must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *covered entity* to achieve compliance with the conditions of this *SPDES general permit*. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems,

(Part VI.Q.)

installed by a *covered entity* only when necessary to achieve compliance with the conditions of the *SPDES general permit*.

R. Inspection and Entry

The *covered entity* shall allow the Commissioner of NYSDEC, the Regional Administrator of the USEPA, the applicable county health department, or their authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the *covered entity's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this *SPDES general permit*;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, including records required to be maintained for purposes of operation and maintenance; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit.

S. Permit Actions

At the *Department's* sole discretion, this *SPDES general permit* may be modified, revoked, suspended, or renewed for cause at any time.

T. Anticipated noncompliance

The *covered entity* shall give advance notice to the *Department* of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Notification of planned changes or anticipated noncompliance does not limit, diminish and / or stay compliance with any terms of this permit.

U. Permit Transfers

Coverage under this *SPDES general permit* is not transferable to any person except after notice to the *Department*. The *Department* may require modification or revocation and reissuance of this *SPDES general permit* to change the responsible party and incorporate such other requirements as may be necessary.

Part VII. MINIMUM CONTROL MEASURES - TRADITIONAL LAND USE CONTROL

A. Traditional Land-Use Control MS4 Minimum Control Measures (MCMs)

These MCMs apply to *traditional land use control MS4s* (cities, towns, villages). The SWMP for these *small MS4s* must be comprised of the 6 MCMs below. It is recommended that covered entities refer to assistance and guidance documents available from the *State* and EPA.

Continuing covered entities were required to develop a SWMP with the MCM requirements below by January 8, 2008 (if authorized by GP-02-02) and within three years of gaining coverage (if authorized by GP-0-08-002). Under this *SPDES general permit*, the continuing *covered entities* are required to implement their SWMP, including the MCM requirements below. Notwithstanding any sooner deadlines contained elsewhere within this permit, newly regulated *covered entities* are required to develop their SWMP, containing the MCM requirements below, within the first 3 years of coverage and then commence implementation.

For each of the elements of the SWMP plan, the *covered entity* must identify (i) the agencies and/or offices that would be responsible for implementing the SWMP plan element and (ii) any protocols for coordination among such agencies and/or offices necessary for the implementation of the plan element.

The *covered entity* may *develop* (for newly authorized MS4s) and /or *implement* their SWMP within their jurisdiction on their own. The *covered entity* may also *develop* (for newly authorized MS4s) and / or *implement* part or all of their SWMP through an intermunicipal program with another *covered entity(s)* or through other cooperative or contractual agreements with third parties that provide services to the *covered entities*.

1. Public Education and Outreach - SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. Identify *POCs*, waterbodies of concern, geographic areas of concern, target audiences;
- b. *Develop* (for newly authorized MS4s) and *implement* an ongoing public education and outreach program designed to describe to the general public and target audiences:
 - i. the impacts of *stormwater discharges* on waterbodies;
 - ii. *POCs* and their sources;
 - iii. steps that contributors of these pollutants can take to reduce pollutants in *stormwater runoff*; and

(Part VII.A.1.b.)

- iv. steps that contributors of non-*stormwater discharges* can take to reduce pollutants (non-*stormwater discharges* are listed in Part I.A.2);
- c. *Develop (for newly authorized MS4s), record, periodically assess, and modify as needed, measurable goals; and*
- d. Select and implement appropriate education and outreach *activities* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- e. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. list education / outreach *activities* performed for the general public and target audiences and provide any results (for example, number of people attended, amount of materials distributed, etc.);
 - ii. *covered entities* performing the education and outreach activities required by other MCMs (listed below), may report on those activities in MCM 1 and provide the following information applicable to their program:
 - IDDE education *activities* planned or completed for public employees, businesses, and the general public, as required by Part VII.A.3;
 - construction site *stormwater* control training planned or completed, as required by Part VII.A.4; and
 - employee pollution prevention / good housekeeping training planned or completed, as required by Part VII.A.6; andTo facilitate shared annual reporting, if the education and outreach activities above are implemented by a third party, and the third party is completing the associated portions of the annual report, that third party may report on the education and outreach activities within MCM 1 of the annual report and not within the MCMs that the education and outreach activities are required by,
 - iii. report on effectiveness of program, *BMP* and *measurable goal* assessment; and
 - iv. maintain records of all training activities.
- f. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. **program *development* deadlines and reporting:**

(Part VII.A.1.f.i.)

Complete in Year 1 (report changes in Year 2 and 3 as needed):

- list (and describe if necessary) *POCs*;
- *development* of education and outreach program and *activities* for the general public and target or priority audiences that address *POCs*, geographic areas of concern, and / or *discharges to 303(d) / TMDL* waterbodies;
- *covered entities* developing education and outreach programs required by other MCMs (listed below), may report on development (and implementation of those activities, if occurring during the three year development period) in MCM 1 and provide the following information applicable to their program:
 - IDDE education *activities* planned or completed for public employees, businesses, and the general public for IDDE, as required by Part VII.A.3;
 - Construction site stormwater control training planned or completed, as required by Part VII.A.4; and
 - employee pollution prevention / good housekeeping training planned or completed, as required by Part VII.A.6;

To facilitate shared annual reporting, if the education and outreach activities above are developed by a third party, and the third party is completing the associated portions of the annual report, that third party may report on the education and outreach activities within MCM 1 of the annual report and not within the MCMs that the education and outreach activities are required by.

ii. **program implementation reporting** as set forth in Part VII.A.1(e) above. Commence *implementation* reporting after three year *development* period. *Implementation* reporting may begin earlier if *implementation* begins during *development* period.

2. Public Involvement / Participation - SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. Comply with the *State Open Meetings Law* and local public notice requirements, such as *Open Meetings Law*, when implementing a public involvement / participation program;
- b. *Develop (for newly authorized MS4s)* and *implement* a public involvement/participation program that:
 - i. identifies key individuals and groups, public and private, who are interested in or affected by the *SWMP* ;

(Part VII.A.2.b.)

- ii. identifies types of input the *covered entity* will seek from the key individuals and groups, public and private, to support *development* and *implementation* of the SWMP program and how the input will be used; and
 - iii. describes the public involvement / participation activities the *covered entity* will undertake to provide program access to those who want it and to gather the needed input. The activities included, but are not limited to a water quality hotline (report spills, dumping, construction sites of concern, etc.), stewardship activities like stream cleanups, storm drain marking, and volunteer water quality monitoring;
 - iv. provide the opportunity for the public to participate in the *development, implementation, review, and revision* of the *SWMP*.
- c. **Local stormwater public contact.**
Identify a local point of contact for public concerns regarding *stormwater* management and compliance with this *SPDES general 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 with the *Department* on the MCC form;
- d. **Annual report presentation.**
Below are the requirements for the annual report presentation:
- i. prior to submitting the final annual report to the *Department*, by June 1 of each reporting year (see Part V.C.), present the draft annual report in a format that is open to the public, where the public can ask questions about and make comments on the report. This can be done:
 - 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 may be a regular meeting of an existing board, such as planning, zoning or the town board. It may also be a separate meeting, specifically for *stormwater*. If multiple *covered entities* are working together, they may have a group meeting (refer to Part V.C.2); or
 - on the internet by:
 - making the annual report available to the public on a website;
 - providing the public the opportunity to provide comments on the internet or otherwise; and

(Part VII.A.2.d.i.)

- making available the opportunity for the public to request an open meeting to ask questions about and make comments on the report. If a public meeting is requested by 2 or more persons, the covered entity must hold such a meeting. However, the covered entity need only hold a public meeting once to satisfy this requirement.
- ii. provide public notice about the presentation, making public the following information when noticing the presentation in accordance with the local public notice requirements:
 - the placement of the annual report on the agenda of this meeting or location on the internet;
 - the opportunity for public comment. This *SPDES general permit* does not require a specified time frame for public comments, although it is recommended that *covered entities* do provide the public an opportunity to comment for a period after the meeting. Comments received after the final annual report is submitted shall be reported with the following year's annual report. *Covered entities* must take into account those comments in the following year;
 - the date and time of the meeting or the date the annual report becomes available on the internet; and
 - the availability of the draft report for prior review prior to the public meeting or duration of availability of annual report on the internet;
- iii. the *Department* recommends that announcements be sent directly to individuals (public and private) known to have a specific interest in the *covered entity's SWMP*;
- iv. include a summary of comments and (intended) responses with the final annual report. Changes made to the *SWMP* in response to comments should be described in the annual report; and
- v. ensure that a copy of the final report and, beginning in 2009, the *SWMP* plan are available for public inspection;
- e. *Develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and*

(Part VII.A.2.)

- f. Select and implement appropriate public involvement / participation *activities* and *measurable goals* to ensure the reduction of *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- g. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. annual report presentation information (date, time, attendees) or information about how the annual report was made available for comment;
 - ii. comments received and intended responses (as an attachment);
 - iii. public involvement / participation *activities* (for example stream cleanups including the number of people participating, the number of calls to a water quality hotline, the number and extent of storm drain stenciling); and
 - iv. report on effectiveness of program, *BMP* and *measurable goal* assessment.
- h. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. **program *development* deadlines and reporting:**
 - Complete for Year 1, 2 and 3:
 - annual report presentation information (date, time, attendees);
 - comments received and intended responses (as an attachment);
 - Complete by end of Year 2 (report changes by end of Year 3 as needed):
 - key stake holders identified;
 - *development* of public involvement / participation plan based on the *covered entity's* needs, *POCs*, target audiences, geographic areas of concern, *discharges* to *303(d)* / *TMDL* waterbodies; and
 - *development* of public involvement / participation *activities* (for example stream cleanups including the number of people participating, the number of calls to a dumping / water quality hotline, the number or percent of storm drains stenciled);
 - ii. **program *implementation* reporting**, as set forth in Part VII.A.2(g) above. Commence *implementation* reporting after three year *development* period. *Implementation* reporting may begin earlier if *implementation* begins during development period.

(Part VII.A.)

3. Illicit Discharge Detection and Elimination (IDDE) - SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. *Develop (for newly authorized MS4s), implement and enforce a program to detect and eliminate illicit discharges (as defined at 40CFR 122.26(b)(2)) into the small MS4;*
- b. *Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing:*
 - i. *the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls;*
 - ii. *by March 9, 2010, the preliminary boundaries of the covered entity's storm sewersheds have been determined using GIS or other tools, even if they extend outside of the urbanized area (to facilitate track down), and additionally designated area within the covered entity's jurisdiction; and*
 - iii. *when grant funds are made available or for sewer lines surveyed during an illicit discharge track down, the covered entity's storm sewer system in accordance with available State and EPA guidance;*
- c. *Field verify outfall locations;*
- d. *Conduct an outfall reconnaissance inventory, as described in the EPA publication entitled Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment, addressing every outfall within the urbanized area and additionally designated area within the covered entity's jurisdiction at least once every five years, with reasonable progress each year;*
- e. *Map new outfalls as they are constructed or newly discovered within the urbanized area and additionally designated area;*
- f. *Prohibit, through a law, ordinance, or other regulatory mechanism, illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions. This mechanism must be equivalent to the State's model IDDE local law "NYSDEC Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems". The mechanism must be certified by the attorney representing the small MS4 as being equivalent to the State's model illicit discharge local law. Laws adopted during the GP-02-02 permit cycle must also be attorney-certified as effectively assuring implementation of the State's model IDDE law;*

(Part VII.A.3.)

- g. *Develop (for newly authorized MS4s) and implement* a program to detect and address non-stormwater *discharges*, including illegal dumping, to the *small MS4* in accordance with current assistance and guidance documents from the State and EPA. The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for the IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating *illicit discharges* (trackdown); procedures for eliminating *illicit discharges*; and procedures for documenting actions;
- h. Inform public employees, businesses, and the general public of the hazards associated with illegal *discharges* and improper disposal of waste, and maintain records of notifications;
- i. Address the categories of non-stormwater *discharges* or flows listed in Part I.A.2 as necessary;
- j. *Develop (for newly authorized MS4s)*, record, periodically assess, and modify as needed, *measurable goals*; and
- k. Select and implement appropriate IDDE *BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- l. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. number and percent of *outfalls* mapped;
 - ii. number of *illicit discharges* detected and eliminated;
 - iii. percent of outfalls for which an outfall reconnaissance inventory has been performed. ;
 - iv. status of system mapping;
 - v. activities in and results from informing public employees, businesses, and the general public of hazards associated with illegal *discharges* and improper disposal of waste;
 - vi. regulatory mechanism status - certification that law is equivalent to the *State's* model IDDE law (if not already completed and submitted with an earlier annual report); and
 - vii. report on effectiveness of program, *BMP* and *measurable goal* assessment.

(Part VII.A.3.)

m. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:

i. **program development deadlines and reporting:**

Complete in Year 1 (revise in Year 2 and 3 if changes are made):

- describe procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for IDDE program;
 - describe priority areas of concern, available equipment, staff, funding, etc.;
- Initiate by end of Year 1; complete by end of Year 2 (revise in Year 3 if changes are made):

- describe procedures for identifying and locating *illicit discharges* (trackdown);
- describe procedures for eliminating *illicit discharges*;
- describe procedures for enforcing against illicit dischargers;
- describe procedures for documenting actions;
- describe the program being developed for informing public employees, businesses, and the general public of hazards associated with illegal *discharges* and improper disposal of waste;

Initiate by end of Year 1; complete by end of Year 3:

- regulatory mechanism status development and adoption - by end of Year 3 certify that regulatory mechanism is equivalent to the *State's* model IDDE law (if not already completed and submitted with an earlier report);

Initiate by end of Year 2; complete by end of Year 3:

- number and percent of *outfalls* mapped; and

Complete by Year 3:

- *outfall* map.

ii. **program implementation reporting** as set forth in Part VIII.A.3(l) above.

Commence *implementation* reporting after three year *development* period.

Implementation reporting may begin earlier if *implementation* begins during development period.

4. Construction Site Stormwater Runoff Control - SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. *Develop* (for newly authorized MS4s), *implement*, and enforce a program that:

(Part VII.A.4.a.)

- i. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01, GP-0-08-001 or GP-0-10-001), unless more stringent requirements are contained within this *SPDES general permit*;
- ii. addresses *stormwater* runoff to the *small MS4* from *construction activities* that result in a land disturbance of greater than or equal to one acre. Control of *stormwater discharges* from *construction activity* disturbing less than one acre must be included in the program if:
 - that *construction activity* is part of a *larger common plan of development or sale* that would disturb one acre or more; or
 - if controlling such activities in a particular watershed is required by the *Department*;
- iii. includes a law, ordinance or other regulatory mechanism to require a *SWPPP* for each applicable land disturbing activity that includes erosion and sediment controls that meet the *State* 's most current technical standards:
 - this mechanism must be equivalent to one of the versions of the "NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control"; and
 - equivalence must be documented
 - by adoption of one of the sample local laws without changes;
 - by using the NYSDEC Gap Analysis Workbook; or
 - by adoption of a modified version of the sample law, or an alternative law, and, in either scenario, certification by the attorney representing the small MS4 that the adopted law is equivalent to one of the sample local laws.
- iv. contains requirements for construction site operators to implement erosion and sediment control management practices;
- v. allows for sanctions to ensure compliance to the extent allowable by State law;
- vi. contains 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 that may cause adverse impacts to water quality, pursuant to the requirement of construction permit;
- vii. describes procedures for *SWPPP* review with consideration of potential water quality impacts and review of individual *SWPPPs* to ensure consistency with *State* and local sediment and erosion control requirements;

(Part VII.A.4.a.vii.)

- ensure that the individuals performing the reviews are adequately trained and understand the *State* and local sediment and erosion control requirements;
 - all *SWPPPs* must be reviewed for sites where the disturbance is one acre or greater; and
 - after review of *SWPPPs*, the *covered entity* must utilize the “MS4 *SWPPP* Acceptance Form” created by the *Department* and required by the SPDES General Permit for Stormwater Discharges from Construction Activity when notifying construction site owner / operators that their plans have been accepted by the *covered entity*;
- viii. describes procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site storm water runoff;
- ix. describes procedures for site inspections and enforcement of erosion and sediment 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;
- the *covered entity* must ensure that the individual(s) performing the inspections are adequately trained and understand the *State* and local sediment and erosion control requirements. Adequately trained means receiving inspector training by a *Department* sponsored or approved training;
 - all sites must be inspected where the disturbance is one acre or greater;
 - *covered entities* must determine that it is acceptable for the owner or operator of a construction project to submit the Notice of Termination (NOT) to the *Department* by performing a final site inspection themselves or by accepting the Qualified Inspector's final inspection certification(s) required by the SPDES General Permit for Stormwater Discharges from Construction Activity. The principal executive officer, ranking elected official, or duly authorized representative (see Part VI.J.) shall document their determination by signing the “MS4 Acceptance” statement on the NOT.
- x. educates construction site owner / operators, design engineers, *municipal* staff and other individuals to whom these regulations apply about the *municipality's* construction *stormwater* requirements, when construction *stormwater* requirements apply, to whom they apply, the procedures for submission of *SWPPPs*, construction site inspections, and other procedures associated with control of construction stormwater;

(Part VII.A.4.a.)

- xi. ensures that construction site operators have received erosion and sediment control training before they do work within the *covered entity's* jurisdiction and maintain records of that training. Small home site construction (construction where the Erosion and Sediment Control Plan is developed in accordance with Appendix E of the "New York Standards and Specifications for Erosion and Sediment Control") is exempt from the requirements below:
 - training may be provided by the *Department* or other qualified entities (such as Soil and Water Conservation Districts);
 - the *covered entity* is not expected to perform such training, but they may co-sponsor training for construction site operators in their area;
 - the *covered entity* may ask for a certificate of completion or other such proof of training; and
 - the *covered entity* may provide notice of upcoming sediment and erosion control training by posting in the building department or distribute with building permit application;

- xii. establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information;

- xiii. *develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and*

- xiv. select and appropriate construction *stormwater BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- b. **Program *implementation* reporting for continuing *covered entities*** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. number of *SWPPPs* reviewed;
 - ii. number and type of enforcement actions;
 - iii. percent of active construction sites inspected once;
 - iv. percent of active construction sites inspected more than once;
 - v. number of construction sites authorized for disturbances of one acre or more; and
 - vi. report on effectiveness of program, *BMP* and *measurable goal* assessment.

- c. Reporting for **newly regulated *covered entities*** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:

(Part VII.A.4.c.)

i. program *development* deadlines and reporting:

Initiate by end of Year 1:

- procedures, activities and identify personnel to educate and train construction site operators about requirements to develop and implement a SWPPP and any other requirements that must be met within the MS4's jurisdiction;

Complete in Year 1 (revise in Year 2 and 3 if changes are made):

- describe procedures for the receipt and consideration of information submitted by the public. Identify the responsible personnel;

Initiate by end of Year 1; complete by end of Year 3:

- regulatory mechanism development and adoption status - by end of Year 3 certify that regulatory mechanism is equivalent to one of the NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control (if not already completed and submitted with an earlier report);

Initiate by end of Year 2; complete by end of Year 3:

- describe procedures for SWPPP review that incorporate consideration of potential water quality impacts and ensure consistency with local sediment and erosion control requirements;
- describe procedures for construction site inspections; and
- describe procedures for enforcement of control measures and sanctions to ensure compliance.

ii. program *implementation* reporting as set forth in Part VII.A.4(b) above.

Commence *implementation* reporting after three year *development* period.

Implementation reporting may begin earlier if *implementation* begins during development period..

5. Post-Construction Stormwater Management - SWMP Development/Implementation

At a minimum, all *covered entities* must:

a. *Develop*(for newly authorized MS4s), *implement*, and enforce a program that:

- provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01, GP-0-08-001, or GP-0-10-001), unless more stringent requirements are contained within this *SPDES general permit*;
- addresses *stormwater* runoff from new development and redevelopment projects to the *small MS4* from projects that result in a land disturbance of greater than or

(Part VII.A.5.a.ii.)

equal to one acre. Control of *stormwater discharges* from projects of less than one acre must be included in the program if:

- that project is part of a *larger common plan of development or sale*; or
- if controlling such activities in a particular watershed is required by the *Department*;

iii. includes a law, ordinance or other regulatory mechanism to require post construction runoff controls from new development and re-development projects to the extent allowable under *State* law that meet the *State's* most current technical standards:

- the mechanism must be equivalent to one of the versions of the "NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control"; and
- equivalence must be documented
 - by adoption of one of the sample local laws without changes;
 - by using the NYSDEC Gap Analysis Workbook; or
 - by adoption of a modified version of the sample law, or an alternative law, and, in either scenario and certification by the attorney representing the small MS4 that the adopted law is equivalent to one of the sample local laws;

iv. includes a combination of structural or non-structural management practices (according to standards defined in the most current version of the NYS Stormwater management Design Manual) that will reduce the *discharge* of pollutants to the MEP. In the development of the watershed plans, municipal comprehensive plans, open space preservation programs, local law, ordinances and land use regulations, covered entities must consider principles of *Low Impact Development* (LID), *Better Site Design* (BSD), and other *Green Infrastructure* practices to the MEP. In the development of the watershed plans, municipal comprehensive plans, open space preservation programs, local law, ordinances and land use regulations, covered entities must consider smart growth principles, natural resource protection, impervious area reduction, maintaining natural hydrologic conditions in developments, riparian buffers or set back distances for protection of environmentally sensitive areas such as streams, wetlands, and erodible soils.

- *covered entities* are required to review according to the *Green Infrastructure* practices defined in the Design Manual at a site level, and are encouraged to review, and revise where appropriate, local codes and laws that include provisions that preclude green infrastructure or construction techniques that minimize or reduce pollutant loadings.

(Part VII.A.5.a.iv.)

- if a *stormwater* management practice is designed and installed in accordance with the New York State Stormwater Management Design Manual or has been demonstrated to be equivalent and is properly operated and maintained, then *MEP* will be assumed to be met for post-construction *stormwater* discharged by the practice;
- v. describes procedures for *SWPPP* review with consideration of potential water quality impacts and review of individual *SWPPPs* to ensure consistency with state and local post-construction *stormwater* requirements;
 - ensure that the individuals performing the reviews are adequately trained and understand the *State* and local post construction *stormwater* requirements;
 - ensure that the individuals performing the reviews for *SWPPPs* that include post-construction stormwater management practices are *qualified professionals* or under the supervision of a *qualified professional*;
 - all *SWPPPs* must be reviewed for sites where the disturbance is one acre or greater;
 - after review of *SWPPPs*, the *covered entity* must utilize the “MS4 *SWPPP* Acceptance Form” created by the *Department* and required by the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) when notifying construction site owner / operators that their plans have been accepted by the *covered entity*;
 - utilize available training from sources such as Soil and Water Conservation Districts, Planning Councils, The New York State Department of State, USEPA, and/or the *Department* to educate municipal boards and Planning and Zoning Boards on low impact development principles, better site design approach, and green infrastructure applications.
- vi. maintain an inventory of post-construction stormwater management practices within the *covered entities* jurisdiction. At a minimum, include practices discharging to the *small MS4* that have been installed since March 10, 2003, all practices owned by the *small MS4*, and those practices found to cause or contribute to water quality standard violations.
 - the inventory shall include at a minimum: location of practice (street address or coordinates); type of practice; maintenance needed per the NYS Stormwater Management Design Manual, *SWPPP*, or other provided documentation; and dates and type of maintenance performed; and

(Part VII.A.5.a.)

