STORMWATER MANAGEMENT PLAN

Updated October 2015

SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems
GP-0-15-003

May 1, 2015 – April 30, 2017

Prepared for:
Buffalo Sewer Authority

Based on:
MODEL STORMWATER MANAGEMENT PLAN
By: Western New York Stormwater Coalition

STORMWATER MANAGEMENT PROGRAM PLAN

TABLE OF CONTENTS

TABLE OF CONTENTS

STORMWATER MANAGEMENT PROGRAM

PLAN TABLE OF CONTENTS

BUFFALO SEWER AUTHORITY
STORMWATER MANAGEMENT PROGRAM

REFERENCE GUIDE

1. **To report stormwater related violations contact:**
   Buffalo Sewer Authority Stormwater Management Officer:
   Name: Rosaleen B. Nogle, P.E.
   Phone: 716-851-4664
   E-Mail: rnogle@sa.ci.buffalo.ny.us
   Location: Room 1038 City Hall 65 Niagara Square, Buffalo, NY 14202

2. **Pollutants of Concern:** Pathogens, Floatables, Phosphorous

3. **Number of Stormwater Outfalls:**
   Buffalo Sewer Authority: 56
   Frequency of Inspection: Visual Inspections every 5 years or less

4. **Municipal Facilities Affected by the SWMP:** Total
   Buffalo Sewer Authority: 1Total
   Bird Island WWTP: Foot of West Ferry, 90 West Ferry, Buffalo, NY 14213
   Responsible Party: Treatment Plant Administration
   Name: Roberta L. Gaiek, P.E., Treatment Plant Administrator
   Phone: 716-851-4664
   Location: Bird Island WWTP, Foot of West Ferry, Buffalo, NY 14213

5. **Stormwater Pollution Prevention Plan (SWPPP) Review:**
   Responsible Party: Buffalo Sewer Authority, Engineering
   Name: Rosaleen B. Nogle, P.E.
   Phone: 716-851-4664
   Location: Room 1038 City Hall 65 Niagara Square, Buffalo, NY 14202

6. **Municipal Construction Site Inspection:**
   Responsible Party: Buffalo Sewer Authority, Engineering
   Name: Rosaleen B. Nogle, P.E.
   Phone: 716-851-4664
   Location: Room 1038 City Hall 65 Niagara Square, Buffalo, NY 14202

INTRODUCTION

The Western New York Stormwater Coalition (WNYSC) Stormwater Management Program (SWMP) Plan was developed to comply with the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) (Current Permit No. GP-0-15-003). The WNYSC provided their SWMP as a shared document of policy and management guidance for the regulated municipalities and agencies that are members of the Coalition.

The Buffalo Sewer Authority (BSA) is a member of the WNYSC and used their SWMP Plan as a basis for this Plan. The Model SWMP Plan written by the WNYSC has been modified to apply to the specific requirements for implementation by the BSA. Some components that do not apply or are optional have been eliminated and other components modified as necessary to agree with the BSA's Program.

The SWMP Plan is based on the most current NYSDEC SPDES General Permit (GP-0-15-003) issued under the Federal Stormwater Phase II rule (issued in 1999) which requires MS4 owners and operators, in U.S. Census-defined urbanized or other designated areas, to develop a SWMP Plan. There are six program elements designed to reduce the discharge of pollutants to the maximum extent practicable. The program elements, titled Minimum Control Measures, include:

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

Each Minimum Control Measure, the Measurable Goals and the Best Management Practices that have been implemented to maintain compliance with GP-0-15-003 are described in this SWMP Plan. For each Measurable Goal, responsibilities to achieve and sustain compliance are clearly defined. Portions of the work necessary are provided through the collective efforts of the WNYSC members. The remaining work is the responsibility of the BSA's and/or COB's designated Stormwater Management Officer or other designated person.

Certain components of this program have been codified into l BSA Sewer Use Regulations. Refer to the Provisions were added to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems. The BSA implemented changes to the BSA Sewer Use Regulations in 2007, 2009, 2013 and currently has changes pending.

This SWMP Plan will be updated on an annual basis in order to take into consideration the latest technologies and information to maintain compliance with the NYSDEC GP-0-15-003 General Permit.

GENERAL DEFINITIONS AND REQUIREMENTS

Best Management Practice (BMP) - means scheduled activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state.
BMPs also include treatment requirements (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.

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

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

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

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

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

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

Green Infrastructure - Green infrastructure approaches essentially infiltrate, evapotranspirate 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.

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

Illicit 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.

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

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

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.

Maximum Extent Practicable (MEP) – 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.

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

Minimum Control Measures (MCMs) – six program elements designed to reduce the discharge of pollutants to the maximum extent practicable.

Municipal Separate Storm Sewer System (MS4) - 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, Sewer Authority, 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 (NPDES) – means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

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

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

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

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.

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

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.

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

Pollutants of Concern (POC) - 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.

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

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:

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

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

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

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

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

6. Retrofit by converting abandoned buildings to stormwater treatment systems

7. Retrofit of abandoned building to open space

8. Retrofit road ditches to enhance open channel design

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

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

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

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

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

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 B such as for drinking, recreation, aquatic habitat, and industrial use B 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.

Sediment – material derived from the weathering of rock such as sand and soil. This material can be detrimental to aquatic life and habitats if an excessive amount flows into rivers and ponds.

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

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 Pollutant Discharge Elimination System (SPDES) - 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.

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

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

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

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

Stormwater Management Program (SWMP) - 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 (SWMP) 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 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.

Stormwater Pollution Prevention Plan (SWPPP) - A plan developed by a facility or entity to comply with the requirements of the NYSDEC General Permit for Construction Activities (GP-0-10-001).

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

Surface 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.

Total Maximum Daily Load (TMDL) – 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 waste load 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 BSA and City agency without land use control.

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

Urbanized Area (UA) - 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.

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

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

LIST OF COMMONLY USED ABBREVIATIONS

BMPs – Best Management Practices

CFR – Code of Federal Regulations

CWA – Clean Water Act

ECDEP – Erie BSA and City Department of Environment and Planning

ECL – Environmental Conservation Law

MCM – Minimum Control Measure

MEP – Maximum Extent Practicable

MS4 - Municipal Separate Storm Sewer System

NOI – Notice of Intent

NPDES – National Pollution Discharge Elimination System

NPS – Non-Point Source Pollutants

NYSDEC – New York State Department of Environmental Conservation

POC – Pollutant of Concern

SPDES – State Pollution Discharge Elimination System

SOP – Standard Operating Procedure

SWMP – Stormwater Management Program

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

UA – Urbanized Area

USACOE – United States Army Corps of Engineers

USEPA – United States Environmental Protection Agency

UST – Underground Storage Tank

WNYSC – Western New York Stormwater Coalition

1. PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

1.1 Description of Minimum Control Measure

The Public Education and Outreach minimum control measure consists of Best Management Practices (BMPs) that focus on the development of educational materials designed to inform the public about the impacts that stormwater discharges have on local water bodies. The educational materials contain specific actions as to how the public, as individuals or collectively as a group, can participate in reducing pollutants and their impact on the environment. As a traditional non-land use control MS4, the BSA Public Education and Outreach program and BMPs, in combination, are expected to reach BSA's target audience of employees, user population, visitors or contractors/developers. The target pollutant sources are pet waste at parks, waste from municipal operations, illicit discharges and local/regional Pollutants of Concern (POCs).

1.2 General Permit Requirements

An MS4 must, at a minimum:

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

b. Implement an ongoing public education and outreach program designed to describe:

    a. The impacts of stormwater discharges on waterbodies;
    b. POCs and their sources;
    c. Steps that contributors of these pollutants can take to reduce pollutants in stormwater runoff; and
    d. Steps contributors of non-stormwater discharges can take to reduce pollutants (non-stormwater discharges are listed below);

c. Educational materials may be made available at, locations including, but not limited to:
    a. at service areas, lobbies, or other locations where information is made available;
    b. at staff training;
    c. on covered entity's website;
    d. with pay checks; and
    e. in employee break rooms;

d. 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.

Non-stormwater discharges are defined in the MS4 Permit (GP-0-15-003) Part I.A.2 and include:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- Uncontaminated ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space and basement sump pumps
- Footing drains

- Lawn and landscaping watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer's product label
- Water from individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Residual street wash water
- Discharges or flows from fire fighting activities
- Dechlorinated water reservoir discharges
- Any SPDES permitted discharge

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

1.3 Methodology for Compliance with Permit Requirements

The WNYSC has developed many of the BMP's necessary for this MCM. These include brochures, posters, webpage, education packages, and display for community events. These BMP's will be updated by the WNYSC on an annual basis and made available to each MS4 that is a member of the WNYSC.

1.4 Best Management Practices

1.4.1 Identification of POCs, Waterbodies of Concern, Geographic Areas of Concern, Target Audiences

Description/Methodology

The WNYSC has identified the following for the region covered by the participating MS4s:

- POCs as targets for public education: sediment/silt, pathogens, floatables and phosphorus.
- Potential sources: urban runoff, failing septic systems, anderosion. Note: potential sources of POC
- Target audiences for the public education and outreach program: households; developers and contractors; and small businesses.

