



COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

April 29, 2011

Thelma Murphy
US EPA Region 01 in New England
5 Post Office Square, Suite 100
Boston, MA 02109-3912

- Engineering
- Design
- Construction
- Inspection

**Re: NPDES Stormwater General Permit
2010-2011 Annual Report
Town of Hadley, MA**

Dear Ms. Murphy:

Enclosed for your records is the NPDES Stormwater General Permit 2010-2011 Annual Report for the Town of Hadley, MA. The Annual Report has simultaneously been filed with the Massachusetts Department of Environmental Protection (MADEP).

If you have any questions or require any additional information, please do not hesitate to call me at (800) 725-2550 ext. 303.

Sincerely,

Comprehensive Environmental, Inc.

Nick Cristofori, P.E.
Environmental Engineer

cc: Massachusetts Department of Environmental Protection, Boston Office

Enclosure – NPDES Phase II Small MS4 General Permit 2010-2011 Annual Report

Responsive
service,
cost-effective
solutions,
technical
excellence

- Water &
Wastewater
- Parks &
Recreation
- Drainage &
Flooding
- Hazardous Waste
- Transportation
- Stormwater & LID
- Watershed
Restoration

Municipality/Organization: Town of Hadley

EPA NPDES Permit Number: MAR041008

MaDEP Transmittal Number: W- 222972

Annual Report Number

& Reporting Period: No. 8: May 1, 2010 - April 30, 2011

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Gary Girouard

Title: Director of Public Works

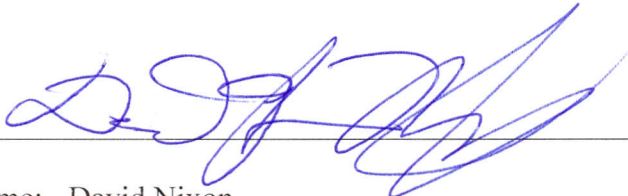
Telephone #: (413) 586-2390

Email: publicworks@hadleyma.org

Certification:

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

Signature:



Printed Name: David Nixon

Title: Town Administrator

Date:

4/29/11

Part II. Self-Assessment

The Town of Hadley received confirmation for coverage under the General Permit for its Municipal Separate Storm Sewer System (MS4) on May 10, 2003. In accordance with the NPDES Phase II Stormwater requirements, Hadley has completed the required annual self-assessment compliance review for its Phase II Stormwater Program. The following topics were evaluated for the completion of the Annual Report:

1. Compliance with the Phase II Permit Conditions
2. Appropriateness of the Selected BMPs
3. Progress Towards Achieving the Program's Measurable Goals
4. Results of Any Information that has been Collected and Analyzed
5. Activities for the Next Reporting Cycle
6. Changes in Identified BMPs or Measurable Goals

The Town has determined that our municipality is in compliance with all permit conditions.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
1A	Partnership Lake Warner – Mill River Steering Committee	Highway Department	Specific goals set by Lake clean-up organization	The Lake Warner – Mill River Steering Committee was dissolved during Permit Year 5. Hadley continues to work with the Stormwater Management Steering Committee and the Pioneer Valley Regional Planning Commission (see BMPs 2B and 2E respectively).	Continue to cooperate with the Stormwater Management Steering Committee and Pioneer Valley Regional Planning Commission as necessary on stormwater issues and to improve water quality.
Revised		Department of Public Works			
1B	Distributing Fact Sheets Brochures with Water Bills	Highway Department & Water Department	Distribution to all Hadley households	Stormwater fact sheets were provided to Town residents for download via the Town's website. Fact sheets included general information on stormwater runoff, pesticides and fertilizer usage, pet waste disposal, residential vehicle washing, and proper disposal of hazardous waste.	Continue to distribute stormwater fact sheets to residents. Explore the use of additional public education materials.
Revised		Department of Public Works & Water Department	Annual Distribution to all Hadley households		
1C	Presentation of Educational Video on Public Access Cable.	Highway Department	Provide generic or regional video, by others, for 2-4 airings	Planning Board and Town Selectmen meetings were televised on the local public access cable network, including stormwater information on development projects.	Continue to broadcast Planning Board and Town Selectmen meetings on the cable channel. Broadcast the EPA video "After the Storm" on the local cable channel as airtime is available.
Revised	Broadcast the Progress of the Phase II Program w/ Planning Board and Town Selectmen Meetings	Department of Public Works			

