

Town of Beacon Falls

**GENERAL PERMIT FOR THE DISCHARGE OF
STORMWATER FROM SMALL MUNICIPAL
SEPARATE STORM SEWER SYSTEMS (MS4)**

2015

Annual Report

Permit No. GSM000065

December 16, 2015
NYE PROJECT # 2009-004



NAFIS & YOUNG

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Introduction

The Town of Beacon Falls submits the following Annual Report updating the status and compliance with the Town's Stormwater Management Plan. This report meets the State of Connecticut Department of Energy & Environmental Protection (CTDEEP) requirements as outlined in the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), section (i) Reporting and Record Keeping Requirements.

Any individuals that wish to comment on this annual report or the Town of Beacon Falls's Stormwater Management Plan may contact Mr. Lawrence Secor at Nafis & Young Engineers, Inc at (203) 484-2148 or by email at larry.secor@nafisandyoung.com.

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1.0 History

The Town of Beacon Falls began working on a stormwater plan during the winter of 2002/2003 to meet a projected implementation date of April 2003. The Town worked with Nafis & Young Engineers, Inc. (NYE) in developing and writing this plan. The Town completed a draft plan after receiving a final copy of the CTDEEP general permit requirements on January 9, 2004. The "State of Connecticut Department of Transportation Draft Stormwater Management Plan" was used as an outline for the Town's plan.

In 2004 the written plan was then given to the appropriate personnel within the Town of Beacon Falls's Conservation Commission, Inland Wetlands Agency, Planning & Zoning Commission and Public Works, the town posted a legal notice in both the Town Hall and the Public Library to inform the public that a copy of the plan was available in the Town Library for review by residents. The town did not receive any comments from the public.

In early 2005 the final draft of the plan was completed and is now available at the both the Town Hall and Public Library. In 2005 the Council of Governments of the Central Naugatuck Valley (COGNAV) arranged with TeleMedia Cable to air an EPA video on local public access television entitled "*After the Rain*" on two nights in December. A brochure created in conjunction with the Beacon Falls Conservation Commission/Inland Wetlands Agency that details the importance of storm water quality and the impact on the environment was distributed at the Town Hall and the Town Library. The Town also posted a poster in the Public Works garage and Town Hall to promote public awareness best management practices of storm water management during construction.

NYE has conducted eleven (11) annual stormwater sampling events starting in the summer of 2004. Samples of six representative outfalls, two industrial, two commercial and two residential were taken on July 13, 2004, June 28, 2005, July 28, 2006, April 12, 2007, May 08, 2008, November 13, 2009, November 04, 2010, September 20, 2011, September 28, 2012, December 23, 2013 and April 30, 2014. No monitoring was performed to date in 2015 but the next compliant rainfall event will be collected as weather permits.

The Town purchased a handheld GPS/PDA system for mapping its stormwater outfalls and the required software to manage the collected data. The GPS/PDA and software was turned over to the Town's Public Works Department for continued mapping of the Town's outfalls. The final maps will be posted in the Public Works Department when it has been completed.

The Town Public Works Department and the Town Conservation Commission has initiated the storm drain-marking program with the initial labels being provided by the CTDEEP Office of Long Island Sound Programs. The Town completed marking its catch basin system in 2010. Additional catch basins were marked in 2012-2015 as required.

As of this report the town has not received any comments from the CTDEEP concerning the Town's Draft Stormwater Management Plan. This annual report is based upon that draft plan, which was updated in January 2009 for the current five-year permit cycle. The Town has kept most of the Best Management Practices (BMPs) already in use. No additional testing was performed in 2012 to address the Total Maximum Daily Load for indicator bacteria in the Naugatuck River. The Town is still charged with reducing indicator bacteria by an average of 61% to meet current water quality standards for the Naugatuck River.

The Town is actively involved in the CTDEEP Aquifer Protection Area (APA) program. In 2010 the Town adopted its APA regulations. The APA is located on the southwest corner of the Town and no commercial development exists.