The public education materials developed by the WNYSC address these regional POCs, in some instances topically and in others incidentally.

The Buffalo Sewer Authority has identified the following for the areas involved in the BSA's individual MS4 program:

- POCs as targets for public education: floatables, oxygen demand, phosphorous and pathogens (based on 303 (d) for Scajaquada Creek, Lower, Middle and tributaries
- Potential sources: CSOs,urban runoff.
- Target audiences for the public education and outreach program: employees, user population and visitors.
- Geographic Areas of Concern: Areas that discharge to Scajaquada Creek and its tributaries.

Responsibility

WNYSC

- Annually provide additional brochures to local MS4s upon request.

- Annually provide additional brochures to businesses, schools, and the general public.

BSA Stormwater Management Officer

- Make brochures and displays available to the public at BSA offices
- Annually inventory existing stock of brochures and replenish as needed.
- Assist in the development of the Rain Check program to provide education to City of Buffalo residents and businesses regarding diverting rain water from the MS4 and CSS.

1.4.2 Distribution of Public Education Printed Materials

Description / Methodology

Development of printed public education materials to address stormwater pollution prevention for the general public, target businesses/activities, schools, and other target audiences is an ongoing activity of the WNYSC for the member MS4s, including the BSA. Thirteen brochures and two posters have been developed and are titled as follows:

- Automotive & Related Industries
- Construction Site Stormwater Runoff Control
- Concrete & Mortar Operations
- Roadwork & Paving
- Food & Restaurant Industries
- Pools, Fountains & Spas
- Mobile Cleaners: Carpet, Upholstery Cleaners, Janitorial Service Providers
- Hospitals, Medical Treatment Centers & Healthcare Facilities
- Pesticide Application, Lawn Care and Landscaping
- Household Guide to Preventing Stormwater Pollution
- Your Septic System: How It Functions & How to Care For It
- Pick Up Your Pet Waste (bookmark)
- Rain Gardens: A How-To Guide
- Pollution Begins and Ends with You (poster)
- Understanding Your Neighborhood Stormwater Retention Pond

Additional brochures to be developed will address the following topics:

- POCs and their sources
- Illicit discharges
- Erosion and sediment control

Brochures are most often distributed regionally at public outreach events, in public access areas of municipal buildings, at seminars/conferences, and via other educational programming. Regionally, posters are displayed in municipal buildings and public libraries.

The BSA distributes this information in City Hall in the BSA lobby, permit office or other areas in which information is generally available where the target audience is expected to encounter the materials. Printed materials are distributed to BSA permanent employees at the general employee training.

The brochures and posters are available on the WNYSC webpage along with information for businesses, municipalities, schools, and the general public to request or download the brochures directly. BSA provides a link to the WNYSC website where these materials are available.

Measurable Goals

WNYSC

- Distribute brochures at public outreach events.
- Distribute Household Guide and posters to all public libraries.
- Provide additional brochures and posters to businesses, schools, and the general public upon request.
- Update educational materials and distribute to MS4s.
- Maintain records of number of educational materials distributed.

BSA Stormwater Management Officer

- Annually inventory existing stock of brochures and replenish as needed.

.

Additional Information / Resources

Refer to the ECDEP website (http://www.erie.gov/environment/compliance/pollution_se2.asp) or Appendix for public education materials referenced above.

1.4.3 Maintain Stormwater Webpage

Description / Methodology

The Erie County Department of Environment and Planning hosts a webpage on behalf of the WNYSC to educate the public on the impacts of stormwater runoff on local waterbodies (www.erie.gov/stormwater). The WNYSC webpage addresses the following topics:

- Water quality impacts of stormwater runoff to local water bodies.
- Public education materials, instructional resources and BMP-related work products for each Minimum Control Measure.
- Stormwater contact information for each MS4 in the WNYSC (Municipal Reference Guide).

BSA hosts a webpage with information specific to the BSA's program (http://www.city-buffalo.com/Home/City_Departments/BSA/stormwater) The webpage provides the follow:

- General stormwater information.
- Information on BSA's SWMP.
- Contact information for the Stormwater Management Officer.
- The BSA Annual Report and SWMP Plan.
- Links to other websites including the NYSDEC and WNYSC web pages.

Additional Information / Resources

BSA also hosts a webpage specific to the RainCheck Buffalo stormwater retention program at http://raincheckbuffalo.org/.

Measurable Goals

WNYSC

Annually update and maintain the MS4 website as necessary relative to stormwater education. Post the SWMP on the BSA's website.

BSA Stormwater Management Officer

Annually update and maintain the website as necessary. Maintain a link from the BSA's site to the WNYSC website.

1.4.4 Distribute K-12 Education Packages

Description / Methodology

The WNYSC assembled an age appropriate K-12 Education Package for distribution to local educators in order to foster an early age respect for the environment. The packages include lesson plans and stormwater public education brochures as well as information pertaining to the environmental education services available to local educators regarding stormwater quality issues. Education materials are updated as necessary to maintain consistency with current standards and to reflect any input received from school administrators and teachers.

Measurable Goals

WNYSC

Annually update education materials and maintain records of the material distributed to each local school.

1.4.5 Displaying the Public Education Display and Plaque

Description / Methodology

A variety of public education displays, addressing general stormwater pollution prevention and rain gardens, have been developed for use by MS4's to satisfy their public outreach requirements. Each MS4 has a two sided banner display, a wall-mounted plaque and a brochure holder for the individual public education and outreach activities. Additional displays are prepared and maintained by the WNYSC. Among the displays available, there is a total of five different messages to convey. Printed public education materials, an Enviroscape watershed model, stormwater quiz cards, a prize wheel and promotional items (answering a quiz card successfully allows a spin on the wheel) augment the display and allow the regional target audiences to take the stormwater message home. Venues for the use of the display include: community events, municipal buildings, libraries, public meetings and employee trainings. The WNYSC sets up these displays throughout Erie and Niagara Counties.

Measurable Goals

WNYSC

- Conduct outreach and education at regional community events on behalf of WNYSC membership.
- Maintain records pertaining to DEP use of the public education display(s).

BSA Stormwater Management Officer

- Continue to partner with the WNYSC to fulfill regional public education goals.
- Partner with Buffalo Riverkeeper to provide additional stormwater educational resources to the general public and community groups.

1.4.6 Release Public Service Announcements/ Stormwater Video

Description / Methodology

The WNYSC created a short video and three public service announcements (PSAs) addressing stormwater pollution prevention efforts in the Western New York MS4 area. The video is for public education and outreach at events such as public meetings, in schools and where feasible, at community events. The video and PSAs will also be on the WNYSC webpage (www.erie.gov/stormwater).

Measurable Goals

WNYSC

- Post the video and PSAs on the WNYSC webpage.
- Use the video and PSAs at public meetings, in schools and at community events.
- Maintain records pertaining to DEP use of the video and PSAs.

BSA Stormwater Management Officer
Continue to partner with the WNYSC to fulfill regional public education goals.

Additional Information / Resources

Refer to the WNYSC webpage (www.erie.gov/stormwater) for the PSAs and video referenced above.

1.4.7 BSA Trainings and Displays

Description / Methodology

Display materials have been developed by the WNYSC for distribution to the general public. BSA, as a traditional non-land use control MS4, includes BSA employees as the general public. BSA conducts periodic training for permanent employees. Educational materials are also available for targeted employees and public at applicable BSA Buildings.

Measurable Goals

BSA Stormwater Management Officer

- Provide periodic training for permanent employees.
- Display materials related to trainings in applicable BSA offices.

1.5 Required Reporting

At a minimum, BSA shall report on the items below:

a. List education / outreach activities performed, either by the BSA or by the WNYSC or other entity through intermunicipal agreement, for the general public and target audiences and provide any results (for example, number of people attended, amount of materials distributed, etc.);

b. Education of the public about the hazards associated with illegal discharges and improper disposal of waste as required by General Permit G-0-15-003 Part VIII.A.3, may be reported in this section;

c. When performing the education and outreach activities required by other MCMs (listed below), done by either the BSA or the WNYSC or other entity through intermunicipal agreement or under contract, those activities may be reported in MCM 1 and the following information applicable to their program may be provided:

   - IDDE education activities planned or completed for the public, as required by Part VIII.A.3 of GP-0-15-003;
   - Construction site stormwater control training planned or completed as required by Part VIII.A.4 of GP-0-15-003; and
   - Employee pollution prevention / good housekeeping training planned or completed, as required by Part VIII.A.6 of GP-0-15-003; and

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;

d. Report on the effectiveness of the program, BMP and measurable goal assessment; and

e. Maintain records of all training activities.

2. PUBLIC PARTICIPATION / INVOLVEMENT

2.1 Description of Minimum Control Measure

The Public Involvement/Participation minimum control measure consists of Best Management Practices (BMPs) that focus on involving the local public in development and implementation of the SWMP. As a traditional non-land use control MS4, BSA must comply with State and local public notice requirements to facilitate public participation. The BMPs include a number of practices designed to seek public input on the SWMP and Annual Report accomplishments. As a traditional non-land use MS4, the public is considered to be staff, visitors, rate payers, Board Members and contractors.