- vii. ensures adequate long-term operation and maintenance of management practices identified in Part VII.5.a.vi by trained staff, including inspection to ensure that practices are performing properly.
 - The inspection shall include inspection items identified in the maintenance requirements (NYS Stormwater Management Design Manual, *SWPPP*, or other maintenance information) for the practice. *Covered entities* are not required to collect *stormwater* samples and perform specific chemical analysis;
- viii. Covered entities may include in the SWMP Plan provisions for development of a banking and credit system. MS4s must have an existing watershed plan based on which offsite alternative stormwater management in lieu of or in addition to on-site stormwater management practices are evaluated. Redevelopment projects must be evaluated for pollutant reduction greater than required treatment by the state standards. The individual project must be reviewed and approved by the *Department*. Use of a banking and credit system for new development is only acceptable in the impaired watersheds to achieve the no net increase requirement and watershed improvement strategy areas to achieve pollutant reductions in accordance with watershed plan load reduction goals. A banking and credit system must at minimum include:
 - Ensure that offset exceeds a standard reduction by factor of at least 2
 - Offset is implemented within the same watershed
 - Proposed offset addresses the POC of the watershed
 - Tracking system is established for the watershed
 - Mitigation is applied for retrofit or redevelopment
 - Offset project is completed prior to beginning of the proposed construction
 - A legal mechanism is established to implement the banking and credit system
- b. *Develop (for newly authorized MS4s), implement, and provide adequate resources for a program to inspect development and re-development sites by trained staff and to enforce and penalize violators;*
- c. *Develop (for newly authorized MS4s), record, annually assess and modify as needed measurable goals; and*
- d. Select and implement appropriate post-construction *stormwater BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

(Part VII.A.5.)

Required SWMP Reporting

- e. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. number of *SWPPPs* reviewed;
 - ii. number and type of enforcement actions;
 - iii. number and type of post-construction stormwater management practices inventoried;
 - iv. number and type of post-construction stormwater management practices inspected;
 - v. number and type of post-construction stormwater management practices maintained;
 - vi. regulatory mechanism status - certification that regulatory mechanism is equivalent to one of the “NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control” (if not already done); and
 - vii. report on effectiveness of program, BMP and measurable goal assessment, and implementation of a banking and credit system, if applicable;

- f. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. **program *development* deadlines and reporting:**
 - Initiate by end of Year 1; complete by end of Year 3:
 - regulatory mechanism development and adoption status - by end of Year 3 certify that regulatory mechanism is equivalent to one of the NYSDEC Sample Local Laws for Stormwater Management and Erosion and Sediment Control (if not already completed and submitted with an earlier report);

 - Initiate by end of Year 2; complete by end of Year 3:
 - procedures for *SWPPP* review to ensure that post-construction stormwater management practices meet the most current version of the state technical standards;
 - procedures for inspection and maintenance of post-construction management practices;
 - procedures for enforcement and penalization of violators; and

 - Complete by the end of year 3:

(Part VII.A.5.f.i.)

- provide resources for the program to inspect new and re-development sites and for the enforcement and penalization of violators.
- ii. **program *implementation* reporting** as set forth in Part VII.A.5(e) above. Commence *implementation* reporting after three year *development* period. *Implementation* reporting may begin earlier if *implementation* begins during *development* period.

6. Pollution Prevention/Good Housekeeping For Municipal Operations - SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. *Develop (for newly authorized MS4s) and implement* a pollution prevention / good housekeeping program for *municipal* operations and facilities that:
 - i. addresses *municipal* operations and facilities that contribute or potentially contribute *POCs* to the *small MS4* system. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification; or other;
 - ii. at a minimum frequency of once every three years, perform and document a self assessment of all municipal operations addressed by the SWMP to:
 - determine the sources of pollutants potentially generated by the *covered entity's* operations and facilities; and
 - identify the *municipal* operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already;
 - iii. determines *management practices*, policies, procedures, etc. that will be *developed* and *implemented* to reduce or prevent the discharge of (potential) pollutants. Refer to management practices identified in the “NYS Pollution Prevention and Good Housekeeping Assistance Document” and other guidance materials available from the EPA, *State*, or other organizations;
 - iv. prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and *covered entity's* capabilities;

(Part VII.A.6.a.)

- v. addresses pollution prevention and good housekeeping priorities;
 - vi. includes an employee pollution prevention and good housekeeping training program and ensures that staff receive and utilize training;
 - vii. requires third party entities performing contracted services, including but not limited to street sweeping, snow removal, lawn / grounds care, etc., to meet permit requirements as the requirements apply to the activity performed ; and
 - viii. requires *municipal* operations and facilities that would otherwise be subject to the NYS Multi-sector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges to prepare and *implement* provisions in the SWMP that comply with Parts III. A, C, D, J, K and L of the MSGP. The covered entity must also perform monitoring and record keeping in accordance with Part IV. of the MSGP. Discharge monitoring reports must be attached to the MS4 annual report. Those operations or facilities are not required to gain coverage under the MSGP. *Implementation* of the above noted provisions of the SWMP will ensure that MEP is met for discharges from those facilities;
- b. Consider and incorporate cost effective runoff reduction techniques and green infrastructure in the routine upgrade of the existing stormwater conveyance systems and municipal properties to the MEP. Some examples include replacement of closed drainage with grass swales, replacement of existing islands in parking lots with rain gardens, or curb cuts to route the flow through below grade infiltration areas or other low cost improvements that provide runoff treatment or reduction.
 - c. *Develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and*
 - d. Select and implement appropriate pollution prevention and good housekeeping *BMPs and measurable goals* to ensure the reduction of all *POCs in stormwater discharges* to the *MEP*.
 - e. Adopt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as potential impact to surface water.

Required SWMP Reporting

- f. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). *Covered entities* are required to report on

(Part VII.A.6.f.)

all *municipal* operations and facilities within their jurisdiction (*urbanized area* and *additionally designated area*) that their program is addressing. The *covered entity* shall report at a minimum on the items below:

- i. indicate the *municipal* operations and facilities that the pollution prevention and good housekeeping program assessed;
 - ii. describe, if not done so already, the management practices, policies and procedures that have been developed, modified, and / or implemented and report, at a minimum, on the items below that the *covered entity's* pollution prevention and good housekeeping program addressed during the reporting year:
 - acres of parking lot swept;
 - miles of street swept;
 - number of catch basins inspected and, where necessary, cleaned;
 - post-construction control stormwater management practices inspected and, where necessary, cleaned;
 - pounds of phosphorus applied in chemical fertilizer
 - pounds of nitrogen applied in chemical fertilizer; and
 - acres of pesticides / herbicides applied.
 - iii. staff training events and number of staff trained; and
 - iv. report on effectiveness of program, *BMP* and *measurable goal* assessment. If the pollution prevention and good housekeeping program addresses other operations than what is listed above in Part VII.A.6.a(ii), the *covered entity* shall report on items that will demonstrate program effectiveness.
- g. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). *Covered entities* are required to report on all *municipal* operations and facilities within their jurisdiction (*urbanized area* and *additionally designated area*) that their program is addressing. The *covered entity* shall report at a minimum on the items below:
- i. **program development deadlines and reporting** (first three years after authorization is granted):
Complete by end of Year 1:
 - identify the municipal operations and facilities that will be considered for inclusion in the pollution prevention and good housekeeping program;
 - describe the pollution prevention and good housekeeping program priorities (geographic area, potential to improve water quality; facilities or operations most in need of modification or improvement);

(Part VII.A.6.g.i.)

- describe management practices, policies, procedures, etc. that will be developed or modified;
- identify the staff and equipment available;

Initiate by end of Year 2; complete by end of Year 3:

- describe employee pollution prevention and good housekeeping program training program and begin training, report on number of staff trained; and

Complete by end of Year 3:

- description of developed management practices.

- ii. **program *implementation* reporting** as set forth in Part VII.A.6.(d) above. Commence reporting after three year *development* permit. *Implementation* reporting may begin earlier if *implementation* begins during development period.

PART VIII. MINIMUM CONTROL MEASURES - TRADITIONAL NON-LAND USE CONTROL AND NON-TRADITIONAL MS4s

A. Traditional Non-Land Use Control and Non-traditional MS4 Minimum Control Measures (MCMs)

These MCMs apply to *traditional non-land use control MS4s* and *non-traditional MS4s*. The SWMP for these *small MS4s* must be comprised of the 6 MCMs below. It is recommended that covered entities refer to assistance and guidance documents available from the *State* and EPA.

Under this *SPDES general permit*, the continuing *covered entities* are required to implement their SWMP, including the MCM requirements below. Newly regulated covered entities are required to develop their SWMP, containing the MCM requirements below, within the first 3 years of coverage and then commence implementation.

The *covered entity* may *develop* (for newly authorized *MS4s*) and / or *implement* their SWMP within their jurisdiction on their own. The *covered entity* may also *develop* (for newly authorized *MS4s*) and / or *implement* part or all of their SWMP through an intermunicipal program with another *covered entity(s)* or through other cooperative or contractual agreements with third parties that provide services to the *covered entity(s)*.

For each of the elements of the SWMP plan, the *covered entity* must identify (i) the agencies and/or offices that would be responsible for implementing the SWMP plan element and (ii) any protocols for coordination among such agencies and/or offices necessary for the implementation of the plan element.

To comply with the requirements of this *SPDES general permit*, the *traditional non-land use control MS4s* and *non-traditional MS4s* should consider their public to be the employee / user population, visitors, or contractors / developers. Examples of the public include, but are not limited to:

- transportation *covered entities* - general public using or living along transportation systems, staff, contractors;
- educational *covered entities* - faculty, other staff, students, visitors;
- other government *covered entities* - staff, contractors, visitors.

1. Public Education and Outreach on Stormwater Impacts SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. Identify *POCs*, waterbodies of concern, geographic areas of concern, target audiences;

(Part VIII.A.1.)

- b. *Develop (for newly authorized MS4s) and implement* an ongoing public education and outreach program designed to describe:
 - i. the impacts of *stormwater discharges* on waterbodies;
 - ii. *POCs* and their sources;
 - iii. steps that contributors of these pollutants can take to reduce pollutants in *stormwater* runoff; and
 - iv. steps that contributors of non-*stormwater discharges* can take to reduce pollutants (non-*stormwater discharges* are listed in Part I.A.2);
- c. Educational materials may be made available at, locations including, but not limited to:
 - i. at service areas, lobbies, or other locations where information is made available;
 - ii. at staff training;
 - iii. on *covered entity's* website;
 - iv. with pay checks; and
 - v. in employee break rooms;
- d. *Develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and*
- e. Select and implement appropriate education and outreach *activities* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- f. At a minimum, the *covered entity* shall report on the items below:
 - i. list education / outreach *activities* performed and provide any results (number of people attended, amount of materials distributed, etc.);
 - ii. education of the public about the hazards associated with illegal *discharges* and improper disposal of waste as required by Part VIII.A.3, may be reported in this section;
 - iii. *covered entity's* performing the education and outreach activities required by other MCMs (listed below), may report on those activities in MCM 1 and provide the following information applicable to their program:
 - IDDE education *activities* planned or completed for the public, as required by Part VIII.A.3;
 - construction site *stormwater* control training planned or completed, as required by Part VIII.A.4; and
 - employee pollution prevention / good housekeeping training planned or completed, as required by Part VIII.A.6;

To facilitate shared annual reporting, if the education and outreach activities above are implemented by a third party, and the third party is completing the

(Part VIII.A.1.f.iii.)

- associated portions of the annual report, that third party may report on the education and outreach activities within MCM 1 of the annual report and not within the MCMs that the education and outreach activities are required by;
- iv. report on effectiveness of program, *BMP* and *measurable goal* assessment; and
 - v. maintain records of all training activities
- g. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
- i. **program development deadlines and reporting:**
Complete in Year 1 (report changes in Year 2 and 3 as needed):
 - list (and describe if necessary) POCs;
 - *development* of education and outreach program and activities for the public that address *POCs*, geographic areas of concern, and / or *discharges to 303(d) / TMDL* waterbodies;
 - *covered entities* developing education and outreach programs required by other MCMs (listed below), may report on development (and implementation of those activities, if occurring during the three year development period) in MCM 1 and provide the following information applicable to their program:
 - IDDE education *activities* planned or completed for the public, as required by Part VIII.A.3;
 - construction site *stormwater* control training planned or completed, as required by Part VIII.A.4; and
 - employee pollution prevention / good housekeeping training planned or completed, as required by Part VIII.A.6.

To facilitate shared annual reporting, if the education and outreach activities above are implemented by a third party, and the third party is completing the associated portions of the annual report, that third party may report on the education and outreach activities within MCM 1 of the annual report and not within the MCMs that the education and outreach activities are required by.
 - ii. **Program implementation reporting** as set forth in Part VIII.A.1(f) above.
Commence *implementation* reporting after three year *development* period. *Implementation* reporting may begin earlier if *implementation* begins during *development* period.

2. Public Involvement/Participation - SWMP Development / Implementation

At a minimum, all *covered entities* must:

(Part VIII.A.2.)

- a. Comply with *State* and local public notice requirements identified below when implementing a public involvement / participation program:
 - i. *traditional non-land use control MS4s* shall comply with the *State Open Meetings Law* and local public notice requirements, such as *Open Meetings Law*; and
 - ii. *traditional non-land use control MS4s* and *non-traditional MS4s* may comply with this requirement by determining who their public is (staff, visitors, contractors, etc.) and posting notifications (as needed) in areas viewable by the public. Such areas include common areas, bulletin boards, agency/office web pages, etc. For *small MS4s* whose public are in multiple locations, notifications shall be made available to the public in all locations within the urbanized or additionally designated areas;
- b. Provide the opportunity for the public to participate in the *development, implementation, review, and revision* of the *SWMP*;
- c. **Local stormwater public contact.**

Identify a local point of contact for public concerns regarding *stormwater* management and compliance with this *SPDES general 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 with the *Department* on the MCC form;
- d. **Annual report presentation.**

Below are the requirements for the annual report presentation:

 - i. prior to submitting the final annual report to the *Department*, by June 1 of each reporting year (see Part V.C.), present the draft annual report in a format that is open to the public, where the public can ask questions and make comments on the report. This can be done:
 - 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 may be a regular meeting of an existing board. It may also be a separate meeting, specifically for *stormwater*. If multiple *covered entities* are working together, they may have a group meeting (refer to Part V.C.2); or
 - on the internet by:
 - making the annual report available to the public on a website:
 - providing the public the opportunity to provide comments on the internet or otherwise; and

(Part VIII.A.2.d.i.)

- making available the opportunity for the public to request an open public meeting to ask questions about and make comments on the report;
- ii. *traditional non-land use control MS4s* must comply with Part VIII.A.2.(d)(i) above. If they choose to present the draft annual report at a meeting, it may be presented at an existing meeting (e.g. a meeting of the Environmental Management Council , Water Quality Coordinating Committee, other agencies, or a meeting specifically for stormwater), or made available for review on the internet. The *covered entity* must make public the following information when noticing the presentation in accordance with *Open Meetings Law* or other local public notice requirements:
- the placement of the annual report on the agenda of this meeting or location on the internet;
 - the opportunity for public comment. This *SPDES general permit* does not require a specified time frame for public comments, although it is recommended that *covered entities* provide the public an opportunity to comment for a period after the meeting. Comments received after the final annual report is submitted shall be reported with the following year's annual report. *Covered entities* must take into account those comments in the following year;
 - the date and time of the meeting or date annual report becomes available on the internet; and
 - the availability of the draft report for review prior to the public meeting or duration of availability of the annual report on the internet;
- iii. *non-traditional MS4s* typically do not have regular meetings during which a presentation on the annual report can be made. Those *covered entities* may comply with this requirement by either:
- noticing the availability of the report for public comment by posting a sign, posting on web site, or other methods with information about the availability and location where the public can view it and contact information for those that read the report to submit comments; or
 - following the internet presentation as explained in Part VIII.A.2(d)(i) above;
- iv. the *Department* recommends that announcements be sent directly to individuals (public and private interested parties) known to have a specific interest in the covered entity's *SWMP*;

(Part VIII.A.2.d.)

- v. include a summary of comments and intended responses with the final annual report. Changes made to the *SWMP* in response to comments should be described in the annual report; and
- vi. ensure that a copy of the final report and, beginning in 2009, the *SWMP* plan are available for public inspection;
- e. *Develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals; and*
- f. Select and implement appropriate public involvement / participation *activities* and *measurable goals* to ensure the reduction of all of the *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- g. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. annual report presentation information (date, time, attendees) or information about how the annual report was made available for comment;
 - ii. comments received and intended responses (as an attachment); and
 - iii. report on effectiveness of program, *BMP* and *measurable goal* assessment;
- h. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. **program development deadlines and reporting:**
Complete for Year 1, 2, and 3:
 - annual report presentation information (date, time, attendees) or information about how the annual report was made available for comment; and
 - comments received and intended responses (as an attachment).
 - ii. **program *implementation* reporting** as set forth in Part VIII.A.2.g above.
Commence *implementation* reporting after three year *development* period.
Implementation reporting may begin earlier if *implementation* begins during development period.

3. Illicit Discharge Detection and Elimination (IDDE) - SWMP Development / Implementation

At a minimum, all *covered entities* must:

(Part VIII.A.3.)

- a. *Develop (for newly authorized MS4s), implement and enforce a program to detect and eliminate illicit discharges (as defined at 40CFR 122.26(b)(2)) into the small MS4;*
- b. *Develop (for newly authorized MS4s) and maintain a map, at a minimum within the covered entity's jurisdiction in the urbanized area and additionally designated area, showing:*
 - i. *the location of all outfalls and the names and location of all surface waters of the State that receive discharges from those outfalls;*
 - ii. *by March 9, 2010, the preliminary boundaries of the covered entity's storm sewersheds determined using GIS or other tools, even if they extend outside of the urbanized area (to facilitate trackdown), and additionally designated area within the covered entity's jurisdiction; and*
 - iii. *when grant funds are made available or for sewer lines surveyed during an illicit discharge trackdown, the covered entity's storm sewer system in accordance with available State and EPA guidance;*
- c. *Field verify outfall locations;*
- d. *Conduct an outfall reconnaissance inventory, as described in the EPA publication entitled Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment, addressing every outfall within the urbanized area and additionally designated area within the covered entity's jurisdiction at least once every five years, with reasonable progress each year;*
- e. *Map new outfalls as they are constructed or discovered within the urbanized area or additionally designated area;*
- f. *Prohibit illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions below, as applicable:*
 - i. *for traditional non-land use control MS4s:*
 - *effectively prohibit, through a law, ordinance, or other regulatory mechanism, illicit discharges into the small MS4 and implement appropriate enforcement procedures and actions; and*
 - *the law, ordinance, or other regulatory mechanism must be equivalent to the State's model IDDE local law "NYSDEC Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems" developed by the State, as determined and certified to be equivalent by the attorney representing the small MS4 ; and*

(Part VIII.A.3.f.)

- ii. for *non-traditional MS4s*:
 - prohibit and enforce against *illicit discharges* through available mechanisms (ie. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies);
 - procedures or policies must be developed for implementation and enforcement of the mechanisms;
 - a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for the *covered entity's IDDE* program; and
 - the mechanisms and directive must be equivalent to the *State's* model illicit discharge local law;
- g. *Develop (for newly authorized MS4s) and implement* a program to detect and address non-stormwater *discharges*, including illegal dumping, to the *small MS4* . The program must include: procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for IDDE program; description of priority areas of concern, available equipment, staff, funding, etc.; procedures for identifying and locating *illicit discharges* (trackdown); procedures for eliminating *illicit discharges*; and procedures for documenting actions;
- h. Inform the public of the hazards associated with illegal *discharges* and the improper disposal of waste;
- i. Address the categories of non-stormwater *discharges* or flows listed in Part I.A.2 as necessary and maintain records of notification;
- j. *Develop (for newly authorized MS4s)*, record, periodically assess, and modify as needed, *measurable goals*; and
- k. Select and implement appropriate IDDE *BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*

Required SWMP Reporting

- i. **Program *implementation* reporting** for **continuing *covered entities*** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. number and percent of *outfalls* mapped;

(Part VIII.A.3.I.)

- ii. number of *illicit discharges* detected and eliminated;
 - iii. percent of outfalls for which an outfall reconnaissance inventory has been performed. ;
 - iv. status of system mapping;
 - v. activities to and results from informing the public of hazards associated with illegal *discharges* and improper disposal of waste;
 - vi. for traditional non-land use control MS4s, regulatory mechanism status - certification that law is equivalent to the *State's* model *IDDE* local law (if not already completed and submitted with a prior annual report); and
 - vii. report on effectiveness of program, *BMP* and *measurable goal* assessment.
- m. Required reporting for **newly authorized covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
- i. **program development deadlines and reporting:**
 - Initiate by end of Year 1; complete by end of Year 3:
 - regulatory mechanism development and adoption - by end of Year 3 certify that regulatory mechanism is equivalent to the *State's* model *IDDE* local law (traditional non-land use control MS4s) or certification of equivalence may be accomplished as set forth in Part VIII.A.3(f)(ii).
 - Complete in Year 1 (revise in Year 2 and 3 if changes are made):
 - describe procedures for identifying priority areas of concern (geographic, audiences, or otherwise) for *IDDE* program;
 - describe priority areas of concern, available equipment, staff, funding, etc.;
 - Initiate by end of Year 1; complete by end of Year 2 (revise in Year 3 if changes are made):
 - describe procedures for identifying and locating *illicit discharges* (trackdown);
 - describe procedures for eliminating *illicit discharges*;
 - describe procedures for enforcing against illicit dischargers;
 - describe procedures for documenting actions;
 - describe the program being developed for informing the public of hazards associated with illegal *discharges* and improper disposal of waste;
 - Initiate by end of Year 2; complete by end of Year 3:
 - number and percent of *outfalls* mapped;

(Part VIII.A.3.m.i.)

Complete by Year 3:

- *outfall* map; and

- ii. **program implementation reporting** as set forth in Part VIII.A.3(l) above. Commence *implementation* reporting after three year *development* period. *Implementation* reporting may begin earlier if *implementation* begins during development period.

4. Construction Site Stormwater Runoff Control - SWMP Development / Implementation

At a minimum, all *covered entities* must:

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

(Part VIII.A.4.a.iii.)

right-of-way of, or under the maintenance jurisdiction by the *covered entity* or within the maintenance jurisdiction of the MS4; and

- the mechanisms and directive must be equivalent to the to the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.
- iv. allows for sanctions to ensure compliance to the extent allowable by *State* law;
- v. describes procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site stormwater runoff;
- vi. educates construction site operators, design engineers, *municipal* staff and other individuals to whom these regulations apply about the construction requirements in the *covered entity's* jurisdiction, including the procedures for submission of *SWPPPs*, construction site inspections, and other procedures associated with control of construction stormwater;
- vii. Ensures that construction site contractors have received erosion and sediment control training, including the *trained contractors* as defined in the SPDES general permit for construction, before they do work within the *covered entity's* jurisdiction:
- training may be provided by the *Department* or other qualified entities (such as Soil and Water Conservation Districts);
 - the *covered entity* is not expected to perform such training, but they may co-sponsor training for construction site operators in their area;
 - the *covered entity* may ask for a certificate of completion or other such proof of training; and
 - the *covered entity* may provide notice of upcoming sediment and erosion control training by posting in the building department or distribute with building permit application.
- viii. establishes and maintains an inventory of active construction sites, including the location of the site, owner / operator contact information;
- ix. develop (*for newly authorized MS4s*), record, periodically assess and modify as needed *measurable goals*; and

(Part VIII.A.4.a.)

- x. select and implement appropriate construction stormwater *BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.

Required SWMP Reporting

- b. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. number and type of sanctions employed;
 - ii. status of regulatory mechanism - certify that mechanisms will assure compliance with the NYS SPDES General Permit for Stormwater Discharges from Construction Activities;
 - iii. number of construction sites authorized for disturbances of one acre or more; and
 - iv. report on effectiveness of program, *BMP* and *measurable goal* assessment.

- c. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
 - i. **Program *development* deadlines and reporting:**
 - Initiate by end of Year 1:
 - procedures, activities and identify personnel to educate and train construction site operators about requirements to develop and implement a SWPPP and any other requirements that must be met within the MS4's jurisdiction;

 - Initiate by the end of Year 1; complete by the end of Year 3:
 - status of mechanism for construction runoff requirements - by end of Year 3 certify that mechanisms will assure compliance with the NYS SPDES General Permit for Stormwater Discharges from Construction Activities; and

 - Complete in Year 1 (revise in Year 2 and 3 if changes are made):
 - describe procedures for the receipt and consideration of information submitted by the public. Identify the responsible personnel.

 - ii. Program implementation reporting as set forth in Part VIII.A.4(b) above. Commence *implementation* reporting after three year development period. *Implementation* reporting may begin earlier if *implementation* begins during development period.

