New York State Thruway Authority

Environmental Services Bureau

200 Southern Boulevard, PO Box 189 • Albany, New York 12210-0189

Stormwater Management Program Plan

Phase II MS4 General Permit (GP-0-10-002)

The New York State Thruway Authority's Stormwater Management Plan (SWMP) is in the process of being revised to comply with the conditions of MS4 Individual Permit (DEC ID 0-9999-00015/00012), which became effective on July 1, 2025. The existing SWMP is being made available to the public as a condition of that permit.

May 2010

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1. Introduction

1.1. General

In response to a United States Environmental Protection Agency (EPA) mandate under the Clean Waters Act, the New York State Department of Environmental Conservation (NYSDEC) initiated its Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Permit Program. This stormwater management program was implemented through the issuance of a five year State Pollutant Discharge Elimination System (SPDES) General Permit, dated January 8, 2003 for Stormwater Discharges from MS4s, Permit Number GP-02-02, to all entities that met specific criteria of the general permit. As the New York State Thruway Authority (NYSTA) is a publicly-funded entity that owns and operates separate storm sewer systems within urbanized areas (i.e., population greater than 1,000 residents per square mile), the NYSTA is considered a MS4 and is required to obtain permit coverage under this program. In March 2003, the NYSTA contracted Malcolm Pirnie, Inc. (Malcolm Pirnie) to prepare a Notice of Intent (NOI) for coverage under GP-02-02 and to assist with the development of their Stormwater Management Program (SWMP), which was a specific requirement for compliance with the first five year MS4 General Permit. The New York State Department of Environmental Conservation (NYSDEC) has issued subsequent SPDES General Permits for Stormwater Discharges from Municipal Separate Storm Sewer Systems. The most current permit, GP-0-10-002 (Permit), was issued May 1, 2010.

The main goal of the NYSTA's SWMP is to reduce the discharge of pollutants from NYSTA projects and activities to the maximum extent practicable in order to protect water quality and to satisfy the appropriate water quality requirements of the Environmental Conservation Law and the Clean Waters Act. The SWMP must include the following minimum control measures:

- Public Education and Outreach on Stormwater Impacts;
- Public Involvement/Participation;
- Illicit Discharge Detection and Elimination;
- Construction Site Stormwater Run-off Control;
- Post-Construction Stormwater Management;
- Pollution Prevention/Good Housekeeping for Municipal Operations.

The Permit requires that a SWMP plan be developed to document developed, planned, and implemented SWMP elements. This document represents the NYSTA's SWMP plan.

This SWMP plan was developed to meet the following objectives:

- To summarize the manner in which the NYSTA addresses each of the six minimum controls;
- To provide a strategy for ongoing implementation of initiatives during the next stormwater permit cycle.

This document summarizes work that has been completed, outlines the rationale behind the approach taken for compliance with each of the six minimum control measures, and serves as a reference document to support ongoing implementation of the SWMP.

1.2. Documents That Support the SWMP Plan

A summary of the documents that should be used in conjunction with this SWMP plan is provided below and in Appendix A:

1. Documents developed by the NYSDEC that are relevant to the MS4 permit:
    a. **The General Permit for Small Municipal Separate Storm Sewer Systems (MS4s), GP-0-10-002** (http://www.dec.ny.gov/docs/water_pdf/ms4gp2010.pdf) - NYSTA is a regulated small MS4 in New York State, and is required to have a Stormwater Management Program in accordance with the requirements of this permit.
    b. **General Permit for Stormwater Discharges Associated with Construction Activity, GP-0-10-001** http://www.dec.ny.gov/docs/water_pdf/gpsconspmt10.pdf - NYSTA is required to prepare and implement Stormwater Pollution Prevention Plans in accordance with the requirement of this permit.
    c. **Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under SPDES General Permit GP-0-10-001.** http://www.dec.ny.gov/docs/water_pdf/noipgr10.pdf
    d. **NYS Stormwater Management Design Manual (April 2008)** http://www.dec.ny.gov/chemical/29072.html contains the technical standards for stormwater management.
    e. **New York State Standards and Specifications for Erosion and Sediment Control** (August 2005) http://www.dec.ny.gov/chemical/29066.html- This document provides standards and specifications for selection, design and implementation of erosion and sediment control practices.

f. **Frequently asked question 40 and 40A in Version 3 of the Frequently Asked Questions About Permit Requirements of the SPDES General Permit (GP-02-01) for Stormwater Discharges from Construction Activities.** September 12, 2006. http://www.dec.ny.gov/docs/water_pdf/constrfaq.pdf

g. **Stormwater Management Planning Guidance for Transportation Projects New York State**. December 31, 2005. ftp://ftp.dec.state.ny.us/dow/stormdocuments/design-guidance/

2. New York State Department of Transportation (NYSDOT) documents that have been adopted by the NYSTA. Some of the specific stormwater guidance documents include:

a. **NYSDOT Highway Design Manual - Chapter 8 HIGHWAY DRAINAGE (Limited Revisions) Revision 56, October 22, 2009.** (https://www.nysdot.gov/divisions/engineering/design/dqab/hdm/hdm-repository/chapt_08.pdf**)** This document summarizes components of the Permit that are pertinent to highway design. Specific topics include the design of permanent stormwater controls, the development of Stormwater Pollution Prevention Plans (SWPPPs), and how to issue a Notice of Intent and Notice of Termination.

b. **Engineering Bulletin (EB) EB 04-023 – Construction Inspection Manual (CIM), MURK Part 1B, SECTION 209**. https://www.nysdot.gov/portal/page/portal/main/business-center/consultants/forms-publications-and-instructions/engineering-information-issuance-system/eb-repository/eb04023.pdf This EB provides guidance to construction personnel regarding Section 209 Soil Erosion and Sediment Control. It includes general erosion and sediment control requirements, descriptions of erosion and sediment control measures, SPDES regulatory background, incorporation of the NYSDOT Memorandum of Understanding, and blank construction site stormwater inspection reports and certifications.

c. **Environmental Handbook for Transportation Operations: A Summary of the Environmental Requirements and Best Practices for Maintaining and Constructing Highways and Transportation Systems.** February 2009 (https://www.nysdot.gov/divisions/engineering/environmental-analysis/repository/oprhbook.pdf)

d. **NYSDOT Standard Specifications and Details for Erosion and Sediment Control.**

1) NYSDOT - New York State Standard Sheets, Erosion and Sediment Control - Sheets M209.1-M209.9. These documents were not included due to their size. https://www.nysdot.gov/portal/page/portal/main/business-

center/engineering/cadd-info/drawings/standard-sheets/209-soil-erosion-and-sediment-control

2) NYSDOT - Standard Specifications Construction and Materials, Section 209 – Temporary Soil Erosion and Water Pollution Control. https://www.nysdot.gov/main/business-center/engineering/specifications/english-spec-repository/section200.pdf

3. NYSTA Guidance Documents - The NYSTA policy and procedures are presented through maintenance directives (MDs) and job activities. The MDs and job activities presented below represent some of the guidance that are relevant to this SWMP and compliance with the MS4 General Permit:

a. **Maintenance Directives:**

1) Illicit Discharge Identification and Reporting Requirements – **(MD 2008-1)**
2) Maintenance of Oil Water Separators at Maintenance Facilities– **(MD 2008-4)**
3) Deicer and Sand/Salt Storage – **(MD 2007-6)**
4) Universal Waste Disposal – **(MD 2007-5)**
5) Hazardous Waste Generated by Maintenance Activities – **(MD 2007-8)**
6) Care and Cleaning of Authority Maintenance Vehicles and Motorized Equipment – **(MD2008-3)**
7) Spoil Area Guidelines – **(MD 2000-9)**
8) Petroleum Spill Response Guidance **– (MD 2008-6)**

b. **Job Activities:**

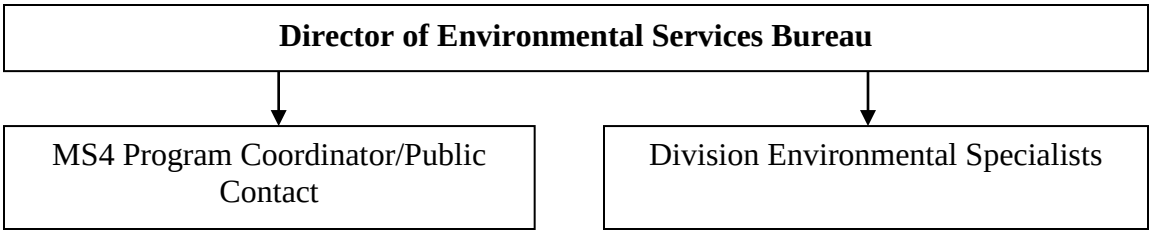
1) Maintenance of Drainage Systems – **(1016)**
2) Cleaning Toll Lanes – **(1024)**
3) Grass Mowing – **(1017)**
4) Landscape Maintenance – **(1020)**
5) Bridge Cleaning – **(1102)**
6) Spot and Zone Painting of Steel Bridges – **(1126)**

4. The NYSTA also developed guidance documents targeting specific operations. Some of these guidance documents include:

a. Right-of-way Management Manual with Highway Mowing Guidelines
b. Winter Maintenance Manual
c. ConCom #08-05 (Construction Guidance for GP-0-08-001)
d. GP-0-08-001 - Summary Checklist of Project Engineer's Responsibility

1.3. Stormwater Management Program Plan Operations

1.3.1. Key Staff



- **Environmental Services Bureau - Director**

  The Environmental Services Bureau provides environmental training, guidance, and support for NYSTA and New York State Canal Corporation (NYSCC) staff. As it pertains to the MS4 program, the Director, with technical advice from the MS4 Program Coordinator, oversees development and implementation of the program. The Director works with the MS4 Program Coordinator and other NYSTA and NYSCC offices to develop the Stormwater Management Program which includes, but is not limited to, establishing appropriate environmental policies and guidance documents for NYSTA/CC staff implementation.

- **MS4 Program Coordinator and Public Contact**

  Coordinate and manage the development and implementation of the NYSTA and NYSCC Stormwater Management Program and addresses public comments and questions.

- **Division Environmental Specialists**

  NYSTA/NYSCC operations are divided into four divisions based on geographic area. These divisions include New York, Albany, Syracuse, and Buffalo. The Division Environmental Specialists are responsible for inspecting operations and facilities, providing guidance and training for staff, and for providing support on environmental issues.

1.3.2. MS4 Program Budget

The NYSTA has contracted with an environmental engineering firm for assistance in developing and implementing the stormwater management program. Although the budget varies with each year depending on the tasks being implemented, the budget has generally been about $200,000/year. MS4 program tasks, operations, and maintenance conducted by NYSTA staff is funded through the annual operating budget. This budget does not include a specific breakdown for MS4 program related activities.

1.3.3. MS4 Operation and Maintenance Schedule

Inspections

- **Environmental Audits** - The NYSTA Division Environmental Specialists (DESs) perform a State Agency Environmental Audit on an annual basis to evaluate NYSTA facilities, activities, and projects for environmental compliance. Items or actions found not to be in compliance are identified and corrected.
- **Construction Stormwater Controls** – NYSTA staff and Contractors are responsible for inspections of erosion and sediment controls once every seven calendar days for construction sites smaller than five acres of disturbance. For construction sites disturbing greater than five acres, a bi-weekly inspection (separated by at least two full calendar days) is conducted. At sites where work has been temporarily suspended, inspections are conducted every 30 calendar days. Once work has been completed, inspections are no longer conducted.
- **Hazardous Waste** – Weekly inspections are performed if more than 220 pounds (typically one half of a 55-gallon drum) of hazardous waste is being stored on-site; otherwise monthly inspections are made to check for storage of hazardous waste on-site.
- **Large Culvert Inspection Program** - The NYSTA inspects large diameter culverts for hydraulic and structural condition on a five year rotating schedule. Follow-up investigations are performed on all culverts showing evidence of potential illicit discharges.
- **Maintenance Vehicles and Motorized Equipment** – Inspected for leaks before and after use of equipment.
- **Oil Water Separators** – During the winter, weekly visual inspections are conducted. All other times of the year the inspections are monthly.
- **Outfall Inspection Program** – 20 percent of stormwater outfalls within the urbanized areas are inspected each year. Follow-up investigations are performed on all outfalls showing evidence of potential illicit discharges.
- **Post Construction Stormwater Controls** – Monthly and annually.
- **Right-of-Way (ROW)** - NYSTA staff are responsible for driving a discrete section of the New York State Thruway to inspect for problems, such as excessive debris, broken guide rails, and erosion. They also look for indicators of illicit discharges, such as unexpected flow, flooding, or discoloration in flow. The goal is to incorporate illicit discharge detection in every day operations. There are a minimum of 52 inspections conducted across the State each year. ROW inspections uncovered several areas that required routine maintenance, such as ditch cleaning, trash pick-up, erosion control, and general maintenance.
- **Septic Tanks and Leach Fields** – Annually.
- **Catchbasins** – 16,000 catchbasins are cleaned and inspected each year.

Cleaning

- **Bridges –** Annually.
- **Catchbasins -** 16,000 catchbasins are cleaned and inspected each year.
- **Drainage System Cleaning –**Drop inlets, drainage ditches, pipes, mall, shoulders, and interchanges including rock failures are cleaned as necessary.
- **Maintenance Vehicles and Motorized Equipment –** Washed regularly in designated wash areas and wash bays.
- **Oil Water Separators -** As necessary, based on inspections**.**
- **Right-of-Way -** The NYSTA collects debris along the highway right-of-way in the spring of each year and as necessary.
- **Street Sweeping**
  - Annual right-of-way sweeping is performed across the entire 678 miles of Thruway.
  - Toll Plaza – Swept and cleaned monthly in urban areas and bimonthly in rural areas.
- **Spills** – Spills are cleaned up in accordance with the Spill Control and Countermeasures Plan.