2.2 General Permit Requirements

An MS4 must, at a minimum:

a. Comply with State Open Meetings Law and local public notice requirements, such as Open Meeting Law, when implementing a public involvement/participation program

b. Develop and implement a public involvement/participation program that:
   - Identifies who their public is (staff, visitors, contractors, etc.);
   - Posts 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 ; and
   - 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 the General SPDES 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 annual report to the Department, by June 1 of each reporting year (see Part V.C.), present the draft annual report in a forum 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 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 report available to the public on a website;
        - providing the public the opportunity to provide comments on the internet or otherwise; and
        - making available the opportunity for the public to request an open meeting to ask questions about and make comments on the report.

   ii. BSA as a traditional non-land use control MS4s must comply with General Permit 0-15-003 Part VIII.A.2.(d)(i) (Included above in 2.2.d.i). 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. The General SPDES 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 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, 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 POCs in stormwater discharges to the MEP.

2.3 Methodology for Compliance with Permit Requirements

In order to comply with this MCM, BSA must identify their public and interested parties and allow for participation through notification. BSA notifies and allows for public review of their individual SWMP and Annual Report through a regular meeting of the Board of the Buffalo Sewer Authority and a public viewing of these documents at a time specified at said regular meeting. By participating in the WNYSC, the BSA accomplishes regional goal such as public participation at the WNYSC meetings, incorporating a feedback mechanism into the webpage, community cleanup events, and public meetings in targeted Erie County Watersheds. BMPs have been developed to highlight some of these programs or activities.

2.4 Best Management Practices

2.4.1 Identify key individuals and groups who are interested in/or affected by the permitting program

Description / Methodology

Environmental groups identified as having an interest in the WNYSC's Stormwater Management Program include: municipal Conservation Advisory Committees (CAC's), the Buffalo Niagara Riverkeepers, Citizens Coalition for the Environment (CCE), and PUSH Buffalo .

Measurable Goals

WNYSC
The WNYSC continuously works with regional environmental groups on exchanging information and accomplishing joint goals including participation of Buffalo Niagara Riverkeeper; Erie County Soil & Water Conservation District in WNYSC meetings, trainings and/or activities. Observation is measured by the number of times other entities participated in a program BSA is involved with.

BSA Stormwater Management Officer
BSA will work with PUSH Buffalo, Buffalo Niagara Riverkeepers, and other community groups through contracts and requests from those groups. BSA will continue to partner with the WNYSC in fulfilling regional public involvement / participation goals. The ECDEP on behalf of the WNYSC will continue to work with regional environmental groups.

Additional Information / Resources

None

2.4.2 *Public Participation of Stormwater Management Program*

Description / Methodology

Provide the public with an opportunity to participate in the development, implementation, review and revision of the SWMP Plan, BSA will make the SWMP available in public offices during BSA and on the internet and will provide new versions for public comment.

Annual Compliance Requirements

BSA Stormwater Management Officer

- Display SWMP on website and allow for continuous comments.
- Provide copy of SWMP once per year along with draft Annual Report at public meetings.

Additional Information / Resources

None

2.4.3 *Open WNYSC Meetings to Reach Key Groups and Individuals and Promote Public Involvement Opportunities*

Description / Methodology

Twice per year, the WNYSC will schedule open meetings to educate key individuals and groups who are interested in or affected by participating MS4s' SWMPs. Public employees, environmental groups and the general public are targets for attendance. The meetings will be used to solicit input from those key individuals and groups on the model SWMP Plan created by the WNYSC, the model Annual Report created by the WNYSC and to publicize opportunities for public participation and involvement. The meetings will be hosted by the WNYSC membership.

Annual Compliance Requirements

WNYSC
Bi-Annual: Publish a notice in the local paper for each public meeting held by the WNYSC to notify the public of their invitation to participate.

Stormwater Management Officer
Bi-Annual: Assist the WNYSC by promoting the meeting to key individuals and groups within the MS4 and by having a representative at the meeting.

Additional Information / Resources

None

2.4.4 *Public Involvement/Participation Activities*

Description / Methodology

Inform and encourage residents about the many opportunities that exist to participate in area community cleanup events: Household Hazardous Waste Collections held several times per year by Erie County and continuously by Niagara County; nationally sponsored "Great American Cleanup" events that can be organized locally; and locally sponsored, volunteer cleanup activities such as Buffalo Niagara Riverkeepers spring shoreline cleanup and Fall Beach Sweep; and State sponsored Adopt-A-Highway Programs

Measurable Goals

Buffalo Sewer Authority
The BSA sponsors the Semi-Annual Shoreline Cleanup along with the Buffalo Niagara Riverkeeper and Rain Check. Rain Check is the Buffalo Sewer Authority's rain barrel/downspout disconnection program.

EC DEP
Publish a notice in the local paper and on the Erie County Household Hazardous Waste webpage that notifies residents of their opportunity to participate in the Erie County Household Hazardous Waste Collections events.

WNYSC
Ensure at least one stream or roadway cleanup occurs per year or schedule and publicize a community-wide clean up day.

Have information on local cleanup opportunities available at the office of the ECDEP. Also, advertise these events on the town and/or county webpage.

City of Buffalo
Educate public through advertisements on options for disposal of household hazardous and electronic waste including the location, schedule and guidelines for facilities accepting the waste.

Additional Information / Resources

See City of Buffalo Street Sanitation website (http://www.city-buffalo.com/Home/City_Departments/Public_Works_Parks_Streets/Street_Sanitation) for information on recycling and disposal.

2.4.5 *Provide Public Comment Mechanism on Webpage*

Description / Methodology

Through either the WNYSC, and/or the municipality's webpage, provide a means for public input/comment regarding the SWMP.

Measurable Goals

WNYSC

Maintain WNYSC stormwater webpage feedback mechanism for residents to document their input/comments on the SWMP.

Document input and comments received, and actions taken.

BSA Stormwater Management Officer

Maintain MS4 stormwater webpage feedback mechanism for residents to document their input/comments on the MS4 stormwater management program.

Document input and comments received, and actions taken..

Additional Information / Resources

See BSA storm water webpage (http://www.city-buffalo.com/Home/City_Departments/BSA/stormwater).

2.4.6 *Identify Local Stormwater Public Contact*

Description / Methodology

Designate a "Stormwater Management Officer" that is responsible for the management of the MS4s stormwater management program. The Stormwater Management Officer would likely be the Code Enforcement Officer, Engineer, or his/her staff. A consultant cannot be appointed as Stormwater Management Officer.

Measurable Goal

BSA

Provide contact information with public documents, such as SWMP Plan and Annual Reports, which are posted on BSA stormwater webpage.

Additional Information / Resources

See BSA storm water webpage (http://www.city-buffalo.com/Home/City_Departments/BSA/stormwater).

2.4.7 *Annual Report Presentation*

Description / Methodology

All regulated MS4s must submit an annual report by June 1 of each year that updates the NYSDEC on the status of their SWMP. Before submittal of the annual report to NYSDEC, the draft report will be prepared and presented to the public for their review and comment.

Measurable Goal

WNYSC

Present the WNYSC's shared draft Annual Report at a WNYSC meeting that is open to the public.

BSA Stormwater Management Officer
Present the draft Annual Report at a meeting that is open to the public and/or on the internet to solicit public review and comment.

Provide public notice about the presentation in accordance with State Open Meetings Law or other local public notice requirements.

Additional Information / Resources

See BSA storm water webpage (http://www.city-buffalo.com/Home/City_Departments/BSA/stormwater).

2.5 Required Reporting

At a minimum, BSA shall report on the items below:

a. annual report presentation information (date, time, attendees) or information about how the annual report was made available for comment;

b. comments received and intended responses (as an attachment); and

c. 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

d. report on effectiveness of the program, BMP and measurable goal assessment.

3 ILLICIT DISCHARGE DETECTION & ELIMINATION

3.1 Description of Minimum Control Measure

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

3.2 General Permit Requirements

An MS4 must, at a minimum:

a. Develop, implement and enforce a program to detect and eliminate illicit discharges (as defined 40 CFR 122.26(b)(2) or GP-0-15-003) into the small MS4;

b. Develop and maintain a map within the covered entity's jurisdiction in the urbanized area and additionally designated area, at a minimum, and showing:
   - the location of all outfalls and the names and locations of all surface waters of the State that receive discharges from those outfalls;
   - 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
   - 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 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 every 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.

   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;

g. Develop 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 (track down); procedures for eliminating illicit discharges; and procedures for documenting actions;

h. Inform the public of hazards associated with illegal discharges and improper disposal of waste, and maintain records of notification;

i. Address the categories of non-stormwater discharges or flows (listed in Section 1.2 of this document) as necessary;

j. Develop, record and 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.

.

3.3 Methodology for Compliance with the Permit Requirements

BSA paid for a consultant to GPS locate both the combined sewer system and municipal separate storm sewer system including pipes, manholes and outfalls. A separate consultant was also hired to locate using GPS all stormwater receivers and catchbasins. BSA periodically updates outfall and pipe information based on field investigations. The GIS map is stored on City of Buffalo servers, though a copy has been provided to the Erie County Department of Environment and Planning's Office of GIS Services.