(Part VIII.A.)

5. Post-Construction Stormwater Management SWMP Development / Implementation

At a minimum, all *covered entities* must:

- a. *Develop (for newly authorized MS4s), implement, and enforce* a program that:
 - i. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities, unless more stringent requirements are contained within this *SPDES general permit*;
 - ii. addresses *stormwater* runoff from new development and redevelopment projects to the *small MS4* from projects that result in a land disturbance of greater than or equal to one acre. Control of *stormwater discharges* from projects of less than one acre must be included in the program if:
 - that project is part of a *larger common plan of development or sale*;
 - if controlling such activities in a particular watershed is required by the *Department*;
 - iii. incorporates enforceable mechanisms for post-construction runoff control from new development and re-development projects to the extent allowable under *State* or local law that meet the *State's* most current technical standards:
 - through available mechanisms (i.e. tenant lease agreements, bid specifications, requests for proposals, standard contract provisions, connection permits, maintenance directives / BMPS, access permits, consultant agreements, internal policies);
 - procedures or policies must be developed for implementation and enforcement of the mechanisms;
 - a written directive from the person authorized to sign the NOI stating that updated mechanisms must be used and who (position(s)) is responsible for ensuring compliance with and enforcing the mechanisms for construction projects that occur on property owned by the *covered entity* or within the maintenance jurisdiction of the MS4; and
 - the mechanisms and directive must assure compliance with the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities;
 - iv. includes a combination of structural or non-structural management practices (according to standards defined in the most current version of the NYS Stormwater management Design Manual) that will reduce the *discharge* of pollutants to the MEP. In the development of environmental plans such as watershed plans, open space preservation programs, local laws, and ordinances covered entities must incorporate principles of *Low Impact Development (LID)*, *Better Site Design (BSD)* and other *Green Infrastructure* practices to the MEP.

(Part VIII.A.5.a.iv.)

Covered entities must consider natural resource protection, impervious area reduction, maintaining natural hydrologic condition in developments, buffers or set back distances for protection of environmentally sensitive areas such as streams, wetlands, and erodible soils in the development of environmental plans.

- if a *stormwater* management practice is designed and installed in accordance with the New York State Stormwater Management Design Manual or has been demonstrated to be equivalent and is properly operated and maintained, then *MEP* will be assumed to be met for the post construction *stormwater* discharged by the practice;
- v. establish and maintain an inventory of post-construction stormwater management practices to include at a minimum practices discharging to the *small MS4* that have been installed since March 10, 2003, those owned by the small MS4, and those found to cause water quality standard violations.
 - the inventory shall include, at a minimum: location of practice (street address or coordinates); type of practice; maintenance needed per the NYS Stormwater Management Design Manual, *SWPPP*, or other provided documentation; and dates and type of maintenance performed; and
- vi. ensures adequate long-term operation and maintenance of management practices by trained staff, including assessment to ensure that the practices are performing properly.
 - The assessment shall include the inspection items identified in the maintenance requirements (NYS Stormwater Management Design Manual, *SWPPP*, or other maintenance information) for the practice. *Covered entities* are not required to collect *stormwater* samples and perform specific chemical analysis;
- vii. Covered entities may include in the SWMP Plan provisions for development of a banking and credit system. MS4s must have an existing watershed plan based on which offsite alternative stormwater management in lieu of or in addition to on-site stormwater management practices are evaluated. Redevelopment projects must be evaluated for pollutant reduction greater than required treatment by the state standards. The individual project must be reviewed and approved by the *Department*. Use of a banking and credit system for new development is only acceptable in the impaired watersheds to achieve the no net increase requirement and watershed improvement strategy areas to achieve pollutant reductions in accordance with watershed plan load reduction goals. A banking and credit system must at minimum include:

(Part VIII.A.5.a.vii.)

- Ensures offset exceeds standard reduction by factor of at least 2
 - Offset is implemented within the same watershed
 - Proposed offset addresses the POC of the watershed
 - Tracking system is established for the watershed
 - Mitigation is applied for retrofit or redevelopment
 - Offset project is completed prior to beginning the proposed construction
 - A legal mechanism is established to implement the banking and credit system
- b. *Develop (for newly authorized MS4s), implement, and provide adequate resources for a program to inspect development and re-development sites by trained staff and to enforce and employ sanctions;*
- c. *Develop (for newly authorized MS4s), record, annually assess and modify as needed measurable goals; and*
- d. *Select and implement appropriate post-construction stormwater BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.*

Required SWMP Reporting

- e. Program *implementation* reporting for continuing *covered entities* (MS4s covered for 3 or more years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:
- i. number and type of sanctions;
 - ii. number and type of post-construction stormwater management practices;
 - iii. number and type of post-construction stormwater management practices inspected;
 - iv. number and type of post-construction stormwater management practices maintained;
 - v. status of regulatory mechanism, equivalent mechanism, that regulatory mechanism is equivalent ; and
 - vi. report on effectiveness of program, *BMP* and *measurable goal* assessment, and implementation of a banking and credit system, if applicable.
- f. Program reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). At a minimum, the *covered entity* shall report on the items below:

(Part VIII.A.5.f.)

i. program *development* deadlines and reporting:

Initiate by end of Year 1; complete by end of Year 3:

- mechanism of post-construction stormwater management - by end of Year 3 certify that mechanisms will assure compliance with the NYS Construction General Permit (GP-0-10-001);

Initiate by end of Year 2; complete by end of Year 3:

- procedures for inspection and maintenance of post-construction management practices; and
- procedures for enforcement and penalization of violators;

ii. program *implementation* reporting as set forth in Part VIII.A.5(e). Commence *implementation* reporting after three year development period. *Implementation* reporting may begin earlier if *implementation* begins during *development* period.

**6. Pollution Prevention/Good Housekeeping For Municipal Operations
SWMP Development / Implementation**

At a minimum, all *covered entities* must:

- Develop (for newly authorized MS4s) and implement* a pollution prevention / good housekeeping program for *municipal* operations and facilities that:
 - addresses *municipal* operations and facilities that contribute or potentially contribute *POCs* to the *small MS4* system. The operations and facilities may include, but are not limited to: street and bridge maintenance; winter road maintenance; stormwater system maintenance; vehicle and fleet maintenance; park and open space maintenance; municipal building maintenance; solid waste management; new construction and land disturbances; right-of-way maintenance; marine operations; hydrologic habitat modification, or other;
 - includes the performance and documentation of a self assessment of all municipal operations to:
 - determine the sources of pollutants potentially generated by the *covered entity's* operations and facilities; and
 - identify the *municipal* operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already;
 - determines *management practices*, policies, procedures, etc. that will be *developed* and *implemented* to reduce or prevent the discharge of (potential)

(Part VIII.A.6.a.iii.)

pollutants. Refer to *management practices* identified in the “NYS Pollution Prevention and Good Housekeeping Assistance Document” or other guidance materials available from the EPA, the *State*, or other organizations;

- iv. prioritizes pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations most in need of modification or improvement, and *covered entity's* capabilities;
 - v. addresses pollution prevention and good housekeeping priorities;
 - vi. includes an employee pollution prevention and good housekeeping training program and ensure that staff receive and utilize training;
 - vii. requires third party entities performing contracted services, including but not limited to, street sweeping, snow removal, lawn / grounds care, etc., to make the necessary certification in Part IV.G; and
 - viii. requires *municipal* operations and facilities that would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges to prepare and *implement* provisions in the SWMP that comply with Parts III. A, C, D, J, K and L of the MSGP. The covered entity must also perform monitoring and record keeping in accordance with Part IV. of the MSGP. Discharge monitoring reports must be attached to MS4 annual report. Those operations or facilities are not required to gain coverage under the MSGP. *Implementation* the above noted provisions of the SWMP will ensure that MEP is met for discharges from those facilities;
- b. Consider and incorporate cost effective runoff reduction techniques and green infrastructure in the routine upgrade of the existing stormwater conveyance systems and municipal properties to the MEP. Some examples include replacement of closed drainage with grass swales, replacement of the existing islands in parking lots with rain garden, or curb cuts to route the flow through below grade infiltration areas or other low cost improvements that provide runoff treatment or reduction.
- c. *Develop (for newly authorized MS4s), record, periodically assess and modify as needed measurable goals ; and*

(Part VIII.A.6.)

- d. Select and implement appropriate pollution prevention and good housekeeping *BMPs* and *measurable goals* to ensure the reduction of all *POCs* in *stormwater discharges* to the *MEP*.
- e. Adopt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as potential impact to surface water.

Required SWMP Reporting

- f. **Program *implementation* reporting for continuing covered entities** (MS4s covered for 3 or more years on the *reporting date*). *Covered entities* are required to report on all *municipal* operations and facilities within their jurisdiction (*urbanized area* and *additionally designated area*) that their program is addressing. The *covered entity* shall report at a minimum on the items below:
 - i. indicate the *municipal* operations and facilities that the pollution prevention and good housekeeping program assessed;
 - ii. describe, if not done so already, the management practices, policies and procedures that have been developed, modified, and / or implemented and report, at a minimum, on the items below that the *covered entity's* pollution prevention and good housekeeping program addresses during the reporting year:
 - acres of parking lot swept;
 - miles of street swept;
 - number of catch basins inspected and, where necessary, cleaned;
 - post-construction control stormwater management practices inspected and, where necessary, cleaned;
 - pounds of phosphorus applied in chemical fertilizer
 - pounds of nitrogen applied in chemical fertilizer; and
 - acres of pesticides / herbicides applied.
 - iii. staff training events and number of staff trained; and
 - iv. report on effectiveness of program, *BMP* and *measurable goal* assessment. If the pollution prevention and good housekeeping program addresses other operations than what is listed above in Part VIII.A.6.a(ii), the *covered entity* shall report on items that will demonstrate program effectiveness.
- g. Reporting for **newly regulated covered entities** (MS4s covered for less than 3 years on the *reporting date*). *Covered entities* are required to report on all *municipal* operations and facilities within their jurisdiction (*urbanized area* and *additionally*

(Part VIII.A.6.g.)

designated area) that their program is addressing. The *covered entity* shall report at a minimum on the items below:

i. program *development* deadlines and reporting:

Complete by end of Year 1:

- identify the municipal operations and facilities that will be considered for inclusion in the pollution prevention and good housekeeping program;
- describe the pollution prevention and good housekeeping program priorities (geographic area, potential to improve water quality; facilities or operations most in need of modification or improvement);
- describe management practices, policies, procedures, etc. that will be developed or modified;
- identify the staff and equipment available;

Initiate by Year 2; complete Year 3:

- describe employee pollution prevention and good housekeeping program training program and begin training, report on number of staff trained;

Complete by end of Year 3:

- description of developed management practices.

ii. program *implementation* reporting as set forth in Part VIII.A.6(d) above. Commence *implementation* reporting after three year *development* permit. *Implementation* reporting may begin earlier if *implementation* begins during *development* period.

Part IX. WATERSHED IMPROVEMENT STRATEGY REQUIREMENTS

The covered entities in the watershed improvement strategy areas must develop or modify their SWMP to address the watershed specific additional requirements to achieve the pollutant load reduction by the deadline as defined in the Tables in Part IX of this general SPDES permit. The Pollutant Load Reductions are the reductions necessary from the discharge loads associated with MS4s that, when combined with reductions in the discharge loads from non-MS4s to the waterbody, will meet water quality standards. The calculated reductions are based on TMDL models and may be recalculated according to 40CFR Part 130.

The MS4 portion of the pollutant load reduction shall be achieved by implementation of BMPs required of all MS4s, reductions from implementation of additional BMPs for watershed improvement strategy areas including any retrofits required by this permit. These reductions are intended to be targeted and credited using models, loading factors and load reductions predicted based on the best scientific information available.

The Pollutant Load Reduction Deadlines are deadlines by which the MS4 portion of the pollutant load reduction must be met. Watershed Improvement Strategy Deadlines are the deadlines by which the watershed improvement strategy requirements for addressing the POC are to be completed and implemented. Retrofit Plan Submission Deadlines are the deadlines by which the retrofit plan component of the watershed improvement strategies are submitted to the *Department* for review and approval.

Ultimately, the effectiveness of the load reductions in meeting water quality standards will be verified by ambient monitoring of the affected waterbody. Where ambient monitoring demonstrates consistent compliance with water quality standards, the covered entity may request that the *Department* suspend the additional BMP requirements to install stormwater retrofits.

(Part IX.)

A. New York City East of Hudson Watershed MS4s - (Mapped in Appendix 3)

Table IX.A - Pollutant Load Reduction and Timetable for New York City East of Hudson Phosphorus Watershed Improvement Strategy Area

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Load Allocation)	Pollutant Load Reduction Deadline
New York City East of Hudson Watershed	05/01/2011	03/09/ 2009 (single) and 12/ 31/2009 (RSE)	In accordance with the TMDL Implementation Plan	03/09/2019 (single) 12/31/2019 (RSE)

By the deadline defined in the Table IX. A, covered entities in these watersheds shall, in addition to the requirements in Part VII or VIII, depending on the type of the MS4, develop and implement the following minimum control measures for areas within their jurisdiction and their storm sewersheds:

1. Public Education and Outreach on Stormwater Impacts- applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

- a. Plan and conduct an ongoing public education and outreach program 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 (Part I.A.2) can take to reduce phosphorus.
- b. Develop, or acquire if currently available, specific educational material dealing with sources of phosphorus in *stormwater* and pollutant reduction practices. At a minimum, the educational material should address the following topics:
 - i. understanding the phosphorus issue;
 - ii. septic systems as a source of phosphorus;
 - iii. phosphorus concerns with fertilizer use;
 - iv. phosphorus concerns with grass clippings and leaves entering streets and storm sewers;
 - v. construction sites as a source of phosphorus; and

(Part IX.A.1.b.)

- vi. phosphorus concerns with detergent use.

2. Public Involvement/ Participation

No additional requirements proposed for this permit term.

3. Illicit Discharge Detection and Elimination

a. Mapping - applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s*.

Develop and maintain a map showing the entire *small MS4* conveyance system. The *covered entity* shall complete the mapping of approximately 20% of the system every year, with the entire system being mapped by January 8, 2013.

At a minimum, the map and/or supportive documentation for the conveyance system should include the following information:

- i. type of conveyance system - closed pipe or open drainage;
- ii. for closed pipe systems - pipe material, shape, and size;
- iii. for open drainage systems - channel/ditch lining material, shape, and dimensions; location and dimensions of any culvert crossings;
- iv. drop inlet, catch basin, and manhole locations; and
- v. number and size of connections (inlets/outlets) to catch basins and manholes, direction of flow.

All information shall be prepared in digital format suitable for use in GIS software and in accordance with the *Department's* guidance on Illicit Discharge Detection and Elimination. The scale shall be 1:24,000 or better.

b. On-site wastewater systems - applicable to *traditional land use control and traditional non-land use control MS4s*.

- *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/inspections should be done in accordance with the most current*

(Part IX.A.3.b.)

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.

4. Construction Site Stormwater Runoff Control- applicable to *traditional land use control MS4s*.

- a. *Develop, implement and 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. At a minimum, the program must provide equivalent protection to the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity and must include the development and implementation of:*
 - i. *by December 31, 2009, an ordinance or other regulatory mechanism that 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);*
 - ii. *policy and procedures for the covered entity to perform, or cause to be performed, compliance inspections at all sites with a disturbance of one (1) or more acres. By December 31, 2009, the covered entity shall have started performing, or cause to be performed, compliance inspections at all sites with a disturbance between five thousand (5000) square feet and one (1) acre of land;*

5. Post-Construction Stormwater Management

- a. *Construction stormwater program - applicable to traditional land use control, traditional non-land use control and non-traditional MS4s.*

(Part IX.A.5.a.)

Develop, *implement* and enforce a program to address post-construction *stormwater* runoff from new development and redevelopment projects that disturb greater than or equal to one (1) acre. This includes projects of less than one acre that are part of a larger common plan of development or sale. At a minimum, the program must provide equivalent protection to the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity and must include the *development* and *implementation* of:

- i. a law or other mechanism that 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. An MS4 must 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 by September 30, 2008 .
- b. Retrofit program - applicable to *traditional land use control, traditional non-land use control* and *non-traditional MS4s*.

Develop and commence implementation of a Retrofit Program that addresses runoff from sites to correct or reduce existing erosion and/or pollutant loading problems, with a particular emphasis placed on the pollutant phosphorus. At a minimum, the MS4 shall:

- i. establish procedures to identify sites with erosion and/or pollutant loading problems;
- ii. establish policy and procedures for project selection. Project selection should be based on the phosphorus reduction potential of the specific retrofit being constructed/installed; the ability to use standard, proven technologies; and the economic feasibility of constructing/installing the retrofit. As part of the project selection process, the *covered entity* should participate in locally based watershed planning efforts which involve the *Department, other covered entities, stakeholders* and other interested parties;
- iii. establish policy and procedures for project permitting, design, funding, construction and maintenance.

(Part IX.A.5.b.)

- iv. for covered entities that develop their own retrofit program, by March 9, 2009 develop and submit approvable plans with schedules for completing retrofit projects, including identification of funding sources. Upon DEC approval of those schedules, the plans and schedules shall become enforceable requirements of this permit.
- v. pursuant to Part IV. B (Cooperation Between Covered entities Encouraged), retrofit projects can be completed in cooperation with other covered entities in the East of Hudson Watershed through the formation of a cooperative entity with other MS4s. Participating MS4s shall work with the Department and other members of the cooperative entity in implementing the requirements of i, ii and iii above. In addition, each covered entity that becomes a member of the cooperative entity shall work closely with the Department and other members of the cooperative entity to, by December 31, 2009, develop and submit approvable plans and schedules for completing retrofit projects, including identification of funding sources. Upon DEC approval of those plans and schedules, the plans and schedules shall become enforceable requirements of this permit.

6. Pollution Prevention/Good Housekeeping For Municipal Operations- applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

- a. By December 31, 2009, develop and implement a Stormwater Conveyance System inspection and maintenance program. At a minimum, the program shall include the following:
 - i. 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;
 - ii. policy and procedures for the inspection, maintenance and repair of conveyance system *outfalls*. Beginning June 30, 2008, the MS4 must inspect 20% of their *outfalls* each year and make repairs as necessary. All outfall protection and/or bank stability problems identified during the inspection shall be corrected in accordance with the New York Standards and Specifications for Erosion and Sediment Control;

(Part IX.A.6.a.)

- iii. 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
 - iv. 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. By December 31, 2010, develop and implement a turf management practices and procedures policy. The policy shall address the following:
- i. 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;
 - ii. 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;
 - iii. 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;
 - iv. for municipalities with lawn waste collection programs, the development of a curbside lawn waste management policy which ensures that lawn waste does not decay and release phosphorus to the storm sewer system; and
 - v. the planting of wildflowers and other native plant material to lessen the frequency of mowing and the use of chemicals to control vegetation.

(Part IX.)

B. Other Phosphorus Watershed MS4s (Mapped in Appendices 4, 5, and 10)

Table IX.B - Pollutant Load Reduction and Timetable for Other Phosphorus Watershed Improvement Strategy Areas

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Waste Load Allocation %*)	Pollutant Load Reduction Deadline
Greenwood Lake	05/01/2011	03/09/2011	43* (load allocation)	03/09/2011
Onondaga Lake	TMDL approval + 3 years	TMDL approval + 3 years	TBD	TMDL approval + 13 years
Oscawana Lake	05/01/2013	Not Applicable	18	2020

By the deadline defined in the Table IX.B, covered entities in these watersheds shall, in addition to the requirements in Part VII or VIII, depending on the type of the MS4, develop and implement the following minimum control measures for areas within the permittee's jurisdiction and the covered entities's storm sewersheds:

1. Public Education and Outreach on Stormwater Impacts- applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

- a. Plan and conduct an ongoing public education and outreach program 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 Phosphorus in stormwater runoff.
- b. develop, or acquire if currently available, specific educational material dealing with sources of Phosphorus in stormwater and pollutant reduction practices. At a minimum, the educational material should address the following topics:
 - i. understanding the phosphorus issue;
 - ii. septic systems as a source of phosphorus; and
 - iii. phosphorus concerns with fertilizer use.

2. Public Involvement/ Participation

No additional requirements proposed for at this time.

3. Illicit Discharge Detection and Elimination applicable to *traditional land use control and traditional non-land use control MS4s*, except within the Onondaga Lake Watershed.

- a. *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

(Part IX.B.3.a.)

years and, where necessary, maintained or rehabilitated. Conduct of regular field investigations/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.

4. Construction Site Stormwater Runoff Control

No additional requirements at this time.

5. Post-Construction Stormwater Management, - applicable to *traditional land use, traditional non-land use control and non-traditional MS4s*.

- a. The *covered entity* must require the use of the “Enhanced Phosphorus Removal Design Standards” in accordance with NYS Stormwater Design Manual;
- b. *Develop* and commence implementation of a Retrofit Program that addresses runoff from sites to correct or reduce existing erosion and/or pollutant loading problems, with a particular emphasis placed on the pollutant Phosphorus. At a minimum, the MS4 shall:
 - i. establish procedures to identify sites with erosion and/or pollutant loading problems;
 - ii. establish policy and procedures for project selection. Project selection should be based on the Phosphorus reduction potential of the specific retrofit being constructed/installed; the ability to use standard, proven technologies; and the economic feasibility of constructing/installing the retrofit. As part of the project selection process, the *covered entity* should participate in locally based watershed planning efforts which involve the *Department*, other *covered entities*, stakeholders and other interested parties;
 - iii. establish policy and procedures for project permitting, design, funding, construction and maintenance

(Part IX.B.5.)

- iv. by the date specified for each watershed in the appropriate Watershed Improvement Strategy Requirement Table develop and submit approvable plans and schedules for completing retrofit projects, including identification of funding sources. Upon DEC approval of those plans and schedules, the plans and schedules shall become enforceable requirements of this permit.

6. Pollution Prevention/Good Housekeeping For Municipal Operations applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

- a. Develop a turf management practices and procedures policy. The policy should address the following:
 - i. 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; and
 - ii. the planting of native plant material to lessen the frequency of mowing and the use of chemicals to control vegetation.

(Part IX.)