1a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
1D	Publish Stormwater Information on the Highway Website	Highway Department	Website posts on stormwater information. Record # of website hits	Provided an advertisement for the annual October 2010 Household Hazardous Waste event in Amherst. Provided the Annual Water Quality Report, water conservation tips, and a fact sheet on proper stormwater management for download. The fact sheet contained general information on stormwater runoff, pesticides and fertilizer usage, pet waste disposal, residential vehicle washing, and proper disposal of hazardous waste.	Continue to update the website with information on stormwater. Make erosion & sediment control and illicit discharge bylaws available to the public.
Revised	Publish Stormwater Information on the DPW Website	Department of Public Works			

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
2A	Partnership Lake Warner – Mill River Watershed Steering Committee	Highway Department	Specific goals set by Lake clean-up organization	The Lake Warner – Mill River Steering Committee was dissolved during Permit Year 5. Hadley continues to work with the Stormwater Management Steering Committee and the Pioneer Valley Regional Planning Commission (see BMPs 2B and 2E respectively).	Continue to cooperate with the Stormwater Management Steering Committee and Pioneer Valley Regional Planning Commission as necessary on stormwater issues and to improve water quality.
Revised		Department of Public Works			
2B	Establish a NPDES Steering Committee to Oversee Permit Implementation	Town Administrator, David Nixon	Include members from all town boards and committees	The Stormwater Management Steering Committee was created from 2003 through 2005, originally consisting of the Highway superintendent and a consultant. Representatives from other Town boards and commissions were added in 2005. The Committee prepared bylaws to satisfy Phase II erosion & sediment control and illicit discharge requirements as outlined in BMPs 3G, 4A, and 5A. The Committee has not met since the bylaws were created.	The Stormwater Management Steering Committee will meet once the new Phase II requirements are finalized by MADEP, expected to occur during the next permit term. The Committee will review the new regulations to determine applicability to Hadley.
Revised					
2C	Hold Public Meetings for Input on the Stormwater Program	NPDES Steering Committee	Hold three public meetings on the Town's proposed stormwater program	The Department of Public Works met with the Board of Selectmen and Conservation Commission as needed to discuss stormwater NOIs and other stormwater projects in town, typically monthly. The meetings were televised on the local cable channel (see BMP 1C). Internal Public Works meetings are held as needed to coordinate among personnel.	Continue to meet with other Town departments to coordinate on stormwater projects. Televisе public meetings on the local cable channel.
Revised		Board of Selectmen, Department of Public Works	Public broadcast of meetings		

2a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
2D	Community Participation	Highway Department	Track the results of Hazardous Waste Collection	Participation in the Hazardous Waste Collection Events was tracked by a tally of cars and resulted in 4 cars for the October 2010 event. Types of waste included general household waste such as paint, chemicals and used motor oil. The HHW event was advertised on the website and through other media outlets to encourage participation (see BMPs 1D and 3E).	Continue tracking community participation. Advertise the HHW collection event to encourage resident participation. Explore ways to improve attendance of Hadley residents.
Revised	Community Participation in Household Hazardous Waste Collection	Department of Public Works			
2E	Create a Partnership with the Pioneer Valley Planning Commission	Planning Board / Highway Department	Establish an agreement for the PVPC to provide monthly assistance to the Town of Hadley	Hadley has a contract with the Pioneer Valley Regional Planning Commission (PVPC) to provide professional assistance on regulatory and zoning development.	Hadley will continue to partner with the PVPC for assistance, particularly when the new Phase II regulations are released by MADEP, expected to occur during the next permit term.
Revised		Planning Board, Department of Public Works			
2F	Volunteer Roadway Cleanup	Highway Department / Volunteers	Number of volunteers and trash/debris collected	Hadley roads were cleaned by the Department of Corrections with events taking place approximately three times during the Spring, Summer, and Fall months. Roads prone to trash buildup, wooded and wetland areas were cleaned as a first priority.	Continue to work with the Department of Corrections to collect roadway trash and debris. Begin tracking the number of volunteers participating in the event and trash/debris collected.
Revised		Department of Public Works, Volunteers			