In partnership with Buffalo State College, an Illicit Discharge Trackdown Protocol and Sampling Procedure was developed to assist MS4s with identification of illicit discharges to their systems and the process to use to track down the source and eliminate it if it is impacting water quality. BSA performs inspections of outfalls annually, based on geographic area, to screen for illicit discharges based on physical parameters.
BSA has procedures to track down sources of illicit discharges should physical indications be present. BSA will perform chemical analysis of discharge waters should indications be present or as a baseline for select locations if no track down is indicated during that year's inspections.

To prohibit illicit discharges to the MS4 and establish enforcement procedures, BSA enacted a change to the BSA's Sewer Use Regulations equivalent to NYS's Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System as determined by the BSA's legal counsel.

3.4 Best Management Practices

3.4.1 Outfall Mapping

Description / Methodology

Outfall Map

The WNYSC has a shared GIS Outfall Locator map that is housed by the Erie CountyDepartment of Environment and Planning's Office of GIS Services. The map includes outfalls for the entire Western New York Urbanized Area including BSA and City of Buffalo. Each outfall point can be queried to obtain specific data including its identification number, photo, surface water discharge point, physical attributes, observations at the time of inspection and GPS coordinates. These data can be printed in report format directly from the website. The BSA also maintains a separate map of the storm sewer system and outfalls owned and maintained by the BSA (http://cobarcgisap/BSALTCP/).

Preliminary Sewershed Boundaries

The Outfall Locator map has an optional layer to depict Preliminary Storm Sewershed boundaries which are essentially watersheds, basins and sub-basins that, when displayed along with the outfall data, may help define the drainage area for a given outfall. Once an illicit discharge is detected at a specific outfall, the existing basin information and boundaries will be used to define the potential area where the source is located.

BSA, as a traditional non-land control MS4, manages the sewers and sewer connections within the designated area including those to the combined sewer system.

Storm Sewer System Mapping

When grant funds are successfully acquired, storm sewer system mapping will commence.

Measurable Goals

Erie County DEP / WNYSC
Manage GIS data and web based mapping system to ensure MS4 access to maps.

Update the outfall map as necessary with additional outfalls that have been added or changes made to the system by MS4 request.

Regional Mapping Manager – Dale Morris (716) 858-8390

BSA Stormwater Officer
Continue to evaluate BSA systems during scheduled annual inspections and update system mapping both on the BSA and ECDEP websites as resources allow.

The inspection records will be compared to the records contained on the ECDEP web based mapping system to determine if any changes have occurred or if there are any errors in designation. Any mapping and outfall or interconnection designation changes will be made.

Additional Information / Resources

Refer to the Appendix for the following:

> U.S. EPA: Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment

3.4.2 Outfall Reconnaissance Inventory (ORI)

Description / Methodology

BSA will conduct an Outfall Reconnaissance Inventory, essentially a dry weather, routine, visual inspection of every mapped outfall and interconnection. The ORI is intended to detect illicit discharges and will be conducted according to procedures set forth in the WNYSC's Illicit Discharge Track Down Protocol and Sampling Procedure guidance document which is based on EPA guidance.

Inherent in the ORI process are opportunities for the MS4 to field verify outfall locations (required), update existing data, add outfalls that are newly discovered or newly constructed (required) and prioritize outfalls for illicit discharge follow up.

BSA will schedule inspections so that a portion of the outfalls will be inspected yearly based on geographic location and all outfalls are visually inspected once every 5 years.

All updates to the WNYSC's Outfall Locator Map, which is located on the Erie County Geographic Information System Internet Server, will be made by the Erie County's GIS staff according to Section 3.4.1 above. All updates to the BSA's GIS map will be made by BSA staff and consultants.

Measurable Goals

BSA Stormwater Management Officer
Conduct scheduled annual inspections according to the ORI process.

Additional Information / Resources
Refer to Appendix for the following information:

- WNYSC: Illicit Discharge Track Down Protocol and Sampling Procedure
- Outfall Reconnaissance Inventory
- Guidance for Prioritizing Stormwater Outfalls
- Stormwater Outfall Map Update Request Form

3.4.3 Local Ordinance Prohibiting Illicit Discharges into the MS4

Description / Methodology

A stormwater management ordinance to prohibit illicit discharges and implement enforcement procedures and actions is required under GP-0-15-003. BSA formally adopted an attorney certified version of NYS's Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System was included in modifications to the BSA's Sewer Use Regulations in 2007. The ordinance must be equivalent to New York State's Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer Systems and was certified as such by outside Counsel.

Additional Information / Resources
Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for information on the NYS Model Local Law to Prohibit Illicit Discharges, Activities and Connections to Separate Storm Sewer System.

3.4.4 Pollutant Source Tracking Procedures

Description / Methodology

The WNYSC developed an Illicit Discharge Track Down Protocol and Sampling Procedure guidance document to detect and address non-stormwater discharges, including illegal dumping. The guidance includes:

- Sampling procedures
- Lab analysis and results interpretation
- Protocol to track down the sources of pollution and provide sufficient evidence to pursue elimination and remediation of the illicit discharge.

BSA, as a member of the WNYSC, generally follows the guidance of the WNYSC-developed protocols and procedures. BSA will develop a plan to investigate potential discharge water quality issues at outfalls based on indicating parameters evaluated during outfall inspections performed annually or due to complaints received by the public or adjoining municipalities.

Measurable Goals

BSA Stormwater Management Officer

- Continue to evaluate outfalls and complaints for potential discharge water quality issues. (Refer to Section 3.4.3)
- Continue to work with the WNYSC on setting up field and laboratory equipment to perform sampling of outfall/interconnection discharges where potential illicit discharges are indicated.

Additional Information / Resources

Refer to Appendix for the following information:

WNYSC: Illicit Discharge Track Down Protocol and Sampling Procedure

3.4.5 *Public Education of Hazards Associated with Illegal Discharges*

Description / Methodology

The public education materials developed by the WNYSC to comply with the regional public education goals include target audiences and provisions to inform the public of the hazards associated with illegal discharges and improper disposal of waste. Similarly, employee training programs, particularly the Pollution Prevention and Good Housekeeping for Municipal Operations training, include instructions on the hazards of illegal discharges as well as identification and prevention.

Measurable Goals

WNYSC

- Update educational materials and distribute to MS4s.
- Maintain records of number of educational materials distributed.

BSA Stormwater Management Officer

- Display public education materials in city/town/village hall.
- Maintain records of number of educational materials distributed.
- Address hazards of illegal discharges in employee training programs

Additional Information / Resources

None

3.4.6 *Addressing Categories of Non-Stormwater Discharges*

Description / Methodology

The following discharges are exempt from discharge prohibitions established by local law unless the NYSDEC or the municipality has determined them to be substantial contributors of pollutants: water line flushing, landscape irrigation, diverted stream flows, rising ground water, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated ground water, discharges from potable water sources, foundation drains, air conditioning condensate, irrigation water, spring, water from crawl space or basement sump pumps, footing drain, lawn and landscape watering runoff provided that all pesticides and fertilizers have been applied in accordance with the manufacturer's product label, water from individual residential car washing, flows from riparian habitat or wetlands, dechlorinated swimming pool discharges, residual

street wash water, discharges or flows from fire fighting activities, dechlorinated water reservoir discharges, and any SPDES permitted discharge.

Annual Compliance Requirements

Stormwater Management Officer
Review non-stormwater discharge list as necessary such that no exempt stormwater discharge is a substantial contributor of pollutants.

Additional Information / Resources

None

3.5 Required Reporting

At a minimum, BSA shall report on the items below:

a. Number and percent of outfalls mapped;

b. Number of illicit discharges detected and eliminated;

c. Percent of outfalls for which an outfall reconnaissance inventory has been performed;

d. Status of system mapping;

e. Activities in and results from informing public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;

f. 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

g. Report on effectiveness of program, BMP and measurable goal assessment.

4. CONSTRUCTION SITE RUNOFF CONTROL

4.1 Description of Minimum Control Measure

The Construction Site Runoff minimum control measure consists of Best Management Practices (BMP's) that focus on the reduction of pollutants to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre will be considered if it is part of a larger common plan of development or sale that would disturb one acre or more. The BMPs describe the legal authority mechanism that will be used to require erosion and sediment controls; enforcement procedures and actions to ensure compliance; requirements for construction site operators to implement appropriate erosion and sediment control BMPs; requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site; procedures for site plan review which incorporate the consideration of potential water quality impacts; procedures for receipt and consideration of information submitted by the public; and procedures for site inspection and enforcement of control measures.

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

BSA is a traditional non-land use control MS4 that controls storm sewer pipes within the designated area, it is the understanding of the BSA that those sections of the City which are serviced by combined sewers are exempt from these regulations.