In 2011, the Town re-registered the Public Works Garage and Transfer Station for the revised CTDEEP General Permit for the Discharge of Stormwater Associated with Industrial Activity. The Town performed the required stormwater outfall sampling in the October-December 2011 quarter. During 2012 some changes to the PW grounds resulted in the loss of the stormwater outfall conveyance (swale). The CTDEEP was notified in writing and outfall sampling was suspended until a conveyance is installed or naturally formed at the site.

The Town of Beacon Falls participated in the "Household Hazardous Waste Collection Central Naugatuck Valley Planning Region" three collections April 25, 2015, July 25, 2015 and October 3, 2015. Forty-four (44) Beacon Falls households participated in these collections that disposed of 300 pounds household hazardous wastes and paints. This was approximately a 32% decrease in the Beacon Falls household amounts disposed of in 2014.

Any changes made to the Town's updated plan as a result of requests or comments by the CTDEEP will be reflected in subsequent annual reports.

2.0 Compliance

Many of the Town's goals for the first year of the second permit were to continue building a foundation for further implementation of the Stormwater Management Plan. The Town adopted both the "Illicit Discharge and Connection Stormwater Regulation" and "Post Construction Stormwater Ordinance". Through the process of adopting these ordinances the many procedures already being followed by the Town such as Planning and Zoning and Inland Wetland enforcement inspections will improve. Construction plan reviews have included reviewing stormwater management and erosion controls and the Town will continue these procedures but with the new ordinances in place the effectiveness of this process is improving. A large share of the effort was directed towards the education of Town officials and employees with regards to their role within the General Permit. The Best Management Practices (BMPs) chosen by the Town are addressed below:

Section 1: Public Education and Outreach

1. Brochures / Fact Sheets

Goal: Display and Distribute Brochures

The finished brochure was distributed at a Conservation Commission and Inland Wetlands Commission meeting in early 2005. It was approved for publication and was distributed at the Town Hall and the Library.

In 2006 the Beacon Falls Conservation Commission distributed 2000 pamphlets to each family through the Town's local school system. An additional 500 pamphlets were given to the Town's Building Inspector to be given out with every permit application package. The Beacon Falls Town Clerks office still distributes pamphlets as required.

2. Alternative Information Sources

Goal: Develop web site, display poster for Town, and Public Service Announcement (PSA) for local television.

The Town's web site is now up and running. This will greatly improve the information being available to the public.

The poster has been displayed at the Town Hall and the Public Works Garage. In December of 2005, the local cable company aired an EPA video entitled *After the Rain* on two nights.

The Town Conservation Commission has an active website and they publish information concerning stormwater pollution control on this website for the town. This Commission hosted a Community Forum on October 16, 2008 that included stormwater Phase II information and outreach.

In 2011 two USEPA brochures were included in the report's appendices "Make your home The Solution to Stormwater Pollution!, A Homeowners Guide to Healthy Habits for Clean Water" and "After the Storm, A Citizen's Guide to Understanding Stormwater". These were posted on the Town's website as included in the 2011 Annual report.

3. Library of Educational Materials

Goal: Make information available to town employees and the community

A library of educational materials is being developed and maintained at the CTDOT headquarters. As these materials are made available to the various towns in the state, materials will be procured for the various town departments as a reference for stormwater management issues.

Information on Internet websites (USEPA, CTDEEP) has also been used for reference and ideas.

4. Storm Drain / Marking Stenciling

Goal: The Town applied to CTDEEP for the drain-marking kit and received some labels for this purpose. In summer 2006 the town of Beacon Falls's public works department was given the assignment of storm drain marking. The Town is looking for resources/volunteers to continue with the program. Brochures will be distributed to the local street residences as the labeling occurs on their respective streets.