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
3A	Partnership with the Massachusetts Highway Department	Highway Department	Mapping of drainage system within Route 9 corridor	The mapping effort was completed in July 2005. No additional structures were mapped during Permit Year 8.	Continue to update the drainage map to include any new structures located or installed along State-owned roads.
Revised		Department of Public Works			
3B	Storm Drain System Map with the Urbanized Area	Highway Department	Mapping of drainage system within the Urbanized Area and outwardly as possible	Mapping of catch basins, manholes, outfalls and culverts in the Urbanized Area was completed in July 2005. No additional structures were mapped during Permit Year 8.	Continue to update the map to include any new structures located or installed along Town-owned roads.
Revised		Department of Public Works			
3C	Dry Weather Screening and Video Inspection	Highway Department	Screen 20% of outfalls per year, video suspicious pipelines yearly	Screening in the urbanized area was completed in Spring 2006. No significant illicit connections were found. No additional sampling was performed during Permit Year 8.	Pursue additional illicit discharge detection efforts in locations outside the Urbanized Area as funding and personnel allows.
Revised		Department of Public Works			
3D	Establish Illicit Discharge Hotline & Provide Information in Water Bills	Police / Fire	Hotline for citizens to report illicit discharges established	No calls relating to illicit discharge were received during this permit year. Additional calls and complaints pertaining to flooding or requested maintenance were received and addressed by the Department of Public Works appropriate. The Highway Department worked with other departments to coordinate response efforts as needed.	Continue to address all calls as received and maintain a log with a record of follow-up actions. Provide contact information to residents on illicit discharges in mailed bills or via the website in addition to current materials.
Revised		Police, Fire & Department of Public Works			

3a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
3E	Coordinate with Neighboring Towns to Establish a Household Hazardous Waste (HHW) Event for Residents	Highway Department	Annual Hazardous Waste Day	A regional Household Hazardous Waste collection day was held by the Town of Amherst in October 2010. Hadley worked with Amherst to allow its residents to participate in the collection event as in years past. The event was advertised in the local paper, on the Town website, and via the local cable channel. 4 residents of Hadley participated in the event as outlined in BMP 2A. Types of waste included general household waste such as paint, chemicals and used motor oil.	Continue to cooperate with Amherst to allow residents access to the HHW event. Track resident participation (refer to BMP 2D). Advertise to encourage resident participation. Explore ways to improve town attendance.
Revised		Department of Public Works			
3F	Storm Drain System Map Outside the Urbanized Area	Highway Department	Mapping of drainage system outside the Urbanized Area	Mapping of catch basins, manholes, outfalls and culverts outside the Urbanized Area was completed in July 2005. No additional structures were mapped during Permit Year 8.	Continue to update the map to include any new structures located or installed along Town-owned roads. Map additional structures in locations outside the Urbanized Area as funding allows.
Revised		Department of Public Works			
3G	Develop an Illicit Discharge By-Laws	NPDES Steering Committee, Highway Dept., Planning Board	Drafting, public meetings adoption within three years	The Hadley Planning Board adopted an illicit discharge bylaw on July 5, 2005. No additional action was taken during Permit Year 8.	Continue to enforce the bylaw.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
4A	Develop By-Laws for Land Disturbances Over 1 Acre	NPDES Steering Committee	Drafting, public meetings adoption within three years	The Hadley Planning Board adopted an Erosion and Sediment Control for Stormwater Management bylaw on July 5, 2005. No additional action was taken during Permit Year 8.	Continue to enforce the bylaw. Explore additional erosion control enforcement measures as needed.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			