4.2 General Permit Requirements

An MS4 must, at a minimum:

Develop, implement, and enforce a program that:

a. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01, GP-0-08-001, GP-0- 10-001, or GP-0-15-002), unless more stringent requirements are contained within General Permit GP-0-15-003.

b. 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 NYSDEC.

c. 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 (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, under easement to, within the right-of-way of, or under the maintenance jurisdiction of the MS4; and
- The mechanisms and directive must be equivalent to the requirements of the NYS SPDES General Permit for Stormwater Discharges from Construction Activities.

d. allows for sanctions to ensure compliance to the extent allowable by State law;

e. 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;

f. 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;
- 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 permittee 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-0-15-002) when notifying construction site owner / operators that their plans have been accepted by the permittee;

g. describes procedures for receipt and follow up on complaints or other information submitted by the public regarding construction site storm water runoff;

h. 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 permittee 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 NYSDEC sponsored or approved training;
- all sites must be inspected where the disturbance is one acre or greater;
- permittee 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.

i. educates construction site owner / 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 to submit a SWPP Plan, construction site inspections and any other procedures associated with control of construction stormwater;

j. ensures that construction site operators have received erosion and sediment control training including the trained contractors as defined in the SPDES General Permit for Construction (GP-0-15-003) before they do work within the covered entity's jurisdiction:
   - training must be provided by the Department or other qualified entities (such as Soil & Water Conservation Districts);
   - the covered entity is not expected to perform such training, but they may cosponsor 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;

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

l. develop, record, periodically assess and modify measurable goals as needed; and

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

4.3 Methodology for Compliance with Permit Requirements

BSA has adopted NYS's Sample Local Law for Stormwater Management and Erosion & Sediment Control. This ordinance authorizes the MS4 to enforce a program that reduces pollutant runoff from construction sites. BSA will review SWPP Plans and enforce the BSA Sewer Use Regulations as necessary. The WNYSC, on behalf of its member communities, provides training to developers, contractors, and design engineers in order to inform of the regulations. In addition, the WNYSC often co-sponsors NYSDEC sponsored/approved trainings provided by Soil and Water Conservation Districts to BSA personnel that will be responsible for implementing the remaining BMPs not dealing with training.

4.4 Best Management Practices

4.4.1 Local Ordinance for Stormwater Management and Erosion & Sediment Control

Description / Methodology

A stormwater management ordinance is required under GP-0-15-003. BSA adopted a version of NYS's Sample Local Law for Stormwater Management and Erosion & Sediment Control in 2007 into existing Sewer Use Regulations. The ordinance was

certified as equivalent to New York State's Sample Local Law for Stormwater Management and Erosion & Sediment Control by outside counsel.

The stormwater management ordinance establishes minimum stormwater management requirements and controls to protect the general health, safety, and welfare of the public. The ordinance addresses issues relating:

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

Additional Information / Resources

Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for information on the NYS Sample Local Law for Stormwater Management and Erosion & Sediment Control Local Law.

4.4.2 Design Requirements

Description / Methodology

Evaluate existing in-house practices related to review of project planning and design criteria for required changes based on compliance with local, state and/or federal construction stormwater regulations. Develop project planning and design requirements, and communicate requirements to the design and construction communities.

Many MS4-owned and managed projects have special conditions which make implementation of standard pollution prevention practices, as defined in the NYS Stormwater Management Design Manual, impractical to implement. Such projects include highway reconstruction, waterline construction, and other linear- type construction. Acceptable design criteria for these special condition projects must be approved by the MS4 or NYSDEC, as applicable, on a project-by-project basis, and the owner's preparation of the GP-0-15-002 Stormwater Pollution Prevention Plan (SWPPP) or Notice of Intent (NOI) is the mechanism by which accepted/equivalent practices are evaluated by approving agency. The requests for proposals (RFPs) or requests for bids that the BSA and City advertises will include language requiring that each contract comply with design standards and BMPs for the individual projects as approved by the NYSDEC. Design and construction will reference applicable stormwater requirements.

Additional Information / Resources

Refer to the NYSDEC Website (http://www.dec.ny.gov/chemical/8468.html) for the most recent General Permit for Construction Activity (GP-0-15-002) and NYS Stormwater Management Design Manual (January 2015).

4.4.3 Construction Plan Review

Description / Methodology

Develop a set of criteria to be utilized by the municipality to verify construction plan compliance with local, state, and/or federal construction stormwater regulations.

Prepare a checklist of items that must be verified by the reviewer for each construction plan review. This list will identify if the BMP needs to be used in combination with other BMPs in order to completely satisfy the regulations requirements.

Develop internal tracking and plan review procedures to cover the following issues:

- Conformance to local stormwater regulations
- Appropriate use of temporary erosion controls
- Inclusion of any required local, state, and/or federal stormwater permit documents

Prepare a checklist of items that must be verified by the reviewer for each construction plan review. This checklist will be available to developers, contractors, engineers, and architects to assist them in preparing satisfactory plans.

Provide training for municipal engineers, building department staff, and other municipal representatives that will be completing the construction plan reviews within each municipality.

Educate the local construction community (contractors, developers, engineers, architects) on the construction plans review process.

Implement the construction plans review procedures for local construction sites.

Notify the owners of construction plans when deficiencies are found in the plans during the review process.

Maintain records of plans reviewed and approved for construction under this program.

Conduct SWPPP review for all sites in the municipality where the disturbance is one acre or greater to ensure consistency with State and local sediment and erosion control requirements.

• SWPPP Acceptance Form issued by NYSDEC, and required by the General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001), must be signed prior to obtaining permit coverage to indicate plans have been accepted and approved by the MS4. The construction site owner / operators should include the signed SWPPP Acceptance Form with the NOI submitted to NYSDEC for Permit coverage.

Conduct a final inspection of completed projects, or accept the Qualified Inspector's final inspection certification(s) as required by GP-0-10-001.

• MS4 Acceptance statement on the Notice of Termination (NOT) must be signed prior to permit holder submitting NOT..

Measurable Goals

WNYSC

- Continue to train municipal staff that will be completing construction plan reviews.
- Educate the local construction community on the construction plans review process.

BSA Stormwater Management Officer

- Develop criteria to verify construction plan compliance
- Implement construction plans review procedures for local construction sites.
- Train additional municipal staff as necessary and update per customized local code. Any changes to construction plan review procedures must be communicated to municipal staff.
- Customize checklist to incorporate any local requirements and update as needed.
- Ensure SWPPP reviews are conducted by qualified professionals or supervised by qualified professionals

Additional Information / Resources

Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for the most recent version of the following:

- NYS Standards and Specifications for Erosion and Sediment Control (Blue Book)
- NYS Stormwater Management Design Manual (January 2015).
- Notice of Intent for Stormwater Discharges Associated with Construction Activity, GP-0-15-002
- Notice of Termination for Stormwater Discharges Associated with Construction Activity, GP-0-15-002

4.4.4 Construction Inspection Procedures and Certification Program

Description / Methodology

- Develop inspection procedures and educate the local construction community on local stormwater regulations related to construction activities.
- Conduct inspections of local construction sites that discharge stormwater to the MS4 to determine compliance with local construction stormwater regulations and SWPPP conditions specific to the project.
- Develop a list of items to incorporate in the inspection of local construction sites based on the construction stormwater regulations and including, but not limited to, the following categories:
    - Use of temporary erosion controls
    - Control of other construction related wastes
    - Operational and general prohibitions
    - Site closure and stabilization requirements
    - On-site documentation and records
    - Enforcement actions and on-site communication issues
- Require all construction site operators to verify at least one employee on site has received required NYS endorsed 4 Hour Erosion and Sediment Control Training within the last 3 years before they do work within the MS4's jurisdiction.
- Develop inspection forms and procedures necessary to inspect local construction sites in order to ensure compliance with local construction stormwater regulations.
- Develop internal procedures for tracking new and on-going construction activities.
- Train MS4 inspection personnel on local construction stormwater regulations and inspection procedures.
- Inspect qualifying construction sites using appropriate inspection procedures and forms to ensure compliance with local stormwater regulations.
- Issue enforcement actions to owners and operators of local construction sites that are not in compliance with local construction stormwater regulations.
- Maintain records of construction site inspections, enforcement actions, and corrective actions performed by local construction site owners and operators.
- Maintain inventory of active construction sites within the MS4 Urbanized Area.

Measurable Goals

WNYSC

- Develop inspection forms and procedures necessary to inspect local construction sites in order to ensure compliance with local construction stormwater regulations.

- Sponsor training for MS4 inspection personnel on local construction stormwater regulations, inspection procedures and erosion and sediment control requirements (i.e. NYS's 4 Hour Erosion and Sediment Control Training program offered by Erie County Soil and Water Conservation District).

Stormwater Management Officer

- Inspect qualifying construction sites using appropriate inspection procedures and forms to ensure compliance with local stormwater regulations.
- Issue enforcement actions to owners and operators of local construction sites that are not in compliance with local construction stormwater regulations.
- Ensure that all construction site operators have at least one employee on site who has received required NYS-endorsed 4 Hour Erosion and Sediment Control Training within the last 3 years before they do work within the MS4's jurisdiction. The Stormwater Management Officer should obtain proof in the form of an attendance record or other documentation provided to attendees for the purpose of documentation (GP-0-15-003 Part VII.A.4.a.xi).
- Maintain an inventory of active construction sites and record of inspections for each site within the MS4 jurisdiction in accordance with GP-0-15-003 Part VII.A.4.a.xii.

Additional Information / Resources

Refer to Appendix for the following:

Stormwater Compliance Inspection Form NYSDEC Construction Inspection Manual

4.4.5 Project Status Monitoring and Reporting

Description / Methodology

As part of the enforcement code in the stormwater ordinance, records must be maintained to determine construction sites that are either in compliance or not in compliance with state and/or federal construction stormwater permits.

