

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Permit Number: not obtained to date **Permit Type:** General
Date Issue: 1/9/2004 **Date Expire:** 1/9/2009
Issued By: CTDEP
Co-Permitted With:

Name: Town of Waterford
15 Rope Ferry Road

Waterford CT 06385-2886

Population: 18,638
Households: 8,000
Area (ac): 215,680.00

Website:

Receiving Streams:

Subbasin #	Name
2000	Southeast Shoreline
2201	Jordan Brook
2202	Latimer Brook
2203	Oil Mill Brook
2204	Niantic River
3000	Thames River
3004	Oxoboxo Brook
3006	Hunts Brook

Receiving Waterbodies:

Receiving Watersheds:

Chief Elected Official / Principal Executive Officer:

Daniel M. Steward First Selectman
(869) 444-5834 dsteward@waterfordct.org

Primary Contact:

Ronald R. Cusano Director of Public Works
(860) 444-5864 rcusano@waterfordct.org

Secondary Contact:

Thomas V. Wagner Director of Planning
(860) 444-5813 twagner@waterfordct.org

Contracted Resources:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Control Measures performed for this Permit:

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Public Education and Outreach

What is Required?:

This measure outlines a program to communicate the impacts of stormwater discharges and educate means by which to reduce stormwater pollution. This is accomplished through distributing educational materials to the community and conducting public education and outreach programs.

Why is it Necessary?:

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Goals performed for this Control Measure:

BMP 1-1 Educational Brochures and Fact Sheets

Description

1. Methods of distribution - bill inserts, individual mailings, as fact sheets at town offices and with building permit applications, and on the town website.
2. Current brochures:
 - "A Complete Guide to the Disposal of Residential Trash"
 - "Don't Trash Grass"
3. Suggested topics for new brochures
 - Stormwater impacts and steps to reduce pollution
 - Residential Lot Development - E&S Controls
 - Identify Urbanized Areas, drainage areas, outfalls and receiving streams
 - Information about catch basin stenciling program
 - Parking lot pollution prevention and stormwater system maintenance
 - Residential land use - NEMO sheets, composting, animal waste management,
 - Nutrient and pesticide management and lawn practices
 - Managing pet wastes

These educational pieces need not be developed by the Town. Fact sheets, brochures and similar materials are available from EPA, DEP and other sources. The Town will need to adapt these pieces to provide town-specific information, such as dates and times of town wide programs, and promoting the volunteer water quality effort.

Goals

- Annually distribute a brochure on a town-wide basis through mailings,
- Make brochures available at town offices, and
- Develop new brochures for future availability and distribution.

Schedule

2004 Distribute a current brochure via mailing

2005-9 Develop new brochure(s) and distribute via mailing

Responsible Person(s): DPW Director

Assessment

Prior to preparing each brochure, a documented review of the content and effectiveness of the program will be performed.

Record Keeping

All published brochures, mailing lists, and records of the review assessments are to be kept on file in the DPW. Submittals to CTDEP will be made as required.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

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Distribute brochure via mailing 2004

Ron Cusano

Director

5/1/2004

On 8/4/04, a brochure entitled ""Why are You Paying to Treat Clean Water?" was sent out in the Town's tax bill by the Waterford Utility Commission. It described how to remove rainwater from the sewer system.

"Don't Trash the Grass" was made available at the Department of Public Works

On 7/7/04, a brochure entitled "A Complete Guide to the Disposal of Residential Trash" & "After the Storm" was sent out to the residents through bulk mail.

Distribute brochure 2005

Ron Cusano

Director

1/1/2005

In July 2005, a brochure entitled " Step by Step", A Citizens Guide To Curbing Polluted Runoff" was mass mailed to all of the residents of Waterford. It was prepared by the Long Island Sound Study.

On 1/05, a brochure describing inflow and infiltration relating to sewer lines was sent out in the Town's tax bill by the Waterford Utility Commission. It described how to remove rainwater from the sewer system.

The Town of Waterford Permitting Department provided to the Town of Waterford residents a brochure entitled "Stormwater Management Plan Fact Sheet".

"Don't Trash the Grass" was made available at the Department of Public Works.

Distribute brochure 2006

Ron Cusano

Director

1/9/2006

In January 2006 and in July 2006 and in the Recreation & Parks Summer Booklet, a brochure prepared by the Utility Commission regarding Inflow and Infiltration Sources were described. It was mass mailed to all of the residents of Waterford the were connected to the Town sewer system.

The Town of Waterford Permitting Department made available to the Town of Waterford residents a brochure entitled "Stormwater Management Plan Fact Sheet".

"Don't Trash the Grass" was also made available at the Department of Public Works.

Distribute brochure 2007

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Ron Cusano
1/9/2007
2007

Director

Distribute brochure 2008

Ron Cusano
1/9/2008
2008

Director

BMP 1-2 Catch Basin Stenciling

Description

Catch basins in recreational and other high pedestrian volume areas will be identified and targeted for stenciling. Coordinate with student or other volunteer groups on performing the stenciling. Use the CTDEP Long Island Sound Fund, Storm Drain Marker Program.

Goals

The goal is to coordinate an on-going stenciling program in which a minimum of 30% of basins in town are prioritized and stenciled.

Schedule

2004 Identify and stencil highest priority basins (~10% of total basins in town)
2005-6 Additional 10% per year (30% total)

Responsible Person(s): DPW Director

Assessment

The program performance will be reviewed and documented annually by DPW. The review will analyze goals and schedule as well as installation and maintenance.

Record Keeping

A working map of the prioritized and completed catch basin locations is to be kept updated and on file with DPW.

Start Date: 1/9/2004

End Date: 1/9/2007

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

10% Stenciled 2004

Ron Cusano
1/3/2005
High Priority,

Director

The Waterford High School Oceanology Class installed catch basin stencils on catch basins throughout the town on October 14, 2004 and October 15, 2004 and October 28, 2004. The Waterford Flood & Erosion Control Board also installed stencils during the month of October throughout the town. Stenciling was coordinated through Ron Cusano of Public Works, Chairman

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Dave Benvenuti of the Flood & Erosion Control Board and Mike O'Connor, Science teacher from Waterford High School.

Map Outfalls > 15" in UA

Ron Cusano Director
1/3/2005

Map will contain all outfalls, 15-inch and larger throughout the municipality

Map Outfalls >15" in UA

Ron Cusano Director
4/4/2005

The outfalls > 15" in the Urbanized Area of Waterford were completed with the help of the Utility Commission survey division.

10% Stenciled in 2005

Ron Cusano Director
6/13/2005

The Waterford High School Oceanology Class installed catch basin stencils on catch basins throughout the town in June 2005. Stenciling was coordinated through Ron Cusano of Public Works, and Mike O'Connor, Science teacher from Waterford High School.

10% Stenciled in 2006

Ron Cusano Director
3/12/2006

The Waterford High School Oceanology Class installed catch basin stencils on catch basins throughout the town in March 2006. Stenciling was coordinated through Ron Cusano of Public Works, and Mike O'Connor, Science teacher from Waterford High School.

10% Stenciled

1/9/2007

30% total for permit year four

BMP 1-3 Newspaper Article, Publications

Description

An article will be published in the local newspaper (The Day) outlining the requirements of the permit and the town's steps to meet the guidelines. Articles will also be included in other publications such as the Waterford Standard, Recreation and Park Bulletin, Senior Newsletter.

Goals

- Annually publish an article in the local newspaper
- Annually publish an article in another local publication

Schedule

2004-9 Annually publish an article in the local newspaper

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2004-9 Annually publish an article in another local publication

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Documented public feedback and inclusion in the program

Record Keeping

Articles and documents of public feedback will be kept on file with DPW.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Newspaper article

Ron Cusano

Director

1/9/2004

articles published...see Public Education summary under media relations. Various articles were published from 5/14/04 through 9/7/04.

2004 other publication

Ron Cusano

Director

1/9/2004

article published...see public education summary

2005 Newspaper article

Ron Cusano

Director

1/9/2005

article for 2005

BMP 1-4 Household Hazardous Waste Days

Description

This is a Qualifying Local Program in place to raise public awareness on methods for use and disposal of common household pollutants. Collections are coordinated through the Southeastern Connecticut Regional Resource Recovery Authority and performed by a private contractor at various locations in southeastern Connecticut.

Goals

Continue program as planned in an effort to remove household hazardous waste safely from the waste stream.

Schedule

2004-9 Include information regarding Household Hazardous Waste Collection in annual mailings.

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Responsible Person(s): DPW Director

Assessment

Household Hazardous Waste Collection records will be checked annually to evaluate the effectiveness of the program.

Record Keeping

All Household Hazardous Waste Collection records will be kept on file with the DPW.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Mailing 2004

Ron Cusano

Director

1/9/2004

There were several Household Hazardous Waste Collections held at various towns within our region. The program is coordinated through the Southeastern Connecticut Regional Resource Recovery Authority.

See public Education Summary under Special Events

Mailing 2005

Ron Cusano

Director

1/3/2005

In July 2005, a brochure entitled "Step by Step", A Citizens Guide To Curbing Polluted Runoff" was mass mailed to all of the residents of Waterford. It was prepared by the Long Island Sound Study.

On 1/05, a brochure describing inflow and infiltration relating to sewer lines was sent out in the Town's tax bill by the Waterford Utility Commission. It described how to remove rainwater from the sewer system.

The Town of Waterford Permitting Department provided to the Town of Waterford residents a brochure entitled "Stormwater Management Plan Fact Sheet".