4a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
4B	Construction Site Runoff Inspection	Highway Department / Outside Firm	Conduct on-site inspections during construction activities	Hadley requires on-site supervision by an outside, third party engineering firm during all large scale construction activities. This is paid for by the developer. The Town also performs periodic site inspections as part of routine operations.	Continue to enforce the current inspection program.
Revised		Department of Public Works, Outside Firm			
4C	Pre-Construction Project Review	Planning Board / Highway & Conservation Commission	Require pre-construction review.	Construction projects were reviewed by the Conservation Commission, Planning Board, and Department of Public Works as necessary to ensure environmental impacts were minimized. The Department of Public Works worked with other Town departments to ensure proper design as necessary. Projects must conform to the Massachusetts Stormwater Handbook for construction approval.	Continue current site review methods.
Revised		Planning Board, Department of Public Works, Conservation Commission			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
4D	Establish a Procedure for the Receipt of Information Submitted by the Public	Highway Department / Conservation Commission	Record number of phone calls to the Highway Department.	As discussed in BMP 3D, calls and complaints were received by the Department of Public Works. All construction site issues for in Town were handled through the Department of Public Works and the Conservation Commission. Additional Town departments, including the Planning Board, Board of Health, and/or Building inspector coordinate as required to address the complaint.	The Department of Public Work will continue to handle stormwater related phone calls. The Department of Public Works phone number will continue to be advertised through existing media. Track calls and record actions taken annually.
Revised		Planning Board, Department of Public Works, Conservation Commission	Address public concerns and phone calls		

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
5A	Develop a Post Construction Runoff Control By-Law for Sites Over 1 Acre	NPDES Steering Committee, Highway Dept., Planning Dept	Drafting, public meetings adoption within three years	The Hadley Planning Board implemented an Erosion and Sediment Control for Stormwater Management bylaw on July 5, 2005. No additional action was taken during Permit Year 8.	Continue to enforce the bylaw.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			

5a. No additions at this time.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
Revised					

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6A	Existing Spill Prevention Control Plans for Town Facilities	Highway Department	Revise plan/conduct annual training	A SPCC Plan was developed and implemented at the DPW yard in Permit Year 1. The SPCC Plan was updated and a training presentation prepared by the Town's Consultant in 2007. The SPCC Plan was followed at all applicable town facilities.	Continue complying with the SPCC Plan. Update the plan as needed. Prepare SPCC plans for other town facilities as required.
Revised		Department of Public Works			
6B	Training Program for Maintenance and Landscape Crews	Highway Department	Develop pollution prevention workshop for municipal employees	Pollution prevention topics were informally discussed as part of routine Department of Public Works operations meetings.	Continue training of town employees, particularly the Department of Public Works.
Revised	Conduct Town Employee Stormwater Training	Department of Public Works			
6C	Incorporate the Use of Road Salt Alternatives for Deicing	Highway Department	Reduce the amount of road salt used by 25%	The Department of Public Works purchased 20,700 gallons of calcium chloride mix to reduce sand loads to the roadways. 977 tons of salt and 2,724 tons of sand were purchased for use during Permit Year 8.	Continue to explore salt reduction options as available.
Revised		Department of Public Works	Reduce the amount of road salt used		