Municipalities are also required to report the number of construction projects that are permitted under state and/or federal construction stormwater regulations.

Measurable Goals

Stormwater Management Officer

Maintain compliance records for all construction sites requiring state and/or federal construction stormwater permits.

Additional Information / Resources

None

4.4.6 Public Review of Design Plans and Construction Projects

Description / Methodology

Provide the public with an opportunity to review and comment on proposed design plans and construction sites.

Develop procedures for the public to request information and relay concerns to the

representative of the municipality.

Measurable Goals

Buffalo City Planning and Zoning Boards

Plans for projects are presented before the City Planning and Zoning Boards at public meetings. Agendas and plans from these meetings are available at http://www.ci.buffalo.ny.us/Home/City_Departments/Office_of_Strategic_Planning/RegulatoryBoards/PlanningBoard and http://www.ci.buffalo.ny.us/Home/City_Departments/Office_of_Strategic_Planning/RegulatoryBoards/ZoningBoardAppeals respectively.

Additional Information / Resources

None

4.4.7 Education and Training Measures for Construction Site Operators

Description / Methodology

Provide educational material and training opportunities to developers, contractors, engineers, and architects to inform them of the local, state, and/or federal regulations that will impact their developments.

Measurable Goals

WNYSC

Provide additional training sessions as necessary.

Additional Information / Resources

None

4.5 Required Reporting

At a minimum, the covered entity shall report on the items below:

a. number of SWPPPs reviewed;

b. number and type of enforcement actions;

c. percent of active construction sites inspected once;

d. percent of active construction sites inspected more than once;

e. number of construction sites authorized for disturbances of one acre or more; and

f. report on effectiveness of program, BMP and measurable goal assessment.

5. POST-CONSTRUCTION STORMWATER MANAGEMENT

5.1 Description of Minimum Control Measure

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

5.2 General Permit Requirements

An MS4 must, at a minimum:

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

i. provides equivalent protection to the NYS SPDES General Permit for Stormwater Discharges from Construction Activities (either GP-02-01, GP-0-08-001, GP-0-10- 001, or GP-0-15-002), unless more stringent requirements are contained in the MS4 General SPDES permit GP-0-15-003.

ii. addresses stormwater runoff from new development and redevelopment projects on or to BSA and City owned property 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; 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
  - be adoption of a modified version of the sample local law, or an alternative law, and, in either scenario, certification by the attorney representing the small MS4 that adopted law is equivalent to one of the versions of the sample local ;

iv. includes a combination of 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 maximum extent practicable (MEP). In the development of watershed plans, municipal comprehensive plans, open space preservation programs, local law, ordinances and land use regulations, permittees 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, permittees 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.

- permittees 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.

- 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 (as defined in GP-0-15-003);
   - all SWPPPs must be reviewed for sites where the disturbance is one acre or greater; and
   - after review of SWPPPs, the permittee must utilize the "SWPPP Acceptance Form" created by the Department and required by the SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-05-002) when notifying construction site owner / operators that their plans have been accepted and approved by the permittee
   - utilize available training from sources such as Soil and Water Conservation Districts, Planning Councils, the New York State Department of State, USEPA, and/or NYSDEC to educate municipal boards, and Planning and Zoning Boards on low impact development principles, better site design approach, and green infrastructure applications.

vi. establish and maintain an inventory of post construction stormwater management practices to include at a minimum practices discharging to the small MS4 that have been installed since March 10, 2003, those practices 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

vii. ensures adequate long-term operation and maintenance of management practices by trained staff, including assessment to ensure practices are performing properly.
   - The assessment 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;

b. Develop, 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, record, annually assess and modify as needed measurable goals; and

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

5.3 Methodology for Compliance with Permit Requirements

BSA adopted a modified version of NYS's Sample Local Law for Stormwater Management and Erosion & Sediment Control which includes provisions to enforce a program that reduces pollutant runoff according to NYSDEC standards. BSA is a traditional non-land use MS4 and

does not have the regulatory authority to inspect stormwater management systems on private lands. That is the responsibility of the City of Buffalo's Department of Permits and Inspections.

5.4 Best Management Practices:

5.4.1 Local Ordinance for Stormwater Management and Erosion & Sediment Control

Description / Methodology

A stormwater management ordinance is required under GP-0-15-003. BSA adopted a version of NYS's Sample Local Law for Stormwater Management and Erosion & Sediment Control in 2007. The ordinance was certified as equivalent to New York State's Sample Local Law for Stormwater Management and Erosion & Sediment Control by outside counsel.

The stormwater management ordinance establishes minimum stormwater management requirements and controls to protect the general health, safety, and welfare of the public. The ordinance addresses issues relating to:

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

Additional Information / Resources

Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for information on the NYS Sample Local Law for Stormwater Management and Erosion & Sediment Control Local Law.

Refer to the Appendix for the BSA's Sewer Use Regulations.

5.4.2 Implementation of Controls on BSA and City Projects

Description / Methodology

BSA is only responsible for sewers, sewer connections, sewer infrastructure in the MS4 area. The BSA has no control over post construction practices other than those installed by the BSA in the appropriate locations with the MS4 area BSA installs stormwater management facilities on road reconstruction projects and vacant City owned lots within the MS4 drainage area.

Measurable Goals

BSA Stormwater Management Officer

- Maintain an inventory of BSA construction devices within the MS4 and re-inspect on a five year basis.
- Maintain an inventory of private post-construction stormwater management devices for use by the City Department of Permits and Inspections and provide to said department as requested.

Additional Information / Resources

None.

5.5 Required Reporting

At a minimum, the covered entity shall report on the items below:

a. Number of SWPPPs reviewed;

b. Number and type of enforcement actions;

c. Number and type of post-construction stormwater management practices inventoried;

d. Number and type of post-construction stormwater management practices inspected;

e. Number and type of post-construction stormwater management practices maintained;

f. Status of regulatory mechanism, equivalent mechanism, that regulatory mechanism is equivalent; and

g. Report on effectiveness of program, BMP and measurable goal assessment, and implementation of banking and credit system, if applicable.

6. POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

6.1 Description of Minimum Control Measure

The Pollution Prevention / Good Housekeeping minimum control measure consists of Best Management Practices (BMP's) that focus on training and on the prevention or reduction of pollutant runoff from municipal operations. The BMPs describe the training program for specific municipal employees responsible for operations impacted by the proposed operation and maintenance programs; inspection activities for BSA and City Parks, buildings, and roads within the MS4 area; implementation of BMPs for facilities or activities; screening for BMP applicability for additional activities such as salt storage, marine operations, and hydrologic habitat modification; and equipment operation.

6.2 General Permit Requirements

An MS4 must, at a minimum:

a. Develop and implement a pollution prevention / good housekeeping program for municipal operations and facilities that:

i. addresses municipal operations and facilities that contribute or potentially contribute POCs to the small MS4 system. The operations and facilities may include, but are not limited to: park and open space maintenance, fleet and vehicle maintenance, municipal building maintenance, new construction and land disturbances, stormwater system maintenance, winter road maintenance, right- of-way maintenance, street and bridge maintenance, solid waste management, marine operations, and hydrologic habitat modification;

ii. includes the performance and documentation of a self assessment of all municipal operations to:

- determine the sources of pollutants potentially generated by the covered entity's operations and facilities; and
- identify the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program, if it is not done already;

iii. determines management practices, policies, 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;

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, to make the necessary certifications according to Part IV.G of the General Permit (GP-0-15- 003); 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 II.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. Evaluate 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, record and 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. Adapt techniques to reduce the use of fertilizers, pesticides, and herbicides, as well as their potential impact to surface water.

6.3 Methodology for Compliance with Permit Requirements

The WNYSC has developed a guidance document for use by each participating MS4 that identifies the BMPs to reduce and prevent discharge of pollutants to the maximum extent practicable from municipal activities. The WNYSC will provide training to the municipal personnel of participating MS4s. These personnel will be responsible for implementing the BMPs in their everyday activities. Guidance and training pertaining to performing an environmental assessment of municipal operations and facilities that are addressed by the MS4 Pollution Prevention and Good Housekeeping program will also be provided by the WNYSC.

.

6.4 Best Management Practices

6.4.1 Implement Pollution Prevention / Good Housekeeping BMPs

Description / Methodology

The WNYSC has developed a Pollution Prevention /Good Housekeeping for Municipal Operations: Best Management Practices guidance document addressing seventeen BMPS that are relevant to municipal facilities and their typical day-to-day operations. Corresponding Standard Operating Procedures and checklists were also developed

The following BMPs with associated SOPs and checklists are applicable to BSA Operations:

- Landscaping and Lawn Care
- Vehicle / Equipment Maintenance
- Vehicle / Equipment Washing
- Building Maintenance
- Hazardous and Waste Materials Management
- Operational By Products / Wastes
- Spill Response and Prevention

- Roadway Maintenance
- Road Salt Storage and Application
- Catch Basin and Storm Drain System Cleaning
- Construction and Land Disturbance
- Street Cleaning and Maintenance

Measurable Goals

WNYSC
Update documents as needed.