C. Pathogen Impaired Watershed MS4s (Mapped in Appendix 6, 7 and 9)

Table IX.C - Pollutant Load Reduction and Timetable for Pathogen Impaired Watershed Improvement Strategy Areas

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Load Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Budds Pond*	05/01/2013	09/30/2012	61	09/30/2022
Stirling Creek*	05/01/2013	09/30/2012	28	09/30/2022
Town & Jockey Creeks*	05/01/2013	09/30/2012	76	09/30/2022
Goose Creek*	05/01/2013	09/30/2012	70	09/30/2022
Hashamomuck Pond, Zone HP-1*	05/01/2013	09/30/2012	77	09/30/2022
Hashamomuck Pond, Zone HP-2*	05/01/2013	09/30/2012	43	09/30/2022
Richmond Creek*	05/01/2013	09/30/2012	71	09/30/2022
Deep Hole Creek*	05/01/2013	09/30/2012	29	09/30/2022
James Creek*	05/01/2013	09/30/2012	51	09/30/2022
Flanders Bay	05/01/2011	03/09/2011	98	03/09/2021
Reeves Bay	05/01/2011	03/09/2011	97	03/09/2021
Sebonac Creek	05/01/2011	03/09/2011	58	03/09/2021
North Sea Harbor, Zone NSH-1	05/01/2011	03/09/2011	97	03/09/2021
North Sea Harbor, Zone NSH-2	05/01/2011	03/09/2011	62	03/09/2021
North Sea Harbor, Zone NSH-3	05/01/2011	03/09/2011	99	03/09/2021
North Sea Harbor, Zone NSH-5	05/01/2011	03/09/2011	74	03/09/2021
Wooley Pond	05/01/2011	03/09/2011	97	03/09/2021
Noyac Creek, Zone NC-1	05/01/2011	03/09/2011	64	03/09/2021
Sag Harbor, Zone SH-2*	05/01/2013	09/30/2012	50	09/30/2022
Northwest Creek*	05/01/2013	09/30/2012	76	09/30/2022
Acabonac Harbor, Zone AH-2*	05/01/2013	09/30/2012	42	09/30/2022
Acabonac Harbor, Zone AH-3*	05/01/2013	09/30/2012	85	09/30/2022
Acabonac Harbor, Zone AH-4*	05/01/2013	09/30/2012	81	09/30/2022
Acabonac Harbor, Zone AH-5*	05/01/2013	09/30/2012	87	09/30/2022
Montauk Lake, Zone LM-1*	05/01/2013	09/30/2012	52	09/30/2022
Montauk Lake, Zone LM-2*	05/01/2013	09/30/2012	52	09/30/2022
Montauk Lake, Zone LM-3*	05/01/2013	09/30/2012	48	09/30/2022
Little Sebonac Creek	05/01/2011	03/09/2011	70	03/09/2021
Oyster Bay (Harbor 2)	05/01/2011	03/09/2011	20	03/09/2021
Oyster Bay (Harbor 3)	05/01/2011	03/09/2011	90	03/09/2021

*Additionally Designated Area

Watershed	Enhanced Plan Implementation Deadline	First Retrofit Plan Submission Deadline	Pollutant Reduction (Waste Load Allocation %)	Pollutant Load Reduction Deadline
Hempstead Harbor, north, and tidal tributaries	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, and tidal tributaries, Inner	05/01/2013	09/30/2012	95	09/30/2022
Cold Spring Harbor, Eel Creek	05/01/2013	09/30/2012	90	09/30/2022
Huntington Harbor	05/01/2013	09/30/2012	89	09/30/2022
Centerport Harbor	05/01/2013	09/30/2012	91	09/30/2022
Northport Harbor	05/01/2013	09/30/2012	92	09/30/2022
Stony Brook Harbor and West Meadow Creek, Inner	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Creek	05/01/2013	09/30/2012	99	09/30/2022
Stony Brook Yacht Club	05/01/2013	09/30/2012	48	09/30/2022
Stony Brook Harbor, Westmeadow Creek	05/01/2013	09/30/2012	99	09/30/2022
Setauket Harbor, Little Bay	05/01/2013	09/30/2012	84	09/30/2022
Setauket Harbor, East Setauket	05/01/2013	09/30/2012	79	09/30/2022
Setauket Harbor, Poquot	05/01/2013	09/30/2012	100	09/30/2022
Mt. Sinai Harbor, Crystal Brook	05/01/2013	09/30/2012	88	09/30/2022
Mt. Sinai Harbor, Inner Harbor	05/01/2013	09/30/2012	96	09/30/2022
Mt. Sinai Harbor, Pipe Stave Hollow	05/01/2013	09/30/2012	93	09/30/2022
Mattituck Inlet/Creek, Low, and tidal tributaries	05/01/2013	09/30/2012	64	09/30/2022
Goldsmith Inlet	05/01/2013	09/30/2012	91	09/30/2022
West Harbor, Fishers Island, Davloy Cove	05/01/2013	09/30/2012	41	09/30/2022
Georgica Pond, Upper	05/01/2013	09/30/2012	93	09/30/2022

Georgica Pond, Lower	05/01/2013	09/30/2012	93	09/30/2022
Georgica Pond Cove	05/01/2013	09/30/2012	92	09/30/2022
Sagaponack Pond	05/01/2013	09/30/2012	88	09/30/2022
Mecox Bay and tributaries	05/01/2013	09/30/2012	89	09/30/2022
Heady Creek and tributaries	05/01/2013	09/30/2012	88	09/30/2022
Taylor Creek and tributaries	05/01/2013	09/30/2012	52	09/30/2022
Penny Pond	05/01/2013	09/30/2012	31	09/30/2022
Weesuck Creek and tidal tributaries	05/01/2013	09/30/2012	37	09/30/2022
Penniman Creek and tidal tributaries	05/01/2013	09/30/2012	32	09/30/2022
Ogden Pond	05/01/2013	09/30/2012	28	09/30/2022
Quantuck Bay	05/01/2013	09/30/2012	91	09/30/2022
Quantuck Canal/Moneybogue Bay	05/01/2013	09/30/2012	62	09/30/2022
Seatuck Cove	05/01/2013	09/30/2012	94	09/30/2022
Harts Cove	05/01/2013	09/30/2012	12	09/30/2022
Narrow Bay	05/01/2013	09/30/2012	16	09/30/2022
Bellport Bay, Beaver Dam Creek	05/01/2013	09/30/2012	94	09/30/2022
Bellport Bay, West Cove	05/01/2013	09/30/2012	94	09/30/2022
Patchogue Bay, Swan River	05/01/2013	09/30/2012	90	09/30/2022
Patchogue Bay, Mud Creek	05/01/2013	09/30/2012	71	09/30/2022

By the deadline defined in the Table IX.C, *covered entities* in these watersheds shall, in addition to the requirements in Part VII. or VIII., depending on the type of the MS4, develop and implement the following MCMs for areas within the *covered entity's* jurisdiction and the covered entities's storm sewersheds:

(Part IX.C.)

1. Public Education and Outreach on Stormwater Impacts- applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s*

a. Plan and conduct an ongoing public education and outreach program designed to describe the impacts of Pathogens (the *POC*) on waterbodies. The program must identify potential sources of Pathogens in *stormwater* runoff and describe steps that contributors can take to reduce the Pathogens in *stormwater* runoff. The program must also describe steps that contributors of non-*stormwater discharges* can take to reduce Pathogens.

b. *Develop*, or acquire if currently available, specific educational material dealing with sources of Pathogens in *stormwater* and pollutant reduction practices. At a minimum, the educational material should address the following topics:

i. where, why, and how Pathogens pose threats to the environment and to the community;

ii. septic systems, geese and pets as a source of pathogens;

iii. dissemination of educational materials / surveys to households/businesses in proximity to Pathogen *TMDL* waterbodies; and

iv. education for livestock / horse boarders regarding manure *BMPs*.

2. Public Involvement / Participation

No additional requirements proposed at this time.

3. Illicit Discharge Detection and Elimination, SWMP Development / Implementation- Mapping applicable to *traditional land use control and traditional non-land use control MS4s*.

a. Develop, implement, and enforce a program to detect and eliminate discharges to the municipal separate storm sewer system from on-site sanitary systems in areas where factors such as shallow groundwater, low infiltrative soils, historical on-site sanitary system failures, or proximity to pathogen-impaired waterbodies, indicate a reasonable likelihood of system discharge.

In such areas, ensure 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. Conduct regular field investigations/inspections in accordance with the most current version of the EPA publication entitled Illicit Discharge

(Part IX.C.3.a.)

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.

On-site sanitary system IDDE program development shall include the establishment of the necessary legal authority (such as new or revised local laws) for implementation and enforcement.

b. Develop and maintain a map showing the entire *small MS4* conveyance system. The *covered entity* shall complete the mapping of approximately 20% of the system every year, with the entire system being mapped by May 1, 2015. At a minimum, the map and/or supportive documentation for the conveyance system shall include the following information:

- i. type of conveyance system - closed pipe or open drainage;
- ii. for closed pipe systems - pipe material, shape, and size;
- iii. for open drainage systems - channel/ditch lining material, shape, and dimensions; location and dimensions of any culvert crossings;
- iv. drop inlet, catch basin, and manhole locations; and
- v. number and size of connections (inlets/outlets) to catch basins and manholes, direction of flow.

All information shall be prepared in digital format suitable for use in GIS software and in accordance with the *Department's* guidance on Illicit Discharge Detection and Elimination. The scale shall be 1:24000 or better.

4. Construction Site Stormwater Runoff Control

No additional requirements at this time.

5. Post-Construction Stormwater Management- applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

Develop and commence implementation of a Retrofit Program that addresses runoff from sites to correct or reduce pollutant loading problems, with a particular emphasis placed on the pollutant Pathogens. At a minimum, the MS4 shall:

- a. establish procedures to identify sites with erosion and/or pollutant loading problems;

(Part IX.C.5.)

- b. establish policy and procedures for project selection. Project selection should be based on the Pathogen reduction potential of the specific retrofit being constructed/installed; the ability to use standard, proven technologies; and the economic feasibility of constructing/installing the retrofit. As part of the project selection process, the *covered entity* should participate in locally based watershed planning efforts which involve the *Department*, other *covered entities*, stakeholders and other interested parties;
- c. establish policy and procedures for project permitting, design, funding, construction and maintenance
- d. by March 9, 2011, develop and submit approvable plans and schedules for completing retrofit projects. Upon DEC approval of those plans and schedules and identification of funding sources, the plans and schedules shall become enforceable requirements of this permit.

6. Pollution Prevention/Good Housekeeping For Municipal Operations, - applicable to *traditional land use control* and traditional non-land use control MS4s.

- a. *Develop*, enact and enforce a local law prohibiting pet waste on municipal properties and prohibiting goose feeding.
- b. *Develop* and *implement* a pet waste bag program for collection and proper disposal of pet waste.
- c. *Develop* a program to manage goose populations.

(Part IX.)

D. Nitrogen Watershed MS4s (Mapped in Appendix 8)

Table IX.D - Pollutant Load Reduction and Timetable for Nitrogen Watershed Improvement Strategy Area

Watershed	Watershed Improvement Strategy Deadline	Retrofit Plan Submission Deadline	Pollutant Reduction (Load Allocation %)	Pollutant Load Reduction Deadline
Peconic Bay	05/01/2011	03/09/2011	15	03/09/2021

By the deadline defined in the Table IX.D, covered entities in these watersheds shall, in addition to the requirements in Part VII or VIII, depending on the type of the MS4, develop and implement the following minimum control measures for areas within the covered entity's jurisdiction and the covered entities' storm sewersheds:

1. Public Education and Outreach on Stormwater Impacts - applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s*.

- a. Plan and conduct an ongoing public education and outreach program designed to describe the impacts of Nitrogen (the POC) on waterbodies. The program must identify potential sources of Nitrogen in stormwater runoff and describe steps that contributors can take to reduce the Nitrogen in stormwater runoff.
- b. develop, or acquire if currently available, specific educational material dealing with sources of Nitrogen in stormwater and pollutant reduction practices. At a minimum, the educational material should address the following topics:
 - i. understanding the Nitrogen issue;
 - ii. septic systems as a source of Nitrogen; and
 - iii. Nitrogen concerns with fertilizer use.

2. Public Involvement/ Participation

No additional requirements proposed for at this time.

3. Illicit Discharge Detection and Elimination - applicable to *traditional land use control and traditional non-land use control MS4s*

(Part IX.D.3.)

a. Develop and maintain a map showing the entire small MS4 conveyance system. The covered entity shall complete the mapping of approximately 20% of the system every year, with the entire system being mapped by May 1, 2015. At a minimum, the map and/or supportive documentation for the conveyance system shall include the following information:

- i. type of conveyance system - closed pipe or open drainage;
- ii. for closed pipe systems - pipe material, shape, and size;
- iii. for open drainage systems - channel/ditch lining material, shape, and dimensions; location and dimensions of any culvert crossings;
- iv. drop inlet, catch basin, and manhole locations; and
- v. number and size of connections (inlets/outlets) to catch basins and manholes, direction of flow.

All information shall be prepared in digital format suitable for use in GIS software and in accordance with the *Department's* guidance on Illicit Discharge Detection and Elimination. The scale shall be 1:24000 or better.

4. Construction Site Stormwater Runoff Control

No additional requirements at this time.

5. Post-Construction Stormwater Management - applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

Develop and commence implementation of a Retrofit Program that addresses runoff from sites to correct or reduce existing erosion and/or pollutant loading problems, with a particular emphasis placed on the pollutant Nitrogen. At a minimum, the MS4 shall:

- a. establish procedures to identify sites with erosion and/or pollutant loading problems;
- b. establish policy and procedures for project selection. Project selection should be based on the Nitrogen reduction potential of the specific retrofit being constructed/installed; the ability to use standard, proven technologies; and the economic feasibility of constructing/installing the retrofit. As part of the project selection process, the *covered entity* should participate in locally based watershed planning efforts which involve the *Department, other covered entities, stakeholders and other interested parties;*
- c. establish policy and procedures for project permitting, design, funding, construction and maintenance; and

(Part IX.D.5.)

d. by March 9, 2011, develop and submit approvable plans and schedules for completing retrofit projects, including identification of funding sources. Upon DEC approval of those plans and schedules, the plans and schedules shall become enforceable requirements of this permit.

6. Pollution Prevention/Good Housekeeping For Municipal Operations - applicable to *traditional land use control, traditional non-land use control and non-traditional MS4s.*

a. Develop a turf management practices and procedures policy. The policy should address the following:

- i. procedures for proper fertilizer application on municipally-owned lands. The application of any Nitrogen-containing fertilizer shall only be allowed under the supervision of a Certified Crop Advisor or Certified Landscape Architect; and
- ii. the planting of native plant material to lessen the frequency of mowing and reduce the use of chemicals to control vegetation.

Part X. ACRONYMS AND DEFINITIONS

A. Acronym List

BMP - Best Management Practice
CFR - Code of Federal Regulations
CWA - Clean Water Act
ECL - Environmental Conservation Law
MCC - Municipal Compliance Certification
MCM - Minimum Control Measure
MEP - Maximum Extent Practicable
MS4 - Municipal Separate Storm Sewer System
NPDES - National Pollutant Discharge Elimination System
POC - Pollutant of Concern
SPDES - State Pollutant Discharge Elimination System
SWMP - Stormwater Management Program
SWMP Plan - Stormwater Management Program Plan
SWPPP - Stormwater Pollution Prevention Plan
TMDL - Total Maximum Daily Load
UA - Urbanized Area

B. Definitions

Activities - See best management practice

Additionally Designated Areas - EPA required the Department to develop a set of criteria for designating additional MS4 areas as subject to these regulations. The following criteria have been adopted to designate additional MS4s in New York State:

Criteria 1: MS4s discharging to waters for which and EPA-approved TMDL required reduction of a pollutant associated with stormwater beyond what can be achieved with existing programs (and the area is not already covered under automatic designation as UA).

Criteria 2: MS4s contiguous to automatically designated urbanized areas (town lines) that discharge to sensitive waters classified as AA Special (fresh surface waters), AA (fresh surface waters) with filtration avoidance determination or SA (saline surface waters).

Criterion 3: Automatically designated MS4 areas are extended to Town, Village or City boundaries, but only for Town, Village or City implementation of Minimum Control Measures (4) Construction Site Stormwater Runoff Control and (5) Post Construction Stormwater Management in Development and Redevelopment. This additional designation may be waived, by written request to the Department, where the automatically designated area is a small portion of the total area of the Town, Village or City (less than 15 %) and where there is

little or no construction activity in the area outside of the automatically designated area (less than 5 disturbed acres per year).

Best Management Practice - means schedules activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements (if determined necessary by the covered entity), operating procedures, and practices to control runoff, spillage and leaks, sludge or waste disposal, or drainage from areas that could contribute pollutants to stormwater discharges. BMP is referred to in EPA's fact sheets and other materials. BMPs are also referred to as "activities" or "management practices" throughout this *SPDES general permit*.

Better Site Design (BSD) - Better Site Design incorporates non-structural and natural approaches to new and redevelopment projects to reduce impacts on watersheds by conserving natural areas, reducing impervious cover and better integrating stormwater treatment. Better site design is a form of Green Infrastructure and is similar to Low Impact Development (LID). See also Green Infrastructure and Low Impact Development.

Construction Activity(ies) - means any clearing, grading, excavation, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include but are not limited to logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Covered entity - means the holder of this *SPDES general permit* or an entity required to gain coverage under this *SPDES general permit*. The owner / operator of the small MS4.

Department - means the New York State Department of Environmental Conservation as well as meaning the Department 's designated agent.

Development - period after initial authorization under this *SPDES general permit* when the covered entity creates, designs or develops activities, BMPs, tasks or other measures to include in their SWMP

Discharge(s) - any addition of any pollutant to waters of the State through an outlet or point source.

Discharge Authorized by a SPDES Permit - means discharges of wastewater or stormwater from sources listed in the permit, that do not violate ECL Section 17-0501, that are through outfalls listed in the permit, and that are:

1. discharges within permit limitations of pollutants limited in the SPDES permit;

2. discharges within permit limitations of pollutants limited by an indicator limit in the SPDES permit;
3. discharges of pollutants subject to action level requirements in the SPDES permit;
4. discharges of pollutants not explicitly listed in the SPDES permit, but reported in the SPDES permit application record as detected in the discharge or as something the covered entity knows or has reason to believe to be present in the discharge, provided the special conditions section of the applicable SPDES permit does not otherwise forbid such a discharge and provided that such discharge does not exceed, by an amount in excess of normal effluent variability, the level of discharge that may reasonably be expected for that pollutant from information provided in the SPDES permit application record;
5. discharges of pollutants not required to be reported on the appropriate and current New York State SPDES permit application; provided the special conditions section of the permit does not otherwise forbid such a discharge. The Department may, in accordance with law and regulation, modify the permit to include limits for any pollutant even if that pollutant is not required to be reported on the SPDES permit application; or
6. discharges from fire fighting activities; fire hydrant flushings; testing of fire fighting equipment, provided that such equipment is for water only fire suppression; potable water sources including waterline flushings; irrigation drainage; lawn watering; uncontaminated infiltration and inflow; leakage from raw water conveyance systems; routine external building washdown and vehicle washing which does not use detergents or other compounds; pavement washwaters where spills or leaks of toxic or hazardous materials, other than minor and routine releases from motor vehicles, have not occurred (unless such material has been removed) and where detergents are not used; air conditioning and steam condensate; springs; uncontaminated groundwater; and foundation or footing drains where flows are not contaminated with process materials such as solvents provided that the covered entity has implemented an effective plan for minimizing the discharge of pollutants from all of the sources listed in this subparagraph.

Environmental Conservation Law - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Green Infrastructure - Green infrastructure approaches essentially infiltrate, evapotranspire or reuse stormwater, with significant utilization of soils and vegetation rather than traditional hardscape collection, conveyance and storage structures . Common green infrastructure approaches include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, vegetated median strips, reforestation, and protection and enhancement of riparian buffers and floodplains. See also Low Impact Development and Better Site Design.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the

atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Illicit Discharges - discharges not entirely composed of stormwater into the small MS4, except those identified in Part I.A.2. Examples of illicit discharges are non-permitted sanitary sewage, garage drain effluent, and waste motor oil. However, an illicit discharge could be any other non-permitted discharge which the covered entity or Department has determined to be a substantial contributor of pollutants to the small MS4.

Impaired Water - a water is impaired if it does not meet its designated use(s). For purposes of this permit 'impaired' refers to impaired waters for which TMDLs have been established, for which existing controls such as permits are expected to resolve the impairment, and those needing a TMDL. Impaired waters compilations are also sometimes referred to as 303(d) lists; 303(d) lists generally include only waters for which TMDLs have not yet been developed. States will generally have associated, but separate lists of impaired waters for which TMDLs have already been established.

Implementation - period after development of SWMP, where the covered entity puts into effect the practices, tasks and other activities in their SWMP.

Individual SPDES Permit - means a SPDES permit issued to a single facility in one location in accordance with this Part (as distinguished from a *SPDES general permit*).

Industrial Activity - as defined by the SPDES Multi-Sector General Permit (GP-0-06-002).

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, State Environmental Quality Review Act Application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Low Impact Development - is a site design strategy with a goal of maintaining or replicating the predevelopment hydrologic regime through the use of design techniques to create a functionally equivalent hydrologic landscape. Hydrologic functions of storage, infiltration,

and ground water recharge, as well as the volume and frequency of discharges are maintained through the use of integrated and distributed micro scale stormwater retention and detention areas, reduction of impervious surfaces, and the lengthening of flow paths and runoff time. Other strategies include the preservation/protection of environmentally sensitive site features such as riparian buffers, wetlands, steep slopes, valuable (mature) trees, flood plains, woodlands and highly permeable soils. LID principles are based on controlling stormwater at the source by the use of micro scale controls that are distributed throughout the site. This is unlike conventional approaches that typically convey and manage runoff in large facilities located at the base of drainage areas. See also Green Infrastructure and Better Site Design.

Management Practices - See best management practices

Maximum Extent Practicable - is a technology-based standard established by Congress in the Clean Water Act §402(p)(3)(B)(iii). Since no precise definition of MEP exists, it allows for maximum flexibility on the part of 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). When trying to reduce pollutants to the MEP, there must be a serious attempt to comply, and practical solutions may not be lightly rejected. If a covered entity chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a covered entity employs all applicable BMPs except those where it can be shown that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP required covered entities to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive.

Measurable Goals - are the goals of the SWMP that should reflect the needs and characteristics of the covered entity and the areas served by its small MS4. Furthermore, the goals should be chosen using an integrated approach that fully addresses the requirements and intent of the MCM. The assumption is that the program schedules would be created over a 5 year period and goals would be integrated into that time frame. For example, a larger MS4 could do an outfall reconnaissance inventory for 20% of the collection system every year so that every outfall is inspected once within the permit cycle

Municipal / Municipalities - referred to in the federal rule that describes the Phase II stormwater program includes not only the State's municipal governments (cities, towns, villages and counties), but any publicly funded entity that owns or operates a separate storm sewer system. Examples of other public entities that are included in this program include the State Department of Transportation, State University Campuses, federal and State prisons, State and federal hospitals, Thruway and Dormitory Authorities, public housing authorities, school and other special districts.

Municipal Separate Storm Sewer System - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that discharges to surface waters of the State;
2. designed or used for collecting or conveying stormwater;
3. which is not a combined sewer; and
4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Non-traditional MS4s - state and federal prisons, office complexes, hospitals; state: transportation agencies; university campuses, public housing authorities, schools, other special districts.

Open Meetings Law - per Public Officers Law, Article 7, Open Meetings Law, Section 104, Public notice:

1. Public notice of the time and place of a meeting scheduled at least one week prior thereto shall be given to the news media and shall be conspicuously posted in one or more designated public locations at least seventy two hours before such meeting.
2. Public notice of the time and place of every other meeting shall be given, to the extent practicable, to the news media and shall be conspicuously posted in one or more designated public locations at a reasonable time prior thereto.
3. The public notice provided for by this section shall not be construed to require publication as a legal notice.
4. If videoconferencing is used to conduct a meeting, the public notice for the meeting shall inform the public that videoconferencing will be used, identify the locations for the meeting, and state that the public has the right to attend the meeting at any of the locations.

Operator - the person, persons or legal entity that is responsible for the small MS4, as indicated by signing the NOI to gain coverage for the MS4 under this *SPDES general permit*.

Outfall - is defined as any point where a municipally owned and operated separate storm sewer system discharges to either surface waters of the State or to another MS4. Outfalls include discharges from pipes, ditches, swales, and other points of concentrated flow. However, areas of non-concentrated (sheet) flow which drain to surface waters of the State or to another MS4's system are not considered outfalls and should not be identified as such on the system map.

Pollutants of Concern - there are POCs that are primary (comprise the majority) sources of stormwater pollutants and others that are secondary (less likely).

- The POCs that are primarily of concern are: nitrogen, phosphorus, silt and sediment, pathogens, flow, and floatables impacting impaired waterbodies listed on the Priority Waterbody List known to come in contact with stormwater that could be discharged to that water body.
- The POCs that are secondarily of concern include but are not limited to petroleum hydrocarbons, heavy metals, and polycyclic aromatic hydrocarbons (PAHs), where stormwater or runoff is listed as the source of this impairment.
- The primary and secondary POCs can also impair waters not on the 303(d) list. Thus, it is important for the covered entity to assess known and potential POCs within the area served by their small MS4. This will allow the covered entity to address POCs appropriate to their MS4.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Reporting Date – means the end of the annual reporting period, March 9, as indicated in Part V.C.1.