6a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6D	Mark Storm Drains with Buttons or Stencils	Highway Department and Volunteers	Mark or stencil storm drains as funding allows	The Department of Public Works contacted other municipalities to inquire as to the success of their programs and investigated materials to use for marking basins. Due to budget constraints, no additional work was performed during Permit Year 8.	Mark storm drains with buttons or stencils as funding and manpower are available. Explore the recruitment of volunteers or the PVPC for marking or stenciling storm drains.
Revised		Department of Public Works and Volunteers			
6E	Clean Catch Basins	Highway Department	Clean half of catch basins annually	The Department of Public Works cleaned approximately 100 catch basins during Permit Year 8. The Department of Public Works cleaned high priority basins first. This included catch basins prone to sediment accumulation, those in high traffic areas such as the downtown district, and those located in environmental sensitive areas. Leaching basins were cleaned second, followed by the remainder of basins.	Continue catch basin cleaning program. Clean high priority basins first followed by lower priority areas.
Revised		Department of Public Works			
6F	Track Catch Basin Cleanings	Highway Department	Sediment quantity records and dates cleaned of each catch basin	The Town utilized information collected previously to target specific basins for more frequent cleaning (See BMP 6E). Disposal occurred as outlined in BMP 6G.	Track sediment accumulation for future cleaning priorities.
Revised		Department of Public Works			
6G	Properly Dispose of Catch Basin Cleanings	Highway Department	Disposal of catch basin cleanings at an approved landfill	The Town previously received DEP approval for temporary storage of catch basin cleanings at the DPW garage. Catch basin cleanings were transported to the DPW garage and sampled for environmental compliance before being removed by Solid Waste Solutions for proper disposal.	Continue to store and properly dispose of catch basin cleanings in compliance with DEP regulations.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6H	Sweep Streets in Town	Highway Department	Street sweeping schedule	Continued street sweeping program in town that included: doing a pre-sweep of heavily sanded streets in early March for reuse during next year's sanding efforts, followed by at least two additional sweeps throughout the year. Urbanized and commercial areas were cleaned more frequently as necessary.	Continue street sweeping program annually and evaluate future sweeping priorities.
Revised		Department of Public Works			
6I	Properly Dispose of Street Sweeping Cleanings	Highway Department	Disposal of street sweeping cleanings at the Hadley Transfer Station	A total of 162 cubic yards of street sweeping residuals were generated from DPW operations. The Department of Public Works brought all street sweepings to the Transfer Station during July, August, and September for storage. A low spot on-site was used to retain the sediment. The Town used two street sweepers for its cleaning efforts.	Continue to track quantities and properly dispose of street sweeping cleanings.
Revised		Department of Public Works			
6J	Ensure Covered Storage for Salt Materials	Highway Department	All salt is covered in the storage shed	All salt materials were covered in the salt storage shed or nearby barn.	Continue storing salt materials in the covered storage shed or barn.
Revised		Department of Public Works			
6K	Inspect and Maintain Culverts and Outfalls	Highway Department	All culverts and outfalls functioning as intended	Culverts and outfalls were inspected and maintained during routine operations or in response to a complaint as outlined in BMP 4D. High incident structures were inspected more frequently.	Continue to inspect and maintain culverts and outfalls.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6L	Inspect and Maintain Stormwater BMPs	Highway Department	All stormwater BMPs functioning as intended	The Department of Public Works performed inspections of Town-owned BMPs during routine operations, and none required maintenance during Permit Year 8. There are several detention ponds and Vortech units in unapproved subdivisions that are maintained by outside establishments.	Continue current inspection activities. If necessary, provide BMP maintenance to facilitate proper operation.
Revised		Department of Public Works			