Maintenance

- **Drainage System** –Cleaning, repairing, and replacement of drainage systems that are not working properly are performed as necessary, as determined through right-of-way inspections.
- **Landscaping** –Slope and turf repairs are performed to avoid erosion as necessary, as determined through right-of-way inspections. Herbicide and plant growth regulators are applied to control grass, weeds, and brush as a last resort.
- **Maintenance of Motorized Equipment** – As necessary.
- **Oil Water Separators** – As necessary, as determined from inspections.
- **Post Construction Stormwater Controls** - Routine maintenance, such as mowing or trash removal, is performed during the monthly inspections. Non-routine maintenance, such as repairing structural issues, is done as necessary as determined through monthly and annual inspections.

- **Right-of-Way** - Mowing the grass to a height of no less than four inches is conducted when turf height has reached eight inches. Noxious weeds are controlled as necessary.
- **Wastewater Treatment Plants** – Daily.
- **Winter Roads** - During winter months, roads, service areas, toll plazas and facility parking lots are plowed as needed. NYSTA has developed a Winter Maintenance Manual for NYSTA staff for guidance on application rates and proper use of salt and deicer.

PART II. – Six Minimum Control Measures

2. Public Education and Outreach

2.1. Regulatory Intent and Overview

The purpose of the Public Education and Outreach minimum control measure is to help the public understand why protecting stormwater is important and what they can do as individuals to protect and restore our waterways. In accordance with the Permit, a public education and outreach program is being implemented to educate NYSTA's staff (the internal public) and the general public regarding:

- The impact of stormwater discharges on waterbodies;
- The pollutants of concern within the MS4 areas and their sources; and
- Steps that contributors of stormwater and non-stormwater discharges can take to reduce pollutants.

A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized below. Note that the NYSTA developed the tasks to fulfill the objectives of the minimum control measure requirement, as well as those for the remaining five minimum control measures, and they were not specifically prescribed by NYSDEC.

Section 2.3 Future Strategy, outlines NYSTA's planned future approach for this measure.

2.2. Measure(s) Required By This Minimum Control

1. *Identify pollutants of concern, waterbodies of concern and geographic areas of concern.*

The NYSTA has identified the pollutants of concern, the waterbodies of concern, and the geographic areas of concern within the NYSTA's jurisdiction. The latest list of waterbodies of concern associated pollutants of concern is provided as Appendix B, NYSTA's Impaired Waterbodies and Pollutants of Concern. This information is provided to NYSTA staff on the intranet site WebGIS and it was also provided in paper format to each Division. These maps were developed to be referenced by highway and operations managers responsible for staff who will be working on the highway right-of-way, and those staff responsible for operations at the Thruway facilities.

These maps show the following layers:

- Section 303(d) Listed Waters
- Approximate Stormwater Run-off Direction of Drainage
- TMDL Watersheds
- National Register Sites
- Rare Species and Natural Communities
- Steep Slopes that Drain to AA or AA-s Waters

The paper maps were too big to include with this document, but a copy can be obtained from the Environmental Services Bureau. The maps are titled, "MS4 General Permit Maps.

2. *Develop and implement an ongoing public education and outreach program designed to describe the impacts of stormwater discharges on waterbodies, the pollutants of concern and their sources; and the steps that contributors of these pollutants can take to reduce pollutants in stormwater run-off; and steps that contributors of non-stormwater discharges can take to reduce pollutants.*

   The program should also identify and implement appropriate education and outreach activities and measurable goals to ensure the reduction of pollutants of concern in stormwater discharges to the maximum extent practicable.

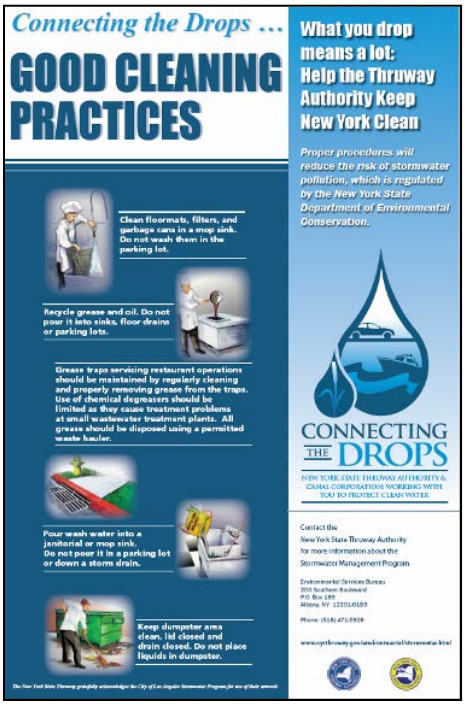
- ***Public Outreach*** – As part of the SWMP, the NYSTA engaged a public outreach firm to plan and implement the public participation component of the permit through an educational campaign. One of the first objectives of the educational campaign was to design a new stormwater slogan and logo to create a recognizable symbol for the NYSTA's stormwater program. Consistency and branding are key elements of a successful public outreach campaign. The logo and slogan are incorporated into the NYSTA educational brochures, good housekeeping posters, the website, and other stormwater and environmental materials. Both the NYSTA and the NYSCC are represented on the logo. This overall public outreach program became known as the "Connecting the Drops" campaign, so named after the program slogan. This campaign included teaming up with a number of public interest organizations and existing outreach programs that share the NYSTA's interest in environmental stewardship.

- ***Pollution Prevention Brochure*** – A stormwater educational brochure was developed to educate the public about stormwater pollution and identifies ways in which they can prevent it. Over 35,000 of these documents have been printed and distributed to both the NYSTA and NYSCC's traveling public, which included distribution at the NYSTA service areas, Canal Locks, and at Thruway and Canal events such as the New York State Fair, the Canal Openings Celebration, and the Canal Clean Sweep events. *(Pollution Prevention Brochure, Appendix C)*
- **Collaborative Protecting Clean Water Brochure** – The NYSTA and the NYSCC teamed up with the NYSDOT to develop a collaborative environmental stewardship brochure to educate the public about some of the stormwater pollution prevention programs that they have adopted as non-traditional MS4s. (Protecting Clean Water Brochure, Appendix D)
- **Nutrient Brochure –** This brochure describes the harmful effects of discharging the pollutants phosphorus and nitrogen to the waterways and provides suggestions for nutrient pollution prevention. Nutrients, particularly phosphorus, are the pollutants of concern for many of the impaired waterbodies and TMDL watersheds. NYSTA discharges to two TMDL watersheds that are impaired for phosphorus, the East of Hudson and Onondaga Lake watersheds. This brochure is distributed at the service areas, Canal Locks, and at Thruway and Canal events such as the New York State Fair, Canal Openings and Clean Sweep events. There have been 1800 copies of the brochure distributed. (Nutrient Brochure, Appendix E)
- ***Webpage Development*** – NYSTA has a stormwater management link on their website to provide the public with information about the NYSTA's MS4 program. Each year the NYSTA posts the Annual Report on the website for public review and comment. This website also provides a brief summary of those elements of the stormwater program that are of public interest, including a narrative of stormwater program events. Educational materials that were developed to meet the permit have been posted for the public to download. (http://www.nysthruway.gov/environmental/stormwater.html)
- **Stormwater Educational Video** – Developed an educational video for broadcast at the 27 NYSTA travel plazas and for posting on the NYSTA's MS4 website. This video educates a broad audience about watersheds, non-point source pollution, and pollution prevention. This video receives great exposure as approximately 20 million people visit the travel plazas each year.

- ***Interactive Stormwater Exhibit*** – The NYSTA received a grant from the Hudson River Estuary Grants Program to partner with the Children's Museum of Science and Technology (CMOST, previously

known as the Junior Museum of Troy) to expand their Hudson River Exhibit. This expanded exhibit illustrates non-point source pollution, educates children on the actions that they can take to prevent stormwater pollution, and provides information on the actions being undertaken by the NYSTA. Upon completion of the permanent watershed model, the museum and NYSTA hosted a media event that introduced the exhibit. Ongoing use of the exhibit and educational activities are administered by CMOST personnel with technical support, as appropriate, from NYSTA and their consultants. Over 60,000 people visit the CMOST each year, so the exhibit has great exposure. An educational fact sheet and children activities pages were developed for the event. *(Connecting The Drops Children Activity Pages, Appendix F; Hudson River Watershed Model Fact Sheet, Appendix G)*

- ***Service Area Good Cleaning Practices Poster*** – A Good Cleaning Practices educational poster is available for the Thruway service area food service vendors and their staff. These posters are designed to educate cafeteria and vendor staff about pollution prevention and proper operation and maintenance best management practices for grease traps, dumpster areas, and wash water disposal. The food and fuel service providers at the Thruway service areas lease space from the NYSTA. *(Good Cleaning Practices Poster, Appendix H)*



- ***Service Area Tabling Events –*** The NYSTA held tabling events during the summer of 2007 at four service areas including Sloatsburg (New York Division), New Baltimore (Albany Division), Warners (Syracuse Division), and Pembroke (Buffalo Division). NYSTA representatives were on hand to answer questions about the NYSTA stormwater management program and the Connecting the Drops campaign. Pollution Prevention Brochures and Connecting the Drops magnets were handed out to Thruway travelers. *(Connecting the Drops Magnet Design, Appendix I)*
- ***Pet Waste Management*** – Pet waste management education is provided in the aforementioned Stormwater Pollution Prevention and Nutrient educational brochures developed for Thruway travelers.
- **Trash Management** – The NYSTA collects debris along the highway right-of-way in the spring of each year and as-needed. Trash receptacles and dumpsters are provided at service areas, maintenance facilities, and other NYSTA facilities.

2.3. Future Strategy

The NYSTA will continue the "Connecting the Drops" campaign to educate the public on stormwater pollution prevention and to continue to strengthen its role as an environmental steward. This will include distribution of appropriate educational materials that have been developed, new educational material targeted towards pollutants of concern, and the dissemination of information about the NYSTA's stormwater program through participation in public events and through NYSTA's stormwater website. As larger capital projects are developed, the NYSTA will continue to look for opportunities for public outreach and education through individual projects and activities.

Educational materials, such as posters and brochures, should be distributed each year and updated as appropriate. The travel plazas and the website will remain the major outlet for educational material to the public. The MS4 General Permit hardcopy maps and the GIS files provided on the intranet should be updated as updates are provided from the NYSDEC.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J, Measurable Goals.

3. Public Involvement/Participation

3.1. Regulatory Intent and Overview

The public can provide valuable input and assistance in the development and implementation of a stormwater management program. For a non-traditional MS4 like the NYSTA, the extent of their system and nature of operations make involvement of the "general public" difficult. However, NYSTA staff (the internal public) and the general public are able to participate in the development and implementation of the NYSTA SWMP through their opportunity to comment on the Stormwater Program Annual Reports and the SWMP plan, and through participation at NYSTA events.

Public Involvement and Participation is a minimum control measure that is required by the Permit. A list of the requirements of this minimum control, and the measures that were completed during the first permit cycle are provided below.

Section 3.3 Future Strategy, outlines NYSTA's planned future approach for this measure.

3.2. Measure(s) Required By This Minimum Control

1. *Develop procedures to provide public notice and access to documents and information in a manner that complies with State, local, and public notice requirements.*

   Non-traditional MS4's may comply with this requirement by determining who their public is (staff, visitors, contractors, etc.) and by posting notifications in areas viewable to the public.

   - **Annual Reports** - Each year, the Annual Report is posted on the NYSTA website (http://www.nysthruway.gov/environmental/ms4s.html) and made available at each of the NYSTA Division Headquarters for public review and comment. The public is invited to comment on the reports either by phone, mail, or e-mail. The Annual Reports are also announced in the NYSDEC's Environmental Notice Bulletin (ENB). It was originally anticipated that the Annual Reports could be provided at the Thruway service areas; however, due to logistical constraints this proved infeasible.
   - **Educational Posters, Brochures, and Other Materials** – As discussed in Section 2 Public Education and Outreach, NYSTA has developed educational brochures, posters, fact sheets, an activity book and a stormwater educational video. The NYSTA's website and the postcards discussed in Item #5 below, provides notice that these materials are available through the website. A notice for the materials pertinent to NYSTA staff has been posted on the NYSTA's intranet site.

- **NYSTA Stormwater Policy and Procedures** - Internal notice is provided to appropriate staff for review and comment on new policies and procedures related to the stormwater management program.

2. *Provide the opportunity for the public to participate in the development, implementation, review, and revision of the SWMP.*

   The NYSTA Environmental Services Bureau oversees the development and implementation of the SWMP. However, they coordinate all efforts with the appropriate NYSTA departments and staff (the internal public) from program development through final approval. The general public has an opportunity to comment on the annual report each year, and the SWMP plan is a living document that is available for public review and comment.

3. *Public presentation, summary of comments received, and intended response to the SWMP annual reports:*

   The NYSTA posts annual report comments and response to comments on their website and in paper format at their Division Headquarters.

4. *MS4 contact person identified:*

   The Permit requires each MS4 identify and publish a point of contact for the SWMP. Michael Monahan is currently the MS4 contact for the NYSTA.

5. *The NYSDEC recommends that announcements be sent directly to public and private interested parties known to have specific interest in the covered entity's SWMP*

   Post cards we developed by NYSTA in 2008 have been edited to include a reminder of NYSTA's educational campaign as well as the availability of the SWMP plan at NYSTA headquarters. Approximately 200 postcards will be sent to statewide environmental organizations, educational organizations, and County Chambers of Commerce in 2010.

6. *Ensure that a copy of the final annual report and the SWMP plan are available for public inspection.*

   The final annual reports are provided on the Thruway website. Paper copies of the annual reports and the SWMP plan are available at the Division headquarters.