See public Education Summary under Special Events

Mailing 2006

Ron Cusano

Director

1/9/2006

There were several Household Hazardous Waste Collections held at various towns within our region. The program is coordinated through the Southeastern Connecticut Regional Resource Recovery Authority. Mailing for the notices for the specific events were produced through the SCRRRA Regional Recycling Coordinator.

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See public Education Summary under Special Events

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Public Participation/Involvement

What is Required?:

This measure presents a program that complies with state and local public notice and Freedom of Information requirements and fosters community involvement in developing, implementing and reviewing the SWMP to reduce opposition and speed implementation.

Why is it Necessary?:

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Goals performed for this Control Measure:

BMP 2-1 Public Involvement and Participation Program

Description

A panel of town staff and volunteers will be created to review and update the SWMP and identify volunteer work for other BMPs. The existing stakeholders may be members from the following town agencies:

- Department of Public Works
- Planning and Zoning Commission
- Public Utilities Commission
- Recreation and Parks Commission
- Board of Health
- Flood and Erosion Control Board

Meeting topics may include:

- Permit compliance status
- BMP implementation status
- SWMP revisions
- Identifying additional stakeholders (including volunteers)
- Identifying volunteer work on other BMPs

Goals

- Hold annual meetings
- Review SWMP implementation and Permit compliance
- Identify additional stakeholders (including volunteers)

Schedule

2004 Interagency meeting to identify volunteers, future meeting schedules and goals

2005-8 Review SWMP goals and progress

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Identification of additional stakeholders (including volunteers)

Record Keeping

Meeting minutes and other materials will be documented and kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Interagency Meeting

Ron Cusano

Director

1/9/2004

A meeting was held with Maureen Fitzgerald, Environmental Planner, and Steve Steadman,

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Assistant Director of Public Works to discuss permit compliance status, BMP implementation status, SWMP revisions, identifying the stakeholders, and other volunteer work.

2005 Interagency Meeting

Ron Cusano Director
1/9/2005

Met with Tom Wagner, Planning Director, Maureen Fitzgerald, Environmental Planner, Steve Steadman, Assistant Director of Public Works and myself to review the SWMP and progress.

2006 Interagency Meeting

Ron Cusano Director
11/1/2006

There was an interagency meeting held on November 1, 2006 at the Town Hall at 2:30 pm with Ron Cusano, Director of Public Works, Tom Wagner, Director of Planning, Maureen Fitzgerald, Environmental Planner and Mark Wujtewicz, Planner. The Waterford Stormwater Management Plan was discussed and status of the 2006 submittal. It was emphasized that all commitments to complete the work for 2006 had to be completed for the January 1, 2007 submission among other items.

2006 Interagency Meeting 2

Ron Cusano Director
11/14/2006

There was a Special Meeting held by the Waterford Conservation Commission held on November 14, 2006 at 7:30pm at the Waterford Town Hall Auditorium presented by the US Environmental Protection Agency, the Connecticut Department of Environmental Protection, the University of Connecticut and Aqua Solutions, LLC. The meeting was primarily to discuss the Study Findings and results of the Jordan Cove Section 319 Study (Giovanni Drive). More specifically, the meeting was to provide the Town of Waterford land use agencies with a summary of the study results, findings and recommendations for implementation of best management practices that control stormwater run-off and pollutant to wetlands and watercourses.

BMP 2-2 Comply with State and Local Public Notice and FOI Requirements

Description

Prior to submission of the Part B Registration to the Department, the Town will make available for public review and comment a draft copy of the SWMP for a minimum period of 30 days. A notice for the review will be printed in the The Day and placed on the town website. Draft copies of the SWMP will be available at the Town Hall and through the town website.

Prior to submission of the Part B Registration to the Department The Town will also hold a public hearing to document any comments in a public forum. A notice for the hearing will be printed in the The Day and placed on the town website.

Prior to submission of each Annual Report to the Department, the Town will make available for public review and comment a draft copy of the complete Annual Report for a minimum period of 30 days. A notice for the review will be printed in the The Day and placed on the town website. Draft copies of the Annual Report will be available at the Town Hall and through the town

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website.

Availability of all documents will be consistent with the federal and state Freedom of Information Acts.

Goals

- Obtain public feedback on the SWMP
- Obtain public feedback on the Annual Report

Schedule

2004 Hold public Hearing for review of SWMP
2004 30-day public review of SWMP
2004-8 30-day public review of Annual Reports

Responsible Person(s): DPW Director

Assessment

Meeting the schedule defined herein. Incorporation of public comment and public interest. Public approval.

Record Keeping

Copies of all written comments and minutes from public hearings will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

SWMP 30-day Public Review Period

Ron Cusano

Director

5/13/2004

Legal Advertisement was published in the New London Day on May 14, 2004 for a Public Hearing set for June 14, 2004 at the Waterford Town Hall, 7PM. The SWMP was made available at the Department of Public Works and the Planning & Zoning Office located in the Town Hall. The 30 day review period was from May 14, 2004 through June 14, 2004 with the Public Hearing set for June 15, 2004 at the Waterford Town Hall.

SWMP Public Hearing

Ron Cusano

Director

5/18/2004

Attendees:

Neil Kulikauskas (SEA)

Bill Hardy (SEA)

2004 Annual Report 30-day public review period

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Ron Cusano
11/1/2004

Director

A copy of the draft copy of the 2004 Annual Report was put on the Town of waterford web site on December 22, 2004.

2005 Annual Report 30-day public review period

Ron Cusano
11/1/2005

Director

Notice of the Annual Report was published in the New London Day on November 30, 2005.

2006 Annual Report 30 day public review period

Ron Cusano
5/23/2006

Director

Notice of the Annual Report was published in the New London Day on November 30, 2006.

BMP 2-3 Public Meetings

Description

Public meetings will be held and sponsored by Board of Selectman, Planning and Zoning Commission, Department of Public Works, and Conservation Commission to introduce the public to policies and intent of Phase II regulations and guidance documents and incorporate public feedback into the SWMP.

Meetings will likely consist of:

- An overview of the permit requirements (use handouts)
- Summarize the town's approach to address areas of concern,
- Solicit public input on problem areas,
- Identify potential illicit discharges,
- Identify other areas of public concern (use questionnaires).

Meetings will be advertised via printed public notice and on the town website.

Goals

The goal is to hold public meetings to further develop the SWMP based on public comments and concern.

Schedule

2004 Present requirements of SWMP at an existing public meeting event
2004-5 Dedicated public meeting
2006-8 Shared with other town public meetings

Responsible Person(s): DPW Director

Assessment

Past meeting minutes and annual reports will be presented and reviewed at each new meeting. SWMP revisions based on public comment and concern will be documented.

Record Keeping

Meeting minutes and other materials such as handouts and questionnaires will be documented and kept on file with the SWMP.

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Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

BOS Public meeting

Ron Cusano

Director

4/1/2004

presented SWMP to BOS...see public education summary

Power Point presentation by William Hardy of SEA Consultants, Inc. to the Board of Selectman concerning the DEP Phase II permit.

2004 Dedicated Public Meeting

Ron Cusano

Director

8/3/2004

Various meeting were held as described under Public Education.

2005 Dedicated Public Meeting

Ron Cusano

Director

1/9/2005

A public meeting was scheduled for the December 13, 2005 by the Board of Selectman to introduce the public to policies and intent of Phase II regulations and guidance documents and incorporate public feedback into the SWMP. The students from the Waterford High School science class, through their teacher, Mike O'connor, will make the presentation.

2006 Dedicated Public Meeting

Ron Cusano

Director

11/14/2006

There was also a Special Meeting held by the Waterford Conservation Commission held on November 14, 2006 at 7:30pm at the Waterford Town Hall Auditorium presented by the US Environmental Protection Agency, the Connecticut Department of Environmental Protection, the University of Connecticut and Aqua Solutions, LLC. The meeting was primarily to discuss the Study Findings and results of the Jordan Cove Section 319 Study (Giovanni Drive). More specifically, the meeting was to provide the Town of Waterford land use agencies with a summary of the study results, findings and recommendations for implementation of best management practices that control stormwater run-off and pollutant to wetlands and watercourses. present SWMP at shared meeting event

2006 Dedicated Public Hearing

Ron Cusano

Director

11/16/2006

The Public Works, Planning & Development Committee of the Representative Town Meeting conducted a public hearing to consider a proposed addition to the Waterford Code of Ordinances relative to Illicit Discharge Connection Storm Water in order to satisfy the Department of Environmental Protection General Permit for the Discharge of Stormwater from Small Municipal

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Separate Storm Sewer Systems.

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Illicit Discharge Detection and Elimination

What is Required?:

This measure outlines a program to develop and implement a plan to 1) detect and eliminate existing illicit discharges; and 2) detect and address existing and future prohibited non-stormwater discharges. These measures will be enforced by ordinance.

Why is it Necessary?:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Goals performed for this Control Measure:

BMP 3-1 Town Drainage System Mapping (>15" in UA)

Description

The Town will maintain an updated map of stormwater structures and outfalls to provide an accurate index for the illicit discharge detection and elimination program.

Goals

Within the UA, mapping of the town drainage system will be updated to include at a minimum the location of all outfalls of 15-inch diameter and larger.

For each discharge, the following information will be indicated on the mapping:

- Type, material and size of conveyance, outfall or channelized flow,
- Name and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges (if no name exists, the name of the nearest named waterbody to which the outfall eventually discharges),
- The name of the watershed where the discharge is located,
- CT grid coordinates.

Map system on town GIS system

- Collect all existing information on outfall locations from: existing GIS information, town records, mapping, and plans.
- Use consultants, town staff and volunteers to locate unmapped outfalls.
- Implement procedures for updating mapping with newly constructed outfalls.