Retrofit - means modifying or adding to existing infrastructure for the purpose of reducing pollutant loadings. Examples, some of which may not be effective for all pollutants, include:

Better site design approaches such as roof top disconnection, diversion of runoff to infiltration areas, soil de-compaction, riparian buffers, rain gardens, cisterns

Rehabilitation of existing storm sewer system by installation of standard stormwater treatment systems (ponds, wetlands, filtering, infiltration) or proprietary practices

Stabilize dirt roads (gravel, stone, water bar, check dam, diversion)

Conversion of dirt parking lots to pervious pavement, grassed or stone cover

Conversion of dry detention ponds to extended detention or wetland treatment systems

Retrofit by converting abandoned buildings to stormwater treatment systems

Retrofit of abandoned building to open space

Retrofit road ditches to enhance open channel design

Control the downstream effects of runoff from existing paved surfaces resulting in flooding and erosion in receiving waters

Control stream erosion by plunge pool, velocity dissipaters, and flow control devices for discharges from conveyance systems

Upgrade of an existing conveyance system to provide water quality and /or quantity control within the drainage structure

Section 303(d) Listed Waters - Section 303(d) is part of the federal CWA that requires the Department to periodically to prepare a list of all surface waters in the State for which beneficial uses of the water – such as for drinking, recreation, aquatic habitat, and industrial use – are impaired by pollutants. These are water quality-limited estuaries, lakes, and streams that fall short of state surface water quality standards, and are not expected to improve within the next two years. Refer to impaired waters for more information.

Single entity - An entity, formed in accordance with the applicable state and/or local legislation, with a legal authority and capacity (financial, resources, etc...) that gains coverage under the MS4 general permit to implement all or parts of the MS4 program within a jurisdiction on behalf of multiple MS4s in that geographic area.

Small MS4 - MS4 system within an urbanized area or other areas designated by the State.

SPDES general permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Staff - actual employees of the covered entity or contracted entity.

State - means the State of New York.

State Pollutant Discharge Elimination System - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Stormwater - means that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the state.

Stormwater Management Program - the program implemented by the covered entity. Covered entities are required at a minimum to develop, implement and enforce a SWMP designed to address POCs and reduce the discharge of pollutants from the small MS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the *ECL* and Clean Water Act. The SWMP must address the MCM described in Part VIII.

The *SWMP* needs to include *measurable goals* for each of the *BMPs*. The measurable goals will help the covered entities assess the status and progress of their program. The *SWMP* should:

1. describe the *BMP* / measureable goal;
2. identify time lines / schedules and milestones for development and implementation;
3. include quantifiable goals to assess progress over time; and
4. describe how the covered entity will address POCs.

Guidance on developing *SWMPs* is available from the Department on its website. Examples of successful *SWMPs* and suggested measurable goals are also provided in EPA's Menu of *BMPs* available from its website. Note that this information is for guidance purposes only. An *MS4* may choose to develop or implement equivalent methods equivalent to those made available by the Department and EPA to demonstrate compliance with the *MCMs*.

When creating the *SWMP*, the *covered entities* should assess activities already being performed that could help meet, or be modified to meet, permit requirements and be included in the *SWMP*. *Covered entities* can create their *SWMP* individually, with a group of other individual *covered entities* or a coalition of *covered entities*, or through the work of a third party entity.

Stormwater Management Program Plan- used by the covered entity to document developed, planned and implemented SWMP elements. The *SWMP plan* must describe how pollutants in stormwater runoff will be controlled. For previously unauthorized *small MS4s* seeking coverage, information included in the NOI should be obtained from the *SWMP plan*. The *SWMP plan* is a separate document from the NOI and should not be submitted with the NOI or any annual reports unless requested.

The *SWMP plan* should include a detailed written explanation of all management practices, activities and other techniques the covered entity has developed, planned and implemented for their SWMP to address POCs and reduce pollutant discharges from their small MS4 to the MEP. The *SWMP plan* shall be revised to incorporate any new or modified *BMPs* or *measurable goals*.

Covered entities can create their *SWMP plan* individually, with a group of other individual *covered entities* or a coalition of *covered entities*, or through the work of a third party entity.

Documents to include are: applicable local laws, inter-municipal agreements and other legal authorities; staffing and staff development programs and organization charts; program budget; policy, procedures, and materials for each minimum measure; outfall and small MS4 system maps; stormwater management practice selection and measurable goals; operation and maintenance schedules; documentation of public outreach efforts and public comments; submitted construction site SWPPPs and review letters and construction site inspection reports.

The *SWMP plan* shall be made readily available to the covered entity's staff and to the public and regulators, such as *Department* and EPA staff. Portions of the *SWMP plan*, primarily policies and procedures, must be available to the management and staff of a *covered entity* that will be called upon to use them. For example, the technical standards and associated technical assistance documents and manuals for stormwater controls should be available to code enforcement officers, review engineers and planning boards. The local laws should be readily available to the town board and planning board. An integrated pest management program would have to be available to the the parks department and the stormwater outfall and available sewer system mapping and catch basin cleaning schedule would have to be available to the department of public works.

Storm sewershed - the catchment area that drains into the storm sewer system based on the surface topography in the area served by the stormsewer. Adjacent catchment areas that drain to adjacent outfalls are not separate storm sewersheds.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of

surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Storm sewers are not waters of the state unless they are classified in 6 NYCRR Parts 800 to 941. Nonetheless, a discharge to a storm sewer shall be regulated as a discharge at the point where the storm sewer discharges to waters of the state. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Act and Environmental Conservation Law (other than cooling ponds as defined in 40 CFR 423.11(m)(see section 750 - 1.24) which also meet the criteria of this definition are not waters of the state. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the State (such as a disposal area in wetlands) nor resulted from impoundment of waters of the state.

SWPPP - as defined per the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity or NYS DEC SPDES Multi-Sector General Permit for Stormwater Associated with Industrial Activity .

Total Maximum Daily Load - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations for point source discharges, load allocations for nonpoint sources, and a margin of safety.

Traditional Land Use Control MS4s - means a city, town or village with land use control authority.

Traditional Non-land Use Control MS4s - means any county agency without land use control.

Urbanized Area - is 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, as defined by the US Bureau of Census. Outlines the extent of automatically regulated areas, often do not extend to the political boundaries of a city, town, or village. SWMPs are only required within the UA. However, the Department encourages covered entities to voluntarily extend their SWMP programs at least to the extent of the storm sewershed that flows into the UA or extend further to their entire jurisdiction. For ease of creation and administration of local laws, ordinances or other regulatory mechanisms, these should be created to apply to the full jurisdictional boundary of municipalities.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

Part XI. RE-OPENER CLAUSE

If there is evidence indicating that the stormwater discharges authorized by this permit cause or have the reasonable potential to cause or contribute to a violation of a water quality standard, the covered entity may be required at the Department's sole discretion to obtain an individual SPDES permit or an alternative *SPDES general permit* or the permit may be modified. In addition, coverage under this permit could terminate, meaning the discharge must cease.

APPENDICES

APPENDIX 1: LIST OF NYS DEC REGIONAL OFFICES

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX 2: IMPAIRED SEGMENTS AND PRIMARY POLLUTANTS OF CONCERN

COUNTY	WATERBODY NAME	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	phosphorus
Albany	Basic Creek Reservoir	phosphorus
Bronx	Van Cortlandt Lake	phosphorus
Bronx	Bronx River, Lower	pathogens
Bronx	Bronx River, Lower	floatables
Bronx	Bronx River, Middle, and tribs	pathogens
Bronx	Bronx River, Middle, and tribs	floatables
Bronx	Westchester Creek	floatables
Bronx	Hutchinson River, Lower, and tribs	floatables
Broome	Susquehanna River, Lower, Main Stem	pathogens
Broome	Whitney Point Lake/Reservoir	phosphorus
Broome	Park Creek and tribs	pathogens
Broome	Beaver Lake	phosphorus
Broome	White Birch Lake	phosphorus
Cayuga	Little Sodus Bay	phosphorus
Cayuga	Owasco Lake	pathogens
Cayuga, Tompkins	Owasco Inlet, Upper, and tribs	phosphorus
Chautauqua	Lake Erie (Dunkirk Harbor)	pathogens
Chautauqua	Chadakoin River and tribs	phosphorus
Chautauqua	Chautauqua Lake, South	phosphorus
Chautauqua	Chautauqua Lake, North	phosphorus
Chautauqua	Bear Lake	phosphorus
Chautauqua	Lower Cassadaga Lake	phosphorus
Chautauqua	Middle Cassadaga Lake	phosphorus
Chautauqua	Findley Lake	phosphorus
Chenango	Unadilla River, Lower, Main Stem	pathogens
Clinton	Lake Champlain, Main Lake, North	phosphorus
Clinton	Lake Champlain, Main Lake, Middle	phosphorus
Clinton	Great Chazy River, Lower, Main Stem	silt/sediment
Columbia	Robinson Pond	phosphorus
Columbia	Kinderhook Lake	phosphorus
Delaware	Cannonsville Reservoir	phosphorus
Dutchess	Hillside Lake	phosphorus
Dutchess	Wappinger Lakes	phosphorus
Dutchess	Wappinger Lakes	silt/sediment
Dutchess	Fall Kill and tribs	phosphorus
Dutchess	Rudd Pond	phosphorus
Erie	Ellicott Creek, Lower, and tribs	phosphorus
Erie	Ellicott Creek, Lower, and tribs	silt/sediment

COUNTY	WATERBODY NAME	POLLUTANT
Erie	Ransom Creek, Lower, and tribs	pathogens
Erie	Ransom Creek, Upper, and tribs	pathogens
Erie	Beeman Creek and tribs	phosphorus
Erie	Beeman Creek and tribs	pathogens
Erie	Murder Creek, Lower, and tribs	phosphorus
Erie	Murder Creek, Lower, and tribs	pathogens
Erie	Two Mile Creek and tribs	pathogens
Erie	Two Mile Creek and tribs	floatables
Erie	Scajaquada Creek, Lower, and tribs	floatables
Erie	Scajaquada Creek, Lower, and tribs	pathogens
Erie	South Branch Smoke Cr, Lower, and tribs	phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs	silt/sediment
Erie	Rush Creek and tribs	pathogens
Erie	Rush Creek and tribs	phosphorus
Erie	Little Sister Creek, Lower, and tribs	phosphorus
Erie	Little Sister Creek, Lower, and tribs	pathogens
Essex	Lake Champlain, Main Lake, South	phosphorus
Essex	Lake Champlain, South Lake	phosphorus
Genesee	Tonawanda Creek, Middle, Main Stem	phosphorus
Genesee	Tonawanda Creek, Middle, Main Stem	silt/sediment
Genesee	Tonawanda Creek, Upper, and minor tribs	silt/sediment
Genesee	Bowen Brook and tribs	phosphorus
Genesee	Little Tonawanda Creek, Lower, and tribs	silt/sediment
Genesee	Oak Orchard Cr, Upper, and tribs	phosphorus
Genesee	Black Creek, Upper, and minor tribs	phosphorus
Genesee	Bigelow Creek and tribs	phosphorus
Greene	Schoharie Reservoir	silt/sediment
Greene	Shingle Kill and tribs	pathogens
Greene	Sleepy Hollow Lake	silt/sediment
Herkimer	Unadilla River, Middle, and minor tribs	pathogens
Herkimer	Mohawk River, Main Stem	pathogens
Herkimer	Mohawk River, Main Stem	floatables
Herkimer	Steele Creek tribs	phosphorus
Herkimer	Steele Creek tribs	silt/sediment
Jefferson	Moon Lake	phosphorus
Kings	Coney Island Creek	pathogens
Kings	Coney Island Creek	floatables
Kings	Gowanus Canal	floatables
Kings	Hendrix Creek	nitrogen
Kings	Hendrix Creek	pathogens
Kings	Hendrix Creek	floatables
Kings	Paerdegat Basin	floatables

COUNTY	WATERBODY NAME	POLLUTANT
Kings	Mill Basin and tidal tribs	floatables
Lewis	Beaver River, Lower, and tribs	pathogens
Lewis	Beaver River, Lower, and tribs	floatables
Lewis	Mill Creek/South Branch, and tribs	phosphorus
Lewis	Mill Creek/South Branch, and tribs	pathogens
Livingston	Conesus Lake	phosphorus
Livingston	Jaycox Creek and tribs	phosphorus
Livingston	Jaycox Creek and tribs	silt/sediment
Livingston	Mill Creek and minor tribs	silt/sediment
Madison	Canastota Creek, Lower, and tribs	pathogens
Monroe	Rochester Embayment - West	pathogens
Monroe	Mill Creek and tribs	phosphorus
Monroe	Mill Creek and tribs	pathogens
Monroe	Shipbuilders Creek and tribs	phosphorus
Monroe	Shipbuilders Creek and tribs	pathogens
Monroe	Minor Tribs to Irondequoit Bay	phosphorus
Monroe	Minor Tribs to Irondequoit Bay	pathogens
Monroe	Thomas Creek/White Brook and tribs	phosphorus
Monroe	Buck Pond	phosphorus
Monroe	Long Pond	phosphorus
Monroe	Cranberry Pond	phosphorus
Monroe	Genesee River, Lower, Main Stem	phosphorus
Monroe	Genesee River, Lower, Main Stem	pathogens
Monroe	Genesee River, Lower, Main Stem	silt/sediment
Monroe	Genesee River, Middle, Main Stem	phosphorus
Monroe	Black Creek, Lower, and minor tribs	phosphorus
Nassau	Long Island Sound, Nassau County	pathogens
Nassau	Long Island Sound, Nassau County	nitrogen
Nassau	Manhasset Bay, and tidal tribs	pathogens
Nassau	Manhasset Bay, and tidal tribs	pathogens
Nassau	Hempstead Harbor, south, and tidal tribs	pathogens
Nassau	Glen Cove Creek, Lower, and tribs	pathogens
Nassau	Glen Cove Creek, Lower, and tribs	silt/sediment
Nassau	Dosoris Pond	pathogens
Nassau	Mill Neck Creek and tidal tribs	pathogens
Nassau	South Oyster Bay	pathogens
Nassau	East Bay	pathogens
Nassau	LI Tribs (fresh) to East Bay	phosphorus
Nassau	LI Tribs (fresh) to East Bay	silt/sediment
Nassau	Middle Bay	pathogens
Nassau	East Rockaway Inlet	pathogens
Nassau	Reynolds Channel, east	pathogens

COUNTY	WATERBODY NAME	POLLUTANT
Nassau	East Meadow Brook, Upper, and tribs	silt/sediment
Nassau	Hempstead Bay	Nitrogen
Nassau	Hempstead Bay	pathogens
Nassau	Hempstead Lake	phosphorus
Nassau	Grant Park Pond	phosphorus
Nassau	Woodmere Channel	pathogens
New York	East River, Lower	floatables
New York	Harlem River	floatables
Niagara	Bergholtz Creek and tribs	phosphorus
Niagara	Bergholtz Creek and tribs	pathogens
Oneida	Utica Harbor	pathogens
Oneida	Utica Harbor	floatables
Oneida	Mohawk River, Main Stem	pathogens
Oneida	Mohawk River, Main Stem	floatables
Oneida	Mohawk River, Main Stem	pathogens
Oneida	Mohawk River, Main Stem	floatables
Oneida	Ballou, Nail Creeks and tribs	phosphorus
Oneida	Ninemile Creek, Lower, and tribs	pathogens
Onondaga	Limestone Creek, Lower, and minor tribs	pathogens
Onondaga	Seneca River, Lower, Main Stem	pathogens
Onondaga	Onondaga Lake, northern end	phosphorus
Onondaga	Onondaga Lake, southern end	pathogens
Onondaga	Onondaga Lake, southern end	phosphorus
Onondaga	Minor Tribs to Onondaga Lake	phosphorus
Onondaga	Minor Tribs to Onondaga Lake	pathogens
Onondaga	Bloody Brook and tribs	pathogens
Onondaga	Ley Creek and tribs	pathogens
Onondaga	Ley Creek and tribs	phosphorus
Onondaga	Onondaga Creek, Lower, and tribs	phosphorus
Onondaga	Onondaga Creek, Lower, and tribs	pathogens
Onondaga	Onondaga Creek, Middle, and tribs	silt/sediment
Onondaga	Onondaga Creek, Middle, and tribs	phosphorus
Onondaga	Onondaga Creek, Middle, and tribs	pathogens
Onondaga	Onondaga Creek, Upper, and minor tribs	silt/sediment
Onondaga	Harbor Brook, Lower, and tribs	phosphorus
Onondaga	Harbor Brook, Lower, and tribs	pathogens
Onondaga	Ninemile Creek, Lower, and tribs	phosphorus
Onondaga	Ninemile Creek, Lower, and tribs	pathogens
Ontario	Hemlock Lake Outlet and minor tribs	phosphorus
Ontario	Hemlock Lake Outlet and minor tribs	pathogens
Ontario	Honeoye Lake	phosphorus
Ontario	Great Brook and minor tribs	phosphorus

COUNTY	WATERBODY NAME	POLLUTANT
Ontario	Great Brook and minor tribs	silt/sediment
Orange	Greenwood Lake	phosphorus
Oswego	Lake Neatahwanta	phosphorus
Otsego	Susquehanna River, Main Stem	pathogens
Putnam	Croton Falls Reservoir	phosphorus
Putnam	West Branch Reservoir	phosphorus
Putnam	Boyd Corners Reservoir	phosphorus
Putnam	Middle Branch Reservoir	phosphorus
Putnam	Lake Carmel	phosphorus
Putnam	Diverting Reservoir	phosphorus
Putnam	East Branch Reservoir	phosphorus
Putnam	Bog Brook Reservoir	phosphorus
Putnam	Oscawana Lake	phosphorus
Queens	Newtown Creek and tidal tribs	floatables
Queens	East River, Upper	floatables
Queens	East River, Upper	floatables
Queens	Flushing Creek/Bay	nitrogen
Queens	Flushing Creek/Bay	floatables
Queens	Little Neck Bay	pathogens
Queens	Alley Creek/Little Neck Bay Trib	floatables
Queens	Jamaica Bay, Eastern, and tribs	nitrogen
Queens	Jamaica Bay, Eastern, and tribs	pathogens
Queens	Jamaica Bay, Eastern, and tribs	floatables
Queens	Thurston Basin	floatables
Queens	Bergen Basin	Nitrogen
Queens	Bergen Basin	pathogens
Queens	Bergen Basin	floatables
Queens	Shellbank Basin	nitrogen
Queens	Spring Creek and tribs	pathogens
Queens	Spring Creek and tribs	floatables
Rensselaer	Snyders Lake	phosphorus
Richmond	Raritan Bay (Class SA)	pathogens
Richmond	Arthur Kill (Class I) and minor tribs	floatables
Richmond	Newark Bay	floatables
Richmond	Kill Van Kull	floatables
Richmond	Grasmere, Arbutus and Wolfes Lakes	phosphorus
Saratoga	Dwaas Kill and tribs	Phosphorus
Saratoga	Dwaas Kill and tribs	silt/sediment
Saratoga	Schuyler Creek and tribs	phosphorus
Saratoga	Schuyler Creek and tribs	pathogens
Saratoga	Lake Lonely	phosphorus
Saratoga	Trib to Lake Lonely	Phosphorus

COUNTY	WATERBODY NAME	POLLUTANT
Saratoga	Tribs to Lake Lonely	pathogens
Schenectady	Collins Lake	phosphorus
Schoharie	Cobleskill Creek, Lower, and tribs	pathogens
Schoharie	Engleville Pond	phosphorus
Schoharie	Summit Lake	phosphorus
St.Lawrence	Black Lake Outlet/Black Lake	phosphorus
Steuben	Lake Salubria	phosphorus
Steuben	Smith Pond	phosphorus
Suffolk	Millers Pond	phosphorus
Suffolk	Stony Brook Harbor and West Meadow	pathogens
Suffolk	Port Jefferson Harbor, North, and tribs	pathogens
Suffolk	Conscience Bay and tidal tribs	pathogens
Suffolk	Beach/Island Ponds, Fishers Island	pathogens
Suffolk	Dering Harbor	pathogens
Suffolk	Tidal Tribs to Gr Peconic Bay, Northshr	pathogens
Suffolk	Mattituck (Marratooka) Pond	phosphorus
Suffolk	Mattituck (Marratooka) Pond	pathogens
Suffolk	Flanders Bay, West/Lower Sawmill	nitrogen
Suffolk	Meetinghouse/Terrys Creeks and tribs	nitrogen
Suffolk	Meetinghouse/Terrys Creeks and tribs	pathogens
Suffolk	Peconic River, Lower, and tidal tribs	nitrogen
Suffolk	Peconic River, Lower, and tidal tribs	pathogens
Suffolk	Scallop Pond	pathogens
Suffolk	Oyster Pond/Lake Munchogue	pathogens
Suffolk	Phillips Creek, Lower, and tidal tribs	pathogens
Suffolk	Quogue Canal	pathogens
Suffolk	Forge River, Lower and Cove	pathogens
Suffolk	Tidal tribs to West Moriches Bay	Nitrogen
Suffolk	Tidal tribs to West Moriches Bay	pathogens
Suffolk	Canaan Lake	silt/sediment
Suffolk	Canaan Lake	phosphorus
Suffolk	Nicoll Bay	pathogens
Suffolk	Lake Ronkonkoma	phosphorus
Suffolk	Lake Ronkonkoma	pathogens
Suffolk	Great Cove	pathogens
Tompkins	Cayuga Lake, Southern End	phosphorus
Tompkins	Cayuga Lake, Southern End	silt/sediment
Tompkins	Cayuga Lake, Southern End	pathogens
Ulster	Ashokan Reservoir	silt/sediment
Ulster	Esopus Creek, Upper, and minor tribs	silt/sediment
Warren	Lake George	silt/sediment
Warren	Tribs to L.George, Village of L George	silt/sediment

COUNTY	WATERBODY NAME	POLLUTANT
Warren	Huddle/Finkle Brooks and tribs	silt/sediment
Warren	Indian Brook and tribs	silt/sediment
Warren	Hague Brook and tribs	silt/sediment
Washington	Lake Champlain, South Bay	phosphorus
Washington	Tribs to L.George, East Shore	silt/sediment
Washington	Cossayuna Lake	phosphorus
Wayne	Blind Sodus Bay	phosphorus
Wayne	Port Bay	phosphorus
Westchester	Saw Mill River, Lower, and tribs	floatables
Westchester	New Croton Reservoir	phosphorus
Westchester	Upper New Croton/Muscoot Reservoir	phosphorus
Westchester	Amawalk Reservoir	phosphorus
Westchester	Lake Lincolndale	phosphorus
Westchester	Peach Lake	pathogens
Westchester	Peach Lake	phosphorus
Westchester	Titicus Reservoir	phosphorus
Westchester	Cross River Reservoir	phosphorus
Westchester	Lake Meahaugh	phosphorus
Westchester	Bronx River, Upper, and tribs	pathogens
Westchester	New Rochelle Harbor	pathogens
Westchester	New Rochelle Harbor	floatables
Westchester	Long Island Sound, Westchester Co	pathogens
Westchester	Long Island Sound, Westchester Co	nitrogen
Westchester	Larchmont Harbor	pathogens
Westchester	Larchmont Harbor	floatables
Westchester	Hutchinson River, Middle, and tribs	pathogens
Westchester	Mamaroneck Harbor	pathogens
Westchester	Mamaroneck Harbor	floatables
Westchester	Mamaroneck River, Lower	silt/sediment
Westchester	Mamaroneck River, Upper, and minor	silt/sediment
Westchester	Sheldrake River and tribs	phosphorus
Westchester	Sheldrake River and tribs	silt/sediment
Westchester	Milton Harbor	pathogens
Westchester	Milton Harbor	floatables
Westchester	Blind Brook, Lower	silt/sediment
Westchester	Blind Brook, Upper, and tribs	silt/sediment
Westchester	Port Chester Harbor	pathogens
Westchester	Port Chester Harbor	floatables
Westchester	Byram River, Lower	pathogens
Wyoming	Java Lake	phosphorus
Wyoming	Silver Lake	phosphorus

APPENDIX 2 (CONTINUED)
IMPAIRED SEGMENTS AND SECONDARY POLLUTANTS OF CONCERN

COUNTY	WATERBODY	POLLUTANT
Oneida	Mohawk River, Main Stem	Copper
Westchester	Hutchinson River, Middle and tribs	Oil and Grease