Thruway Division Offices

New York Division Contact: Michael Wetzel 4 Executive Blvd. Suffern, NY 10901 845-918-2526	Syracuse Division Contact: Michael Reed Suite 250 2nd Floor 290 Elmwood Davis Road Liverpool, NY 13088-2104 315-438-2393

Albany Division Contact: Robert Romeo 270 Mount Hope Drive Albany, NY 12209 518-436-3006	Buffalo Division Contact: Tom Moore 455 Cayuga Road Suite 800 Cheektowaga, NY 14225-1309 716-635-6291

7. Design and conduct a public involvement/participation program:

- ***Public Participation Events*** – Public participation programs along the Thruway are difficult to implement due to the health and safety concerns associated with activities along a major highway. As discussed in Section 2, the NYSTA subcontracted with a firm that specializes in public outreach to assist in the development of programs and to solicit public participation. Public participation events have included stenciling catch basins at the Guilderland Service Area, planning the grand opening of the interactive watershed model at the CMOST, as well as partnering with the NYSCC on other Statewide events.

- ***Advisory/Partner Committees*** – The NYSTA often participates in Partnering Committees with the NYSDOT and the NYSCC, since they share many of the same goals and challenges for compliance with the Permit. NYSTA continues to meet with the NYSDOT and the NYSDEC to provide input on the Illicit Discharge Detection and Elimination (IDDE) system guidance, transportation construction guidance, and to discuss issues regarding permit compliance and metrics for non-traditional MS4s.

- ***Community Hotline*** – The NYSTA provides contact information on their educational brochures and website for public questions and comments.

  New York State Thruway Authority
  Environmental Services Group
  Attention: Michael Monahan
  200 Southern Blvd.
  Albany, NY 12209
  (518) 471-5942

- ***Storm Drain Stenciling*** – The NYSTA coordinated a storm drain stenciling event with a local school class at the Guilderland Service Area to educate elementary students that catch basins are hydraulically connected to waterbodies. The NYSTA section maintenance staff stenciled remaining catch basins at all service areas across the State. The stenciled catch basins serve as a reminder to Thruway travelers that what they spill or dump in the parking lot will eventually discharge to a stream, river, or waterbody.

- ***Volunteer Monitoring*** – The NYSTA developed a Stormwater Pollution Prevention brochures and a Nutrient Brochure, as discussed in Section 2, to educate the public on how they can help reduce pollution and identify illicit discharges so they can report them to appropriate officials for assessment and elimination. As mentioned earlier, these are made available at the Thruway service areas and at Thruway events.

3.3. Future Strategy

The NYSTA will continue to have an MS4 contact person assigned for public comments and questions. The Connecting the Drops campaign will continue and the NYSTA will look for ways to safely involve the public in stormwater related public participation events; however, involvement/participation programs will focus on NYSTA staff since they have the greatest opportunity to influence pollution prevention through daily operations within the MS4. The NYSTA will continue to coordinate with the NYSDOT to address the many goals and challenges of meeting the requirements, and the NYSTA will continue to participate in workshops with the NYSDEC and other involved stakeholders.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J, Measurable Goals.

4. Illicit Discharge Detection and Elimination

4.1. Regulatory Intent and Overview

Any discharge to the Waters of the United States that is not composed entirely of stormwater, is not a SPDES permitted discharge, or is determined to be a substantial contributor of pollutants by the NYSDEC, is considered an illicit discharge. Illicit discharges may enter a storm sewer system directly through a non-permitted connection, or indirectly through a cracked or broken storm sewer. Pollutants may include heavy metals, toxics, oil and grease, surfactants, microbes, and more. An illicit discharge can come from a variety of sources, including: sanitary wastewater, septic tank effluent, vehicle wash water, improper disposal of oil, radiator fluid or other automotive fluids, laundry wastewater, spills from roadway accidents, materials storage, and improper disposal of household toxics. The greatest potential for a NYSTA-generated illicit discharge is from maintenance facilities, sewage pipes improperly plumbed to the storm sewer, and through highway and right-of-way operations and maintenance. NYSTA must also be aware of the potential for illicit discharges as a result of the operations of their many vendors and from adjacent communities.

A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized below.

Section 4.3 Future Strategy, outlines NYSTA's plan for addressing this minimum control in the future.

4.2. Measure(s) Required By This Minimum Control

1. *Develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4:*

   - **Illicit Discharge Identification and Reporting Requirements – (MD 2008-1)** – The NYSTA developed an Illicit Discharge Maintenance Directive (MD) to provide guidance for NYSTA personnel on the identification and avoidance of illicit discharges and on the proper notification process if an illicit discharge is suspected. The NYSTA's Division Environmental Specialists (DESs) also coordinate with section maintenance staff routinely to discuss environmental concerns, which could include, but are not limited to, potential illicit discharges.

   - ***Outfall Inspections*** – The NYSTA inspected outfalls located within the NYSDEC designated urbanized areas. Inspections

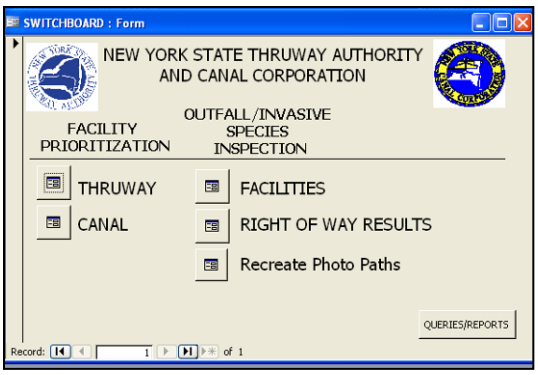
were performed at NYSTA facilities that had the potential to pollute stormwater and at outfalls along the highway right-of-way. `There were 1,174 outfalls inventoried and inspected in 2004-2006. The next round of inspections was completed in 2008-2009.

Potential field team observations included sheens, foam, odors, and pipe staining, all of which could be naturally occurring, but warranted further follow-up action. The Division Environmental Specialist (DESs) revisited outfalls with potential for an illicit discharge to determine if follow-up investigations were warranted. The observations were found to be either naturally occurring or coming from adjacent MS4s.

The DESs will also follow-up in the future if potential problems are identified. A Microsoft Access database maintains the inspection data including the type of outfall, pipe material, discharge characteristics, and the presence of upstream facilities with increased potential to pollute stormwater.

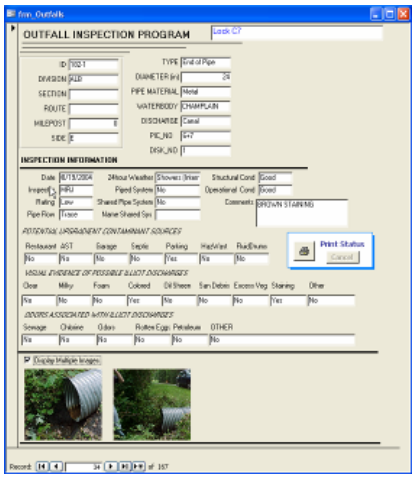
- ***Large Culvert System Mapping*** – The NYSTA inspects large diameter culverts for hydraulic and structural condition on a five year rotating schedule. These inspections are recorded into an asset management database known as the Infrastructure, Inventory, and Inspection System (IIIS). Updates have been made to this database to include fields to identify if a culvert is an outfall and to document the potential presence or absence of illicit discharge. Training materials have been distributed to NYSTA field crews to educate employees on the identification of illicit discharges based on the characteristics of the discharge and the area surrounding the outfall. Follow-up investigations are to be performed on all culverts showing evidence of potential illicit discharges.

- ***NYSTA Facility Evaluation and Prioritization*** – NYSTA facilities including maintenance facilities, storage areas, toll plazas, and service areas were evaluated during the first MS4 permit cycle by the consultant and Division staff to determine if adequate Best Management Practices (BMPs) are in place and are being utilized. A representative sample of each of these facility types was visited across the State to review operations and assess the potential environmental impacts that such activities may have on stormwater discharges. Operations that were evaluated included pesticide storage and application, vehicle maintenance, bridge maintenance, highway maintenance activities, right-of-way mowing, fueling operations, restaurant facilities, chemical and petroleum storage, wastewater treatment operations, and material storage.



From these evaluations, a Microsoft Access database was developed to record information on each NYSTA facility that could potentially have an impact on stormwater quality. This database was populated with information provided by the Environmental Specialists from each Division. BMPs and Standard Operating Procedures (SOPs) have been developed to reduce the potential for pollution and additional emphasis has been placed on operations at facilities that were identified as higher risk. *(The final database and GIS files have been provided on the CD in Appendix K)*

- ***Contact with Adjacent MS4s*** – The NYSTA spoke with the NYSDEC in November 2006 and received their concurrence (*NYSDEC Adjacent MS4 E-mail Correspondence, Appendix L)* for a letter to be sent by the NYSTA to adjacent MS4s (*Adjacent MS4 Letter, Appendix M)*. This letter was sent to remind adjacent MS4 communities that they were responsible for eliminating illicit discharges within their own boundaries and prohibiting them from discharging to the NYSTA stormwater systems. Regarding procedures to prohibit/enforce illicit discharges, the NYSTA does not currently have the legal authority to adopt ordinances as contemplated in the MS4 Permit. In addition, entering into agreements' with all the MS4s along the Thruway Systems is logistically inappropriate. NYSTA corresponded with the NYSDEC MS4 Permit Coordinator regarding the permit intent. It was agreed by NYSDEC (see November 8, 2006 e-mail) that providing the letter to adjacent MS4s met the intent of the Permit.
- ***Failing Septic Systems*** – Upon identification of a failed septic system, the NYSTA maintenance staff will either repair system(s) as needed or will identify the need for a project to be repaired under the Contracts Program. Septic systems are pumped out every five years and replaced every fifteen years.
- ***Illegal Dumping*** – The Pollution Prevention Brochure that is provided to NYSTA travelers, employees, and the general public requests the public to report illegal dumping. NYSTA maintenance staff also collects and properly disposes of trash found along the NYSTA right-of-way in the spring, as needed. In addition, at locations that have historically been prone to illegal dumping, signs are posted that warn travelers that fines may be charged for littering.



2. *Develop and maintain a map showing the location of all outfalls and the names and locations of all surface waters that receive discharges from those outfalls, and the preliminary boundaries of the covered entities storm sewershed*:
   - ***Outfall Mapping*** –The NYSTA has surveyed and inspected outfalls at NYSTA facilities and along the highway right-of-way . The facilities inspected included toll plazas, salt sheds, service areas, and maintenance facilities.

A total of 1,174 outfalls were surveyed using a Global Positioning System (GPS) and then mapped in Geographic Information System (GIS) using ESRI ArcView 9.1. This dataset was shared with the New York State GIS Clearinghouse for use by other GIS users across the State. This file will be updated in the future by the NYSTA Department of Information Technology as new outfalls are constructed or identified. (The final database and GIS files have been provided on the CD in Appendix K)

- ***Preliminary Sewershed*** – A preliminary sewershed has been developed for NYSTA facilities and the highway right-of-way. (The GIS files have been provided on the CD in Appendix K)

3. *Field verify outfalls and conduct outfall inspections on a five year rotating schedule.*

   The outfall inspections are discussed in detail in Item #1 of this Section.

4. *Map new outfalls as they are constructed or discovered within the urbanized area or additionally designated areas*

   New outfalls are mapped by the contractors installing the outfalls and provided to the NYSTA. Otherwise, they are mapped during the five year rotating outfall inspection program.

5. *Prohibit, through an ordinance, local law, or other regulatory mechanism, illicit discharge into the MS4:*

   - ***NYSTA Maintenance and Operations*** – Illicit discharges that could occur within the MS4 as a result of maintenance and operation activities are prohibited through the Clean Waters Act and NYSTA Maintenance Directives. In addition, the NYSTA (DESs) oversee the NYSTA operations and regularly visit and evaluate operations for environmental compliance. The DESs perform a State Agency Environmental Audit on an annual basis to evaluate NYSTA facilities, activities, and projects for environmental compliance. Items or actions found not to be in compliance are identified and/or corrected. Many of the items evaluated in the State Agency Environmental Audit also pertain to the SWMP. If the illicit discharge occurs at a NYSTA facility, follow-up actions are handled through NYSTA program supervisors with DES advice. For illicit discharges off the NYSTA right-of-way, NYSTA notifies the appropriate regulatory agency for follow-up action.
   - ***NYSTA Construction*** – The NYSTA is a non-traditional MS4 that performs their own construction activities or reviews and approves drawings and specifications for new construction and then oversees the construction with either their own forces or through consultants. Any new pipe connections are overseen by the NYSTA or their agents.

6. *Develop and implement a program to detect and address non-stormwater discharges to the system:*

   - Non-stormwater discharges such as water line flushing, landscape irrigation, and diverted stream flows are not common within the NYSTA operations and have been determined by NYSTA to be negligible contributors of pollutants. Since the NYSTA is a non-traditional MS4, many of the types of non-stormwater discharges listed by the NYSDEC do not pertain to NYSTA facilities or operations. The NYSTA establishes BMPs to eliminate or reduce non-stormwater discharges for various activities through the development of Job Activities and MDs used by supervisors and employees to perform day-to-day tasks, as well as through other guidance documents that are prepared to assist maintenance in their everyday activities.