In 2008 the Conservation Commission took over this program and will start labeling in spring 2009. Outreach and a "How to Demonstration" were presented to High School students and covered by the local Press. In 2010 the Town's completed marking most of its catch basins. In 2012 the Town continued to mark catch basins as new roads (Blackberry Hill) were completed. This work was continued in 2015 as required and is planned for 2016.

5. Watercourse Signage

Goal: Determine what watercourses and how best to expand CTDOT tributary signage program

The CTDOT already maintains signage for certain watercourses within the Town. Officials from the Town are currently looking for areas within the Town to expand this program.

Section 2: Public Involvement / Participation

1. Presentation of Draft SWMP

Goal: SWMP

The final SWMP was completed in February 2005 and was made available to certain officials within the Town. It was also made available for review by the public after the posting of a public notice in the local newspaper.

This plan was updated in early 2009. The Town assigned Commissions (Inland Wetlands and Conservation) as well as the Public Works Department have taken ownership of their respective parts of the Plans and are implementing them as required.

2. Public Information Meetings

Goal: Brochures distributed

A brochure has been created and distributed by the Conservation Commission and is available at the Town Hall and Public Library.

3. Storm Drain / Marking Stenciling

Goal: The Town lined up volunteers to implement this program in Spring 2009. It was expected to be completed at the end of this permit cycle.

4. Lake and Watershed Associations / Authorities

Goal: Identify all local watershed Associations / Authorities and meet with representatives of all local groups

One of the leading association is the Housatonic Valley Association which is actively working programs that effect both the Housatonic and Naugatuck Rivers benefiting the Town of Beacon Falls in the areas where these rivers flow through or along the Town borders.

Other water associations and authorities are being contacted to see how their resources could best benefit the Town on these issues.

Section 3: Illicit Discharge Detection and Elimination

1. Town Policy Regarding Non-Stormwater Discharges

Goal: Policy Implemented, begin process of improved inspections and enforce compliance.

The town's Board of Selectmen passed an Illicit Discharge and Connection Stormwater Ordinance in early 2006 and assigned responsibility for enforcement to the Town's Inland Wetlands and Watercourses Commission.

An "Illicit Discharge Detection and Elimination Manual" was created for reference and training of town personnel involved in this BMP.

2. Storm Sewer Map(s)

Goal: Mapping outfalls

The Town, using its Global Positioning System (GPS), PDA and associated software mapped all outfalls 15" or greater in the "urbanized" areas of the Town in 2005.

In 2006 outfalls 15" or greater the mapping has expanded and will be continued until all outfalls are mapped town wide.

In 2007 some new development areas of the Town were mapped to continue the process.

In 2010 the town inspected new outfalls in the newer developments and have GIS located these outfalls for inclusion on the Town outfall Map.

3. Illicit Discharge and Elimination Program

Goal: Continue sampling of six selected outfalls. Start sampling outfalls for ecoli to determine TMDL contribution from other outfalls.

Working with NYE, the Town selected six outfalls (two residential, two industrial, and two commercial) to be sampled and tested. These six outfalls were sampled according to the DEP's requirements during the past summer and the results are included in this report.

In 2009 the Town did not sample any additional outfalls for ecoli to determine TMDL but will plan to do this in 2010.

The Town discovered and eliminated an illicit discharge on South Main St.

4. Future Illicit Discharge Detection and Elimination

Goal: Address and enforce future non-stormwater discharges

The Town during the mapping process reviews each outfall and collects data on the condition of the stormwater discharges as observed. This information is being reviewed and the Town will investigate any suspect reports of illicit discharges.

The Town has written an Illicit Discharge Detection and Elimination Manual for distribution and training purposes.

In 2010 the Town did perform some illicit discharge inspections in the new development areas and some of the older developments.

In October 2013 the Town inspected twenty streets, including all catch basins and outfalls for illicit discharge. None were found in this inspection.