**APPENDIX 3: NEW YORK CITY WATERSHED EAST OF THE HUDSON RIVER
WATERSHED MAP**

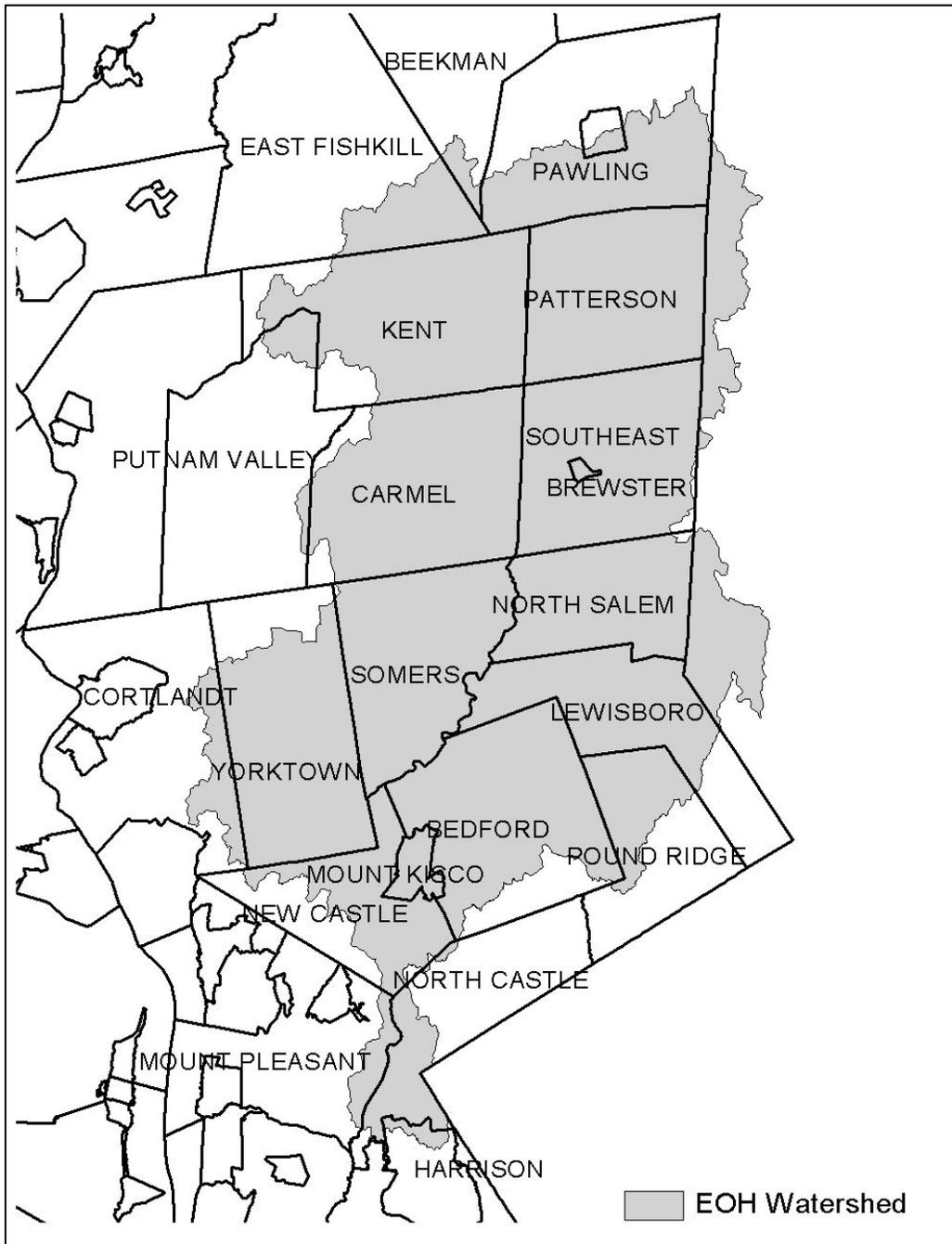


Figure 1. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

APPENDIX 4: ONONDAGA LAKE WATERSHED MAP



Figure 2. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

APPENDIX 5: GREENWOOD LAKE WATERSHED MAP

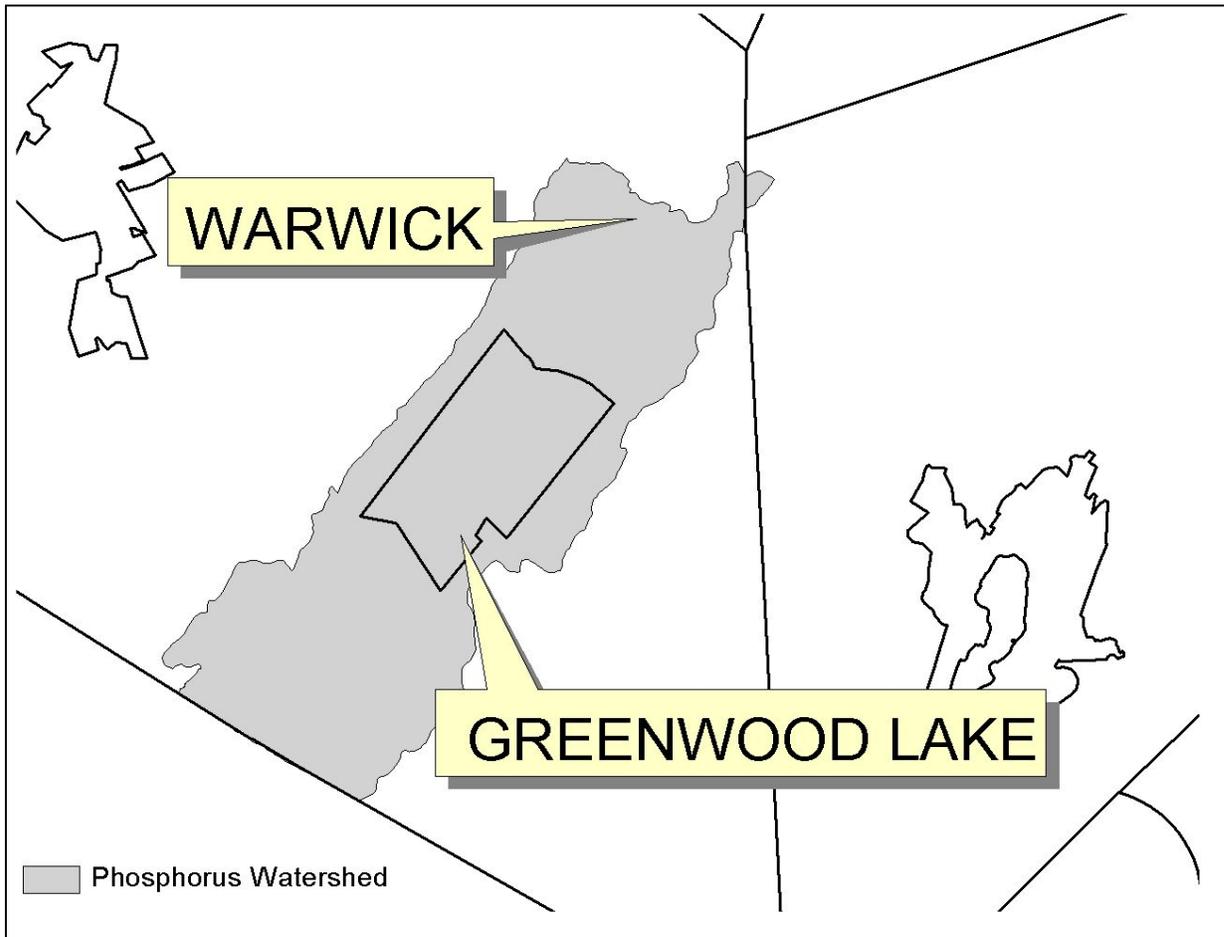


Figure 3. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

APPENDIX 6: OYSTER BAY WATERSHED MAP

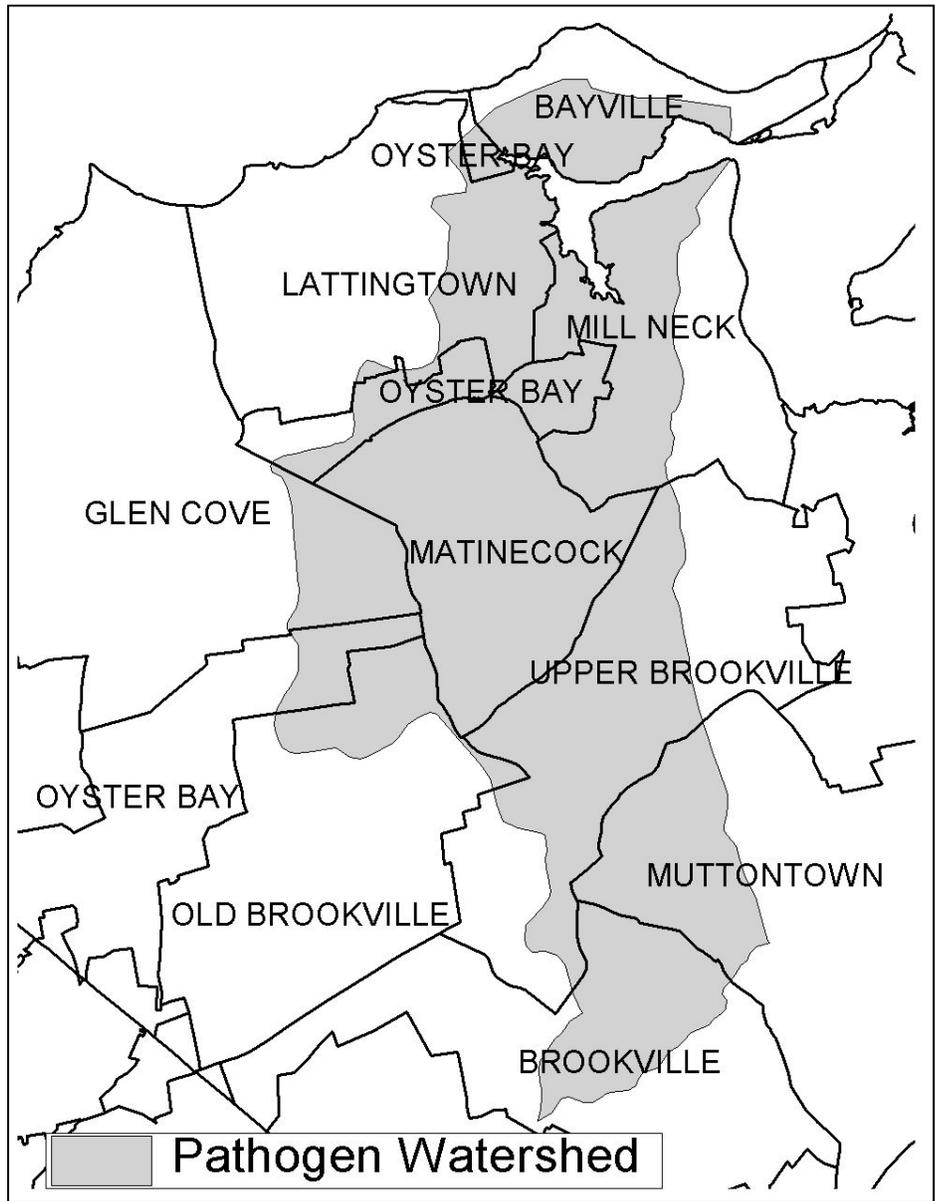


Figure 4. The requirements of watershed improvement strategies apply to the sewer sheds within the shaded areas.

APPENDIX 7: PECONIC ESTUARY PATHOGEN WATERSHED MAP

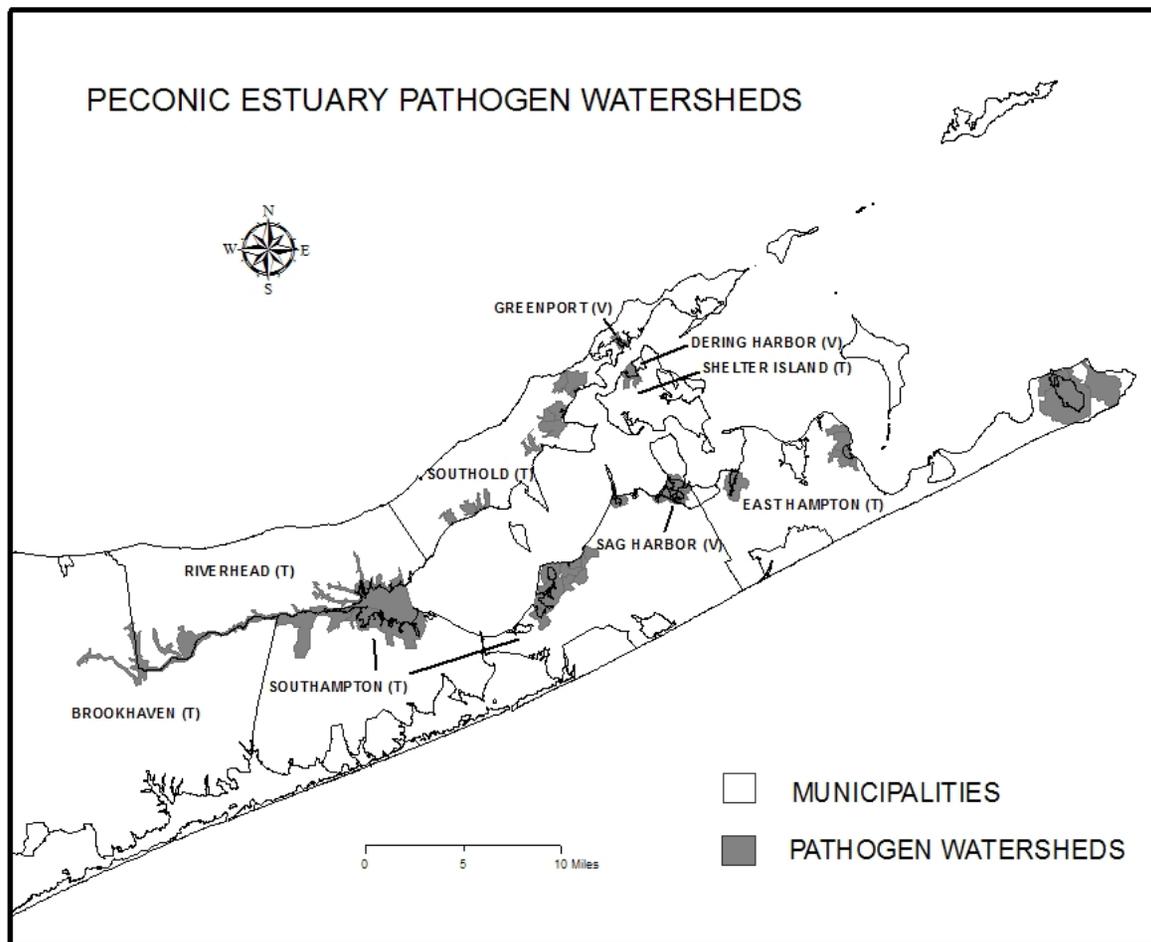


Figure 5. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

SPDES General Permit for Stormwater Discharge from MS4s, GP-0-10-002

APPENDIX 8: PECONIC ESTUARY NITROGEN WATERSHED MAP

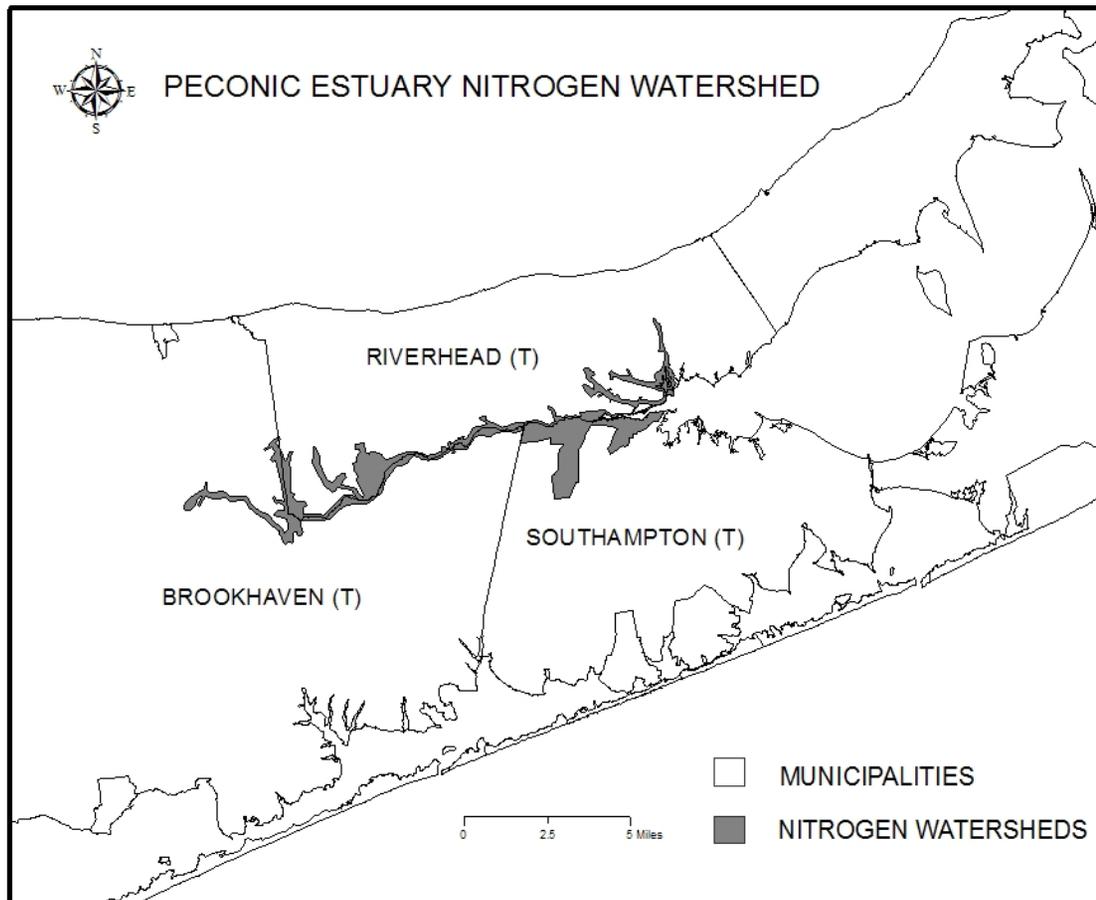


Figure 6. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

APPENDIX 9: THE 27 LONG ISLAND SHELLFISHING IMPAIRED EMBAYMENT MAP

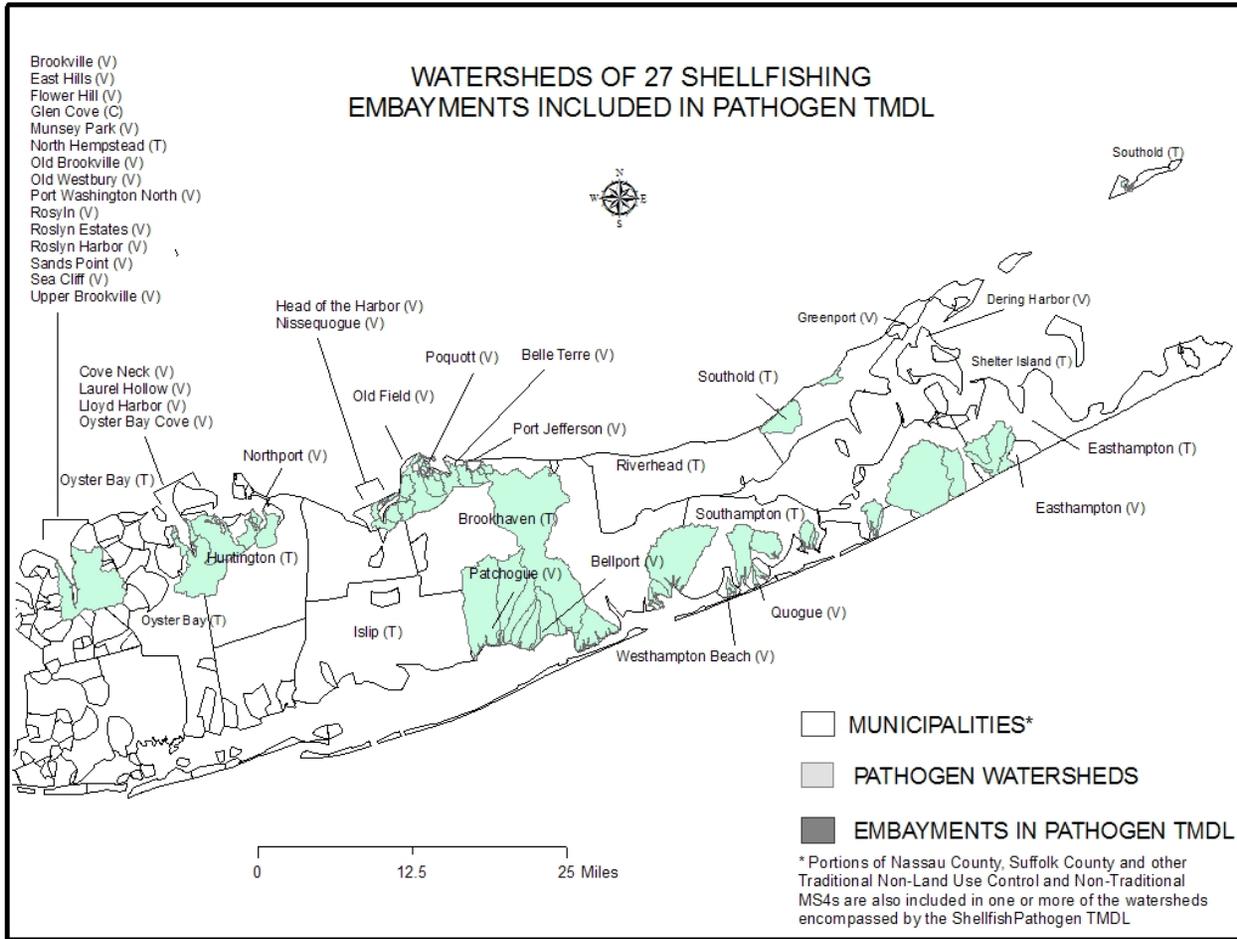


Figure 7. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

APPENDIX 10: LAKE OSCAWANA WATERSHED MAP

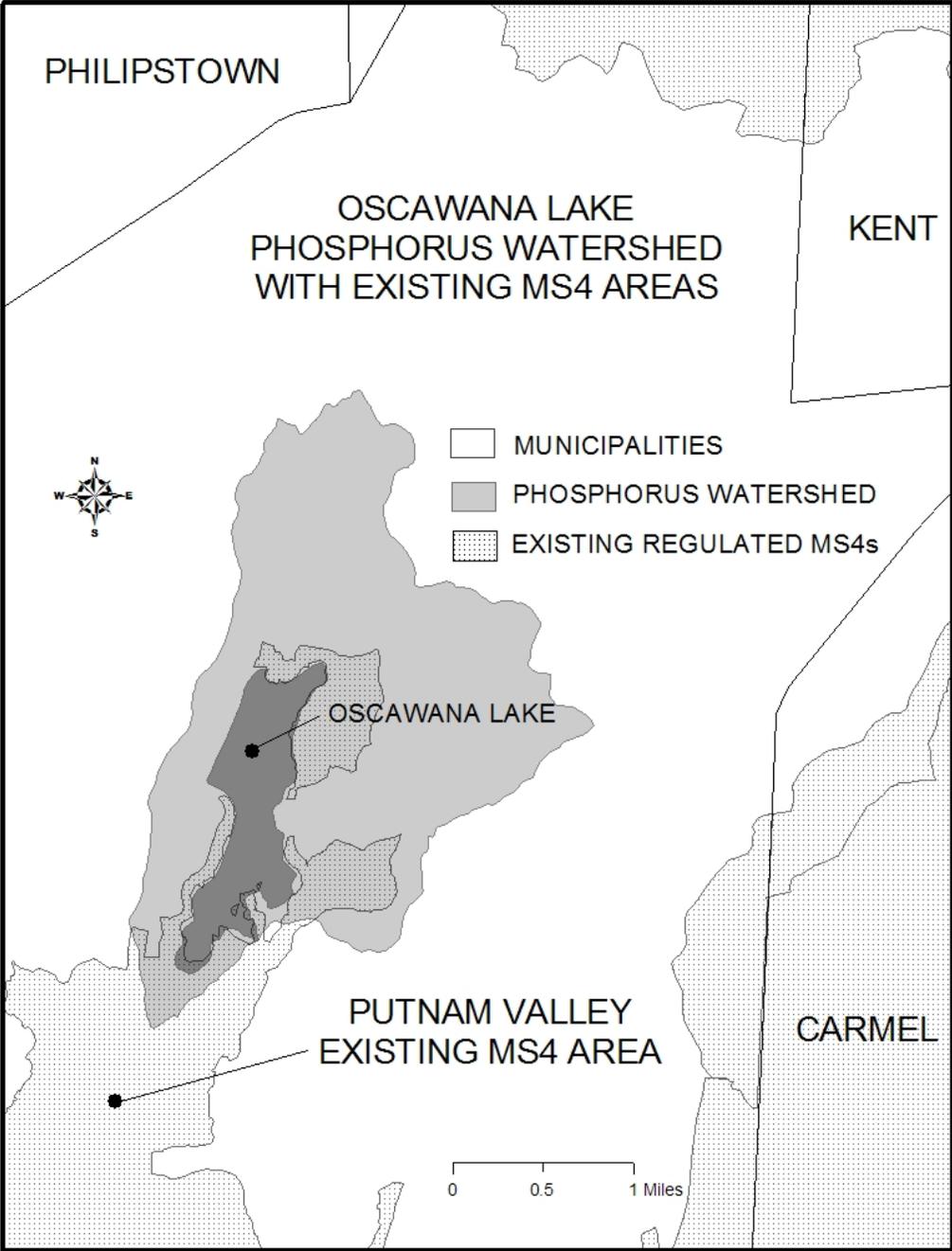


Figure 8. The requirements of watershed improvement strategies apply to the sewersheds within the shaded areas.