7. *Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste:*

   - ***Good Housekeeping Posters*** – Two posters have been developed to continue to educate employees about illicit discharges. One poster gives employees guidance on how to locate and report sources of illicit discharges. The poster displays images and provides descriptions of illicit discharges that could be found at facilities during daily operations. This poster is displayed at all NYSTA maintenance facilities and wastewater treatment plants. The second poster has been developed to educate maintenance employees on the proper use and maintenance of oil water separators. *(Prevent Stormwater Pollution Poster, Appendix N; Oil Water Separator Maintenance Poster, AppendixOL)*

   - ***Service Area Good Cleaning Practices Poster*** – As referenced in Section 2, a Good Cleaning Practices educational poster was developed for Thruway service area food service vendors and their staff. These posters are designed to educate cafeteria and vendor staff about pollution prevention and proper operation and maintenance best

management practices for grease traps, dumpster areas, and wash water disposal. The food and fuel service providers at the Thruway service areas lease space from the NYSTA. *(Good Cleaning Practices Poster, Appendix H)*

- ***Pollution Prevention and Nutrient Brochure*** – As referenced in Section 2, these brochures were developed to educate the public on how to identify illicit discharge and how they can help to prevent stormwater pollution. *(Pollution Prevention Brochure, Appendix C; Nutrient Brochure Appendix E)*
- ***Stormwater Educational Video*** – As referenced in Section 2, developed an educational video about watersheds, non-point source pollution, and pollution prevention. This video receives great exposure as approximately 20 million people visit the travel plazas each year.

8. *Address all sources of non-stormwater flows (if determined to be a substantial contributor of pollutants) and select appropriate management practices for these sources:*

   - Since the NYSTA is a non-traditional MS4, many of the types of non-stormwater discharges listed by the NYSDEC do not pertain to NYSTA facilities or operations. Non-stormwater discharges such as water line flushing, landscape irrigation, and diverted stream flows have been determined by NYSTA to be negligible contributors of pollutants. As previously mentioned, the NYSTA establishes BMPs to eliminate or reduce non-stormwater discharges for various activities through the development of Job Activities, Maintenance Directives, and other guidance documents. For example, bridge and vehicle washing BMPs have been addressed in the development of defined Job Activities. Salt and deicer application and use is covered in the NYSTA Winter Maintenance Manual.

9. *Select and implement appropriate IDDE BMPs and measurable goals to ensure the reduction of all POCs in stormwater discharges to the MEP.*

   The SWMP plan must describe how pollutants in stormwater run-off will be controlled.

   - Facility and Operations Evaluation – The first step for controlling pollutants was to identify what pollutants are stored and used at facilities and during operations. The facility evaluations are discussed in Item #1 of this section.

   - MS4 General Permit Mapping - The NYSTA has identified the pollutants of concern (POCs), the waterbodies of concern, and the geographic areas of concern within the NYSTA's jurisdiction. The latest list of waterbodies of concern and associated pollutants of concern is provided as Appendix B. This information is provided to NYSTA staff on the intranet site and it was also provided in paper format to each Division. These maps were developed to be referenced by

highway and operations managers responsible for staff who will be working on the highway right-of-way, and those staff responsible for operations at the Thruway facilities.

These maps show the following layers:

- Section 303(d) Listed Waters
- Approximate Stormwater Run-off Direction of Drainage
- TMDL Watersheds
- National Register Sites
- Rare Species and Natural Communities
- Steep slopes that drain to AA or AA-s waters

The paper maps were too big to include with this document, but a copy can be obtained from the Environmental Services Bureau. The maps are titled, "MS4 General Permit Maps.

- Physical Controls - Physical controls are in place to control pollution. Some of these include oil water separators, septic tanks, vehicle wash bays, covered salt and deicer storage, proper storage of pesticides, proper storage of replacement fluids and waste fluids for vehicles and equipment, wash stations for parts.
- Education and Policy Development – As previously discussed, NYSTA has developed educational material for staff and updated policies and procedures for pollution prevention.
- Inspections – The NYSTA conducts large culver inspection and outfall inspection on a five year rotating schedule. NYSTA staff conduct inspections along the highway right-of-way on a weekly basis. These inspections provide staff with a thorough understanding of the condition of NYSTA property and infrastructure, which enables them to be responsive when problems arise. The Division Environmental Specialists conduct Annual Internal Environmental Audits. Items or actions found not to be in compliance are identified and corrected.
- SPDES Permit Sampling - Some maintenance facilities have individual SPDES permits to discharge stormwater to a stream. These facilities require analytical monitoring as part of the SPDES permit compliance. Analytical monitoring will help to identify pollution problems at these facilities.
- Phosphorus Sampling - Conducted a baseline phosphorus sampling program in Onondaga watershed along the Thruway. The results of the sampling event indicated that the samples collected from the NYSTA right-of-way were essentially equal to background levels.

4.3. Future Strategy

Follow-up right-of-way outfall inspections were conducted in 2008 and 2009. The Albany Division and the Herkimer and Verona Sections of the Syracuse Division were completed in 2008, the remaining Syracuse Sections, the New York Division, and the Buffalo Division were completed in 2009. The next round of inspections should be scheduled to begin 2013.

As new outfalls are constructed and surveyed they will be added to the GIS by the NYSTA Department of Information Technology.

NYSTA will continue educating employees and the public on how to identify illicit discharges, asking employees to be vigilant in looking for evidence of illicit discharge as part of their day-to-day activities and continue to conduct regular environmental compliance audits.

On an annual basis, the NYSTA will determine which educational materials need to be updated, copied, and/or distributed and if additional training is necessary.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J.

5. Construction Site Run-off Control

5.1. Regulatory Intent and Overview

Proper stormwater management at construction sites prevents erodible soil and other pollution in stormwater run-off from causing degradation of adjacent waterbodies. Under the Phase II Stormwater Rule, Permit coverage under the *NYSSPDES General Permit for Stormwater Discharges from Construction Activities* is required for all construction projects that will disturb one or more acres. In order to satisfy the construction site run-off control minimum control measure, MS4s needs to develop, implement, and enforce a program to reduce pollutants and reduce the peak stormwater discharge run-off from construction activities that result in a land disturbance of one acre or more (five thousand square feet or more if the area is within a TMDL watershed).

During the first permit cycle strict compliance with this minimum control measure was challenging. The NYSDEC recognized this was a problem and updated the new permit accordingly. Non-traditional MS4s can now meet this requirement by incorporating policies, procedures, and requirements into requests for proposals, standard contracts, and into internal policies. At the NYSTA, many of these mechanisms are already in place for scenarios in which the enforcement of erosion and sediment control is needed within the right-of-way boundaries.

Contractors performing construction for the NYSTA are bound by the requirements of the project SWPPP and the conditions of the contract documents. Routine maintenance activities performed by NYSTA staff are regulated by internal policies, guidance, and Standard Operating Procedures (SOPs) including the Illicit Discharge MD. Properties that are leased from the NYSTA are bound by the environmental and special conditions clauses included in their leases. Other work activities completed within the NYSTA rights-of-way (e.g., fiber optic installation) require that a Work Occupancy Permit be obtained; which, as appropriate, includes specific environmental requirements as a condition of access.

As part of the SWMP, the NYSTA reviewed existing control mechanisms to confirm they clearly establish the roles and responsibilities of involved parties with regard to the protection of stormwater quality and to verify that adequate enforcement authority is provided. The initial review and modification of existing control mechanisms such as MDs and Job Activities has been completed, but this will be an ongoing process as the

Permit evolves, additional projects and activities are undertaken, and as control mechanisms are continuously improved.

To meet the requirements of this minimum control, the NYSTA has reviewed and updated policy and procedures, trained staff, and developed Quality Assurance and Quality Control (QA/QC) measures. A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized in Section 5.2.

Section 5.3, Future Strategy, outlines NYSTA's planned future approach for this measure.

5.2. Measure(s) Required By This Minimum Control

1. *Require mechanisms for construction run-off controls from new development and redevelopment projects to the extent allowable under State and local law that meet the State's most current technical standards.*

   - Erosion and sediment control is currently enforced through contract documents, consultant agreements, MDs and standard operating procedures, and through lease and occupancy permits. Requirements within the MS4 are enforced through routine inspections of construction sites by both NYSTA staff and consultants. When an inspection identifies a stormwater issue, it is referred to the respective contract manager, program supervisor, and/or DES for appropriate follow-up action.

   - NYSTA policies and guidance documents related to construction operations were evaluated and updated to ensure that they met the erosion and sediment control and pollution prevention requirements of the Permit. The Permit requires written directives from the person authorized to sign the Notice of Intent (NOI) stating that updated mechanisms must be used and who is responsible for ensuring compliance. The NYSTA uses Maintenance Directives to facilitate this requirement. The NYSTA will continue to evaluate and develop BMPs to formally define the roles of maintenance staff in meeting the requirements of the new General Permit.

2. *Develop and implement procedures for the receipt and consideration of information submitted by the public:*

   Descriptions of major capital projects are available on the NYSTA website and plans are available in hardcopy format through appropriate procedures. Large capital projects often have public hearings that provide the public with an opportunity for input on the project during its scoping and design phases.

3. *Develop and implement procedures for site plan review by the MS4 that incorporate consideration of potential water quality impacts and review individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements:*

   - New projects are reviewed by project managers, environmental staff, and construction staff to ensure the design and location of the project will not negatively impact water quality. The specific individuals and departments involved in the review are determined by the nature and location of the project.

4. *Develop and implement procedures for site inspections, enforcement of control measures, and sanctions to ensure compliance with the Permit*

   - Division Construction staff currently perform site inspections of construction projects within their jurisdiction to ensure that erosion and sediment controls are installed and functioning as required by the project SWPPP. The NYSTA has adopted NYSDOT EB 04-023, which provides site inspection forms and procedures.

     Most capital construction projects have consultant inspectors that have primary responsibility for inspecting the work to ensure compliance with the contract documents. Periodically, the NYSTA's construction inspectors and DESs review inspection records and other documentation for compliance with Permit and SWPPP requirements. This system of QA/QC provides a secondary check that Contractors are implementing elements in the SWPPP as they were designed and that consultant inspectors are enforcing the requirements.

5. *Educate and train construction site operators, design engineers, municipal staff, and other individuals to whom these regulations apply about the construction requirements in the covered entity's jurisdiction, including the procedures for submission of SWPPPs, construction site inspections, and other procedures associated with control of construction stormwater:*

   During the first permit cycle, extensive Statewide stormwater management training was given to NYSTA employees involved with the design, construction, and maintenance of facilities. General awareness training has also been conducted in all NYSTA Divisions by the Environmental Services Bureau (over 200 NYSTA staff members) which included managers, supervisors, engineers, and technicians involved in design, construction, operation and maintenance. More detailed training and workshops were provided for well over 100 NYSTA designers, environmental specialists, managers, supervisors, and maintenance managers to provide further guidance on the Permit, and how it affects Thruway operations.

A general training overview of training that has occurred and continues to occur is provided below:

- General Awareness training was conducted to provide staff with an overview of GP-02-01.
- Training workshops for NYSTA designers to review the process for designing permanent stormwater controls. These workshops focused on performing the calculations necessary to design a permanent stormwater control in compliance with the NYSDEC technical requirements for water quality and quantity control.
- Construction Site training for construction project engineers, inspectors and consultants. Training included an overview of the Phase II Regulations, the hydrologic and hydraulic analysis associated with these requirements, erosion and sediment control, and a review of the NYSTA construction and contractor requirements.
- The NYSTA continues to author and present sessions when invited at various conferences. Topics for these sessions have included the importance of environmental stewardship, discussion of specific components of their SWMP, overviews of approaches for compliance with the six minimum controls, and discussion of the designer's, owner's, contractor's, and inspector's responsibilities for compliance with the Permit.
- NYSTA staff attend the Annual Construction Meeting. This annual meeting provides technical sessions on construction site inspections, erosion and sediment control, hydraulics and hydrology, and design of permanent stormwater controls.
    - GP-0-08-002 Training - During the six months following issuance of GP-0-08-002, training was provided to 51 NYSTA employees across the state.
        - 8/21/2008 - New York - 12 employees
        - 8/27/2008 - Albany – 7 employees
        - 9/3/2008 - Syracuse – 11 employees
        - 12/3/2008 - Buffalo Division –21 employees
    - There were 14 Construction Site Operators who received the required four hour Department approved erosion and sediment control training in 2009.
    - Division Environmental Specialists were provided overview training of the MS4 compliance strategy on November 17, 2008.

6. *Ensure that construction site contractors have received erosion and sediment control training, including the trained contractors as defined in the SPDES general permit for construction, before they do work within the covered entities Jurisdiction.*

    - Contractors sign certification statement and provide the name and title of the trained contractor responsible for SWPPP implementation before the commencement of construction activities.

7. *Establishes an inventory of active construction sites, including the location of the site, owner/operator contact information*

    - The Bureau of Environmental Services maintains an inventory of active construction sites and required information.

8. *Select and implement appropriate construction stormwater BMPs and measureable goals to ensure the reduction of all POCs in the stormwater discharge to the maximum extent practicable*

    - Maps showing the location of the impaired waters, the pollutants of concern, and the general drainage flow patterns are provided on the NYSTA intranet and in hardcopy format on the MS4 General Permit Maps. This information will help the NYSTA assure that the proper BMPs are selected for construction projects. The pollutants of concern for construction projects include silt and sediment, floatables, and nutrients. Proper design and maintenance of erosion and sediment control should ensure that construction activity POCs are not being discharged to impaired waters. However, knowing the location of the impaired waters will help to emphasize the importance of the proper design and maintenance of these controls, or perhaps facilitate the addition of more erosion and sediment controls for particular projects.

5.3. Future Strategy

Stormwater management training for construction activities was given to all NYSTA staff across the state in the fall of 2008. Training covered the new permit requirements related to construction site inspection, maintenance, and record keeping. There were 14 Construction Site Operators who received the required four hour Department approved erosion and sediment control training in 2009. The NYSTA will continue to conduct, as appropriate, training sessions to update staff and to present new innovations in erosion and sediment control.