In October 2014 the Town inspected twelve streets, including catch basins and outfalls for illicit discharge and not were discovered. In anticipation of the new General Permit the town approved roads were updated and confirmed with a count of catch basins included for each street. Detention ponds and outfalls will also be reviewed moving forward in 2016.

Section 4: Construction Site Stormwater Runoff Control

1. Requirements and Guidelines for Erosion and Sediment Controls

Goal: Implement and enforce the ordinance.

In early 2006 the Town's Board of Selectmen passed a "Stormwater Management Ordinance" and assigned responsibility for enforcement to the Town's Inland Wetlands and Watercourses Commission its agents and the Town Engineer.

The Town has stepped up both its initial review of any new or purposed construction projects and continues enforcement inspections of active projects to ensure erosion and sediment controls are in accordance with all local, state and federal regulations.

2. Procedures for Notifying Construction Site Developers and Operators of Requirements for Registration

Goal: Implement Town forms and makes the proper registration a condition of agency approvals for sites exceeding the 1- acre threshold

The Town continues to comply with all requirements of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.

3. Requirements for Construction Site Operators to Implement Appropriate Erosion and Sediment Control Best Management Practices

Goal: Continue requirements for construction site operators to implement appropriate erosion and sediment control best management practices

Planning & Zoning and Inland Wetland Agency enforcement inspections continue to ensure that all applicable regulations concerning the use of erosion and sediment control measures are followed.

4. Requirements for Construction Site Operators to Control Waste at the Site

Goal: Continue requirements for construction site operators to control waste at the site

Planning & Zoning and Inland Wetland Agency enforcement inspections currently ensure that all applicable regulations concerning waste control are followed.

5. Procedures for Site Plan Review

Goal: Continue site plan review procedures

The Town Engineer reviews all site plans for conformance to the Town's, state and federal requirements relating to construction site runoff control.

6. Procedures for Receipt and Consideration of Information Submitted by the Public

Goal: Continue procedures for receipt and consideration of information submitted by the public.

Information submitted by the public is forwarded to the appropriate Town department for consideration.

7. Procedures for Site Inspection and Enforcement of Control Measures

Goal: Continue site inspection and enforcement of control measures

Site inspection and enforcement of control measures are utilized on all of the Town's projects. Under the new ordinance there are three levels of Town enforcement. Initially the inspector issues a "Notice of Inspection" for corrections to any deficiencies. This is followed with a "Notice of Deficiency" with set time requirements for correction of any issues. This may be used up to two times. Sites which continue to be noncompliant are issued a "Cease and Desist Order" with penalty and must stop work and bring the site into compliance before proceeding.

The Town inspectors issued twelve Notice of Inspections and three Notice of Deficiencies to developers for soil and erosion control inspections in 2010. The issues identified in these inspections were corrected and this process will continue until construction is complete and the sites are stabilized.

Section 5: Post Construction Site Runoff Control

1. Requirements for Structural and Non-Structural BMPs

Goal: Continue implementation of BMPs including projects with greater than or equal to 1- acre in disturbance area

The Town Engineer currently reviews plans to evaluate stormwater discharges and the methods that may be used for the treatment of stormwater before it reaches an outlet.

2. Procedures for Addressing Post Construction Runoff from Construction and Reconstruction Projects

Goal: Continue procedures for addressing post construction runoff from construction and reconstruction projects with greater than or equal to 1-acre in disturbance area

An internal memorandum issued to all Town departments requires stormwater management BMPs for all projects.

3. Ensuring Long Term Operation and Maintenance of Best Management Practices

Goal: Continue operation and maintenance of BMPs

The Public Works Department is responsible for the long-term operation and maintenance of the Town's facilities.

In 2013 NYE in conjunction with the Town of Beacon Falls Inland Wetlands and Watercourses Commission inspected twenty-seven (27) detention ponds/basins and recommended correction action and persons responsible for any discrepancies found.