Schedule

- 2004 Collect all existing information on outfall locations
- 2004 Contract consultants for locating outfalls
- 2004 Begin to locate existing outfalls, update database
- 2005 Map will contain all outfalls, 15-inch and larger within the UA

Responsible Person(s): DPW Director

Assessment

Map development based on requirements and schedule as defined by the Permit.

Record Keeping

Updated mapping will be on file with the Town. Review records to be kept on file with DPW.

Start Date: 1/9/2004

End Date: 1/9/2006

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Collect Information 2004

Ron Cusano

Director

1/5/2004

The Town began to update the map of stormwater structures and outfalls to provide an accurate

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index for the illicit discharge detection and elimination program.

Map Outfalls 2004

Ron Cusano Director
1/5/2004

Within the UA, mapping of the town drainage system began updating to include at a minimum the location of all outfalls of 15-inch diameter and larger.

Collect Information 2005

Ron Cusano Director
1/3/2005

The Town completed updating the map of stormwater structures and outfalls > 15" in the UA to provide an accurate index for the illicit discharge detection and elimination program and installed it on the GIS system.

Map Outfalls 2005

Ron Cusano Director
1/3/2005

The Department of Public Works completed mapping all of the outfalls greater than 15" in the UA on the Towns Geographic Information System.

BMP 3-6 Outfall Inspection and Monitoring

Description

The Town will develop a stormwater structure and outfall inspection program to identify non-stormwater and illicit discharges throughout town.

Goals

- Conduct dry weather outfall inspections and wet weather sampling and monitoring.
- Use consultants, town staff and/or volunteers to perform outfall inspections.
- Establish inspection protocol form, including visual factors and water characteristics (sheen, scum, color, odor, etc.) indicative of pollutant discharge.
- Conduct dry weather inspections of outfalls for non-stormwater discharges and illicit discharges.
- Perform wet weather sampling and testing of outfalls at locations as required by the permit: At least two (2) outfalls apiece will be monitored from areas of primarily industrial development, commercial development and residential development, respectively, for a total of six (6) outfalls monitored.

Schedule

2004 Establish inspection and record keeping protocol
2004-8 Perform dry weather inspection of stormwater structures and major (>12") outfalls
2004-8 Perform wet weather sampling and monitoring in accordance with the Permit

Responsible Person(s): DPW Director

Assessment

- Identification of non-stormwater and illicit discharges

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- Monitoring and sampling of outfalls to reduce pollutants

Record Keeping

Outfall inspections and monitoring results will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Catch Basin Stenciling 2004

Ron Cusano

Director

10/14/2004

The Waterford High School Science class stenciled just short of 10% of the catch basins in Town. The Waterford Flood and Erosion Control Board stenciled the balance under the supervision of David Benvenuti, Chairman.

Outlet Monitoring 2004

Ron Cusano

Director

11/8/2004

Six outlets were tested in town. Tested were 2 Industrial, 2 Commercial, and 2 Residential. The locations are as follows:

Industrial:

Industrial Drive #DHWDD41-1
Cross Road #20107

Commercial:

Miner Lane#100003
Avery Lane#10010

Residential:

Hickory Lane#10127
Stoneheights Drive#10121

Tests were prepared by KB Analytical of Oakdale, CT

Outfall Monitoring 2005

Ron Cusano

Director

1/3/2005

Six outlets were tested in town. Tested were 2 Industrial, 2 Commercial, and 2 Residential. The locations are as follows:

2 Residential - Niles Hill Road, Bolles Court

2 Commercial - Industrial Drive, Cross Road

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2 Industrial - Douglas Lane, Cross Road

Catch Basin Stenciling 2005

Ron Cusano Director

6/6/2005

The Waterford High School Oceanology Class installed catch basin stencils on catch basins throughout the town in June 2005. Stenciling was coordinated through Ron Cusano of Public Works, and Mike O'Connor, Science teacher from Waterford High School.

Catch Basin Stenciling 2006

Ron Cusano Director

6/4/2006

The Waterford High School Oceanology Class installed catch basin stencils on catch basins throughout the town in June 2006. Stenciling was coordinated through Ron Cusano of Public Works, and Mike O'Connor, Science teacher from Waterford High School.

Outfall Monitoring 2006

Ron Cusano Director

11/2/2006

Six outlets were tested in town. Tested were 2 Industrial, 2 Commercial, and 2 Residential. The locations are as follows:

2 Residential - Stoneheights Drive, Hickory Lane

2 Commercial - Avery Lane, Miner Lane

2 Industrial - Cross Roads, Industrial Drive

BMP 3-7 Outfall Inspection Training

Description

The Town will develop a staff-training program on inspection protocol, identifying potential illicit discharges and town policies on prohibiting non-stormwater and illicit discharges.

Goals

- Initial training for all Public Works and Engineering staff
- Annual refresher training for existing staff and new employees

Schedule

2004 Initial training program

2005-8 Annual training program

Responsible Person(s): DPW Director

Assessment

- Identification of non-stormwater and illicit discharges
- Annual review of training attendance and program content

Record Keeping

Training records will be maintained for all employees. A summary will be kept on file with the

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SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Initial Training

Ron Cusano

Director

8/3/2004

see Employee Training summary
training held on 11/16/2004 and 8/03/04

2005 Annual Training

Ron Cusano

Director

1/9/2005

training held on 11/23/05.
see employee training summary

2006 Annual Training

Ron Cusano

Director

1/9/2006

training held on 11/13/05 for four new Highway Maintainers II and on 11/17/06 for the other highway employees.
see employee training summary

BMP 3-5 Ordinance Review and Revisions

Description

Town ordinances and policies will be updated to prohibit 1) illicit discharges and 2) the connection of non-stormwater flows as defined by the Permit to the town drainage system without a clean water discharge permit. Establish a permit process similar to existing town permit processes. Review ordinance for enforcement procedures and fines.

Goals

The goal is to review and update ordinances to be consistent with the requirements of the permit.

Schedule

2004 Review ordinances, prepare proposed language

2005 Establish permit procedures

2006 Adopt ordinance revisions

2007-8 Review and make revisions based on effectiveness of revisions

Responsible Person(s): DPW Director

Assessment

Review activities permitted under ordinance

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Record Keeping

Modification history and the updated ordinance language will be kept on file with the SWMP and available on the town website.

Start Date: 11/18/2004

End Date: 11/19/2004

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Ordinance Review and Revision 2004

Ron Cusano

Director

11/18/2004

Ordinance review has been initiated. Sample ordinances from the DEP website are being evaluated and modified to meet permit consistency.

Establish Permit Procedures 2005

Ron Cusano

Director

1/3/2005

The Public Works Planning Subcommittee of the RTM Chaired by Ken Kirkman worked with his group to establish permit procedures. Ron Cusano, Director of Public Works, provided the subcommittee with all of the information necessary to accomplish this task.

Adopt Ordinance Revisions 2006

Ron Cusano

Director

11/27/2006

Ordinance to be adopted by the RTM

TVW: Prepare comments on proposed ordinance and attend public hearing of RTM subcommittee 11/15/2006. Revised being prepared by Attorney for discussion at 12/5/2006 subcommittee meeting.

BMP 3-4 Illicit Discharge Elimination Program

Description

The Town will develop a program to address the elimination of illicit discharges.

Goals

- Review of outfall mapping and inspection results
- Continue to locate problem areas by public complaints, dye testing, smoke testing, and visual inspections
- Identify town personnel with extensive knowledge of town stormwater facilities and possible illicit discharges
- Review illicit discharge programs undertaken by other communities
- Review complaint files to identify past unauthorized discharges and verify these have been removed or corrected.
- Review and identify existing "clean" non-stormwater water discharge locations and verify compliance with the new permit.
- Review existing surface water data that has been collected by the Town since 1998 to

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

determine potential presence of pollutant source in stream reach and pollutants of concern in each of 6 monitored watershed areas.

- Take enforcement actions against owners in accordance with town ordinance.
- Review and assess remediation of illicit and non-stormwater discharges noted above.

Schedule

2005 Review existing complaints, non-stormwater discharges, and surface water data

2006-8 Implement corrective measures

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Results of outfall monitoring
- Elimination of illicit discharges.

Record Keeping

Records of any corrective actions will be kept on file with the SWMP.

Start Date: 1/9/2005

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Review existing complaints, non-stormwater discharges and surface water data

Ron Cusano

Director

11/18/2004

We reviewed outfall mapping and inspection results. There have to date been no public complaints regarding illicit discharges. The town personnel with extensive knowledge of the town stormwater facilities are Don Brigham Jr, General Foreman and Curtis Carlough, Highway Foreman.

2005 Review Existing Complaints

Ron Cusano

Director

1/3/2005

We reviewed outfall mapping and inspection results. We received one inquiry. It was from George Apanaschik of 7 Graham Street concerning a white substance found in one of the catch basins outside in the access drive adjacent to the pool at the Waterford High School. Ron Cusano spoke to Jay Miner, Board of Education Director of Buildings & Grounds, and he indicated to me that it was from power washing the concrete wall.

BMP 3-2 Town Drainage System Mapping (>15" Town-wide)

Description

The Town will maintain an updated map of stormwater structures and outfalls to provide an accurate index for the illicit discharge detection and elimination program.

Goals

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Throughout the municipality, mapping of the town drainage system will be updated to include at a minimum the location of all outfalls of 15-inch diameter and larger.

For each discharge, the following information will be indicated on the mapping:

- Type, material and size of conveyance, outfall or channelized flow,
- Name and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges (if no name exists, the name of the nearest named waterbody to which the outfall eventually discharges),
- The name of the watershed where the discharge is located,
- CT grid coordinates.