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
1A Revised	Partnership Lake Warner – Mill River Steering Committee	Highway Department Department of Public Works	Specific goals set by Lake clean-up organization	The Lake Warner – Mill River Steering Committee was dissolved during Permit Year 5. Hadley continues to work with the Stormwater Management Steering Committee and the Pioneer Valley Regional Planning Commission (see BMPs 2B and 2E respectively).	Continue to cooperate with the Stormwater Management Steering Committee and Pioneer Valley Regional Planning Commission as necessary on stormwater issues and to improve water quality.
3C Revised	Dry Weather Screening and Video Inspection	Highway Department Department of Public Works	Screen 20% of outfalls per year, video suspicious pipelines yearly	Screening in the urbanized area was completed in Spring 2006. No significant illicit connections were found. No additional sampling was performed during Permit Year 8.	Pursue additional illicit discharge detection efforts in locations outside the Urbanized Area as funding and personnel allows.
4A Revised	Develop By-Laws for Land Disturbances Over 1 Acre	NPDES Steering Committee NPDES Steering Committee, Department of Public Works, Planning Board	Drafting, public meetings adoption within three years	The Hadley Planning Board adopted an Erosion and Sediment Control for Stormwater Management bylaw on July 5, 2005. No additional action was taken during Permit Year 8.	Continue to enforce the bylaw. Explore additional erosion control enforcement measures as needed.
6A Revised	Existing Spill Prevention Control Plans for Town Facilities	Highway Department Department of Public Works	Revise plan/conduct annual training	A SPCC Plan was developed and implemented at the DPW yard in Permit Year 1. The SPCC Plan was updated and a training presentation prepared by the Town's Consultant in 2007. The SPCC Plan was followed at all applicable town facilities.	Continue complying with the SPCC Plan. Update the plan as needed. Prepare SPCC plans for other town facilities as required.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6C	Incorporate the Use of Road Salt Alternatives for Deicing	Highway Department	Reduce the amount of road salt used by 25%	The Department of Public Works purchased 20,700 gallons of calcium chloride mix to reduce sand loads to the roadways. 977 tons of salt and 2,724 tons of sand were purchased for use during Permit Year 8.	Continue to explore salt reduction options as available.
Revised		Department of Public Works	Reduce the amount of road salt used		

7a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
7A	Map outfalls to TMDL Waters	Highway Department	All outfalls mapped to TMDL waters	Hadley Public Works staff completed a survey of all Town outfalls by 2005. All outfalls were field verified using a GPS and compiled on a GIS base map.	Continue to update the map to include any new outfalls located or installed along Town-owned roads.
Revised		Department of Public Works			

7b. WLA Assessment

The MADEP proposed 2010 303(d) Integrated List of Waters outlines two waters in the Town of Hadley that are classified as Category 5 “Waters Requiring a TMDL”: the Fort River (3419425) and Mill River (3420175), both impaired for *E.coli* bacteria. Lake Warner (34098) is also listed as impaired for excess algal growth, non-native aquatic plants, dissolved oxygen, turbidity and phosphorus but not caused by a pollutant. Water quality concerns associated with 303d waters are addressed through the implementation of BMPs under the six minimum measures for Phase II. The approach for addressing impaired waters will be updated based on the new permit.

Part IV. Summary of Information Collected and Analyzed

Hadley has completed a map of all stormwater structures, including catch basins, manholes, culverts and outfalls. Approximately 400 catch basins and 100 outfalls have been located. Structure locations were imported into a GIS base map to form a complete map depicting all locations within Town limits. An illicit discharge sampling program was completed during Spring 2006 and focused on outfalls within the Town’s Urbanized Area (UA). No significant illicit connections were found in the UA storm drain system.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N/A
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1*
▪ community participation	(%)	4** cars
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	No
*Hadley has an agreement with the Town of Amherst to allow residents to bring Household Hazardous Waste to the Amherst event. Amherst bills Hadley for resident participation.		
**Hadley Car count from the October 2010 collection event.		

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control				X
▪ Post-Development Stormwater Management				X
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				

▪ Post-Development Stormwater Management				
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Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%*
Estimated or actual number of outfalls	(#)	~100
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	-
▪ CADD	(%)	-
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	N/A
% of population on sewer	(%)	40%
% of population on septic systems	(%)	60%

*100% of outfalls within the Town.

Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and \$)	
Complaints/concerns received from public	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	50%/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1/yr
Total number of structures cleaned	(#)	100
Storm drain cleaned	(lf or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	3
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3
Qty. of sand/debris collected by sweeping	(lbs. or tons)	162 CY
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Fill at T.S.
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	2 owned
Vacuum street sweepers specified in contracts	(y/n)	
Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	20,700 gal
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No