Section 6: Pollution Prevention / Good Housekeeping

1. Operation and Maintenance Program

Goal: Implement operation and maintenance requirements

The Town is continuing to identify the specifics of the training, record keeping, internal reporting, and maintenance that will be required as part of operation and maintenance plan related to stormwater management.

2. Employee Training Program

Goal: Develop employee-training curriculum

The Town Engineer has developed curriculum for training the subject material and will continue to conduct classes with those individuals that require training.

3. Street Sweeping Program

Goal: Implement street sweeping requirements.

The Public Works Department swept 32 miles of the Town's roadways and parking lots during the past year (2015).

4. Catch Basin Maintenance Program

Goal: Implement catch basin maintenance requirements

The Town's Public Works Department cleaned Four hundred and thirty-two (432) catch basins in 2015

A new parking lot was installed at the Town Hall with seven (7) new catch basins in the parking lot and one (1) on Highland Ave. New catch basins and drainage were installed on Noe Place and Burton Rd. in 2015. Additionally eight new catch basin tops were installed in town and approximately 35 L.F. of new storm drainage.

5. Preventative Maintenance Program

Goal: Implement preventative maintenance requirements

The Town conducts inspections as a part of new construction /reconstruction projects to identify existing drainage facilities that may be in need of repair or inadequate.

The Town conducts inspections as a part of new construction /reconstruction projects to identify existing drainage facilities that may be in need of repair or inadequate. During 2012, the Town installed 640ft of new drainage pipe with six new catch basins. The town also rebuilt six catch basins. In conjunction with potential upgrades to the Beacon Falls WWTF the Town is completed the I&I study of the sanitary sewer system in 2013 to determine and address cross connections or infiltration of stormwater.

3.0 Monitoring Data

No monitoring data was collected for the 2015 year. Two rounds are scheduled for 2016.

4.0 Summary of Planned Stormwater Activities During the Next Reporting Cycle

Continued growth within the Town is being undertaken with an eye towards improving stormwater management. Developers who are working in areas where the existing stormwater infrastructure is not able to meet the needs of their planned construction are required to install or upgrade the stormwater infrastructure as part of their development.

The Public Works Department will continue its Preventative Maintenance Program. The Public Works Department and the Town Engineer will continue to map of the remainder of the Town's outfalls. The implemented ordinances and any changes in the re-issued General Permit will be review by the appropriate Town's Commission.

Continued training will be performed within the appropriate Town Departments and Commissions.

5.0 Changes In Any Identified Measurable Goals or Implementation Dates

The Town will continue to work towards meeting all of the deadlines as specified in the updated Stormwater Management Plan. Any delays in meeting the requirements of the plan will be identified and fixed within the constraints of the workloads of the various Town Departments and the Town budget.

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.



Signature of CEO/PEO or designee

Date: 1/11/16

Christopher Bielik
Name of CEO/PEO or designee

First Selectman
Title

Prepared By:
Nafis and Young Engineers, Inc.



Signature of Preparer

Date: 1/08/2016

Lawrence K. Secor, CHMM
Name of Preparer

Senior Environmental Project Manager
Title

APPENDIX I

STORMWATER MONITORING REPORTS

APPENDIX II

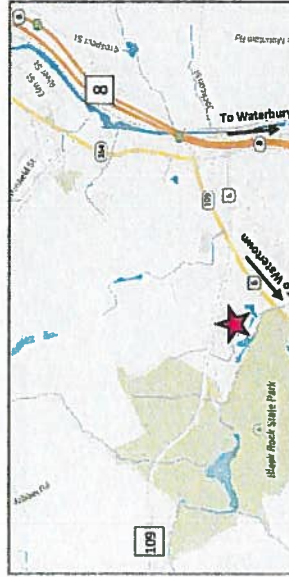
STORMWATER BMPS, OUTREACH EXAMPLES and REPORTS