Map system on town GIS system

- Collect all existing information on outfall locations from: existing GIS information, town records, mapping, and plans.
- Use consultants, town staff and volunteers to locate unmapped outfalls.
- Implement procedures for updating mapping with newly constructed outfalls.

Schedule

2006 Map will contain all outfalls, 15-inch and larger throughout the municipality

Responsible Person(s): DPW Director

Assessment

Map development based on requirements and schedule as defined by the Permit.

Record Keeping

Updated mapping will be on file with the Town. Review records to be kept on file with DPW.

Start Date: 1/9/2006

End Date: 1/9/2007

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: **X** Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Map outfalls

Ron Cusano

Director

1/9/2005

The Department of Public Works completed mapping all of the outfalls greater than 15" in the UA on the Towns Geographic Information System.

BMP 3-3 Town Drainage System Mapping (>12" in UA)

Description

The Town will maintain an updated map of stormwater structures and outfalls to provide an accurate index for the illicit discharge detection and elimination program.

Goals

Within the UA, mapping of the town drainage system will be updated to include at a minimum the location of all outfalls of 12-inch diameter and larger.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

For each discharge, the following information will be indicated on the mapping:

- Type, material and size of conveyance, outfall or channelized flow,
- Name and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges (if no name exists, the name of the nearest named waterbody to which the outfall eventually discharges),
- The name of the watershed where the discharge is located,
- CT grid coordinates.

Map system on town GIS system

- Collect all existing information on outfall locations from: existing GIS information, town records, mapping, and plans.
- Use consultants, town staff and volunteers to locate unmapped outfalls.
- Implement procedures for updating mapping with newly constructed outfalls.

Schedule

2007 Map will contain all outfalls, 12-inch and larger within the UA

2008 Add newly constructed outfalls, maintain mapping

Responsible Person(s): DPW Director

Assessment

Map development based on requirements and schedule as defined by the Permit.

Record Keeping

Updated mapping will be on file with the Town. Review records to be kept on file with DPW.

Start Date: 1/9/2007

End Date: 1/9/2008

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: **X** Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Map outfalls

Ron Cusano

Director

1/9/2006

Mapping of these outfalls will be accomplished in a later year.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Construction Site Runoff Control

What is Required?:

This measure outlines modifications to the existing program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance greater than or equal to one-half acre, including projects less than one-half acre that are part of larger common plan of development. All projects involving a total, cumulative disturbance of land area associated with construction activities that is greater or equal to five acres will be registered with the CTDEP in accordance with the General Permit for the Discharge of Stormwater and De-Watering Wastewater Associated with Construction Activities (Phase 1).

Why is it Necessary?:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Goals performed for this Control Measure:

BMP 4-1 Regulation Review and Revisions

Description

Zoning/Subdivision Regulations will be revised to require erosion and sediment control and stormwater control measures for all construction activities involving land disturbance greater than one-half acre. All erosion and sedimentation control measures will be in accordance with CTDEP's Guidelines For Soil Erosion and Sediment Control, 2002 and Section 25.5 of the Zoning Regulations.

Zoning/Subdivision Regulations will be revised to require construction site operators to control waste at the site such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste that may cause adverse impacts to water quality.

Street use regulations will be revised to prohibit construction dewatering and construction site stormwater runoff to the town drainage system.

Goals

The goal is to review and update the regulations to be consistent with the requirements of the permit

Schedule

2004-5 Review regulations, prepare proposed language
2006 Adopt revised regulations
2007-8 Review and make revisions based on effectiveness

Responsible Person(s): Planning Director

Assessment
Implementation

Record Keeping

Modification history and the updated regulation language will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2007

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Review reg language

Thomas Wagner

Director

8/3/2004

Planning staff has reviewed Section 25.5 (Erosion and Sedimentation Control Plan Requirements) and are preparing draft changes that will require erosion and sediment control and stormwater control measures for all construction activities.

review regulations

Thomas Wagner

Director

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

11/29/2005

Regulations need to be updated to reflect current guidelines. Discussion with staff regarding most appropriate language and section to be amended.

Adopt revised regs

Thomas Wagner

Director

11/27/2006

section 25.5 needs to reference change in guidelines to 2002 edition.

Section 25.5 needs statement on stormwater discharge and need to prevent pollution of the waters of the State.

Section 25.5 needs reference to new storm water manual as standards.

BMP 4-2 Fact Sheets

Description

A notification fact sheet will be developed to be distributed with All Building, Land Use and DPW Encroachment permits to Contractors, Site Developers and Operators, stating:

"In accordance with the Phase II Stormwater Compliance guidelines being implemented by the Town of Waterford and the requirements of Section 25.5 of the Waterford Zoning Regulations regarding erosion and sediment control plan requirements, a soil and sediment control plan shall be submitted with any site plan, special permit, coastal site plan or zoning permit application for the development of land when the proposed area of disturbance is cumulatively more than one-half acre. All projects involving a total, cumulative disturbance of land area associated with construction activities that is greater or equal to five acres shall be registered with the CTDEP in accordance with the General Permit for the Discharge of Stormwater and De-Watering Wastewater Associated with Construction Activities (Phase 1). Municipal building, zoning compliance or encroachment permits will not be issued for the initiation of work in the Town of Waterford without verification of this registration presented to the permitting agency."

Goals

The goal is to make available and distribute a fact sheet to educate citizens land developers working in town.

Schedule

2004 Produce and distribute fact sheet

2005-8 Revise and distribute annually

Responsible Person(s): Planning Director

Assessment

Annual review and revisions of fact sheet

Record Keeping

Current fact sheets will be kept on file with the Planning and Zoning Commission. A copy will be filed with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Actions performed for this goal:

Distribute Fact Sheet

Thomas Wagner
8/3/2004

Director

Notification fact sheet prepared and distributed to developers, contractors and engineers as attachments with building permit, planing and zoning permit and inland wetland permit applications. Fact sheet notices the requirement for ESC plans with land disturbance proposals involving greater than 1/2 acre of disturbed area.

Annually Revise fact sheet

Thomas Wagner
11/27/2006

Director

4.2: Fact Sheet - Notification fact sheet updated for 2005. This hand-out is distributed to developers, contractors and engineers as attachments with planning and zoning permit and inland wetland permit applications involving greater than 1/2 acre of land disturbance.

Staff review of fact sheet indicates no needed revisions. Verification of registration for General Permit to be put on site plans and required as a condition of preconstruction meeting scheduling.

BMP 4-3 Plan Review

Description

A program will be instituted to ensure the review of plans for all construction activities involving land disturbance greater than one-half acre. Town staff will review design plans and erosion and sediment control plans for compliance with CTDEP's Guidelines For Soil Erosion and Sediment Control, 2002. Plan review will continue to be conducted during permit application process for Inland Wetlands permits, zoning compliance permits and site development planning & zoning permits. A checklist for erosion and sediment control and stormwater control measures will be developed and updated in order to maintain consistency in plan reviews.

Goals

- Review all design plans for consistency with the town and state guidelines for erosion and sediment control.
- Develop and update a plan review checklist.

Schedule

2004-8 Examine and assess current review process

Responsible Person(s): Planning Director

Assessment

All construction plans will require review and approval.

Record Keeping

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

All review comments and approvals will be kept on file with the Planning and Zoning Commission.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Examine and Assess Current Review Process

Thomas Wagner

Director

12/3/2004

Current review process involves review of all site plans submktted for Inland Wetland Permits, Planning and Zoning Site Plan and Subdivision permits and Zoning Compliance Permits. Staff responsible for each type of permit reviews plans and submits comments to developer and/or developers agent regarding consistency of the plan to Town of Waterford Zoning Regulaitons Section 25.5 (Erosion and Sediment Control Plan Requirements)

Examine and Assess Current Review Process

Thomas Wagner

Director

12/17/2004

The Waterford Permitting Department has reviewed 55 applications for development in 2004 involving construction disturbance of 1/2 acre or more and required inclusion of erosion and sediment control measures and construction stormwater controls in accordance with the 2002 Connecticut Guidelines for Erosion and Sediment Control as part of the site plan approval process.

An Erosion and Sediment Control plan checklist has been developed for department staff to assist with plan reviews.

Examine and Assess Current Review Process

Thomas Wagner

Director

12/1/2005

4.3: Plan Review - The Waterford Permitting Department personnel reviewed site plans for 6 commercial developments, 8 residential subdivision developments involving new roadway, and 3 municipal construction projects in 2005 involving construction disturbance greater than 1/2 acre. Erosion and sediment control narratives, details, and construction stormwater control measures were required as part of the site plan approval process. ESC and stormwater control measures were recommended in accordance with the 2002 Connecticut Guidelines for Erosion and Sediment Control and the 2004 Connecticut Stormwater Quality Manual.

Examine & Assess Current Review Process 2006

11/30/2006

The Waterford Permit Department reviewed 20 commercial site plans in 2006 as part of the land use application process. Site plans were examined for consistency with Section 25 of the Zoning Regulations and with erosion and sediment control and stormwater control practices. The plan review process is being consistently applied. No changes are recommended at this time.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

BMP 4-4 Inspection and Enforcement

Description

The town program will continue to provide a sufficient level of inspection and enforcement to ensure that E&S and stormwater control measures are installed and maintained properly.

Goals

- Continue existing program of construction inspection, performance bonding and enforcement of regulations,
- Develop an inspection checklist to assist town inspectors and contractors in compliance with the E&S requirements and stormwater control /management practices, and
- Train inspectors to keep up with current requirements and new practices.