After the issuance of new Permits, the NYSTA will review its leases, MDs, consultant contracts, and other control mechanisms to ensure the most up-to-date information related to the prevention of stormwater pollution is included.

Policy and guidance documents related to construction operations will continue to be updated to ensure they meet the erosion and sediment control and pollution prevention requirements of the new permit. NYSTA will continue to develop, as appropriate, new technical specifications and standard details for structural and non-structural stormwater controls to be used on their projects and will adopt revised specifications and standard details as they are developed and accepted by the NYSDOT.

Descriptions of major capital projects will continue to be posted on the NYSTA website and construction plans will be made available in hardcopy format through appropriate procedures.

Continue to maintain an inventory of active construction sites, including the location of the site and owner/operator contact information

Continue to provide maps of impaired waters and pollutants of concern to field personnel and SWPPP developers to assure that the proper BMPs are selected for construction projects and used as-needed for routine maintenance activities. Knowing the location of the impaired waters will help to emphasize the importance of the proper design and maintenance of controls, or perhaps facilitate the addition of more erosion and sediment controls for particular projects. These maps are up-to-date as of 2010, but should be updated as new information is provided from the NYSDEC.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J.

6. Post-Construction Site Run-off Control

6.1. Regulatory Intent and Overview

The Phase II Stormwater Permit requires the operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants and the peak run-off resulting from a construction project with a land disturbance of greater than or equal to one acre, or five thousand square feet if they are located within a TMDL watershed. As run-off flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients. These pollutants often become suspended in run-off and have the potential to pollute the receiving waters. Development also increases the amount of impervious surfaces, which increases the velocity and volume of run-off and decreases the amount of infiltration into the soil. This increases channel erosion, streambank scouring, and downstream flooding.

Post-construction run-off control includes a combination of structural and non-structural management practices to reduce the discharge of pollutants. Permanent structural controls may include stormwater ponds, vegetated swales, designed wetlands, sand filters, and infiltration systems. These controls are designed to reduce peak run-off and improve the quality of the stormwater. Non-structural management practices ensure that the permanent controls are designed, installed, and maintained. They could also include policies to limit development and/or the amount of impervious area. A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized below. Section 6.3 Future Strategy, outlines the NYSTA's plan for addressing this requirement in the future.

6.2. Measure(s) Required By This Minimum Control

The overall objective of this minimum control is to develop and implement a post-construction stormwater management program that addresses stormwater run-off from new development and redevelopment and will reduce the discharge of pollutants to the maximum extent practicable. The required goals to meet this objective (identified in the SWMP Annual Report tables), as well as the activities undertaken by the NYSTA for each requirement, are outlined below:

1. *Require mechanisms for post-construction run-off control from new development and redevelopment projects to the extent allowable under State and local law that meet the State's most current technical standards.*

   - Post-construction run-off control is currently enforced through contract documents, consultant agreements, MDs and SOPs, and through lease and occupancy permits. Requirements within the MS4 are enforced through routine inspections of construction sites by both NYSTA staff and consultants. When an inspection identifies a stormwater issue, it is referred to the respective contract manager, program supervisor, and/or Division Environmental Specialist for appropriate follow-up action.

   - NYSTA project managers and environmental staff review permanent stormwater controls, whether developed by NYSTA or by a consultant. These stormwater designs become part of the project contract documents. NYSTA projects that require the construction of permanent stormwater controls typically have consultant inspectors that are responsible for inspecting the construction or installation of permanent controls to ensure compliance with the contract documents. In addition, NYSTA construction inspectors and DESs also perform routine inspections during the installation of permanent controls.

   - The Permit requires written directives from the person authorized to sign the NOI stating that updated mechanisms must be used and who is responsible for ensuring compliance. The mechanism the NYSTA uses to facilitate this is through Maintenance Directives.

2. *Procedures for site plan and SWPPP review to ensure SWMPs meet State standards:*

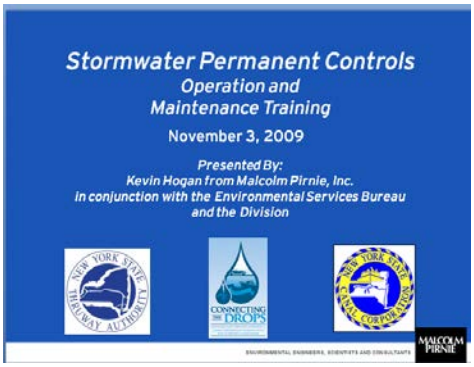
New projects with permanent controls are reviewed by NYSTA project managers and environmental staff. Training was given to project engineers, inspectors, and consultants. Training included an overview of the Phase II Regulations, the hydrologic and hydraulic analysis associated with these requirements, erosion and sediment control, and a review of the NYSTA construction and contractor requirements. In addition, for all NYSTA in-house designs, the Office of Design's project managers are responsible for each design and review the SWPPP for compliance with the NYSDEC's technical standards.

3. *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 2003, those practices owned by the MS4, and those found to cause water quality standard violations.*

   - GIS Map - NYSTA has developed an inventory and map showing the locations of all post construction controls. This map will be updated each year as new post construction controls are constructed.

- Searchable Database - A searchable database was also developed to record and maintain an inventory and inspection record of the NYSTA's post construction stormwater controls. The database will help to manage the inventory and inspection data, and will be used to flag and track required maintenance activities.

4. *Ensures the long-term operation and maintenance of management practices by trained staff, including assessment to ensure that the practices are performing properly.*



- Training - This training provided an overview of the permit, why inspections are required, reviewed the inspection forms, and discussed the frequency inspections should be performed. 51 NYSTA staff were trained across the State in 2009. Training will continue to be provided as needed.

- Permanent Stormwater Control Maintenance and Inspection Manual - This manual was prepared as a reference document to be used by maintenance personnel as guidance for the proper operation, maintenance, and inspection of permanent stormwater controls. The information provided in this manual was compiled from the New York State Stormwater Management Design Manual and with NYSTA specific post construction control information.

5. *Develop, implement and provide adequate resources for a program to inspect development and redevelopment sites by trained staff and to enforce and employ sanctions.*

   NYSTA Division Environmental Specialists inspect development and redevelopment sites to ensure they are being properly maintained. Construction work performed on NYSTA property will either be conducted by NYSTA staff, by a contractor hired by the NYSTA, or by a contractor hired by an entity that has a lease through the NYSTA. The mechanisms for enforcing actions would include stop work orders and contract termination for contractors, disciplinary actions for NYSTA staff, and termination of lease agreements for a breach of lease.

6. *Select and implement appropriate post-construction stormwater BMPs and measurable goals to ensure the reduction of all POCc in stormwater discharges to the maximum extent practicable.*

   The selection of appropriate BMPs post construction control occurs in the SWPPP completion or SWPPP approval phase. The evaluation of the selected controls

includes a review of the impaired waters in the proximity of the project. New projects with post construction controls are reviewed by NYSTA project managers and environmental staff. Training given to project engineers, inspectors, and consultants included an overview of the Permit requirements, the hydrologic and hydraulic analysis associated with these requirements, and erosion and sediment control guidelines. In addition, for all NYSTA in-house designs, the Office of Design's project managers are responsible for each design and review the SWPPP for compliance with the NYSDEC's technical standards.

6.3. Future Strategy

The NYSTA currently owns and maintains relatively few permanent controls which were constructed prior to the issuance of the Permit. Under current permit requirements, the quantity of permanent controls will increase considerably over time as the NYSTA performs large-scale capital and maintenance projects, including full-depth reconstruction projects. Individual project designs will identify maintenance requirements that should be implemented by the maintenance staff.

The NYSTA has developed a permanent control database and GIS map. NYSTA staff will utilize the database to record and manage the inventory and inspection data, and to flag and track required maintenance activities. As new permanent controls are constructed the GIS map be updated and the as-built drawings added to the database to be used by the inspectors as guidance.

Permanent control inspection training was provided across the State in 2009 and will be conducted in the future as-needed.

Post-construction run-off control is currently enforced through contract documents, consultant agreements, MDs and SOPs, and through lease and occupancy permits. These policies will be reviewed to confirm they meet any new requirements of the new Permit (GP-0-10-002)

Future considerations may include conducting a detailed hydrologic and water quality analysis of the NYSTA's existing vegetative right-of-way swale to determine the actual benefits of pollutant removal and infiltration to reduce the required quantity and size of new controls that may be necessitated by capital or maintenance projects.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J.

7. Pollution Prevention/Good Housekeeping

7.1. Regulatory Intent and Overview

The Pollution Prevention/Good Housekeeping minimum control requires MS4s to examine their operations and assets, and use Best Management Practices (BMPs) to reduce pollution to waterways and the environment to the maximum extent practicable. Given the nature of the NYSTA and its operations, this minimum control may be the most relevant to NYSTA and overlaps with Illicit Discharge Detection and Elimination (IDDE), Construction Stormwater Run-off, and the Post-Construction Run-off Controls discussed earlier.

A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized below. Section 7.3 Future Strategy, outlines NYSTA's plan to address this minimum control in the future.

7.2. Measure(s) Required By This Minimum Control

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

    - *Addresses municipal operations and facilities that contribute or potentially contribute POCs to the small MS4 system,*

    - *Includes the performance of a self assessment of all municipal operations to determine the sources of pollutants potentially generated by the permittee's operations and facilities, and identifies the municipal operations and facilities that will be addressed by the pollution prevention and good housekeeping program.*

NYSTA Facility Evaluation and Prioritization (Also documented in Section 4 – Illicit Discharge Detection and Elimination) – NYSTA facilities including maintenance facilities, storage areas, toll plazas and service areas were evaluated to determine if adequate BMPs are in place and are being utilized. A representative sample of each of these facility types was visited across the State to review operations and assess the potential environmental impacts that such activities may have on the stormwater discharges. Operations that were evaluated included pesticide storage and application, vehicle maintenance, bridge maintenance, highway maintenance activities, right-of-way mowing, fueling operations, restaurant facilities, chemical and petroleum storage, wastewater treatment operations, and material storage.

From these evaluations, a Microsoft Access database was developed to record information on each NYSTA facility that has the potential to negatively impact stormwater quality. This database was populated with information provided by the Environmental Specialists from each Division. Policies and procedures have been developed to reduce the potential for pollution. Additional emphasis has been placed on operations at facilities that were identified as higher potential risk, such as maintenance facilities, where vehicles and equipment are stored and maintained. In addition, facilities or operations that drain to impaired waters were also considered higher risk.

State Environmental Audit – Each NYSTA DES performs a State Agency Environmental Audit on an annual basis to evaluate the NYSTA facilities, activities, and projects for environmental compliance. Items or actions found not to be in compliance are identified and scheduled for correction. Many of the items of concern evaluated in the State Agency Environmental Audit are also related to the SWMP. Facilities are routinely maintained. Any major modifications are handled through maintenance planning and/or through the placement of a project on the capital program.

2. *Determines management practices, policies, and procedures that will be developed and implemented to reduce or prevent the discharge of potential pollutes.*

Review and Update Maintenance Directives – The NYSTA has reviewed their MDs and other guidance documents to determine if they meet the Permit requirements. Concurrent with this review, guidance documents from the NYSDEC, EPA, NYSDOT, and other agencies were evaluated for BMPs and SOPs that could be adopted by the NYSTA to meet the permit requirements and to support their environmental stewardship efforts. The findings of this evaluation concluded that current MDs and BMPs did not include non-conforming information. However, there is a continuing opportunity to develop new policies for various operations to ensure that NYSTA maintenance and operations staff performs tasks correctly and consistently across the State.

The MDs and Job Activities that have been evaluated and updated include the following:

- Maintenance Directives:
  - Illicit Discharge Identification and Reporting Requirements
  - Maintenance of Oil Water Separators at Maintenance Facilities
  - Deicer and Sand/Salt Storage
  - Universal Waste Management
  - Removal, Storage, and Disposal of Hazardous Waste Generated by Maintenance Activities
  - Care and Cleaning of Authority Maintenance Vehicles and Motorized Equipment Job
  - Spoil Area Guidelines

  - Petroleum Spill Response Guideline
- Job Activities were evaluated for the following tasks:
  - Maintenance of Drainage System Maintenance
  - Cleaning Toll Lanes
  - Grass Mowing
  - Landscape Maintenance
  - Bridge Cleaning
  - Spot and Zone Painting of Steel Bridges

The NYSTA also has developed and/or updated some guidance documents targeting non-point source pollution. These guidance documents include:

- Right-of-Way Management Manual with Highway Mowing Guidelines
- Winter Maintenance Manual

3. *Prioritize pollution prevention and good housekeeping efforts based on geographic area, potential to improve water quality, facilities or operations in need of modification or improvement, and covered entities capabilities, and addresses pollution prevention and good housekeeping priorities.*

- **Facility Evaluation and Prioritization –** As discussed above, the facility evaluation and prioritizations helped to identify the facilities that had the greatest potential to pollute based on operations or their proximity to impaired waters. The results of the evaluation indicated that they were operating in compliance with environmental requirements.

- **MS4 General Permit Maps** – As discussed in Section 2, maps showing the location of the impaired waters, the pollutants of concern, and the general drainage flow patterns are provided on the NYSTA intranet and in hardcopy format on the MS4 General Permit Maps. This information will help the NYSTA assure that the proper BMPs are selected for construction projects. The pollutants of concern for construction projects include silt and sediment, floatables, and nutrients. Proper design and maintenance of erosion and sediment control should ensure that construction activity POCs are not being discharged to impaired waters. However, knowing the location of the impaired waters will help to emphasize the importance of the proper design and maintenance of these controls, or perhaps facilitate the addition of more erosion and sediment controls for particular projects.