Appendix D:
Completed Annual Reports

MS4 Annual Report Cover Page

MCC form for period ending March 9, 2 0 1 1

This cover page must be completed by the report preparer.
Joint reports require only one cover page.

SPDES ID
N Y R 2 0 A 1 3 6

Choose one:

- This report is being submitted on behalf of an individual MS4.

Fill in SPDES ID in upper right hand corner.

Name of MS4

U S A R M Y G A R R I S O N F O R T H A M I L T O N

OR

- This report is being submitted on behalf of a Single Entity

(Per Part ILE of GP-0-10-002)

Name of Single Entity

[Empty grid for Name of Single Entity]

OR

- This is a joint report being submitted on behalf of a coalition.

Provide SPDES ID of each permitted MS4 included in this report. Use page 2 if needed.

Name of Coalition

[Empty grid for Name of Coalition]

SPDES ID
N Y R 2 0 A

MS4 Municipal Compliance Certification (MCC) Form

MCC form for period ending March 9, 2011

Name of MS4

SPDES ID

Section 3 - Partner Information

Did your MS4 work with partners/coalition to complete some or all permit requirements during this reporting period? Yes No

If Yes, complete information below.

Submit a separate sheet for each partner. Information provided in other formats will not be accepted. If your MS4 cooperated with a coalition, submit one sheet with the name of the coalition. It is not necessary to include a separate sheet for each MS4 in the coalition.

If No, proceed to Section 4 - Certification Statement.

Partner/Coalition Name

Partner/Coalition Name (con't.)

SPDES Partner ID - If applicable

Address

City

State

Zip

-

eMail

Phone

() -

Legally Binding Agreement in accordance with GP-0-08-002 Part IV.G.? Yes No

What tasks/responsibilities are shared with this partner (e.g. MM1 School Programs or Multiple Tasks)?

- MM1
- MM2
- MM3
- MM4
- MM5
- MM6

Additional tasks/responsibilities

- Watershed Improvement Strategy Best Management Practices* required for MS4s in impaired watersheds included in GP-0-08-002 Part IX.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

2	0	1	1
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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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4. Evaluating Progress Toward Measurable Goals MCM 1

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMPP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMPP in this reporting period.

Resident and community awareness

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

Information on stormwater pollution prevention was added to the Fort Hamilton website. Based on statistics on the number of visits to the page, there were 30 visits. An article on storm drains was put in the internal garrison newsletter that was e-mailed to everyone on the garrison. All of the catch basins outside of the housing area were stenciled.

C. How many times was this observation measured or evaluated in this reporting period?

		1	5
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(ex.: samples/participants/events)

D. Has your MS4 made progress toward this Measurable Goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMPP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

Continue to have awareness/information given to the garrison through the Newcomers Briefing, stenciling, articles, Town Hall meetings, and web page.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9, 2011

If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

SPDES ID
NYR20A136

Name of MS4/Coalition US ARMY GARRISON FORT HAMILTON

3. Where can the public access copies of this annual report, Stormwater Management Program SWMP) Plan and submit comments on those documents?

Enter address/contact info and select radio button to indicate which document is available and whether comments may be submitted at that location. Submit additional pages as needed.

MS4/Coalition Office Annual Report SWMP Plan Comments

Department
DPW ENVIRONMENTAL DIVISION

Address
129 WAINWRIGHT DRIVE

City BROOKLYN NY Zip
11252 - 6800

Phone
(718) 630 - 4485

Library Annual Report SWMP Plan Comments

Address
404 STERLING DRIVE

City BROOKLYN NY Zip
11252 - 6800

Phone
(718) 630 - 4875

Other Annual Report SWMP Plan Comments

Address
137C POLY PLACE, SUITE 2A

City BROOKLYN NY Zip
11252 -

Phone
(718) 630 - 4203

Web Page URL: Annual Report SWMP Plan Comments

Please provide specific address of page where report can be accessed - not home page.

eMail Comments

PETER . KOUTROUBIS @ US . ARMY . MIL

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

2	0	1	1
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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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4.a. If this report was made available on the internet, what date was it posted?

Leave blank if this report was not posted on the internet.

		/			/				
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4.b. For how many days was/will this report be posted?

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If submitting a report for single MS4, answer 5.a.. If submitting a joint report, answer 5.b..

5.a. Was an Annual Report public meeting held in this reporting period?

Yes No

If Yes, what was the date of the meeting?

		/			/				
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If No, is one planned?

Yes No

5.b. Was an Annual Report public meeting held for all MS4s contributing to this report during this reporting period?

Yes No

If No, is one planned for each?

Yes No

6. Were comments received during this reporting period?

Yes No

If Yes, attach comments, responses and changes made to SWMP in response to comments to this report.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

2	0	1	1
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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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7. Evaluating Progress Toward Measurable Goals MCM 2

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMPP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMPP in this reporting period.

Public participation through Town-hall meetings.

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

This was not effective because the presentation for comment was not presented due to disagreements on who should present the material.

C. How many times was this observation measured or evaluated in this reporting period?

			2
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(ex.: samples/participants/events)

D. Has your MS4 made progress toward this measurable goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMPP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

Increase public participation. Had several meetings with the Housing Division and Balfour Beatty Communities. The Housing Division is planning to increase their workload through increased oversight of Balfour Beatty Communities. A schedule has not been submitted by Balfour Beatty Communities yet.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US	ARMY	GARRISON	FORT	HAMILTON
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SPDES ID

N	Y	R	2	0	A	1	3	6
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12. Evaluating Progress Toward Measurable Goals MCM 3

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMP in this reporting period.

No illicit discharges.

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

The last manhole before each out-fall (outside of the housing area) was checked monthly for flow during dry days and checked for signs of illicit discharge. No illicit discharge observed.

C. How many times was this observation measured or evaluated in this reporting period?

		1	1
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(ex.: samples/participants/events)

D. Has your MS4 made progress toward this measurable goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

Continue to check the manholes outside housing and have the housing area out-fall manhole checked as well by Balfour Beatty Communities.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

2	0	1	1
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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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Minimum Control Measures 4 and 5.
Construction Site and Post-Construction Control

The information in this section is being reported (check one):

- On behalf of an individual MS4
 On behalf of a coalition

How many MS4s contributed to this report?

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1a. Has each MS4 contributing to this report adopted a law, ordinance or other regulatory mechanism that provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities? Yes No

1b. Has each Town, City and/or Village contributing to this report documented that the law is equivalent to a NYSDEC Sample Local Law for Stormwater Management and Erosion and Sediment Control through either an attorney certification or using the NYSDEC Gap Analysis Workbook? Yes No NT

If Yes, Towns, Cities and Villages provide date of equivalent NYS Sample Local Law.

09/2004 03/2006 NT

2. Does your MS4/Coalition have a SWPPP review procedure in place? Yes No

3. How many Construction Stormwater Pollution Prevention Plans (SWPPPs) have been reviewed in this reporting period?

		0
--	--	---

4. Does your MS4/Coalition have a mechanism for receipt and consideration of public comments related to construction SWPPPs? Yes No NT

If Yes, how many public comments were received during this reporting period?

		0
--	--	---

5. Does your MS4/Coalition provide education and training for contractors about the local SWPPP process? Yes No

6. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:

- | | | | | | | | | | |
|--|---|---|--|--|--|--|--|--|---|
| <input type="radio"/> Notices of Violation | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Stop Work Orders | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Criminal Actions | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Termination of Contracts | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Administrative Fines | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Civil Penalties | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Administrative Orders | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Enforcement Actions or Sanctions | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input type="radio"/> No Authority |
| | | | | | | | | | |
| <input type="radio"/> Other | # | <table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table> | | | | | | | <input checked="" type="radio"/> No Authority |
| | | | | | | | | | |

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

2	0	1	1
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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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Minimum Control Measure 4. Construction Site Stormwater Runoff Control

The information in this section is being reported (check one):

- On behalf of an individual MS4
- On behalf of a coalition

How many MS4s contributed to this report?

--	--	--

1. How many construction projects have been authorized for disturbances of one acre or more during this reporting period?

		0
--	--	---

 2. How many construction projects disturbing at least one acre were active in your jurisdiction during this reporting period?

		0
--	--	---

 3. What percent of active construction sites were inspected during this reporting period? NT

--	--	--

 %

 4. What percent of active construction sites were inspected more than once? NT

--	--	--

 %

 5. Do all inspectors working on behalf of the MS4s contributing to this report use the NYS Construction Stormwater Inspection Manual? Yes No NT

 6. Does your MS4/Coalition provide public access to Stormwater Pollution Prevention Plans (SWPPPs) of construction projects that are subject to MS4 review and approval? Yes No NT
- If your MS4 is Non-Traditional, are SWPPPs of construction projects made available for public review? Yes No

If Yes, use the following page to identify location(s) where SWPPPs can be accessed.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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7. Evaluating Progress Toward Measurable Goals MCM 4

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMPP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMPP in this reporting period.

100% of projects screened by the environmental division.

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

All projects are now screened by the environmental division through a form 4283.

C. How many times was this observation measured or evaluated in this reporting period?

			1
--	--	--	---

(ex.: samples/participants/events)

D. Has your MS4 made progress toward this measurable goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMPP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

No activities are planned at this time.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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4a. Are the MS4s contributing to this report involved in a regional/watershed wide planning effort?
 Yes No

4b. Does the MS4 have a banking and credit system for stormwater management practices?
 Yes No

4c. Do the SWMP Plans for each MS4 contributing to this report include a protocol for evaluation and approval of banking and credit of alternative siting of a stormwater management practice?
 Yes No

4d. How many stormwater management practices have been implemented as part of this system in this reporting period?

		3
--	--	---

5. What percent of municipal officials/MS4 staff responsible for program implementation attended training on Low Impace Development (LID), Better Site Design (BSD) and other Green Infrastructure principles in this reporting period?

		0
--	--	---

 %

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US	ARMY	GARRISON	FORT	HAMILTON
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SPDES ID

N	Y	R	2	0	A	1	3	6
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6. Evaluating Progress Toward Measurable Goals MCM 5

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMPP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMPP in this reporting period.

Balfour Beatty conduct some form of outreach/education for their residents. Balfour Beatty submit inspection documents on SWPP maintenance.

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

Balfour Beatty cleaned out the hydrodynamic separator and flushed the stormwater lines in housing. A power point briefing, handouts, a catch basin stencil, and games to educate people on storm water were submitted to Balfour Beatty to educate all those in housing. However, housing outreach or education was not effective because Balfour Beatty did not conduct any education or outreach.

C. How many times was this observation measured or evaluated in this reporting period?

			3
--	--	--	---

(ex.: samples/participants/events)

D. Has your MS4 made progress toward this measurable goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMPP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

It is planned to have Balfour Beatty Communities conducts the MCMs and submit the documentation showing completion. The Housing Division is planning to increase their workload through increased oversight of Balfour Beatty Communities. A schedule has not been submitted by Balfour Beatty Communities yet.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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Minimum Control Measure 6. Stormwater Management for Municipal Operations

The information in this section is being reported (check one):

- On behalf of an individual MS4
- On behalf of a coalition

How many MS4s contributed to this report?

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1. Choose/list each municipal operation/facility that contributes or may potentially contribute Pollutants of Concern to the MS4 system. For each operation/facility indicate whether the operation/facility has been addressed in the MS4's/Coalition's Stormwater Management Program(SWMP) Plan and whether a self-assessment has been performed during the reporting period. A self-assessment is performed to: 1) determine the sources of pollutants potentially generated by the permittee's operations and facilities; 2) evaluate the effectiveness of existing programs and 3) identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it's not done already.

<u>Operation/Activity/Facility</u>	<u>Self-Assessment</u> <u>Operation/Activity/Facility</u> <u>performed within the past 3</u> <u>years?</u>			
	<u>Addressed in SWMP?</u>			
	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input type="radio"/> No
Street Maintenance.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Bridge Maintenance.....	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Winter Road Maintenance.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Salt Storage.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Solid Waste Management.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
New Municipal Construction and Land Disturbance..	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Right of Way Maintenance.....	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Marine Operations.....	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Hydrologic Habitat Modification.....	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Parks and Open Space.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Municipal Building.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Stormwater System Maintenance.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Vehicle and Fleet Maintenance.....	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Other.....	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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7. Evaluating Progress Toward Measurable Goals MCM 6

Use this page to report on your progress and project plans toward achieving measurable goals identified in your Stormwater Management Program Plan (SWMP), including requirements in Part III.C.1. Submit additional pages as needed.

A. Briefly summarize the Measurable Goal identified in the SWMP in this reporting period.

No discharge of pollutants.

B. Briefly summarize the observations that indicated the overall effectiveness of this Measurable Goal.

The stormwater lines were flushed in the areas outside of housing. Monthly inspections of the last manhole prior to the out-fall indicated no discharge of pollutants. Stenciling of catch basins completed. Street sweeping done weekly.

C. How many times was this observation measured or evaluated in this reporting period?

		1	1
--	--	---	---

(ex.: samples/participants/events)

D. Has your MS4 made progress toward this measurable goal during this reporting period?

Yes No

E. Is your MS4 on schedule to meet the deadline set forth in the SWMP?

Yes No

F. Briefly summarize the stormwater activities planned to meet the goals of this MCM during the next reporting cycle (including an implementation schedule).

Continue to sweep streets, stencil catch basins (as needed), flush the lines and monitor the discharge to the out-falls.

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9, 2011

If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N Y R 2 0 A 1 3 6

Additional Watershed Improvement Strategy Best Management Practices

The information in this section is being reported (check one):

- On behalf of an individual MS4
 On behalf of a coalition

How many MS4s contributed to this report?

MS4s must answer the questions or check NA as indicated in the table below.

MS4 Description	Answer	Check NA	(POC)
NYC EOH Watershed	-	-	-
Traditional Land Use	1,2,3,4,5,6,7a-d,8a,8b,9	10,11,12	Phosphorus
Traditional Non-Land Use	1,2,3,4,7a-d,8a,8b,9	5,10,11,12	Phosphorus
Non-Traditional	1,2,7a-d,8a,8b,9	3,4,5,10,11,12	Phosphorus
Onondaga Lake Watershed	-	-	-
Traditional Land Use	1,6,7a-d,8a,9	2,3,4,5,8b,10,11,12	Phosphorus
Traditional Non-Land Use	1,6,7a-d,8a,9	2,3,4,5,8b,10,11,12	Phosphorus
Non-Traditional	1,6,7a-d,8a,9	2,3,4,5,8b,10,11,12	Phosphorus
Greenwood Lake Watershed	-	-	-
Traditional Land Use	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
Traditional Non-Land Use	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
Non-Traditional	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
Oyster Bay	-	-	-
Traditional Land Use	1,4,7a-d,9,10,11,12	2,3,5,6,8a,8b	Pathogens
Traditional Non-Land Use	1,4,7a-d,9,10,11,12	2,3,5,6,8a,8b	Pathogens
Non-Traditional	1,4,7a-d,9	2,3,4,5,8a,8b,10,11,12	Pathogens
Peconic Estuary	-	-	-
Traditional Land Use	1,4,7a-d,8a,9,10,11,12	2,3,5,6,8b	Pathogens and Nitrogen
Traditional Non-Land Use	1,4,7a-d,8a,9,10,11,12	2,3,5,6,8b	Pathogens and Nitrogen
Non-Traditional	1,4,7a-d,8a,9	2,3,4,5,8b,10,11,12	Pathogens and Nitrogen
Oscawana Lake Watershed	-	-	-
Traditional Land Use	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
Traditional Non-Land Use	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
Non-Traditional	1,4,6,7a-d,8a,9	2,3,5,8b,10,11,12	Phosphorus
LI 27 Embayments	-	-	-
Traditional Land Use	1,2,3,4,7a-d,9,10,11,12	5,6,8a,8b	Pathogens
Traditional Non-Land Use	1,2,3,4,7a-d,9,10,11,12	5,6,8a,8b	Pathogens
Non-Traditional	1,2,3,4,7a-d,9	5,6,8a,8b,10,11,12	Pathogens

1. Does your MS4/Coalition have an education program addressing impacts of phosphorus/nitrogen/pathogens on waterbodies? Yes No N/A

2. Has 100% of the MS4/Coalition conveyance system been mapped in GIS? Yes No N/A

If N/A, go to question 3.

If No, estimate what percentage of the conveyance system has been mapped so far.

 %

Estimate what percentage was mapped in this reporting period.

 %

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9,

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If submitting this form as part of a joint report on behalf of a coalition leave SPDES ID blank.

Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0	A	1	3	6
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3. Does your MS4/Coalition have a Stormwater Conveyance System (infrastructure) Inspection and Maintenance Plan Program? Yes No N/A

4. Estimate the percentage of on-site wastewater treatment systems that have been inspected and maintained or rehabilitated as necessary in this reporting period?

		0
--	--	---

 %

5. Has your MS4/Coalition developed a program that provides protection equivalent to the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001) to reduce pollutants in stormwater runoff from construction activities that disturb five thousand square feet or more? Yes No N/A

6. Has your MS4/Coalition developed a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre that provides equivalent protection to the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001), including the New York State Stormwater Design Manual Enhanced Phosphorus Removal Standards? Yes No N/A

7a. Does your MS4/Coalition have a retrofitting program to reduce erosion or phosphorus/nitrogen/pathogen loading? Yes No N/A

7b. How many projects have been sited in this reporting period?

		0
--	--	---

7c. What percent of the projects included in 7b have been completed in this reporting period?

--	--	--

 %

7d. What percent of projects planned in previous years have been completed?

--	--	--

 %
 No Projects Planned

8a. Has your MS4/Coalition developed and implemented a turf management practices and procedures policy that addresses proper fertilizer application on municipally owned lands? Yes No N/A

8b. Has your MS4/Coalition developed and implemented a turf management practices and procedures policy that addresses proper disposal of grass clippings and leaves from municipally owned lands? Yes No N/A

MS4 Annual Report Form

This report is being submitted for the reporting period ending March 9, 2 0 1 1

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Name of MS4/Coalition

US ARMY GARRISON FORT HAMILTON

SPDES ID

N	Y	R	2	0				
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9. Has your MS4/Coalition developed and implemented a program of native planting?
 Yes No N/A
10. Has your MS4/Coalition enacted a local law prohibiting pet waste on municipal properties and prohibiting goose feeding?
 Yes No N/A
11. Does your MS4/Coalition have a pet waste bag program?
 Yes No N/A
12. Does your MS4/Coalition have a program to manage goose populations?
 Yes No N/A

Appendix E:
Educational Materials

WHAT GOES DOWN YOUR DRAIN?

What are fats?

Cooking oil, shortening, butter, margarine, meat fat, lard, food scraps, dairy products, and sauces.

Fat and grease causes:

- ◆ Clogged pipes.
- ◆ Sewer overflows into streams.
- ◆ Sewer back-ups into homes and streets.

Tips for proper disposal:

- ◆ Do not put fat and grease in drains or disposals!
- ◆ Instead, trash it.
- ◆ and...use sink strainers in food prep areas.

For further information, contact the Fort Hamilton environmental office, at (718) 630-4485.

*Keep your
drain clean
for those
downstream*

Improving Storm Water Quality



Automobile Maintenance and Car Care - Tips for the Homeowner

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Oil and grease can destroy fish gills and block oxygen from the fish, while other chemicals can have toxic effects.

Routine automobile maintenance can pollute streams, ponds, and rivers. This occurs when washing vehicles or if oil or other vehicle fluids leak onto paved areas. Storm water runoff from paved areas (roads, driveways, and parking areas) carries contaminants into streams, ponds, and rivers, harming aquatic life. Oil and grease can destroy fish gills and block oxygen from the fish, while other chemicals can have toxic effects. Here are some maintenance tips that will reduce water pollution:

Fluid Maintenance

- ◆ Change your oil and other lubricants regularly.
- ◆ Identify leaking fluids and repair promptly.
- ◆ Use a funnel and drip pan to contain spills during fluid changes.
- ◆ Drop off used oil at the approved oil disposal facilities.
- ◆ Place drip pans under the spouts of liquid storage containers.

Cleaning

- ◆ Dry sweep garage floors instead of wet washing.

- ◆ Use nontoxic cleaning products, such as:
 - ◆ baking soda paste to clean battery terminals, chrome, wheels, and tires;
 - ◆ dishwashing soap or abrasive soap pads for tire cleaning; and
 - ◆ white vinegar with water to clean windows; dry with crumpled newspaper.

Vehicle Washing

- ◆ Wash vehicles at a car wash that recycles water, or use a bucket and sponge (not a running hose) near the combined sewers in of North West portion of Fort Hamilton.

Spills

- ◆ Prepare a spill cleanup kit for use in your garage.
- ◆ Clean up spills immediately, using kitty litter, sawdust, or cornmeal.
- ◆ Dispose of waste material properly; call the environmental office for instructions.

For further information, contact the Fort Hamilton environmental office, at (718) 630-4485.



Improving Storm Water Quality

ONLY RAIN IN THE STORM DRAIN

Car Care and Storm Water Quality

Tips to reduce water
pollution:

- ◆ Use drip pans.
- ◆ Recycle used oil.
- ◆ Clean up spills.
- ◆ Repair leaks.
- ◆ Use a car wash,
not your driveway.

For further information,
contact the Fort Hamilton
environmental office, at
(718) 630-4485.

*Keep the storm
drains clean
for those
downstream*

Improving Storm Water Quality



ARE YOU CLEANING UP AFTER YOUR PET?

Pet Waste and Storm Water Quality

Pet waste can:

- ◆ Enter streams and rivers during storms.
- ◆ Harm fish and degrade water quality.
- ◆ Transmit diseases to children.
- ◆ Make recreational water unsafe.