Schedule

2004 Develop an inspection checklist

2005-8 Maintain established inspection processes

Responsible Person(s): Planning Director

Assessment

- Annual review of enforcement history
- Evaluate effectiveness of enforcement program
- Document and investigate public complaints

Record Keeping

All inspection records including problems, actions and outcomes will be kept on file with the Planning and Zoning Commission.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Develop inspection checklist

Thomas Wagner

Director

8/3/2004

The Waterford Permitting Department personnel regularly inspect construction sites as part of the permit compliance process and require repair or replacement of erosion and sediment control measures where necessary. A site inspection checklist for E&S and Stormwater control measures and E&S plan compliance has been prepared for use by department staff in field inspections.

evaluate enforcement

Thomas Wagner

Director

11/27/2006

Overall enforcement of erosion controls has been excellent. Measure to apply fines being considered to penalize violators rather than just focus on corrective measures. Zoning regulation to be reviewed.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

4.4: Inspection & Enforcement - The Waterford Permitting Department personnel regularly inspect construction sites as part of the permit compliance process and require repair or replacement of erosion and sediment control measures where necessary. A site inspection checklist for E&S and Stormwater control measures and E&S plan compliance has been prepared for use by department staff in field inspections. Continued field training of planning department staff on installation and maintenance of erosion and sediment control measures is conducted during on-site inspections. Construction sites regularly inspected in 2005 include: Lowe's Home Improvement, CVS Pharmacy, Parkway So. Medical Office, Town Transfer Station, Thames Landing Condominiums, Clark Lane Middle School, Waterford Community Center, and 5 new residential subdivision developments - Clark Place, Oswegatchie Hill, Two Mile Hill, Spithead Road & Perkins Farm Road.

Inspection frequency could be improved with the help of third party inspection services.

BMP 4-5 Inspection Training

Description

The Town will develop a staff-training program on inspection protocol to ensure that E&S and stormwater control measures are installed and maintained properly.

Goals

- Initial training for all land use staff
- Annual refresher training for existing staff and new employees

Schedule

2004 Initial training program

2005-8 Annual training program

Responsible Person(s): Planning Director

Assessment

- Reduction of erosion and sediment runoff
- Annual review of training attendance and program content

Record Keeping

Training records will be maintained for all employees. A summary will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Initial Training

Thomas Wagner

Director

8/3/2004

Initial training of Planning and Zoning staff in site plan review and construction site inspection has been conducted by the Environmental Planner, a certified Professional in Erosion and Sediment Control. Training materials address principles of erosion and sediment control, plan review

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

checklist, site inspection form. Personnel trained: Planner, Zoning Official.

2005 Annual Training

Thomas Wagner Director

12/1/2005

training held on xxxxx

see employee training summary

4.5: Inspection Training - A re-fresher training seminar conducted by the Environmental Planner, a certified Professional in Erosion and Sediment Control was conducted 12/5/05. Training materials address principles of erosion and sediment control, plan review checklist, site inspection form and effectiveness of erosion and sediment control and stormwater treatment measures. Personnel trained: Planning Director, Planner, Zoning Official.

2006 Annual Training

Thomas Wagner Director

11/30/2006

Permit department training held on November 30, 2006. Attendees included: zoning enforcement officer, environmental planner, planner and planning director. Principles of erosion processes, erosion and sediment control practices, installation and inspection of erosion and sediment controls were reviewed.

Group review of site development plan was conducted to review sources of sediment during construction, application of erosion and sediment control devices, and erosion and sediment control narrative. The established plan review checklist was employed in this session.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Post-Construction Runoff Control

What is Required?:

This measure outlines a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects that disturb less than one acre that are part of larger common plan of development that discharge into the MS4 or directly to waters of the State.

Why is it Necessary?:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Goals performed for this Control Measure:

BMP 5-1 Regulation Review and Revisions

Description

Zoning/Subdivision Regulations will be revised to require stormwater quality BMPs both structural and non-structural for stormwater control and pollutant removal.

A SWMP and Operations and Maintenance plan will be required for all structural BMPs to ensure adequate long-term performance.

Goals

The goal is to review and update the regulations to be consistent with the requirements of the permit

Schedule

2004-5 Review regulations, prepare proposed language

2005 Adopt revised regulations

2006-8 Review and make revisions based on effectiveness

Responsible Person(s): Planning Director

Assessment

Implementation

Record Keeping

Modification history and the updated regulation language will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2006

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Review regulations

Thomas Wagner

Director

8/3/2004

Existing zoning regulations applying to site preparation requirements and environmental protection have been reviewed by Planning Department staff. Recommendations for revisions to existing regulations that incorporate requirements for stormwater management during construction and in the post construction period are being developed for consideration by the Planning and Zoning Commission. Existing stormwater quality practices applied by the Waterford Conservation Commission on land development proposals within the Jordan Brook watershed area are being considered for adaptation into a town-wide practice.

Adopt Revised Regulations

Thomas Wagner

Director

1/9/2005

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Review Regulations

Thomas Wagner

Director

11/29/2005

Section 8a SDD and 17a, Seaside Preservation District contain specific language requiring storm water management plans.

17a.10.2 A storm water management plan shall be submitted, which mitigates any impact the use of this site has on water quality. The storm water management system shall, based on available technology, have the ability to treat the first inch of runoff to remove 80% of total suspended solids, oils, chemicals and floatable debris. Best management practices to control pollution at the source shall be specified.

17a.10.3 The total area which is impervious to the infiltration of storm water shall be limited to 30% of the site and including the area of the public road.

8a.9.2 A storm water management plan shall be submitted which mitigates any impact the use of this site has on water quality. The stormwater management system shall, based on available technology, have the ability to treat the first inch of runoff to remove 80% of total suspended solids, oils, chemicals and floatable debris. Best management practices shall be specified as part of the special permit and site plan and shall include required monitoring and maintenance.

8a.9.3 The percentage of land within the district which will be impervious to the infiltration of water shall not exceed 50%. The Commission may allow a greater percentage of impervious area if equivalent non wetland or lands otherwise restricted to infiltration outside the district but in the same watershed are set aside in a manner that assures that they will be preserved in perpetuity. Such land shall be conveyed in fee or conservation easement to the Town of Waterford or other agency as determined by the Commission. Infiltration of stormwater shall be maintained at predevelopment levels. In addition, a plan to control the quantity of water which minimizes downstream impacts shall be provided.

These regulations are being written to be applicable to all zoning districts.

BMP 5-2 Develop Post-construction Regulations

Description

Zoning/Subdivision Regulations will be revised to require stormwater quality BMPs both structural and non-structural for stormwater control and pollutant removal.

A SWMP and Operations and Maintenance plan will be required for all structural BMPs to ensure adequate long-term performance.

Goals

The goal is to review and update the regulations to be consistent with the requirements of the permit

Schedule

2004-5 Review regulations, prepare proposed language

2005 Adopt revised regulations

2006-8 Review and make revisions based on effectiveness

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Responsible Person(s): Planning Director

Assessment
Implementation

Record Keeping

Modification history and the updated regulation language will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2006

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Review Regulations

Thomas Wagner

Director

8/3/2004

Existing zoning regulations applying to site preparation requirements and environmental protection have been reviewed by Planning Department staff. Recommendations for revisions to existing regulations that incorporate requirements for stormwater management during construction and in the post construction period are being developed for consideration by the Planning and Zoning Commission. Existing stormwater quality practices applied by the Waterford Conservation Commission on land development proposals within the Jordan Brook watershed area are being considered for adaptation into a town-wide practice.

Adopt Revised Regulations

Thomas Wagner

Director

1/9/2005

BMP 5-3 BMP Strategy

Description

Existing stormwater management practices of land use permitting agencies will be codified for all construction activities that involve one-half acre or more of cumulative land disturbance or that are otherwise determined by permitting agencies to potentially affect sensitive receiving waters.

A mix of structural and non-structural BMPs will be identified and developed. This list will include BMPs suited for both redevelopment and new development. These BMPs may also be used in the 'Construction Site Runoff Control' minimum measure. The Town will publish BMP standards and make available to developers.

Watershed-based controls for stormwater quantity and quality will be explored using the Jordan Brook watershed study guidelines and criteria for the maintenance and improvement of water quality and water resources. Control measures will be assigned based on the type and extent of site disturbance, level of proposed imperviousness, and the sensitivity of the receiving water to potential water quality impairment. Measures will be recommended for the control of runoff volume, control of peak discharge, mitigation of runoff quality, protection of wetlands and watercourses. These management measures are currently being applied to adjacent watershed areas in the Town of Waterford.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Goals

- Development of standards for designing, installing and maintaining on-site stormwater quality systems;
- Maintain pre-development stormwater runoff base flows through detention, infiltration, and reduction of impervious surfaces, and
- Require measures to reduce potential pollutants discharging to wetlands and watercourses and Waters of the State.
- Raise the awareness of developers, regulators and residents to the importance of controlling the quantity and quality of both point and non-point stormwater discharges.
- Develop requirements for water quality treatment, including thermal pollution, of stormwater runoff from sites located along watercourses;
- Require installation of water quality enhancement structures and site controls such as minimization of disturbance and imperviousness, buffer strips, and minimum overland flow requirements.

Schedule

2004 Codify existing stormwater management practices
2005 Identify and publish BMP list
2006-8 Annually revise list to maintain current standards

Responsible Person(s): Planning Director

Assessment

Annual review and revisions of BMP list

Record Keeping

Current BMP list will be kept on file in the Planning and Zoning Commission.

Start Date: 1/9/2004

End Date: 1/9/2006

Thomas Wagner

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Identify BMP list

Thomas Wagner

Director

8/3/2004

Codify existing stormwater management practices

Thomas Wagner

Director

12/3/2004

An outline of existing stormwater quality and quantity management practices exercised by Town of Waterford Land Use agencies has been compiled, based upon current management strategy applied in the Jordan Brook Watershed Study plan. The strategy addresses the control of stormwater quantity and quality with use of structural and non-structural measures to protect receiving waters and wetlands, based on the type and size of development, percent impervious area and the sensitivity of the receiving waters. Goals to maintain pre-development peak

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

discharges and groundwater base flows are incorporated in the stormwater management objectives.