Locations

Saturday, April 25, 2015
 Quaker Farms School
 30 Great Oak Road, Oxford



Saturday, July 25, 2015
 Thomaston High School
 185 Branch Road, Thomaston



Saturday, October 3, 2015
 Woodbury Middle School
 67 Washington Avenue, Woodbury



NAUGATUCK VALLEY COUNCIL of GOVERNMENTS

- ✓ Upon entering the parking lot, a volunteer will request your identification and ask you to open the trunk of your vehicle in order to identify the type of waste you have.
- ✓ You will be given a questionnaire requesting your name and address.
- ✓ While at the drop-off site, please stay in your vehicle at all times.
- ✓ You will then be directed to the collection area.
- ✓ The collection begins at 8:00 A.M. sharp and moves quickly.
- ✓ Being the first in line at 7:30 A.M. only ensures that you will wait an additional 30 minutes.

No more than 50 gallons or pounds of waste per vehicle without prior approval. Contact NVCOG by Monday before the collection date if you think you might exceed this limit.

Commercial waste may be collected for a fee at an HHW event only by prior arrangement one week in advance.

Contact NVCOG for Details:

Phone: (203) 757-0535
E-Mail: hwh@cogcnv.org
Website: www.nvcogct.org

Household Hazardous

Waste Collection Days



2015



Saturday, April 25, 2015

Quaker Farms School, Oxford

Saturday, July 25, 2015

Thomaston High School, Thomaston

Saturday, October 3, 2015

Woodbury Middle School, Woodbury

Hours of Operation:
8am to 2pm

For Residents of:

Beacon Falls, Bethlehem, Middlebury,
 Naugatuck, Oxford, Southbury, Thomaston,
 Waterbury, Watertown, and Woodbury

Collections are sponsored by the towns listed above and administered by the Naugatuck Valley Council of Governments

There is NO CHARGE for this service.
 Proof of residency required
 Drivers license preferred

What is Household Hazardous Waste ?

Any waste produced in the home that is poisonous, flammable, explosive, reactive, or corrosive is considered household hazardous waste (**Note: Explosives are never accepted at HHW Collections**). If not properly disposed of, these wastes can be harmful to human health and the environment.

Do not pour these wastes down the drain, dump them "out back," or throw them in the trash.



For more information, contact your local recycling coordinator at:

Beacon Falls	(203) 729-6978
Bethlehem	(203) 266-7677
Middlebury	(203) 577-4170
Naugatuck	(203) 720-7071
Oxford	(203) 888-7716
Southbury	(203) 262-0622
Thomaston	(860) 283-4030
Waterbury	(203) 574-6857
Watertown	(860) 945-5240
Woodbury	(203) 263-3633

What to Bring

General Household:

- Paint
- Alkaline batteries
- Drain & oven cleaners
- Mercury thermometers
- Wood cleaners, polishes, & waxes
- Metal Polishes
- Floor, upholstery, and rug cleaners
- Disinfectants
- Aerosols
- Bathroom cleaners
- Bug spray



Garage/Workshop:

- Fluorescent bulbs
- Wood stains, varnishes, & sealants
- Paint thinner, stripper, & other solvents
- Lacquer & lacquer thinner
- Fungicides & wood treating chemicals
- Automotive cleaners & fluids
- Grease & rust solvents

Garden/Pool:

- Insecticides
- Poisons
- Pool chemicals



What NOT to Bring

No more than 50 gallons or pounds of waste per vehicle without prior approval. Contact NVCOG by Monday before the collection date if you think you might exceed this limit.

- No** Car Batteries (Check with your town recycling center.)
- No** Motor oil (Check with your town recycling center.)
- No** Empty containers of any kind
- No** Explosives
- No** Propane tanks
- No** Medical or biological waste
- No** Commercial or industrial waste
- No** PCB's
- No** Asbestos
- No** Medications
- No** Tires
- No** Smoke detectors
- No** Air conditioners
- No** Household Appliances
- No** Electronics