- **Erosion and Sediment Control within the Onondaga Lake Watershed** – The Onondaga Lake TMDL watershed is impaired for phosphorus. The NYSTA

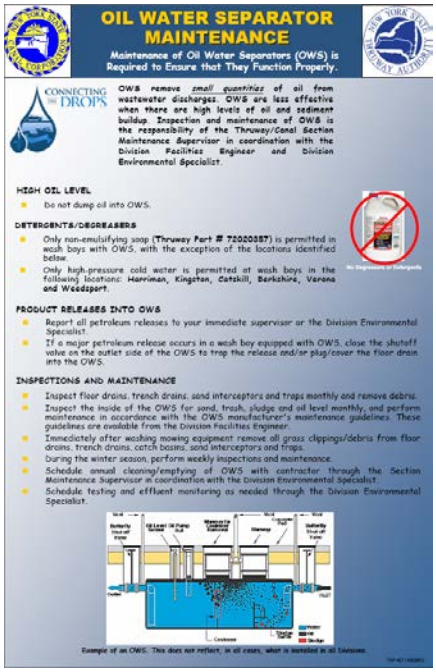
conducted a phosphorus sampling program along the Thruway within the Onondaga watershed. The results of the sampling event indicated that the samples collected from the NYSTA right-of-way were essentially equal to background levels. However, as studies have shown, samples collected with elevated concentrations of total suspended solids typically show higher phosphorus concentrations. By keeping the right-of way well vegetated and reducing the occurrence of erosion, the NYSTA will reduce the levels of phosphorus discharging to the watershed.

4. *Includes an employee pollution prevention and good housekeeping training program and ensure staff receive and utilize training:*

Extensive training has been performed across the State for NYSTA employees that are involved with the design, construction, and maintenance of NYSTA facilities. As it relates to Pollution Prevention and Good Housekeeping, the program summarized the requirements of the Permit, identified pollutants of concern for typical NYSTA operations, and discussed the design of stormwater management practices to reduce pollutants and peak run-off.

In addition to training, several guidance documents have been developed for NYSTA staff:

- A Good Housekeeping poster was developed to remind NYSTA maintenance staff of the proper ways to use, handle, and dispose of pollutants during their daily operations. This poster also displays typical illicit discharges that they might encounter and how they should report them. This poster was distributed to NYSTA maintenance facilities and wastewater treatment plants. *(Prevent Stormwater Pollution Poster, Appendix N).*
- A good housekeeping educational poster was developed for the Thruway service area food service staff. These posters were designed to educate restaurant and vendor staff about stormwater pollution prevention and proper maintenance of grease traps. (Good Cleaning Practices Poster, Appendix H).



- A poster addressing proper operation and maintenance of oil water separators at maintenance facilities was developed (Oil Water Separator Maintenance Poster, Appendix O).
- Environmental reminder cards were created to serve as a quick reference for maintenance staff and supervisors when performing their daily tasks. These cards outline environmental considerations, best management practices, and internal contact information for further information. (Environmental Reminder Cards, Appendix P).

5. *Requires third party entities performing contracted services, including but not limited to street sweeping, snow removal, lawn/grounds care, make the necessary certification in Part IV.G.*

- *NYSTA's own staff performs the vast majority of these operations. Should these services becontracted to a third party, NYSTA will have them sign the certification listed in Part IV.G.*

6. *Requires municipal operations and facilities that would otherwise be subject to the NYS Multisector General Permit (MSGP, GP-0-06-002) for industrial stormwater discharges to prepare and implement provisions in the SWMP that comply with Parts III. A, C, D, J, K and L of the MSGP.*

- While the MS4 permit continues to provide coverage for MS4 operations that would otherwise be eligible for coverage under the Multi-Sector General Permit, the new permit states that all requirements included in the Multi-Sector General Permit must be met by the MS4 SWMP. Their requirements may include inspection, additional prevention plans or sampling. NYSTA is evaluating those activities it performs that would otherwise require coverage under the Multi-Sector General Permit to determine the need for additional MDs, SOPs or guidance.

7.3. Future Strategy

The evaluation of NYSTA facilities and operations during the first permit cycle resulted in a finding of substantive compliance with the Permit. Facilities are generally equipped with mechanisms to prevent stormwater pollution and the employees are familiar with pollution prevention. Employee training continues to offer the best opportunity to ensure that BMPs are used consistently throughout the State. Training should continue to be integrated into daily activities to be completed by NYSTA personnel. Each year, NYSTA will evaluate the need to provide training for staff. This will include providing training for new staff, as well as training staff on new subject material to help them meet Permit requirements. To this end, the NYSTA should adopt pollution prevention

awareness as part of the new maintenance employee orientation. As appropriate, Supervisor(s) should review key pollution prevention practices with their new employees so that these practices can be incorporated into everyday activities. The employees should also receive the Environmental Reminder Cards that list and summarize the environmental requirements associated with their everyday roles and responsibilities. The NYSTA will continue to evaluate new guidance that is issued by the NYSDEC and incorporate those practices into their SWMP as applicable.

On an annual basis, NYSTA will confirm that educational posters and materials are still displayed and/or readily available for staff. The materials will be evaluated to confirm they are still current with the requirements of the permit, and they will be updated and redistributed as needed.

NYSTA will continue to educate staff of the location of impaired waters, pollutants of concern, and the best management practices to protect the impaired waters. This information is provided on NYSTA's intranet and also in hardcopy format on the MS4 General Permit Maps. These maps and the intranet data will be updated as issued by the NYSDEC.

The phosphorus sampling program demonstrated that suspended solids increase phosphorus concentrations in stormwater run-off. Keeping the right-of way well vegetated will help to reduce phosphorus concentrations in run-off.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J.

8. Watershed Improvement Strategy Requirements

8.1. Regulatory Intent and Overview

There are additional MS4 requirements for those MS4s that are within an impaired watershed. The NYSDEC has completed Total Maximum Daily Loads (TMDLs) for a number of watersheds in New York State. The watersheds listed in the Permit include the East of Hudson Watershed, the Onondaga Lake Watershed, the Greenwood Lake Watershed, the Oyster Bay Watershed, the Peconic Pathogen Watershed and the Peconic Nitrogen Watershed.

The MS4s located within the watershed improvement strategy areas must develop or modify their SWMP to address the watershed specific additional requirements to achieve the pollutant load reduction by the deadline as defined in the Tables in Part IX of the Permit. The Pollutant Load Reductions are the reductions necessary from the discharge loads associated with MS4s that, when combined with reductions in the discharge loads from non-MS4s to the waterbody, will meet water quality standards.

A list of the requirements of this minimum control, and the tasks that were performed by the NYSTA to address them, are summarized below. Section 8.3 Future Strategy, outlines NYSTA's plan to address this minimum control in the future.

8.2. Measure(s) Required By This Minimum Control

1. *Plan and conduct an ongoing public education and outreach program designed to describe the impacts of phosphorus on the waterbodies. Develop, or acquire if currently available, specific educational material dealing with sources of phosphorus.*

- **Nutrient Brochure** – This brochure describes the harmful effects of discharging the pollutants phosphorus and nitrogen to the waterways and provides suggestions for nutrient pollution prevention. Nutrients, particularly phosphorus, are the pollutants of concern for many of the impaired waterbodies and TMDL watersheds. NYSTA discharges to two TMDL watersheds that are impaired for phosphorus, the East of Hudson and Onondaga Lake watersheds. This brochure is distributed at the service areas, Canal Locks, and at Thruway and Canal events such as the New York State Fair, Canal Openings and Clean Sweep events. There

have been 1800 copies of the brochure distributed. *(Nutrient Brochure, Appendix E)*

- **MS4 General Permit Maps** – As discussed in Section 2, maps showing the location of the impaired waters, the pollutants of concern, and the general drainage flow patterns are provided on the NYSTA intranet and in hardcopy format on the MS4 General Permit Maps. This information will help the NYSTA assure that the proper BMPs are selected for construction projects. The pollutants of concern for construction projects include silt and sediment, floatables, and nutrients. Proper design and maintenance of erosion and sediment control should ensure that construction activity POCs are not being discharged to impaired waters. However, knowing the location of the impaired waters will help to emphasize the importance of the proper design and maintenance of these controls, or perhaps facilitate the addition of more erosion and sediment controls for particular projects.

2. *The covered entity must require the use of the "Enhanced Phosphorus Removal Design Standards" in accordance with the NYS Stormwater Design Manual*

- The NYSTA uses these standards for designs within the TMDL watersheds.

3. *Develop and commence implementation of a Retrofit Program that addresses run-off from sites to correct or reduce existing erosion and/or pollutant loading problems with a particular emphasis placed on the pollutant Phosphorus. The program should include the following:*

    - *Procedures to identify sites with erosion and/or pollutant loading problems,*
    - *Establish policy and procedures for retrofit project selection,*
    - *Establish policy and procedure for project permitting, design, funding, construction, and maintenance.*

The Thruway passes through the East of Hudson watershed and the Onondaga Lake Watershed. The East of Hudson watershed, which is impaired for phosphorus, is currently owned by the NYSDOT and maintained by the NYSTA. I-84 in the East Fishkill section passes through approximately 16 miles of the East of the Hudson watershed. There are no NYSTA facilities within this section of highway. Since this section of highway is owned by the NYSDOT, they are responsible for developing the pollutant load reduction strategy. However, while the NYSTA is responsible for maintaining this section of highway, they will correct eroded areas observed during the

right-of-way inspections, and use appropriate BMPs while performing routine maintenance activities.

Interstate-90 comprises the east to west portion of the New York State Thruway mainline. Approximately 17 miles (extending from mile post 275.4-292.5) of interstate-90 passes through the Onondaga watershed, which is a phosphorus impaired watershed. New York State and Onondaga County are currently in the process of developing a total maximum daily load (TMDL) for phosphorus entering Onondaga Lake. The Watershed Improvement Strategy Deadline is three years after the TMDL approval. As of the data of this document, a TMDL has not been approved.

The NYSTA has six facilities within the urbanized area limits of the Onondaga TMDL watershed; these facilities are listed below:

- Liverpool Toll Plaza
- Mattydale Toll Plaza
- Electronics Parkway Toll Plaza
- Thompson Road Toll Plaza
- Dewitt Service Area
- NYSTA Syracuse Maintenance

These facilities were evaluated for sources of phosphorus and were found to not have any measurable sources. These facilities do not use fertilizers, the sewage drains to the public sewer or well maintained septic systems, onsite vehicle washing is conducted in washbays that drain to the public sewer, and phosphorus is not listed as an ingredient in the products used at Thruway facilities. A stormwater run-off phosphorus monitoring program was implemented to establish baseline phosphorus concentrations of Thruway run-off along a stretch of Interstate-90 within the Onondaga watershed, and to determine if Thruway operations contribute a measurable amount of phosphorus to the watershed. The results of the sampling event indicated that the samples collected from the NYSTA right-of-way were essentially equal to background levels. However, as other studies have also demonstrated, samples collected with elevated concentrations of total suspended solids typically showed higher phosphorus concentrations. By keeping the right-of way well vegetated and reducing the occurrence of erosion, the NYSTA will help to reduce the concentrations of phosphorus discharging to the watershed. Since there were no measureable sources of phosphorus from the facilities, the retrofit effort will focus on the reduction of erosion on the right-of-way by seeking out existing erosion issues and correcting them.

4. *Develop a turf management practices and procedures policy covering proper use of fertilizers and the planting of native plant material to lessen the frequency of mowing and the use of chemicals to control vegetation.*
   - The NYSTA does not typically use fertilizers. In the rare occasion fertilizers are used the NYSTA policy states the following:
     - Do not over-apply chemicals (e.g., fertilizers and herbicides), and avoid applying chemicals near waterbodies, drainage swales or storm drain inlets.
     - Apply chemicals per manufacturer's direction.
     - Where possible, use compost as an alternative to fertilizer.

   - The NYSTA has a native wildflower program in place; it is documented in the NYSTA Highway Right-of-Way manual. Wildflower planting is promoted to reduce mowing and add aesthetic improvements to the road.

8.3. Future Strategy

On an annual basis, NYSTA will confirm the educational posters and materials are still displayed and/or readily available for staff. The materials will be evaluated to confirm they are still current with the requirements of the permit, and they will be updated and redistributed as needed.

NYSTA will continue to educate staff of the location of impaired waters, pollutants of concern, and the best management practices to protect the impaired waters. This information is provided on NYSTA's intranet and also in hardcopy format on the MS4 General Permit Maps. These maps and the intranet data will be updated as issued by the NYSDEC.

Since no measurable sources of phosphorus were identified at the facilities, the NYSTA will focus on erosion control for phosphorus reduction with regards to the retrofit program. The phosphorus sampling program demonstrated that suspended solids increase phosphorus concentrations in stormwater run-off. Keeping the right-of way well vegetated will help to reduce phosphorus concentrations in run-off.

The NYSTA will continue to use, and confirm that their consultants are using, the Enhanced Phosphorus Removal Design Standards in accordance with the NYS Stormwater Design Manual for designs within the TMDL watershed.

A summary of the measurable goals for each minimum control measure for the upcoming year is included as Appendix J.

New York State Thruway Authority
Environmental Services Bureau

Addendum to the 2010 Stormwater Management Program Plan: Activities Performed from 2010-2016

February 2016

New York State Thruway Authority
Environmental Services Bureau

Addendum to the 2010 Stormwater Management Program Plan: Activities Performed from 2010-2016

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Executive Summary

This report is a supplement to the 2010 Stormwater Management Program Plan, prepared by Malcolm Pirnie. From March 2010 through February 2016, Thruway Authority MS4 program services have been provided by Barton & Loguidice, D.P.C. (B&L) through a Term Agreement for Environmental Services Statewide – D213915. New practices have been implemented, and NYSTA also continued to implement many practices that were in place prior to 2010. The intent of this report is to summarize the new and continuing MS4 activities that have taken place from March 2010 through February 2016 under B&L's Term Agreement.