BSA **Stormwater Management Officer**

- Review Pollution Prevention /Good Housekeeping for Municipal Operations: Best Management Practices document to identify BMPs relevant to MS4 facilities and operations.
- Incorporate appropriate BMPs at municipal facilities.
- Distribute BMPs to Department heads for posting in employee access areas.
- Coordinate with Department heads regularly to ensure employees are trained on BMPs and documentation of implementation is current.
- Identify BMPs relevant to third party contractors and ensure the BMP is included in all agreements.

Reference Information

- NYS Pollution Prevention and Good Housekeeping Assistance Document
- U.S. EPA Menu of Best Management Practices Additional Information / Resources
- Pollution Prevention /Good Housekeeping for Municipal Operations: Best Management Practices
- Pollution Prevention /Good Housekeeping for Municipal Operations: Standard Operating Procedures
- Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations

6.4.2 Perform Environmental Self Assessment of All Municipal Operations Addressed by the SWMP

Description / Methodology

The WNYSC developed an outline, checklist and training program to assist MS4s with conducting an environmental self assessment.

Annual Compliance Requirements

WNYSC
Conduct on-site training sessions for the MS4 employee(s)

BSA **Stormwater Management Officer**

- Conduct Environmental Self Assessment for all BSA facilities and operations addressed by the SWMP at least once every three years.
- Maintain records documenting compliance

Additional Information / Resources

None

6.4.3 Municipal Training Program

Description / Methodology

Develop a program that provides training to each member of the municipality whose work may potentially impact stormwater. This includes highway, water, buildings and grounds, sewer, parks, and recreation departments. The training program will be developed such that one or two members of each municipality are trained through the WNYSC. These individuals will then become responsible for training the remaining members of their municipality.

Training programs include: Pollution Prevention and Good Housekeeping for Municipal Operations, Performing an Environmental Self Assessment of Municipal Operations and Facilities, Identifying Green Infrastructure and Runoff Reduction Opportunities in Routine Municipal Upgrades.

Measurable Goals

WNYSC
Conduct training sessions for the municipal employee(s) that have been designated for teaching the remaining members of the municipality.

BSA Stormwater Management Officer

- Provide refresher training for employees.
- Train all (new) municipal employees whose job duties (will) involve work pertaining to all municipal operations that have the potential to affect stormwater runoff – identify new BMPs, develop/modify inspection checklists, develop and implement SOP's

Additional Information / Resources

- Refer to the Appendix for the following:
- Pollution Prevention /Good Housekeeping for Municipal Operations: Best Management Practices
- Pollution Prevention /Good Housekeeping for Municipal Operations: Standard Operating Procedures
- Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations
- Performing an Environmental Self Assessment of Municipal Operations and Facilities (Power Point presentation)
- Performing an Environmental Assessment Outline

6.4.4 Incorporate Cost Effective Runoff Reduction Techniques and Green Infrastructure

Description / Methodology

For routine upgrades to the existing stormwater conveyance system and municipal properties, runoff reduction techniques and green infrastructure practices must be considered and where cost effective, implemented to the MEP. 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.

Measurable Goals

Annual Compliance Requirements

WNYSC

None

BSA Stormwater Management Officer
Review plans for collection system projects to ensure runoff reduction and green infrastructure opportunities are considered.

Additional Information / Resources

Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for the NYS Stormwater Management Design Manual.

6.4.5 *Adopt Techniques to Reduce Fertilizer, Pesticide and Herbicide Use*

Description / Methodology

In order to minimize potential impacts to surface waters, MS4s need to reduce fertilizer, pesticide and herbicide use to the MEP.

Measurable Goals

WNYSC
None

Supervisor of Grounds
- Inventory MS4 use of fertilizers, pesticides and herbicides and third party contracts.
- Prioritize use of products and determine reduction or elimination of use.

Additional Information / Resources

Refer to the NYSDEC website (http://www.dec.ny.gov/chemical/8468.html) for the NYS Stormwater Management Design Manual.

6.4.6 *Landscaping and Lawn Care*

Description / Methodology

- Reduce the discharge of landscaping and lawn care waste from permittee owned facilities through better mowing and landscaping maintenance practices.
- Develop an inventory of landscaping and lawn care areas that are owned by the permittee.
- Evaluate current landscaping and lawn care activities in order to identify opportunities to reduce the discharge of the following:
    - Fertilizers
    - Leaf litter and tree trimmings
    - Litter and floatable materials
    - Equipment fluids
- Ensure that proper litter collection is scheduled prior to any mowing activities.
- Use all herbicides, pesticides, and fertilizers in accordance with manufacturers' instructions for application rates and quantities.
- Purchase only enough lawn care products necessary for one year – store properly to avoid waste generation (spills, leaks).
- Use slow release or naturally derived (organic) fertilizers.
- Train employees in the proper application of lawn care products.
- Evaluate methods for containing and/or composting trimmings and grass clippings.
- Develop zero input/low input lawns.
- Consider alternative landscape techniques (i.e. naturescaping, xeriscaping). Plant

trees away from sewer lines or other underground utilities.
- Use drip irrigation techniques for landscaping.
- Water plants with runoff collected from roof downspouts. Report annually on the activities conducted under this program.

Measurable Goals

Supervisor of Grounds
- Review monitoring and maintenance program and revise as necessary.
- Maintain/update as necessary an inventory of all municipally owned lands that are/will be subject to landscaping and lawn care activities.

Additional Information / Resources

Refer to the Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.7 *Vehicle/Equipment Maintenance*

Description / Methodology

- Develop and maintain an inventory of municipal owned vehicles. Maintain vehicles according to manufacturer's specifications.
- Conduct maintenance in highway garage whenever possible.
- For maintenance performed outside, guard against spillage of materials that could discharge to storm receivers.
- Clean up spilled materials immediately, using "dry" methods
- Install pretreatment systems (oil/water separators) where necessary in sewer lines to capture contaminants (oil, grit), and maintain as needed.
- Never leave vehicles unattended while refueling
- Identify appropriate recycling/disposal options for wastes
- Maintain vehicle maintenance records and document fluid leak repair activities.
- Require vehicle operators to conduct daily inspections of vehicles to identify fluid leaks, schedule repairs, and eliminate leaks.
- Review vehicle inspection and maintenance records on an annual basis to evaluate conformance to vehicle manufacturer service specifications.

Measurable Goals

Director of Sewer Maintenance
- Review vehicle inspection and maintenance records to evaluate conformance to vehicle manufacturer service specifications and local stormwater program requirements.
- Maintain/update as necessary an inventory of all municipally owned vehicles and equipment

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.8 *Vehicle/Equipment Washing*

Description / Methodology

- Wash municipal owned vehicles and equipment to prevent discharge of pollutants to the municipal storm sewer system or local waterbodies.
- Perform cleaning with pressurized cold water, without the use of soaps, if wastewaters will flow to a storm sewer system.
- Use minimal amounts of biodegradable soaps only if wastewaters will discharge to a sanitary sewer system.

- Rinse with hoses that are equipped with automatic shutoff devices and spray nozzles.
- Steam clean (without soap) where wastes can be captured for proper disposal (i.e. oil/water separator).

Measurable Goals

Director of Sewer Maintenance

- Inspect floor drain systems regularly – use only those that discharge to a sanitary sewer or those that are permitted by the regulatory agency. Identify the need for cleaning of catch basins, oil/water separators.
- Perform steam cleaning or pressure washing where wastes can be captured for proper disposal.
- Maintain/update as necessary an inventory of all vehicles and equipment.

Additional Information / Resources

Refer to the Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.9 *Building Maintenance*

Description / Methodology

- Conduct building maintenance activities such that they do not impact the stormwater systems and local water bodies.
- Develop a list of the maintenance activities required inside and outside of each municipal building.
- Identify which activities have an impact on stormwater.
- Develop mitigation measures for each activity that impacts stormwater.
- Review the maintenance activity list on an annual basis to determine if any improvements are necessary.

Measurable Goals

Superintendent of Mechanical Maintenance

- Implement the mitigation measures for each activity.
- Review the maintenance activity list and update as necessary.
- Review the mitigation measures for each activity and revise as necessary.
- Maintain/update as necessary an inventory of all facilities and material storage areas.

Additional Information / Resources

Refer to the Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.10 Hazardous and Waste Materials Management

Description / Methodology

- Prevent the discharge of hazardous and waste materials from impacting municipal stormwater systems and local waterbodies.
- Ensure that all materials are stored in closed, labeled containers – if stored outside, drums should be placed on pallets, away from storm receivers – inside storage areas should be located away from floor drains.

- Eliminate floor drain systems that discharge to storm drains, if possible. Use a pretreatment system to remove contaminants prior to discharge.
- Reduce stock of materials "on hand" – use "first in/first out" management technique.
- Use the least toxic material (i.e. non hazardous) to perform the work.
- Install/use secondary containment devices where appropriate.
- Eliminate waste generation by reincorporating coating/solvent mixtures into the original coating material for reuse.
- Recycle materials if possible, or ensure proper disposal of wastes

Measurable Goals

Superintendent of Mechanical Maintenance/ Director of Sewer Maintenance

- Implement plan for proper storage of all hazardous and waste materials. Verify that floor drains have been sealed (or redirected to sanitary sewer). Inspect material storage areas (inside and outside).
- Ensure timely cleaning of oil/water separators by qualified contractor.
- Inspect stormwater discharge locations (for contaminants, soil staining, plugged discharge lines).
- Repair or replace any leaking/defective containers, and replace labels as necessary.
- Maintain caps and/or covers on containers.
- Maintain aisle space for inspection of products/wastes.
- Maintain/update as necessary an inventory of all facilities and material storage areas.