Tips for proper disposal:

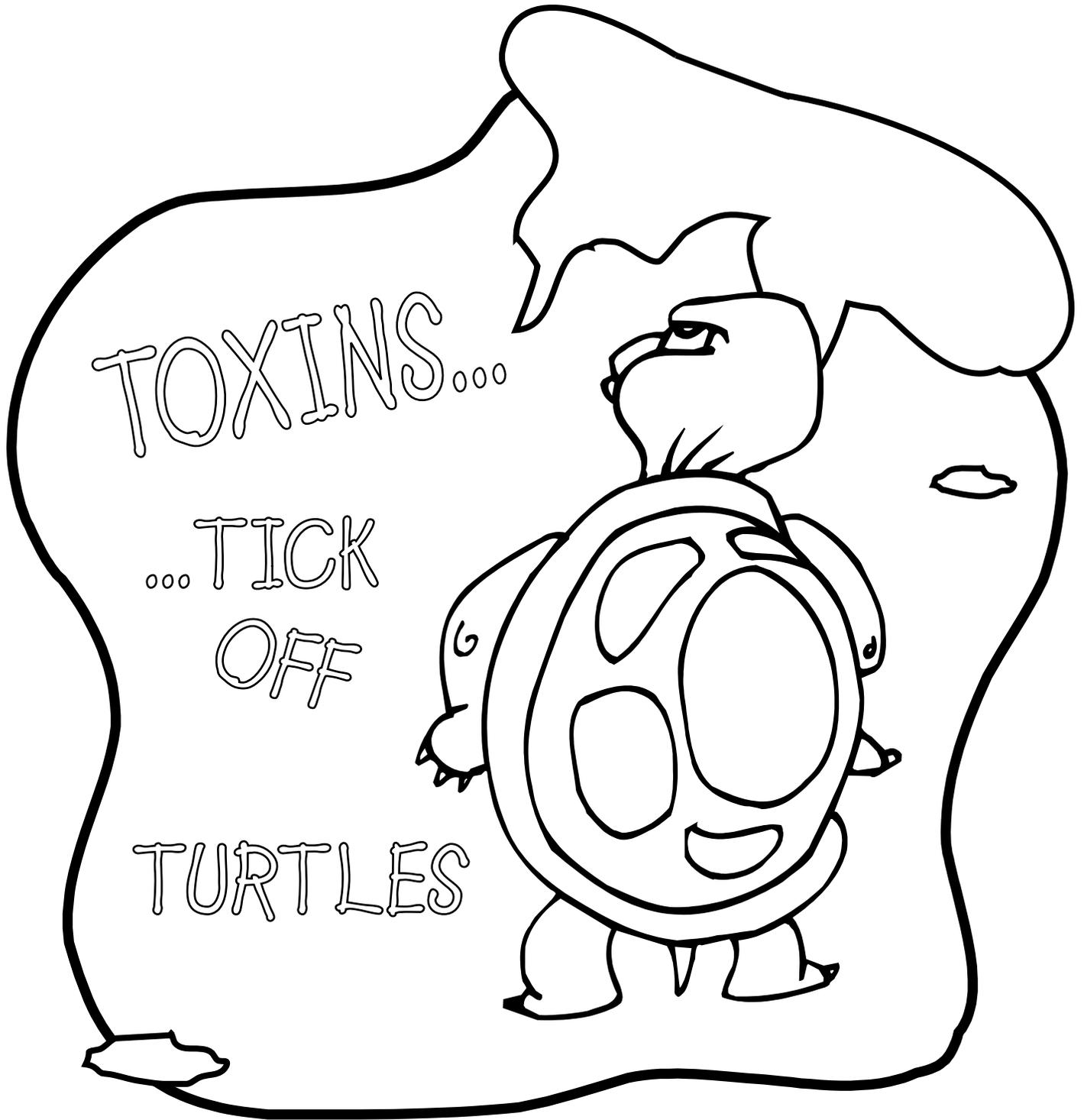
- ◆ Flush it.
- ◆ Trash it.

For further information, contact the Fort Hamilton environmental office, at (718) 630-4485

Keep the storm drains clean for those downstream

Improving Storm Water Quality





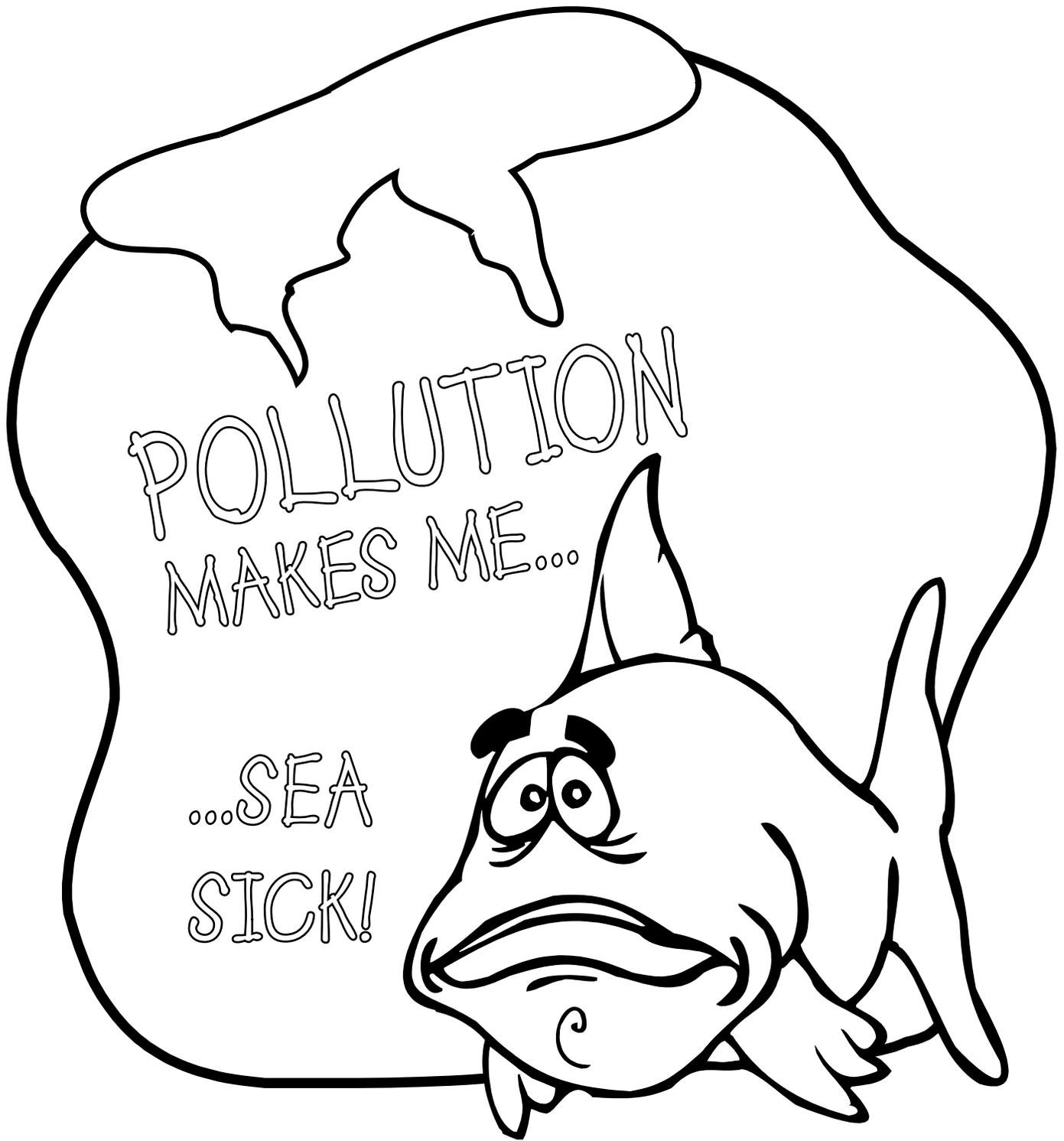
You are the solution to storm water pollution... Don't pollute!

For further information, contact the Fort Hamilton
environmental office at (718)630-4485



Don't pollute.. Keep storm drains clean for those downstream!

For further information, contact the Fort Hamilton
environmental office at (718)630-4485



Only rain water in storm drains... Don't pollute!

For further information, contact the Fort Hamilton
environmental office at (718)630-4485

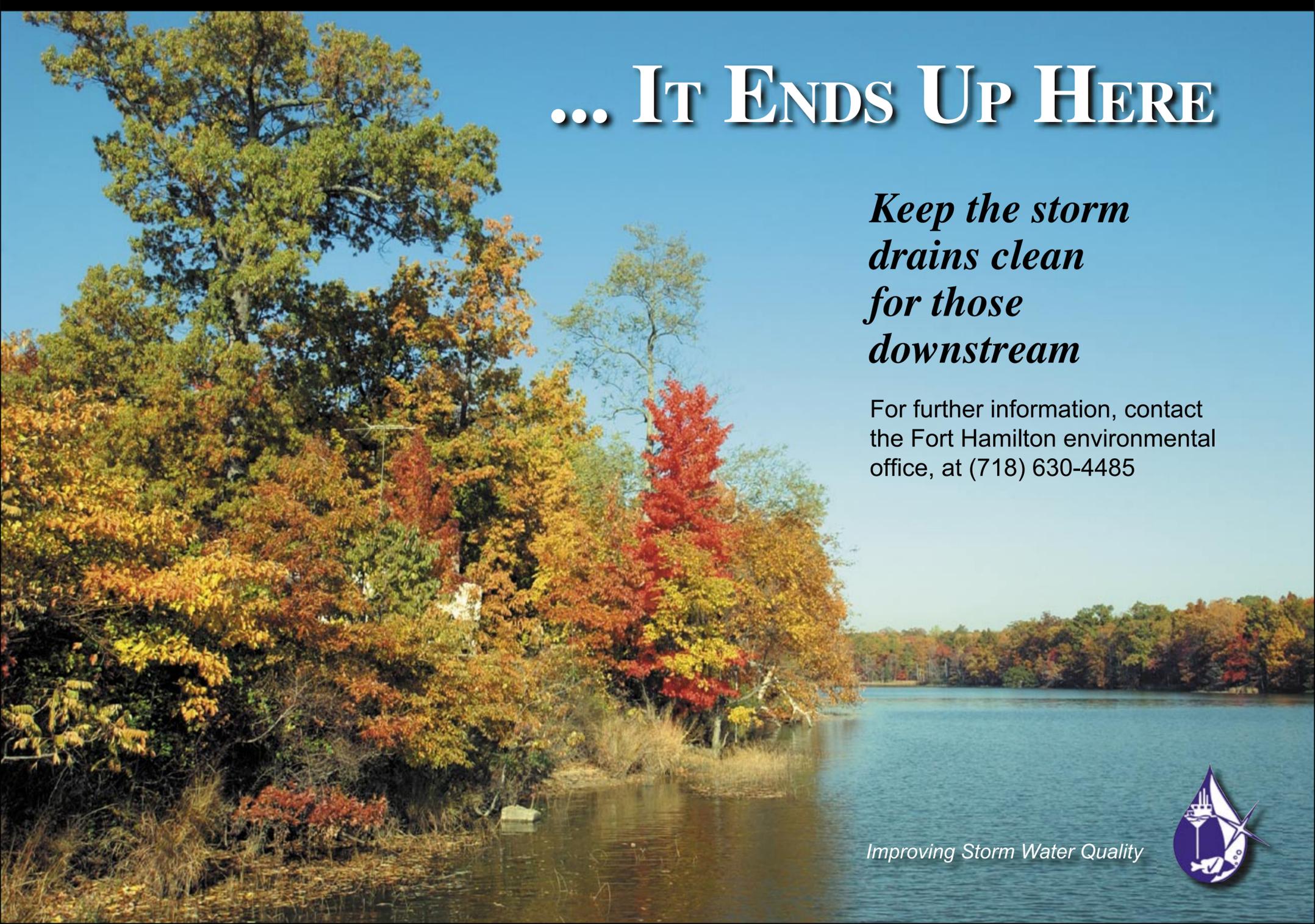
DON'T DUMP HERE...



... IT ENDS UP HERE

*Keep the storm
drains clean
for those
downstream*

For further information, contact
the Fort Hamilton environmental
office, at (718) 630-4485



Improving Storm Water Quality



Fatty Sewers – Tips on Preventing Sewer Overflows

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Much like eating greasy foods can clog your arteries, grease in drains can clog your pipes, with potentially costly results.

Fats, oils and greases in the installation's sewers are a major problem. Preventing this problem is easy and is a top priority for the installation community.

How Do Pipes Get Clogged?

Grease is washed down drains in homes and restaurants during food preparation and cleaning. The grease comes from meat fat, lard, cooking oil, shortening, butter, margarine, food scraps, dairy products, and sauces. When washed down the drain, grease adheres to the sewer pipes in the streets and in your home. Much like eating greasy foods can clog your arteries, grease in drains can clog your pipes, with potentially costly results.

What Happens When Pipes Clog?

Blocked sewer mains can force raw sewage into your home or neighboring homes, damaging the interiors and causing health concerns. Some blockages cause raw sewage to overflow into streams, storm ditches, streets, yards, and other areas. Contact with untreated wastewaters can cause infection and disease. In addition, this kind of incident can damage the environment and subject the installation to legal action and fines. This can also increase DPW maintenance costs - an unnecessary burden on the installation budget.

How the Homeowner Can Help Prevent Sewer Overflows

- ◆ Do not put fats and greases down your drains, toilets, or disposals!
- ◆ Store waste grease, meat fats, lard, cooking oil, shortening, butter, margarine, food scraps, dairy products, and fatty sauces in containers for trash disposal.
- ◆ Use a sink strainer to prevent food scraps and other items from entering the drain.
- ◆ Reduce the use of highly saturated fats (those which are solid at room temperature).

How Restaurant Owners Can Help

- ◆ Ensure that all kitchen sinks have grease traps.
- ◆ Ensure grease traps are properly sized, installed, and maintained.
- ◆ Clean grease traps regularly, in coordination with the installation environmental office.

For further information, contact the Fort Hamilton environmental office, at (718)630-4485.



Lawn Care, Fertilizer and Water Pollution

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Natural methods of lawn care in conjunction with chemicals can produce a healthy lawn and protect water quality.

The overuse of lawn fertilizers and weed killers can harm streams, rivers, and ponds. Sole reliance on chemicals is no longer recommended for maintaining a beautiful lawn. Instead, natural methods of lawn care in conjunction with chemicals can produce a healthy lawn and protect water quality. Certain grasses can filter pollutants (fertilizers, herbicides, sediment) and some types can control weeds while requiring less fertilizer and water. Here are some tips:

Mowing

- ◆ Don't mow too close to the ground; taller grass produces deeper roots and controls weeds.
- ◆ Practice "grasscycling", and leave clippings on the lawn to provide natural fertilization (do not blow them into ditches or streams).
- ◆ Do not mow wet grass; this causes clumping.
- ◆ Use composted yard waste as mulch and soil conditioner.

Fertilizers

Fertilizers contain nutrients (nitrogen and phosphorus) that can harm water quality by causing undesirable plants to grow in streams and ponds, blocking oxygen from the fish. Fertilizers high in nitrates (nitrogen) are more likely to enter streams because they are released more quickly. Here are some best management practices:

- ◆ Apply according to label directions. Do not apply fertilizer:
 - when the ground is frozen.
 - before or after heavy rain or irrigation
 - during cold weather (less than 55 degrees Fahrenheit).
 - directly into, or near, streams, ponds, or ditches.
- ◆ Minimize application rates on slopes.
- ◆ Use fertilizers labeled "slowly-available nitrogen" on sandy soils, since they are less likely to enter streams.
- ◆ Base fertilizer applications on a representative soil test that shows the amounts of nutrients in the soil, waiting three to four weeks after the last fertilization.
- ◆ Aerate compacted soil to aid incorporation of fertilizer and reduce runoff.
- ◆ Maintain a vegetated buffer zone between frequently fertilized lawns and streams to prevent pollution and provide uptake of nutrients.
- ◆ Water carefully to prevent runoff and leaching.
- ◆ Water in the early morning for optimal results.
- ◆ Follow local applicable water use restrictions.

For further information, contact the Fort Hamilton environmental office, at (718)630-4485.



Improving Storm Water Quality

Storm Water Program Frequently Asked Questions

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Storm drains are used for quickly diverting storm water away from urban areas to prevent flooding and water damage.

What is storm water?

Storm water is the runoff that occurs with natural precipitation such as rain or snowmelt.

What is a storm water inlet?

A storm water inlet can be a curbside opening or a grate that drains storm water from streets, yards, and sidewalks.

What is the difference between a sewer and a storm drain?

A sewer system is a collection of underground pipes that routes domestic sewage from homes and other buildings to a wastewater treatment plant. Storm sewers, on the other hand, are not usually routed to a treatment system. Instead, they convey runoff through open drainage ditches and underground pipes and empty directly to the ground, streams, or ponds.

What pollutants are found in the storm water?

Soil and dirt, trash and debris, cigarette butts, oil and grease, and metals are prevalent pollutants found in storm sewers. Storm drains are used for quickly diverting storm water away from urban areas to prevent flooding and water damage. However, when these pollutants are washed into streams, ponds, and rivers, water quality can be harmed. The following tips are useful in preventing water pollution.

Storm Water Pollution Prevention Tips:

Car Care

- ◆ Inspect your car for leaks.
- ◆ Repair leaks promptly.
- ◆ Recycle used oil and filters at certified oil disposal facilities.
- ◆ Use drip pans and funnels when changing fluids.
- ◆ Dry sweep floors instead of wet washing.
- ◆ Wash cars with a bucket and sponge near non-stenciled storm drains.

Spills

- ◆ Keep a spill kit in your garage.
- ◆ Clean up spills immediately.
- ◆ Properly dispose of waste material.
- ◆ Do not rinse the spill area with water.

Pet Waste

- ◆ Clean up after your pet.
- ◆ Dispose of pet waste by flushing or trashing.

Drains

Avoid sewer backups with these tips:

- ◆ Do not put fats down the drain.
- ◆ Containerize fats for trash disposal.
- ◆ Use sink strainers.

Lawn Care

- ◆ Follow label directions.
- ◆ Buy only amounts of lawn chemical needed for the job.
- ◆ Determine application area and mix only the amount needed.
- ◆ Spot treat when possible.



Improving Storm Water Quality

Yard waste

- ◆ Promptly pick up leaves, pruned limbs, and other yard waste from your sidewalks, lawn, and driveway.
- ◆ Compost or mulch yard waste, or take to special drop off for yard waste.
- ◆ If other options not available, bag yard waste for proper disposal. Do not blow grass clippings or leaves into ditches or streams.

Storage

- ◆ Store chemicals in locked storage areas.
- ◆ Store pesticides, herbicides, and fertilizers in original labeled containers.
- ◆ Store like chemicals together.
- ◆ Keep containers tightly closed.
- ◆ Do not flush hazardous items down the drain.
- ◆ Tightly seal paint cans and store upside-down to allow a seal to form around the lid.

Household hazardous waste

- ◆ Notify installation personnel of any hazardous waste that is in need of disposal.

- ◆ Do not pour hazardous products on the ground or into gutters or storm drains.
- ◆ Donate usable paint, solvents, automotive fluids, pesticides, fertilizers, and cleaning products for reuse.
- ◆ Use nontoxic (or less toxic) alternatives when possible.

Improving Storm Water Quality

- ◆ Prevents water pollution.
- ◆ Improves fishing and boating.
- ◆ Maintains recreational swimming areas.
- ◆ Prevents diseases from contaminated seafood and swimming in contaminated water.
- ◆ Preserves natural beauty of streams, rivers, ponds, and lakes.

Reduce, Reuse, Recycle!

Keep the Storm Drains Clean For Those Downstream

For further information, contact the Fort Hamilton environmental office, at (718)630-4485.



Household Hazardous Waste – Preventing Water Pollution

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Proper storage, material substitution, and minimizing the disposal of hazardous products can help protect water quality.

Many home products contain chemical ingredients that can harm people, streams, ponds, and rivers. Common household products such as oven cleaners, paint and paint removers, automobile fluids, pesticides, solvents, and drain cleaners should not be disposed of with regular garbage.

Household Hazardous Wastes and Water Quality

If this kind of waste is deposited in household garbage, the chemicals can damage landfill liners, and, in turn, leak into water-sources. Proper storage, material substitution, and minimizing the disposal of hazardous products can help protect water quality.

Proper Storage, Handling, and Disposal

- ◆ Tightly seal paint cans and store upside-down to allow a seal to form around the lid.
- ◆ Store pesticides in a separate, dry area in original, labeled containers.
- ◆ Do not flush hazardous items down the drain. This can damage home septic systems or wastewater treatment plants, and pollute surface and ground waters.
- ◆ Do not pour hazardous products on the ground or into gutters or storm drains. Storm gutters and storm drainage systems generally lead directly to local streams, rivers, and ponds.

- ◆ Recycle used oil filters only at certified oil disposal or recycling facilities.
- ◆ Turn in household hazardous waste on special pickup days regularly scheduled by the installation environmental office.

Hazardous Product Minimizations

- ◆ Purchase only the amount necessary for the job at hand.
- ◆ Donate usable paint, solvents, automotive fluids, pesticides, fertilizers, and cleaning products for reuse.
- ◆ Use nontoxic (or less toxic) alternatives when possible.

Alternative Products

Many alternative products offer the same benefits as their toxic counterparts. Here are some suggestions:

- ◆ Clean ovens by applying table salt to spills and scrubbing with soda water.
- ◆ Make a nontoxic multipurpose cleaner by combining a cup of baking soda with a cup of white vinegar and a cup of ammonia in a gallon of warm water.
- ◆ Substitute propylene glycol antifreeze for ethylene glycol.

For further information, contact the Fort Hamilton environmental office, at (718)630-4485.



Improving Storm Water Quality

Lawn care – Pesticide Use and Preventing Water Pollution

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Sole reliance on chemicals is no longer recommended for pest control because of increased costs, pesticide resistance, and the potential for water pollution.

Sole reliance on chemicals is no longer recommended for pest control because of increased costs, pesticide resistance, and the potential for water pollution. Here are some tips for pesticide selection, storage, use, and disposal:

Pesticide Selection and Use Tips

- ◆ Follow label directions.
- ◆ Buy only the amount needed for the task at hand.
- ◆ Use pesticides that have a low pesticide leaching potential (PLP) index (where 0 is very low and 100 is very high leaching potential) - since they are less likely to move into groundwater or streams.
- ◆ Determine the application area and mix only the quantity of pesticide needed.
- ◆ Spot treat whenever possible.
- ◆ Mix the pesticide and load the spreader or sprayer in areas where spills may be contained.
- ◆ Do not mix, apply, or dispose of chemicals within 100 feet of streams, ponds, or wells.
- ◆ Triple-rinse containers, pour rinsate into tank, and spray excess on turf area. Do not exceed label rates.

- ◆ Select grass species and varieties that are insect and disease resistant.

Storage

- ◆ Store all pesticides in locked storage areas.
- ◆ Store pesticides in original, labeled containers.
- ◆ Store like pesticides together. For example, store herbicides with herbicides and fungicides with fungicides - store flammables separately.
- ◆ Keep containers tightly closed.
- ◆ Inspect storage areas frequently for damaged containers and spills.

Spills

Spills can enter and harm streams, rivers, and ponds. Here are some tips:

- ◆ Locate and control the source.
- ◆ Keep a spill kit with kitty litter, shredded newspaper, or absorbent pillows or pads.
- ◆ Direct spills away from ditches, storm drains, ponds, or wells.
- ◆ Place contaminated material in plastic containers for proper disposal.

For further information, contact the Fort Hamilton environmental office, at (718)630-4485.



Appendix F:
Completed Outfall Reconnaissance Inventory Spreadsheets

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.):	Last 24 hours:	Last 48 hours:
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		°F	Thermometer	
pH		pH Units	Test strip/Probe	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? Yes No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint	<input type="checkbox"/> 2 – Easily detected	<input type="checkbox"/> 3 – Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint colors in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/> 1 – Slight cloudiness	<input type="checkbox"/> 2 – Cloudy	<input type="checkbox"/> 3 – Opaque
Floatables -Does Not Include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Few/slight; origin not obvious	<input type="checkbox"/> 2 – Some; indications of origin (e.g., possible suds or oil sheen)	<input type="checkbox"/> 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? Yes No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

<input type="checkbox"/> Unlikely <input type="checkbox"/> Potential (presence of two or more indicators) <input type="checkbox"/> Suspect (one or more indicators with a severity of 3) <input type="checkbox"/> Obvious

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool	
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Appendix G:
Construction Projects

Project Name	Location	Acreage Disturbed	Planned Start Date	Planned Completion Date	Actual Completion Date