1.0 Public Education and Outreach

A. "Pamphlets": Phosphorus and Nitrogen, Stormwater Pollution Prevention "What You Can do to Help", and Homeowner's Guide to Rain Gardens pamphlets are made available for the public at all 27 travel plazas in all four divisions and the State Fair, with over one thousand typically distributed annually. In addition to these pamphlets, Connect the Drops brochures are provided to various organizations and venues both by request and through NYSTA involvement. These have included: Oswego County's EMC, Nassau County's B.O.C.E., Henlock Farms Community Assoc. PA, NYS Higher Education Go Green Day, and North Presbyterian Church Water Fair in Williamsville, NY. The brochures educate recipients on the effects of household products, residential activities, and pet waste on our stormwater system, surface water pollution focusing on Phosphorus and Nitrogen, how and why to construct rain gardens, how to identify and report illicit discharges, and many other stormwater management and pollution prevention issues. Pamphlets and manuals are also at staff training sessions.

B. "Stormwater Web Page": NYSTA continued to host several stormwater web pages, where they also provide educational materials. The water quality web page contains all annual reports. These materials are downloadable for free by the public, and therefore do not need to be requested. The stormwater documents are suitable for all age groups, with some downloads, such as activity pages, most appropriate for children. The webpages have been consolidated, and all environmental and stormwater materials can be accessed through this internet address:
www.thruway.ny.gov/oursystem/environmental/waterquality.html

C. "Maintenance Directives": Via its extensive intranet offerings, NYSTA provides stormwater pollution prevention maintenance directives (MD) for employees. A

directive for Maintenance & Inspection of Permanent Stormwater Controls was added to the intranet during Year 8 of the MS4 program (2010-2011).

D. "Stormwater Video": An educational stormwater video, developed by NYSTA, is aired at the 27 travel plazas across the state. The video is approximately 4 minutes long and informs the public about the connection between personal activities and stormwater pollution prevention. The video and its script are available on NYSTA's website. This video educates a broad audience, as approximately 20 million users in total visit the 27 travel plaza each year. It is aired daily at each travel plaza and reviewed and updated annually for accuracy as needed.

E. "Good Cleaning Practices Poster": A poster describing "Good Cleaning Practices" as they pertain to grease traps, dumpsters, and waste disposal, is displayed at the restaurants located within the 27 Travel Plazas along the Thruway. This poster serves as a reminder to food service employees to utilize best management practices in their service operations.

F. "Postcards": 200 postcards providing information about the NYSTA stormwater management program were sent out to environmental organizations, educational organizations, and adjacent MS4s to notify them of the Thruway's MS4 obligations. These were mailed during Year 8 of the MS4 program (2010-2011)

G. "Stormwater Maps": The Stormwater General Permit Maps, to be used as a field reference by NYSTA Section Supervisors for the identification of areas of concern/interest in planning routine maintenance activities and daily operations, were distributed and kept available to appropriate staff. Map layers include the 303(d) impaired waters listed in the GP-0-10-002 permit, TMDL watersheds, Rare Species and Natural Communities, National Register Sites and E and F Soils located within AA or AA-s waters. There is one printed division map (book form) distributed for each Thruway Division (Albany, New York, Syracuse, and Buffalo). A complete set of maps is available in the Environmental Service Office

in Headquarters in Albany as well as available to staff electronically via the intranet.

H. "CMOST": NYSTA continued to provide the interactive stormwater exhibit at the Children's Museum of Science and Technology (CMOST) located in Troy, NY. Staff at CMOST offer educational stormwater lessons, and distribute a Hudson River watershed model fact sheet and a children's pollution prevention activity booklet. The interactive exhibit educates visitors about the importance of watersheds, the role of non-point source pollution, and pollution prevention. It is expected that most, if not all, of the museum's annual 60,000 visitors view and/or participate in this hands-on exhibit.

I. "Environmental Reminder Cards": NYSTA continues to provide Environmental Reminder Cards for staff. Environmental Reminder Cards are reference cards that remind employees of environmental best management practices and considerations pertaining to their specific responsibilities. These cards include 36 Environmental Awareness Items in the form of a self-audit checklist. There are 22 different reminder cards pertaining to activities such as Vehicle Washing, Ditch Cleaning, Stream Protection, etc. 84 complete Environmental Reminder Books were handed out during training sessions within this time period.

J. "Rain Garden Pamphlet": NYSTA developed a customized educational rain garden pamphlet, which is distributed to each Division for display at Service Areas, as well as distributed annually at the State Fair. The rain garden pamphlet was created by an environmental consultant, and reviewed and approved by NYSTA staff. The pamphlet includes information on stormwater pollution and runoff, what a rain garden is and why to plant one, how to install a rain garden, costs of installation, and tips regarding native plants and manual weeding, pesticide use, mulching, and rain barrel use.

K. "Training": NYSTA provided several training sessions to staff:

- "Erosion and Sediment Control" (Year 8) - trained field staff on erosion and sediment controls (how erosion occurs, how to select BMPs, installation and maintenance of BMPs) as well as created a Maintenance Directive (MD) entitled "Maintenance & Inspection of Permanent Stormwater Controls" that is posted on the intranet. Training was provided in each division.

- "Good Housekeeping" (Year 9) - use of best management practices to reduce the potential for discharging pollutants of concern to 303(d) waters or TMDL watersheds. Included training on illicit discharge prevention, detection, and elimination as well as spill prevention and reporting, and good housekeeping maintenance directives and job activities with regard to stormwater pollution prevention. Training was provided in each division.

- "Designer Training" (Year 9) – General training for NYSTA site designers regarding how to perform "site fingerprinting" to assess existing environmental resources as well as to provide guidance on the relatively new (at the time of training) NYSDEC requirements including runoff reduction and green infrastructure. This training was provided at headquarters.

- "Green Infrastructure for Linear Projects" (Year 10) - Green infrastructure design and suggested applications for linear projects were covered. This training was given to NYSTA designers and was provided at headquarters.

- "Green Infrastructure Maintenance" (Year 10) - training for field personnel regarding maintenance of green infrastructure practices for linear projects. Training was provided in each division.

- "Pollution Prevention: Ensuring the Implementation of Environmental Stewardship in Daily Operations" (Year 11) - training for field personnel

regarding environmental stewardship expectations for all employees as outlined in the Environmental Reminder Cards. The presentation covered topics such as Environmental Permits, Stream Protection BMPs, Cultural Resources, Right of Way Maintenance, Invasive Species, Pesticides/Herbicide Usage, Bridge Cleaning, Spill Response, Petroleum Bulk Storage, Solid Waste Management, Solid Waste Storage Areas, Winter Maintenance, Illicit Discharge Awareness, Vehicle Washing, Oil/Water Separators, Air Quality and Surface Preparation & Painting. Training was provided in the Albany, Syracuse, and New York Divisions.

- "GPS Training" (Year 13): In 2015, 19 Thruway employees were trained with an introduction to TerraSync & GPS Pathfinder Office Training Package. The subject training provides employees with basic skills that enable them to collect locational data using handheld GPS/GNSS (Global Positioning System/Global Navigation Satellite System) receivers. Several of these receivers are available and utilized by employees throughout the New York State Thruway Authority/Canal Corporation (NYSTA/CC) areas of operations. Much of the data to be collected includes information that is helpful for stormwater design and activities. The data to be collected will include unique environmental features such as wetland boundaries, stream channels, other waters, as well as associated surface and subsurface drainage and stormwater management systems. Data collected is utilized in analysis and design to help address stormwater management and SPDES requirements in Thruway and Canal capital project development. This information is also used to help inventory and manage the surface and subsurface drainage and stormwater management systems and features. The data is useful to employees responsible for related operations and maintenance activities.

L. "Pet Waste Signage": NYSTA evaluated options for installing educational signage at pet waste facilities as means of educating pet owners on the potential stormwater pollutants associated with pet waste. The evaluation also suggested providing designated pet waste facilities at parking areas and service plazas where none currently exist. Also included in the evaluation memo were costs for full pet waste stations as well as separate station pieces.

M. "Brochure Updates": Existing brochures are reviewed on an annual basis for needed updates or revisions. Throughout this time period, the only updates needed were related to contact information and logos.

N. "Storm Drain Marking": NYSTA's MS4 Consultant evaluated the potential for storm drain marking. Two types of marking methods were evaluated, including curb markers and stencils. Product specs, feasibility of methodology, expected life span, cost estimates, product highlights or shortcomings, and other important information was presented. As a result, NYSTA ordered 10 additional storm drain stencils and stenciling was performed at selected maintenance facilities.

O. "Public Education Evaluation": NYSTA's MS4 Consultant evaluated the potential for innovative public education and outreach practices. Three options were evaluated, including:

- Utilizing the services of Project Wet: a nationally recognized non-profit public education provider whose mission is to educate the public on its relationship with water resources.

- Running a "Connecting the Drops Classroom Campaign": working with regional educators to help teach about stormwater pollution prevention.

- Constructing a "Rain Garden Living Laboratory": inviting schools and other interested groups to visit regional NYSTA rain gardens for science class

lessons and to learn about the role of plants, stormwater, etc. with a follow-up of providing snacks and stormwater activity pages.

NYSTA intended to move forward with Project Wet, yet the NYSDEC confirmed they would not permit NYSTA to claim this activity as part of their MS4 program. As such, NYSTA decided not to pursue that alternative. The other two alternatives were similar in scope and reach, and were therefore not pursued.

Summary of Minimum Control Measure 1: Public Education and Outreach					
	2011	2012	2013	2014	2015
# Attendees at public events/presentations	95	172	46	67	58
Total # of printed materials distributed	4970	3712	5750	750	4150
Webpage total views	1126	924	227	216	115
Webpage unique views	786	589	132	144	96

2.0 Public Involvement and Participation

A. "Public Involvement Evaluation": NYSTA's MS4 Consultant evaluated the potential for innovative public involvement and participation ideas. Two options were evaluated, including:

- Annual Stormwater Awareness Poster Contest
- Rain Garden Gala (a formal rain garden installation event with a ribbon cutting ceremony)

NYSTA decided these alternatives were not feasible, and therefore opted not to pursue them.

B. "Annual Report": NYSTA continues to annually prepare and submit the required "Annual Report" to the NYSDEC that summarizes their stormwater management plan activities between March 10 of the preceding year and March 9 of the current year.

3.0 Illicit Discharge Detection and Elimination

A. "Best Management Practices Posters": NYSTA displays Good Housekeeping Pollution Prevention and Prevent Stormwater Pollution posters at all 27 Service Plazas, 23 NYSTA maintenance facilities and 18 wastewater treatment plants. These posters were developed by NYSTA to provide specific examples of best management practices and of illicit discharges to watch for during their daily operations. The posters include practices for maintaining cleaning floor mats, recycling grease and oil, disposal of mop water, dumpsters, pesticide storage and application, road and salt deicers, hazardous waste storage, waste product storage and disposal, vehicle and equipment wash water, chemical and vehicle fluid spills and leaks, and illicit discharge reporting. Photos of proper and improper practices, as well as example illicit discharges, are also provided on the posters.

B. "Annual Internal Environmental Audits": Annual internal environmental audits are conducted at the 23 maintenance facilities to evaluate the NYSTA facilities and operations for environmental compliance. Upon completion, a summary is sent to NYSDEC as part of the annual State Agency Environmental Audit (SAEA) process. This annual inspection is conducted by each of the four divisions (Albany, New York, Syracuse, and Buffalo) to confirm facilities and staff are in compliance with environmental regulations. Any item or action found not to be in compliance is corrected.

C. "Outfall Inspections": On an annual basis, an outside consultant inspects NYSTA outfalls. Within this time period all 1,174 outfalls were inspected (with the exception of those that were inaccessible) with no confirmed illicit discharges. Some outfalls were identified for maintenance, which were brought to the attention of each division. Inspection results have been added to the existing GIS database and were sent to appropriate NYSTA staff for further investigation

as necessary. At the time this summary was prepared, NYSTA began the next 5-year round of inspections beginning again with Buffalo.

D. "Peace Bridge Outfall Inspection Assistance": NYSTA agreed to inspect two (2) new outfalls that are owned and maintained by the Buffalo & Fort Erie Public Bridge Authority (PBA). These two locations have been included as part of NYSTA's MS4 system outfall inspection program, which has allowed the PBA to avoid MS4 permitting. NYSTA has incorporated the two PBA outfalls into their inspection program contingent upon operational procedures outlined in correspondence from NYSTA to PBA dated September 21, 2015.

E. "Large Diameter Culvert Inspections": NYSTA inspects large diameter culverts for hydraulic and structural condition on a 5-year rotating schedule, as part of the "Large Culvert Inspection Program". The inspection teams have incorporated an illicit discharge detection component to their inspection procedure in order to help identify any potential sources of illicit discharges. The Infrastructure, Inventory, and Inspection System (IIIS) modules for Stormwater Infrastructure Reporting and Large Culvert Inspections include questions relative to illicit discharges. If one is found by the inspectors, it is reported to delegated staff who then notify the appropriate enforcement agency (DEC Region or County DOH). The information is then recorded on form TA-N41127-9 and filed in the NYSTA Division office.

F. "Oil Water Separator Posters": Oil Water Separator (OWS) proper use and maintenance posters are displayed at all 23 NYSTA maintenance facilities. These posters remind staff, on a daily basis, of the proper protocols for maintenance and inspection of oil water separators. Posters are displayed in pertinent locations and provide information on the purpose of the separators. They also identify practices related to oil dumping into an OWS, detergents and degreasers, accidental product release into an OWS, and inspections and maintenance. Additionally, the poster includes a diagram of an OWS for reference.