2005 Accomplishments

Thomas Wagner Director
12/1/2005

5.3: BMP Strategy - Structural & Non-Structural Stormwater Management Practices Required For New Developments: Plan Year 2005

Planning Department personnel and land use agencies required inclusion of post-construction stormwater quantity and quality controls on a number of new commercial and residential development plans to control water quality impacts to receiving wetlands and watercourses. Stormwater BMP's were selected based upon the current watershed management plan applied in the Jordan Brook watershed and in accordance with the 2004 Connecticut Stormwater Quality Manual. The following is a compilation of controls required in 2005.

Commercial Development

270 Boston Post Rd. -roof water infiltration, wet detention pond, hydrodynamic separator

Lowe's Home Improvement - wet detention/water quality stormwater basins, hydrodynamic separators

196 Parkway South -sheet flow to grass swales, permeable pavers, roof water infiltration, Medical Office dry bio-filter basins

1055 Hartford Rd - sheet-flow to grassed swale, partial gravel parking area, wet detention Outdoor Entertainment Center stormwater basin, oil/water separator.

105 Boston Post Rd - grassed swales, hydrodynamic separators, wet detention/water quality Townhouse Devel. stormwater basin

Residential Development

418 Boston Post Rd. - dry detention basin with rip-rap forebay, level spreader outlet, hydrodynamic separator

20 Doyle Rd.residential rain gardens, bio-filter stormwater detention basin w/ permeable berm and level spreader outlet, protected forested buffer

531 Boston Post Rd. - grassed swales, wet detention/water quality stormwater basin with rip-rap forebay and level spreader outlet

120 Dayton Rd. - dry detention basin w/ rip-rap forebay, level spreader outlet, hydrodynamic separator, protected forested buffer

Soljer Drive Extension - wet detention/water quality basin w/ rip-rap forebay, level spreader outlet, hydrodynamic separator

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

2006 Accomplishments

Planning Director

11/30/2006

Structural & Non-Structural Stormwater Management Practices for New Developments: Plan Year 2006

116 Old Norwich Road: Quaker Hill School: grassed water quality swale for driveway run-off, rain garden in center of driveway loop, roof water infiltration (CDS units), permeable (Grass-Pave) parking areas.

Douglas Lane Re-construction: Vortechincs unit.

130 Cross Road - ABCO: grassed swale to bio-retention basin, stormwater detention/water quality basin, retro-fit of existing catch basin inlets with Snout hood.

262/270 Boston Post Road: Utopia shopping center: roof water infiltration through perforated pipes, Vortechincs unit, stormwater detention basins

180 Cross Road - SeConn: curbless parking with sheet-flow to grassed swale, grassed water quality detention basin.

Annually Revise BMP List

Thomas Wagner

Director

11/30/2006

The list of best management practices Waterford has accepted in stormwater quality and quantity control includes structural and non-structural measures. The level of BMPs required for any proposed land use are selected based upon the area of disturbance, the sensitivity of the receiving water body/wetland, the type of proposed land use and the percent impervious cover. The selection criteria are adopted from the watershed management plan developed for the Town of Waterford - Jordan Brook Watershed.

Accepted practices are as outlined in the CTDEP 2004 Stormwater Quality Manual.

BMP 5-4 Post-construction Inspection and Maintenance

Description

The program will:

- Continue existing program of post-construction inspection, maintenance and enforcement of regulations,
- Develop an inspection checklist to assist town inspectors and contractors in compliance with the stormwater management practices, and

Goals

The goal is to continue to provide a sufficient level of inspection and enforcement to ensure that stormwater control measures are maintained properly.

Schedule

2004 Develop an inspection checklist

2005-8 Maintain established inspection processes

Responsible Person(s): Planning Director

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Assessment

- Annual review of inspection and maintenance history
- Evaluate effectiveness of maintenance program
- Document and investigate public complaints

Record Keeping

Inspection records will be kept on file in the Planning Department.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Develop checklist

Maureen Fitzgerald

Environmental Planner

8/3/2004

An inventory has been prepared of existing developments that were required by Waterford Land Use agencies to incorporate stormwater management measures. The inventory identifies the structural elements of the stormwater management plan and the maintenance requirements of these structures. This list has been distributed to Planning and Zoning staff for use in regular reviews of facilities in the Town of Waterford. A summary of maintenance practices recommended for specific structural components of stormwater management systems has been adapted for use in plan review and site inspection.

Sites where Stormwater Management and Pollution Prevention Plans require third party inspection, monitoring and reporting to agencies are tracked by the Planning Department and have been reviewed for compliance with stormwater treatment requirements and land use permit requirements.

Maintain established inspection processes

Thomas Wagner

Director

12/1/2005

5.4: Post-Construction Inspection & Maintenance - The inventory of existing developments that were required by Waterford land use agencies to incorporate stormwater management measures has been updated to include new developments completed or under construction in 2005. The inventory identifies the structural elements of the stormwater management plan and the maintenance requirements of these structures. This list has been distributed to Planning staff for use in regular reviews of facilities in the Town of Waterford. A summary of maintenance practices recommended for specific structural components of stormwater management systems has been adapted for use in plan review and site inspection.

Maintain Established Inspection Process 2006

Planning Director

11/30/2006

Post Construction Inspection & Maintenance of Stormwater Quality Systems:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Inventory of existing developments with required stormwater management BMPs has been updated to include new developments completed in 2006. The inventory identifies the location of the site, elements of the stormwater system, and maintenance required. The inventory is distributed to Permit Department staff and is used for regular reviews of the facilities during site inspections and kept on file in the land use office.

Maintenance of stormwater facilities is tracked with third party inspection/monitoring reports submitted to the Conservation Commission and by Department staff review.

Prior to issuance of new permits for sites with required stormwater facilities, an inspection report is required to be submitted by the owner for the stormwater management facility.

BMP 5-5 Plan Review

Description

A program will be instituted to ensure the review of plans for any construction activities greater than one-half acre. Town staff will review design plans and calculations for compliance with town regulations. Plan review will continue to be conducted during permit application process for Inland Wetlands permits, zoning compliance permits and site development planning & zoning permits.

Goals

The goal is to review all design plans for consistency with the town and state stormwater management practices and to include BMPs as necessary.

Schedule

2004-8 Examine and assess current review process

Responsible Person(s): Planning Director

Assessment

All construction plans requiring compliance with the Permit will be subject to review and approval process.

Record Keeping

All review comments and approvals will be kept on file in the Planning and Zoning Commission.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

Examine and assess current review process

Thomas Wagner

Director

12/3/2004

Waterford Permitting Department staff have reviewed 55 plan proposals in 2004 for compliance with Town zoning and inland wetland regulations and for consistency with stormwater management practices. Site development plans are reviewed for consistency with stormwater management practices. Site development plans are reviewed for construction related impacts to

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

water quality and post construction impacts to stormwater run-off generated from the developed site. Where required, Town staff has recommended inclusion of erosion and sediment control measures , temporary stormwater controls, and permanent stormwater treatment structures to address pollutant loadings such as oil, grease and petroleum products, suspended solids, nutrients and metals. Approved site plans are required to include a Stormwater Pollution Prevention Plan and Maintenance and Inspection checklist for components of the stormwater management system.

Examine and assess current review process

Thomas Wagner Director
12/3/2004

Waterford Permitting Department staff have reviewed 55 plan proposals in 2004 for compliance with Town zoning and inland wetland regulations and for consistency with stormwater management practices. Site development plans are reviewed for consistency with stormwater management practices. Site developemnt plans are reviewed for construction related impacts to water quality and post construction impacts to stormwater run-off generated from the developed site. Where required, Town staff has recommended inclusion of erosion and sediment control measures , temporary stormwater controls, and permanent stormwater treatment structures to address pollutant loadings such as oil, grease and petroleum products, suspended solids, nutrients and metals. Approved site plans are required to include a Stormwater Pollution Prevention Plan and Maintenance and Inspection checklist for components of the stormwater management system.

Examine and Assess Current practices

Thomas Wagner Director
12/1/2005

5.5: Plan Review - Waterford Permitting Department staff have reviewed site plan proposals in 2005 for compliance with Town zoning and inland wetland regulations and for consistency with stormwater management practices, and the Connecticut Stormwater Quality Manual. Site development plans are reviewed for construction-related impacts to water quality and post-construction impacts to stormwater run-off generated from the developed site. Where required, Town staff has recommended inclusion of erosion and sediment control measures, temporary stormwater controls, and permanent stormwater treatment structures to address potential pollutant loadings such as oils, grease and petroleum products, suspended solids, nutrients and metals. Approved site plans are required to include a Stormwater Pollution Prevention Plan and Maintenance and Inspection checklist for components of the stormwater management system.

2005 accomplishments

Thomas Wagner Director
12/10/2005

5.5: Plan Review - Waterford Permitting Department staff have reviewed site plan proposals in 2005 for compliance with Town zoning and inland wetland regulations and for consistency with stormwater management practices, and the Connecticut Stormwater Quality Manual. Site development plans are reviewed for construction-related impacts to water quality and post-construction impacts to stormwater run-off generated from the developed site. Where required, Town staff has recommended inclusion of erosion and sediment control measures, temporary stormwater controls, and permanent stormwater treatment structures to address

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potential pollutant loadings such as oils, grease and petroleum products, suspended solids, nutrients and metals. Approved site plans are required to include a Stormwater Pollution Prevention Plan and Maintenance and Inspection checklist for components of the stormwater management system.