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.11 Operational By Products/Wastes

Description / Methodology

- Prevent the potential for leaching of toxic and biological contaminants from reaching the municipal stormwater system or local waterbodies.
- Post "no dumping" signs. Illuminate area if possible. Prevent access – erect barriers.
- Identify the byproducts/wastes that should be recycled (i.e. paper, cardboard) or can be legally disposed of on municipal lands (i.e. deer carcasses) by referencing NYSDEC regulations (6NYCRR PART360)

Measurable Goals

Supervisor of Grounds

- Clean up and dispose of "illegally dumped" materials, trash/debris in accordance with environmental regulations.
- Cut and remove vegetation from "dump areas".
- Regularly schedule inspections - for maintenance concerns
- Coordinate with police for unscheduled patrolling of dump areas.
- Maintain/update as necessary an inventory of all BSA owned lands – identify areas at which illegal dumping may occur, and patrol those areas.

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.12 Spill Response and Prevention

Description / Methodology

- Review spill response procedures to ensure stormwater quality protection measures are considered during spill response.
- Conduct employee training
- Maintain spill prevention equipment.
- Keep all materials properly stored in closed, labeled containment systems. Use secondary containment systems where appropriate

Measurable Goals

Director of Sewer Maintenance

- Inspect secondary containment systems and oil/water separators
- Inspect containers for leaks, areas near storm receiver inlets and outlets, floor drains for indication of spills.
- Pump out oil water separators as needed.
- Protect drains with oil absorbent materials.
- Clean out receivers on regular schedule.
- Remove spilled salt from salt loading area.

Additional Information / Resources

Refer to the Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.13 Roadway Maintenance

Description / Methodology

- Assess roadways and bridges maintenance activities and modify procedures to reduce stormwater quality impacts.
- Incorporate preventive maintenance and planning for regular operations & maintenance activities.
- Pave in dry weather only.
- Stage road operations and maintenance and restoration activities (patching, potholes) to reduce spillage. Cover catch basins and manholes during this activity.
- Clean up fluid leaks or spills from paving equipment/materials immediately. Restrict the use of herbicides/pesticide application to roadside vegetation. Use

porous asphalt for pothole repair and shoulder work.

- Sweep and vacuum paved roads and shoulders to remove debris and particulate matter.
- Maintain roadside vegetation; select vegetation with a high tolerance to road salt. Control particulate wastes from bridge sandblasting operations.
- Clean out bridge scuppers and catch basins regularly. Direct water from bridge scuppers to vegetated areas.
- Mechanically remove (i.e. sweep) debris from bridge deck and structure prior to washing

Measurable Goals

BSA Stormwater Management Officer/ Director of Sewer Maintenance/ Supervisor of Grounds

- Assess current roadway maintenance activities to determine if modification to current practices would benefit stormwater quality.
- Identify alternative practices that would minimize the contamination of stormwater runoff during construction or maintenance activities.
- Revise roadway maintenance specifications according to identified alternative practices.
- Maintain records of road maintenance activities and the use of alternative maintenance practices.
- Evaluate roadway maintenance program and revise roadway maintenance specifications according to identified alternative practices.
- Maintain/update as necessary an inventory of all municipally owned infrastructure – it is essential to include underground infrastructure (i.e. ditches, underground storm piping, septic systems, UST's, oil/water separators, catch basins/sewers, etc.)

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.14 *Road Salt Storage and Application*

Description / Methodology

- Provide proper application of road salt to reduce the impact of salt on plants, aquatic life, and the local waterbodies.
- Require covered facility for salt storage (prevents lumping and run-off loss), and size properly for seasonal needs.
- Store salt on highest ground elevation to mitigate contact with stormwater.
- Calibrate salt spreaders as necessary.
- Consider alternative deicing materials (i.e. calcium chloride, magnesium chloride).
- If possible, use a wetting agent with salt to minimize "bouncing" during application, if possible.

Measurable Goals

Supervisor of Grounds

- Inspect salt storage shed for leaks, structural problems. Repair as needed.
- Inspect salt piles for proper coverage, tarps for leaks or tears. Replace tarps as needed.

- Inspect salt application equipment.
- Inspect salt regularly for lumping or water contamination.
- Inspect surface areas for evidence of runoff – salt stains on ground near and around the salt shelter, loading area, or downslope.
- Inspect for excessive amounts of salt on roads.
- Inspect equipment to verify proper operation. Service trucks and calibrate spreaders regularly to ensure accurate, efficient distribution of salt.
- Maintain/update as necessary an inventory of all municipally owned facilities and salt storage areas, structures, and equipment.

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.15 *Catch Basin and Storm Drain System Cleaning*

Description / Methodology

- Reduce sediment and floatable materials discharges by routinely cleaning catch basins and stormwater inlet structures.
- Identify areas where catch basins, surface inlets, and/or storm sewer manholes should be periodically cleaned to reduce discharge of floatable materials, sediment, and other materials.
- Develop a preliminary schedule for cleaning inlet structures, catch basins, and manholes.
- Implement the catch basin cleaning program according to the developed schedule.
- Evaluate the catch basin cleaning schedule on an annual basis. Address storm drain receivers and (below grade) storm sewer systems, parking lot receivers, and open ditches.
- Catch basins and floor drain systems inside of buildings should be either:
    - Sealed to prevent discharge
    - Permitted by NYSDEC
    - Discharged to sanitary sewers
- Repair/replace storm drain receiver and catch basin receiver grates as necessary.

Measurable Goals

Director of Sewer Maintenance

Implement the catch basin cleaning program according to the developed schedule.

Evaluate the catch basin cleaning program to identify improvements and/or modifications.

Maintain/update as necessary an inventory of all municipally owned infrastructure – it is essential to include underground infrastructure (i.e. septic systems, UST's, oil/water separators, catch basins/sewers, etc.)

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.4.16 *Construction and Land Disturbance*

Description / Methodology

- Comply with the requirements of the construction and post-construction minimum

control measures listed previously.
- Provide education material and training opportunities to the municipal work crews to inform them of the local, state, and/or federal regulations that will impact their projects.
- Plan the construction and/or land clearing activities so that soil is not exposed for long periods of time
- Minimize compaction of soils
- Minimize impervious cover
- Maximize opportunities for infiltration
- Install sediment control devices before disturbing soil
- Limit grading to small areas
- Stabilize site to protect against sediment runoff
- Protect against sediment flowing into storm drains
- Maintain native vegetation (especially near waterways)

Install sediment barriers on slopes or divert stormwater

Responsible Party

WNYSC

Provide additional training as necessary to the municipal work crews.

BSA Stormwater Management Officer/ Director of Sewer Maintenance

Incorporate BMPs into the work activities of the work crews and contractors during land disturbance activities.

Monitor work activities to verify compliance with land disturbance requirements.

Review new construction design plans to incorporate PP/GH BMPs so as to avoid all deleterious effects to stormwater runoff (prior to construction).

Additional Information / Resources

- Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.
- Refer to/comply with the SPDES General Permit for Stormwater Discharges From Construction Activities (GP-0-15-002).
- Refer to/comply with Sections 4 and 5 of this document.

6.4.17 *Street Cleaning and Maintenance*

Description / Methodology

- Sweeping of streets and roadways in order to reduce the amount of sediment and associated pollutants discharged to the MS4 from roadways.
- Identify the type of roadways that can be swept to remove sediment and other pollutants.
- Schedule and implement street sweeping of identified roadways.
- Perform operations such as paving in dry weather only.
- Maintain records of streets that have been cleaned. Adjust sweeping schedules according to program needs.
- Prior to road reconstruction, consider/evaluate the use of "shouldered roads" instead of "curbed roads".
- Maintain roadside vegetation; select plants/trees that can withstand the action of road salt. Direct runoff to these areas.

Measurable Goals

Supervisor of Grounds/ City Engineer

- Implement street sweeping in accordance with the identified schedule.
- Adjust sweeping schedules according to program needs.

- Maintain/update as necessary an inventory of all municipally owned infrastructure – it is essential to include underground infrastructure (i.e. septic systems, UST's, oil/water separators, catch basins/sewers, etc.)

Additional Information / Resources

Refer to Appendix for Guidance Documents and Inspection Checklists regarding Pollution Prevention/Good Housekeeping for Municipal Operations.

6.5 Required Reporting

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. At a minimum, the covered entity shall report on the items below:

a. Indicate the municipal operations and facilities that the pollution prevention and good housekeeping program assessed;

b. 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;

c. Staff training events and number of staff trained; and

d. Report on the 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.

General Practices for the Pollution Prevention/Good Housekeeping Program

- Assess/identify modified (or new) municipal operations to identify changes in operations that affect stormwater runoff, and develop/implement new BMPs or modify existing BMPs to prevent the discharge of pollutants from municipal operations.
- Adjust monitoring and maintenance programs as necessary.
- Incorporate costs for stormwater permit compliance (i.e. necessary infrastructure upgrades/capital improvements) when developing annual budgets.