G. "Environmental Reminder Cards" (See MCM 1, Measure I)

H. "Stormwater Maps" (See MCM 1, Measure G)

I. "Staff Field Inspections": NYSTA staff is responsible for driving a discrete section of the New York State Thruway to inspect for problems, such as excessive debris, broken guide rails, and erosion. They also look for indicators of illicit discharges, such as unexpected flow, flooding, or discoloration in flow. The goal is to incorporate illicit discharge detection into daily operations. One illicit discharge, a sanitary sewer overflow, was identified, which NYSTA promptly brought to the Responsible Municipality's attention and it is in the process of being remedied. No legal action or outside agency involvement was required, as the Municipality has been cooperative.

J. "ROW Manual": NYSTA reviewed their existing right-of-way manual to determine what modifications may further enhance best management practices with regard to stormwater management and other environmental issues. Examples of sections or portions thereof that have been reviewed, and in some cases revised, include: creation or preservation of natural grassland areas and stream banks, annual spring and daily right-of-way clean-up procedures (litter and debris removal), use of herbicide, drainage and stormwater facility maintenance, bridge washing, mowing (procedures and "mowing limit" signage)and toll-lane cleaning.

K. "IDDE Training": IDDE training was provided to employees, which included an overview of NYSTA's "Outfall Mapping and IDDE Program Guidance Manual". It also covered NYSDEC Minimum Control Measure 3 (Illicit Discharge, Detection, and Elimination - IDDE) requirements, description of direct and indirect flow types, Maintenance Directive 2008-1 (Detection and Reporting), and how to identify, fix, and prevent illicit discharges as well as what NYSTA is doing to comply with the IDDE requirements. 92 "Outfall Mapping and IDDE Program Guidance Manuals" were distributed to attendees.

L. "Sewershed Mapping": NYSTA's MS4 Consultant developed preliminary sewershed mapping. The mapping was limited to desktop analysis and development of preliminary GIS sewersheds and did not include field delineation or current site reconnaissance. The entire NYSTA system was delineated, resulting in over 1,000 preliminary sewersheds. This map is kept on file at NYSTA headquarters.

M. "Phosphorus Study": A stormwater run-off phosphorus monitoring program was implemented to establish baseline phosphorus concentrations of Thruway run-off along a stretch of Interstate-90 within the Onondaga Lake watershed, & to determine if Thruway operations contribute a measurable amount of phosphorus. The Phosphorus Monitoring Report was finalized in April, 2010. In January, 2011 NYSDEC asked for Phosphorus information from NYSTA and this report was provided. Facilities, maintenance activities, and materials within the Onondaga Lake Watershed were evaluated for sources of Phosphorus. Run-off was collected and analyzed for phosphorus at 3 locations along the right-of-way (ROW) within the Onondaga Lake watershed (including baseline samples). The results of this study demonstrated that phosphorus concentrations from the Thruway ROW are not any higher than those observed from natural vegetated areas within the watershed.

N. "No Net Increase": NYSTA, as part of the Onondaga Lake Watershed and as a participant in the Central New York Stormwater Coalition, has taken the position that stormwater retrofits required as part of the Watershed Improvement Strategy program for the Onondaga Lake Watershed are not necessary along the affected portion of the Thruway system. This is supported by findings indicating that a combination of the NYS Fertilizer Law and implementation of the green infrastructure practices outlined in the NYS Stormwater Management Design Manual should satisfy the Onondaga Lake Watershed Improvement Strategy with the hope is that this would preclude the need for regional retrofits. The Watershed Improvement Strategy is required to be submitted to the NYSDEC 3

years following adoption of the Onondaga Lake TMDL, which would've made the submittal due in June 2015. Given the early stages of this process, the CNY Stormwater Coalition is not sure if the DEC will formally approve the Watershed Improvement Strategy (which will suggest monitoring phosphorus contributions rather than require each MS4 to undergo a full retrofit program) and go on record that retrofits are not required. The Central New York Regional Planning and Development Board submitted a multi-page justification to the NYSDEC and has been in conversations with Mr. David Follansbee of NYSDEC, and it is reasonable to believe the NYSDEC may support this finding while still requiring a regional or sub-watershed effort in the future. The portion of the Thruway within the Onondaga Lake Watershed Improvement Strategy Area is from its westerly point near milepost 388.5 to its easterly point near milepost 277.4.

O. "Illicit Discharge Detection": NYSTA field personnel identified an illicit discharge coming onto their system from the City of Newburgh. Further investigation revealed that this discharge resulted from a cross-connection with a sanitary line, and it has been remedied by the City.

P. "Newburgh Runoff Coordination": As a result of several incidences of flooding on the NYSTA system, caused by stormwater discharges down what is referred to as the "Shun Pike" in the Town of Newburgh, NYSTA undertook an extensive coordination effort with the Town to develop a partnership aimed at resolving this issue. The Shun Pike discharges near milepost 60.95 southbound, and extreme precipitation events required emergency closures of southbound lanes. NYSTA's environmental consultant performed a desktop study and field visit to determine the extent of the problem and the associated drainage area and characteristics. NYSTA's consultants prepared two comprehensive drainage reports that include mapping, historic rainfall data, and a full hydrologic and hydraulic evaluation of the watershed to this location as well as an analysis of multiple design points along I-87 southbound within the watershed associated with the lowest discharge point near milepost 60.95. It also included recommendations for mitigation

measures that could be undertaken by the Town and NYSTA. NYSTA and their environmental consultant, along with the Town of Newburgh and its environmental consultant, attended several coordination meetings during which causes and potential remedies and opportunities for unique partnerships were discussed. Continued coordination is occurring between the Town and NYSTA to address the drainage issues at MP 60.95.

Summary of Minimum Control Measure 3: Illicit Discharge Detection and Elimination					
	2011	**2012**	**2013**	**2014**	**2015**
Outfalls Inspected	281 (Buf)	264 (Buf + Syr)	145 (Alb)	209 (NY)	281 (Buf)
Large Culverts Inspected	295	96	88	157	24

4.0 Construction Site Runoff Control

A. "SWPPP Review": NYSTA has maintained its thorough SWPPP design, review, and oversight process. All SWPPP development is coordinated through a licensed professional environmental engineer in the Office of Design. The completed SWPPPs then receive a quality control review by the Environmental Services Bureau and, once approved, the Chief Engineer signs off on the SWPPP. NYSTA's thorough review and oversight process ensures the correct controls are being selected and that proper maintenance activities are planned and instituted. Design staff has been trained on NYSDEC SWPPP requirements, including Green Infrastructure and NYSTA has not had to issue any stop work orders or terminate contracts due to improper installation or maintenance of controls.

B. "Construction Inquiry Line": NYSTA continued to implement the formal procedure for receiving and recording inquiries about construction site stormwater runoff. Inquiries are received by the Environmental Services Bureau (ESB) and are recorded by the Stormwater Management Program Coordinator. If the ESB cannot answer the citizen's question, they contact the Program Supervisor in the Division and then respond back to the citizen. This process is part of the Maintenance Directive regarding Illicit Discharges.

C. "Maintenance Directives" (See MCM 1, Measure C)

D. "Stormwater Maps" (See MCM 1, Measure G)

E. "4-hr Certification": NYSTA continued to implement a process to ensure that each contractor performing earth-disturbing work that requires a NYSDEC General Permit has their erosion and sediment control plan and at least one person onsite who has received their 4-hour inspector training. Confirming contractors have their erosion and sediment control training helps ensure the contractor is

knowledgeable in the purpose and proper installation of erosion and sediment control practices.

Summary of Minimum Control Measure 4: Construction Site Stormwater Runoff Control					
	2011	2012	2013	2014	2015
SWPPPS reviewed	11	6	3	12	2
Active construction projects disturbing >1 acre	26	41	17	6	17

5.0 Post-Construction Site Runoff Control

A. "Long Term O&M Plan": NYSTA distributed their Long Term Operations and Maintenance Plan for Post Construction Controls to maintenance personnel. This manual provides guidance on the proper inspection and maintenance procedures for the stormwater controls owned by NYSTA. One printed copy was distributed at each of the 4 Divisions (Buffalo, Albany, Syracuse, and New York) with a copy for Environmental Services and Headquarters Maintenance. Also, the document is available on the intranet for reference by all Thruway Maintenance staff.

B. "Green Infrastructure Retrofit": Recognizing the importance of green infrastructure, and confirming NYSTA's commitment to promote green practices, NYSTA's MS4 consultant designed and oversaw construction of a rain garden and rain barrel retrofit installation at a travel plaza. The rain garden includes an interpretive sign and educational brochure kiosk, where a custom rain garden brochure is available from late spring to late fall. The rain barrel (with overflow and diversion into the rain garden) is used to irrigate the landscaping. The rain garden is designed to accept runoff from approximately 1,000 sf of an existing adjacent roof.

C. "Stormwater Management Practice Review": NYSTA continued to implement a review process for permanent stormwater controls designs. The review process ensures that post-construction control designs, whether developed by NYSTA or an outside contractor, are in compliance with the General Permit. NYSTA reviewers have previously received training to check the design calculations to confirm the designs meet the appropriate criteria, and have been since trained in SWPPP development and green infrastructure.

D. "Post Construction Controls Map": NYSTA maintained the inventory and GIS map of its post-construction stormwater management practices. This inventory

and map is used by NYSTA staff to locate post-construction controls for maintenance and inspections. All of NYSTA's existing stormwater controls were added to the NYSTA's intranet inventory.

E. "Searchable Database": NYSTA Created a searchable database to record and maintain inventory and inspection documents for NYSTA's post construction stormwater controls. This has become part of the IIIS system and NYSTA staff utilizes it to record and manage inventory and inspection information, and to flag and track stormwater management practice maintenance requirements and activities. A maintenance directive (MD) was developed for this process and staff were trained. This database has received hundreds of inspection entries during this time frame. Stormwater management practices are currently categorized according to "Wet Pond", "Wet Swale", "Dry Swale", and "Wetland". The database maintains inspection dates, maintenance dates, inspection forms and notes, locations, feature numbers (a unique identifier) and the plan/drawing relating to each practice. The system can also track year built, dimensions, and UTM (GPS) location.

F. "Retrofit Evaluation": NYSTA's MS4 Consultant evaluated potential stormwater management and treatment retrofits for the NYSTA system, specifically to include green infrastructure practices. Facilities evaluated include Park and Rides, Service Plazas, Parking Areas, Toll Plazas and their associated utility buildings, roads, and maintenance facilities. All green infrastructure practices noted in the NYSDEC Stormwater Management Design Manual were included and proposed in the evaluation where appropriate, and a feasibility and selection matrix was provided.

Summary of Minimum Control Measure 5: Post Construction Stormwater Management					
	2011	2012	2013	2014	2015
# of stormwater management practice inspections	80	170	158	106	76
New stormwater management practices	2	0	0	18	6

6.0 Pollution Prevention/Good Housekeeping

A. "Stormwater Maps" (See MCM 1, Measure G)

B. "Training" (See MCM 1, Measure K)

C. "Best Management Practices Posters" (See MCM 3, Measure A)

D. "Environmental Reminder Cards" (See MCM 1, Measure I)

E. "Oil Water Separator Posters" (See MCM 3, Measure E)

F. "Annual Internal Environmental Audits" (See MCM 3, Measure B)

G. "SPCC Plans": NYSTA's MS4 Consultant developed Spill Prevention, Control, and Countermeasure plans to comply with EPA's Oil Pollution Prevention Regulation. The plans identify potential spill pathways and volumes, as well as response procedures and preventative measures. They also set a schedule for maintenance related, programmatic, and/or administrative tasks to be implemented in order to reduce the potential for oil releases or spills at the facility. A total of 19 customized plans were developed for each facility subject to SPCC regulations 40 CFR 112. Facilities were located in the following: Manchester, Weedsport, Buffalo Maintenance, Henrietta, Buffalo Bridge, Verona, Herkimer, Westfield, Niagara, Silver Creek, Lyons, Albion Barge, Pittsford, Little Falls, Phoenix, Utica, Batavia, Lockport, and Syracuse.

H. "Self-Assessment": NYSTA performed a desktop level self-assessment of its program. This included assessing all MS4 facilities and activities as they may relate to stormwater discharges or potential pollutant sources. Elements assessed include: Street Maintenance, Bridge Maintenance, Winter Road Maintenance, Salt Storage, Solid Waste Management, New Construction and Land Disturbance, ROW Maintenance, Onsite Septic System, Animal Waste

management, MS4 Facilities (Maintenance, etc), Stormwater System Maintenance, and Vehicle and Fleet Maintenance. Staff, procedures, funding, training, record keeping, equipment, and schedules were evaluated for all.

I. "Self-Audit": NYSTA voluntarily performed a desktop level self-audit on its program, utilizing the USEPA MS4 program audit forms. This included assessing program management, all 6 minimum control measures, MS4 maintenance, spill prevention, and other program components. The self-audit report, totaling 54 pages, was reviewed by several NYSTA staff in the Environmental Services Bureau, and a final, revised document was created. Staff in the Environmental Services Bureau effectively reviewed, and revised where necessary, the audit document. Additionally, a complete list of associated documentation was prepared, and included approximately 31 document collections (posters, enforcement case files, sewershed mapping, annual reports, etc). The process was educational and eye-opening, and resulted in fact-checking and document collection processes the further strengthened the MS4 program.

Summary of Minimum Control Measure 6: Pollution Prevention and Good Housekeeping					
	2011	2012	2013	2014	2015
Miles of streets swept	678	570	570	570	570
Catch basins inspected	16000	15990	15990	15990	15990
# of training sessions	9	5	2	5	3
# of staff trained	95	172	46	67	58