Plan Review Assessment 2006

Planning Director

11/30/2006

Waterford Permitting Dept. staff continue to employ plan review checklists and strategies for management of stormwater volume and quality. Twenty site plan proposal involving greater than 1/2 acre disturbance were reviewed by the department in 2006 for consistency with Waterford Zoning and Inland Wetlands regulations and accepted stormwater management practices as developed in the CTDEP 2004 Stormwater Quality Manual.

Inter-agency meetings are conducted to review the intent and design of proposed stormwater management facilities on larger development projects to identify possible conflicts with other municipal requirements. The plan review process and checklist are working well. No modifications have been required.

BMP 5-6 Staff Training

Description

The Town will develop a training program for staff on the new requirements for stormwater quality BMPs. A specific training program for inspections of operation and maintenance of structural BMPs will also be developed.

Goals

- Initial workshop training for all land use staff
- Annual refresher training for existing staff and new employees
- Annual refresher training for inspection of structural BMPs

Schedule

2004 Initial training workshop
2005-8 Annual training program

Responsible Person(s): Planning Director

Assessment

- Reduction of pollutants in runoff from new and redevelopment
- Annual review of training attendance and program content

Record Keeping

Training records will be maintained for all employees. A summary will be kept on file with the SWMP.

Start Date: 1/9/2004

End Date: 1/9/2009

Thomas Wagner

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Actions performed for this goal:

2004 Initial Training

Thomas Wagner Director
8/3/2004

Initial training has been completed with the Permitting Department staff regarding the requirements of the General Permit for the Discharge of Stormwater From Small MS4's, and the components of the Town of Waterford Stormwater Management Plan. Existing stormwater management practices implemented in Waterford have been reviewed by staff for operation and effectiveness. Personnel involved in this initial training include the Planner, Zoning Official and Environmental Planner.

2005 Annual Training

Thomas Wagner Director
1/9/2005

Staff Training 05

Thomas Wagner Director
12/1/2005

5.6 Staff Training -

Planning Department staff attended training seminar on the 2004 CT Stormwater Quality Manual conducted by the UCONN Extension Service in cooperation with the Southeastern Ct COG on 10/26/2005

Refresher training was conducted on 12-5-05 with the Permitting Department staff regarding the requirements of the General Permit For the Discharge of Stormwater From Small MS4's, and the components of the Town of Waterford Stormwater Management Plan. Personnel involved - Town Planner, Zoning Official, Planning Director and Environmental Planner.

11/30/2005 Planning Director, Planner, Environmental Planner attended update of MS4 program sponsored by DEP and CCM.

2006 Annual Training

Thomas Wagner Director
1/9/2006

training held on xxxxx
see employee training summary

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Pollution Prevention/Good Housekeeping

What is Required?:

This measure will develop and implement an operations and maintenance program to prevent or reduce pollutant runoff from municipal operations. It will include employee training on pollution prevention techniques into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

Why is it Necessary?:

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Goals performed for this Control Measure:

BMP 6-2 Annual Street Sweeping

Description

Throughout the municipality:

- Expand current maintenance program to sweep all streets at least once a year as soon as possible after the snowmelt.

Goals

- Document current level of activity
- Continue street/parking lot sweeping programs in accordance with the permit.

Schedule

2004-8 Continuing current maintenance program

2005 Coordinate cleaning records with inspections and mapping

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Monitoring and sampling of outfalls to reduce pollutants.

Record Keeping

Cleaning logs, sampling results will be kept with DPW.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: **X** Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Street Sweeping

Ron Cusano

Director

1/6/2004

The DPW began street sweeping on January 6, 2004 and continued through October 15, 2004 to complete sweeping the entire 119 miles of roads.

2005 Street Sweeping

Ron Cusano

Director

3/1/2005

The DPW began street sweeping on March 2005 and continued through June 2005 to complete sweeping the entire 119 miles of roads.

2006 Street Sweeping

Ron Cusano

Director

3/1/2006

The DPW began street sweeping on March 1, 2006 and continued through May 30, 2006 to complete sweeping the entire 119 miles of roads.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

BMP 6-3 Evaluate Street Sweeping Program

Description

Within the UA:

- Expand current maintenance program to evaluate and prioritize those streets that may require sweeping more than once a year.

Goals

- Document current level of activity
- Continue street/parking lot sweeping programs in accordance with the permit
- Identify areas that may require more frequent maintenance schedules
- Obtain additional information BMPs on existing road maintenance practices
- Review and improve road-deicing procedures to minimize the use of sand/salt or the use of alternative compounds in watershed areas.

Schedule

2004-8 Continuing current maintenance program

2005 Coordinate cleaning records with inspections and mapping

2005-8 Identify critical areas of concern

2006-8 Modify program to address areas of concern

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Monitoring and sampling of outfalls to reduce pollutants.

Record Keeping

Cleaning logs, sampling results will be kept with DPW.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Street Sweeping Evaluation

Ron Cusano

Director

1/5/2004

DPW Director Ron Cusano and Don Brigham Jr., General Foreman, reviewed the annual street sweeping program for consistency with the DEP Permit.

2005 Street Sweeping Evaluation

Ron Cusano

Director

1/3/2005

DPW Director Ron Cusano and Don Brigham Jr., General Foreman, reviewed the annual street sweeping program for consistency with the DEP Permit.

Street sweeping was accomplished this year during the period of March through June. Critical

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areas of concern along the immediate coastal areas were the first plan of attack and finished very early in the season. Maps were kept on a daily basis to track the efforts. A second sweeping of all critical areas was accomplished during the month of June.

2006 Street Sweeping Evaluation

Ron Cusano

Director

1/2/2006

DPW Director Ron Cusano and Don Brigham Jr., General Foreman, reviewed the annual street sweeping program for consistency with the DEP Permit.

Street sweeping was accomplished this year during the period of March through June. Critical areas of concern along the immediate coastal areas were the first plan of attack and finished very early in the season. Maps were kept on a daily basis to track the efforts. A second sweeping of all critical areas was accomplished during the month of June.

BMP 6-4 Stormwater Structure Cleaning Program

Description

Throughout the municipality:

- Expand current maintenance program to evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year, including a provision to identify and prioritize those structures that may require cleaning more than once a year.

Goals

- Document current level of activity
- Continue catch basin cleaning program in accordance with the permit.
- Identify areas that may require more frequent maintenance schedules
- Establish maintenance programs for stormwater quality structures
- Establish procedures for the proper disposal of waste removed from the drainage systems, including dredge spoils, accumulated sediments, floatables, and other debris.

Schedule

2004-8 Continuing current maintenance program
2005 Coordinate cleaning records with inspections and mapping
2005-8 Identify critical areas of concern
2006-8 Modify program to address areas of concern

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Monitoring and sampling of outfalls to reduce pollutants.

Record Keeping

Cleaning logs, sampling results will be kept with DPW.

Start Date: 1/9/2004

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: Year 4: Year 5: **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

Actions performed for this goal:

2004 Storm Structure Cleaning Program

Ron Cusano Director
11/18/2004

Department of Public Works began the storm structure cleaning program on January 6, 2004 and completed cleaning a portion of the structures through the use of Town forces and equipment on November 8, 2004. The remaining structures were cleaned by Pye Inc., a contracted service. All structures were cleaned by the end of the year.

2005 Storm Water Cleaning Program

Ron Cusano Director
1/3/2005

Department of Public Works began the storm structure cleaning program on January 6, 2005 and completed cleaning a portion of the structures through the use of Town forces and equipment on November 8, 2004. The remaining structures were cleaned by Pye Inc., a contracted service. All structures were cleaned by the end of the year.

2006 Storm Water Basin Cleaning Program

Ron Cusano Director
3/6/2006

Department of Public Works began the storm structure cleaning program on March 6, 2006 with Pye Inc, a contracted service and completed cleaning a portion of the structures through the use of Town forces and equipment on December 15, 2006. Unfortunately, approximately 75% of all of the catch basins were cleaned due to a staff shortage. We anticipate cleaning all of the structures in 2007.

BMP 6-5 Evaluate Stormwater System for Upgrade or Repair

Description

Throughout the municipality:

- Expand current maintenance program to evaluate and, if necessary, prioritize for repairing, retrofitting or upgrading the conveyances, structures and outfalls of the MS4.

Goals

- Document current level of activity
- Identify stormwater systems in need of maintenance and repair.

Schedule

2004-8 Continuing current maintenance program
2005-8 Identify critical areas of concern through monitoring results
2006-8 Implement repairs or upgrades

Responsible Person(s): DPW Director

Assessment

- Meeting goals and schedule set forth herein.
- Monitoring and sampling of outfalls to reduce pollutants.

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Record Keeping

Cleaning logs, sampling results will be kept with DPW.

Start Date: 1/9/2005

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Stormwater System Evaluation & Upgrade

Ron Cusano

Director

4/1/2004

Donald Brigham Jr., General Foreman and Curtis Carlough, Highway Foreman, continued their current maintenance program involving sweeping, catch basin cleaning. Structure conditions including swales, ditches, detention basins were also reviewed.

2005 Stormwater System Evaluation & Upgrade

Ron Cusano

Director

1/3/2005

Donald Brigham Jr., General Foreman and Curtis Carlough, Highway Foreman, continued their current maintenance program involving sweeping, catch basin cleaning. Structure conditions including swales, ditches, detention basins were also reviewed.

Our storm water system was monitored and the condition reported in conjunction with our catch basin cleaning program. Repairs to the system were made as they were reported and as complaints were logged by Department of Public Works office staff. Monitoring of the system outfalls was conducted by Department of Public Works staff as mandated in BMP 3-6.

2006 Stormwater System Evaluation * & Upgrade

Ron Cusano

Director

1/2/2006

Donald Brigham Jr., General Foreman and Curtis Carlough, Highway Foreman, continued their current maintenance program involving sweeping, catch basin cleaning. Structure conditions including swales, ditches, detention basins were also reviewed.

Our storm water system was monitored and the condition reported in conjunction with our catch basin cleaning program. Repairs to the system were made as they were reported and as complaints were logged by Department of Public Works office staff. Monitoring of the system outfalls was conducted by Department of Public Works staff as mandated in BMP 3-6.

BMP 6-6 Inventory of Town Facilities and Procedures

Description

This program will identify all potential pollutants at town facilities and town practices that may be exposed to direct precipitation or stormwater runoff. Potential pollutants are substances related to industrial activities such as cleaning chemicals, raw materials, fuels, pesticides, and fertilizers. When these substances are exposed to direct precipitation or stormwater runoff, they may be carried to a receiving water body. Therefore, identification of these materials helps to determine sources of potential contamination and is the first step in pollution control.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

The inventory will incorporate the findings of the EPA audit of the DPW facility performed in 2003.

Goals

- Conduct an environmental inventory of town facilities, to identify the use or storage of potential pollutants and pollution migration pathways.
- Identify the need for SWMPs or Spill Plans for each facility.
- Conduct an environmental inventory of town-wide practices such as recycling, road de-icing and pesticide applications.
- Investigate and incorporate alternative practices.

Schedule

2005 Complete environmental inventory of all town facilities and practices

2005 Identify the need for SWMPs or Spill Plans

2006-8 Investigate alternative practices

2006-8 Identify and incorporate alternative practices

Responsible Person(s)

- DPW Director
- Director of Buildings and Grounds (for Board of Education)
- Director of Parks and Recreation
- Chief Engineer of Utility Commission

Assessment

- Meeting goals and schedule set forth herein.
- Monitoring and sampling of outfalls to reduce pollutants.

Record Keeping

The environmental inventory of town facilities and practices will be documented and kept on file with the SWMP.

Start Date: 1/9/2005

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: **X** Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Inventory of Town Facilities and Procedures

Ron Cusano

Director

1/5/2004

The DPW continued to satisfy the conditions of the General Permit for the Municipal Complex at 1000 Hartford Road and the Temporary Transfer Station site at 85 Miner Lane.

All potential pollutants at town facilities and town practices that may be exposed to direct precipitation or stormwater runoff were identified. One site that was reviewed in depth was the Town Garage at 1000 Hartford Road where the Department of Public Works and the Utility Commission maintenance operations are housed. Potential pollutants are substances related to industrial activities such as cleaning chemicals, raw materials, fuels, pesticides, and fertilizers

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were all reviewed. All of the above materials were located within the confines of the garage area eliminating the potential contamination through runoff.

The other site reviewed was the Temporary Transfer Station located at 85 Miner Lane. All waste oil and anti freeze collected are within a building, within a containment area, within a double walled tank. All conditions of the of the General Permit are being met along with the DEP Permit for the operation of the facility.

Enironmental Inventory

Ron Cusano Director
12/9/2004

A meeting was held 12/09/2004 at the DPW with James A. Miner III, Board of Education Dir. of Bldgs. & Grounds, Ryan T. McNamara, Recreation & Parks Dept. Assistant Director, Neftali Soto, Utility Commission Chief Engineer, Donald J. Brigham, Jr., Public Works Dept. General Foreman and Stephen A. Steadman, Public Works Dept. Assistant Director in attendance. Copies of the General Permit for the Discharge of Stormwater from Small MS4S Stormwater Management Plan for the Town of Waterford that had been previously distributed was reviewed. BMP 6-6 was discussed at length and the attendees were instructed to conduct an inventory of their facilities and provide that list to the DPW so that could be evaluated and determined which ones apply to BMP 6-6.

2005 Inventory of Town Facilities and Procedures

Ron Cusano Director
1/3/2005

Completed environmental inventory of all town facilities and practices. Reviewed the existing SWMPs or Spill Plans.

Inventory of Town facilities& procedures

Steve Steadman Assistant Director
2/22/2005

An inventory of Town facilities and procedures was performed by the Utility Commission, the Recreation and Parks Department & the Board of Education. Listed below are materials stored outside.

Utility Commission:

1. Bolles Court pump station: 1,500 gal. plastic storage tank for bioxide located on site.
2. Mago Point pump station: 1,500 gal. doubled walled plastic storage tank for bioxide located on site.
3. Evergreen Avenue pump station: 1,000 gal. doubled walled fuel tank located on site.

Recreation & Parks:

All potential pollutants are store inside.

Board of Education:

All potential pollutants are store inside.

Public Works Department:

1. Waterford Complex: All issue were adressed as a result of the EPA New England Audit Incentive Program and the Waterford Complex SWPPP.

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2. Temporary Transfer Station (85 Miner Lane): All potential pollutants are stored undercover in structures with containment capabilities and double walled storage tanks. There is also a SWPPP for the site.

2005 Reinventory of Town Facilities

Steve Steadman
8/29/2005

Assistant Director

The Temporary Transfer Station on Miner Lane was closed and the Permanent Transfer Station at the Waterford Complex was opened on August 29, 2005. All potential pollutants are stored undercover in structures with containment capabilities and double walled storage tanks. There is also a SWPPP for the site.

2006 Reinventory of Town Facilities

Ron Cusano
11/1/2006

Director

The Municipal Complex was reviewed by Donald Brigham Jr., General Foreman and Charles Palardy, Senior Mechanic to identify all potential pollutants and reviewed practices that may be exposed to direct precipitation or stormwater runoff. No pollutants were found. All chemicals are kept in the garage area. All roadway salt and salt/sand mixes are stored within the two storage buildings.

Brian Flaherty, Recreation & Parks Director, had his staff review for any potential materials that maybe exposed to direct participation or storm water runoff. He indicated to me that they do not have any materials exposed. All of their fertilizers, pesticides and cleaning chemicals are kept inside their garage/buildings. Fuels are kept in storage lockers.

Neftali Soto of the Utility Commission had hsi staff inventory their maintenance facility and pump stations and found that none of the chemicals used by the UC (odor control, cleaning, etc.) are exposed to the weather. They are all stored indoors. Only the tanks and chemicals used for the Bioxiede odor control are outdoors. However the tanks are sealed and protected from the weather.

BMP 6-1 Staff Training

Description

A training program for pollution prevention techniques for municipal operations will be developed.

Goals

The goal is to ensure that all town employees are educated to recognize pollutant sources, prevent or reduce pollutant runoff from municipal operations, and implement erosion and sedimentation and stormwater controls to meet the requirements of the Permit.

Schedule

2004 Identify applicable town staff
2005 Develop training schedule/program
2006-8 Begin annual training

Responsible Person(s)

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

- DPW Director
- Director of Buildings and Grounds (for Board of Education)
- Director of Parks and Recreation
- Chief Engineer of Utility Commission

Assessment

Annual review of training attendance and program content

Record Keeping

Training records will be maintained for all employees.

Start Date: 1/9/2006

End Date: 1/9/2009

Ron Cusano

Director

Permit Years: Year 1: Year 2: Year 3: **X** Year 4: **X** Year 5: **X** **Accomplished?:** No

Name of Third Party implementing this BMP: Not Applicable

Actions performed for this goal:

2004 Staff Training

Ron Cusano

Director

3/1/2004

DPW staff have been trained in hazardous materials, hazardous waste practices, spill control, fire prevention and general safe work. Specific training was held concerning the SWPP Plan (Storm Water Pollution Prevention Plan), SPCC Plan, (Spill Prevention Control & Countermeasure Plan), Stage II Vapor Recovery System, Underground Storage Tanks. Waste Manifests for spent anti-freeze, oily rags, oil filter, fluorescent bulbs and waste oil are being kept. MSDS (Material Data Storage Sheets) are also being kept and updated.

Identify Applicable Staff

Ron Cusano

Director

8/3/2004

The Director of Public Works, Ron Cusano, is responsible for the general oversight of the program. Specifically, the Pollution Control Team at the Municipal Complex consists of Donald Brigham Jr., DPW General Foreman, Curtis Carlough, Highway/ Sanitation Foreman, and Charles Palardy, Senior Mechanic. Mr. Brigham's responsibilities include coordinating all stages of the SWPP development, inspections and implementations, coordinate the training program; keep all records and ensure reports are submitted and the oversight of the sampling program.

Mr. Carlough's responsibilities include the implementation of the preventative maintenance program, the oversight of the good housekeeping activities and the spill response coordinator.

Mr. Palardy's responsibilities include conducting and assisting with inspections and training programs and conducting the sampling. Steve Steadman, Assistant Director of Public Works, also assists in the sampling.

All highway staff are trained in illicit discharges and general non point source pollution.

Director of Recreation & Parks and the Chief Engineer of the Utility Commission, both located at the Municipal Complex and the Director of Buildings and Grounds of the Board of Education, are all part of the team.

General Permit for the Discharge of Stormwater from Small MS4's 2004 - 2009

2005 Develop Training Schedule Program

Ron Cusano Director
1/3/2005

Donald Brigham, General Foreman, has developed a training schedule program where he has the operational staff watch a movie regarding stormwater pollution and provides handouts on the subject. See training.

2006 Annual Training

Ron Cusano Director
1/9/2006

training held on 11/13/06 and 11/17/06.
see employee training summary

2007 Annual Training

1/9/2007
training held on xxxxx
see employee training summary
