



COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

April 25, 2013

Glenda Velez
US EPA Region 01 in New England
5 Post Office Square, Suite 100
Boston, MA 02109

- Engineering
- Design
- Construction
- Inspection

**Re: NPDES Stormwater General Permit
2012-2013 Annual Report
Town of Hadley, MA**

Dear Ms. Velez:

Responsive
service,
cost-effective
solutions,
technical
excellence

Enclosed for your records is the NPDES Stormwater General Permit 2012-2013 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.
Project Engineer

- Drainage & Flooding
- Energy & Sustainability
- Hazardous Waste
- Permitting & NEPA
- Stormwater & LID
- Transportation
- Water & Wastewater
- Watershed Restoration

cc: Massachusetts Department of Environmental Protection, Boston Office

Enclosure – NPDES Phase II Small MS4 General Permit 2012-2013 Annual Report

Municipality/Organization: Town of Hadley

EPA NPDES Permit Number: MAR041008

MaDEP Transmittal Number: W- 222972

Annual Report Number

& Reporting Period: No. 10: May 1, 2012 - April 30, 2013

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Gary Girouard

Title: Director of Public Works

Telephone #: (413) 584-6428

Email: dpwdir@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:

4/11/13

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; and
6. Changes in Identified BMPs or Measurable Goals.

The Town continued its public education and outreach efforts by providing two fact sheets for download on the Town website. Fact sheets typically target residences and provide general information on water quality, pollution from stormwater runoff, pesticides and fertilizer usage, pet waste disposal, residential vehicle washing, and proper disposal of hazardous waste, etc. The Town also broadcast the EPA video "After the Storm" on the local cable access channel twice during March 2013. The Town also meets internally as needed on items such as proposed developments, site inspections, bylaw changes and approvals, and other coordination efforts. The Town has also coordinated in the past with the Pioneer Valley Regional Planning Commission, and it is expected that coordination will increase once the new permit is released.

During previous years, the Town has mapped all stormwater structures within the Town's urbanized area, including catch basins, manholes, outfalls and culverts. Approximately 40 outfalls and 400 catch basins have been located to date. The Town performed illicit discharge screening at the same time, and did not detect any evidence of illicit discharge activities.

The Town has adopted bylaws to protect water quality, including an Illicit Discharge Bylaw and an Erosion and Sediment Control for Stormwater Management Bylaw. Bylaws prohibit illicit discharges in the MS4, require that erosion and sediment controls be in place during construction activities, and mandate that projects conform to the Massachusetts Stormwater Handbook. To ensure compliance, projects are reviewed by the Conservation Commission, Planning Board, and/or Department of Public Works (DPW) to ensure proper design. The Town also requires large projects be supervised by an outside engineering company and various Town departments conduct periodic inspections.

The Department of Public Works also conducts catch basin cleaning on most basins at least annually, and street sweeping twice a year, typically targeting priority basins and street first before moving onto less critical areas. Material is transported to the transfer station where they are stored for testing before being removed for final offsite disposal. Stormwater outfalls and BMPs are also inspected and maintained during routine DPW operations. Any deficiencies noted in the MS4 system, including catch basins and/or outfalls in poor condition, or BMPs in need of maintenance are noted for follow-up action. The SPCC Plan for the DPW Yard and Wastewater Treatment Facility was updated during the previous Permit Year to address changes at both facilities since the previous update.

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 10 (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. No additional work occurred during Permit Year 10.	The Mill River Steering Committee is not expected to be reinstated. Continue cooperating with other organizations such as the Stormwater Management Steering Committee and Pioneer Valley Regional Planning Commission as necessary as outlined in BMPs 2B and 2E.
Revised		Department of Public Works			
1B	Distributing Fact Sheets Brochures with Water Bills	Highway Department & Water Department	Distribution to all Hadley households	Two stormwater fact sheets were provided to Town residents for download via the Town's website: "Protecting Water Quality from Urban Runoff" and "Protecting Water Quality in Hadley's Streams". Fact sheets included general information on water quality, pollution from stormwater runoff, pesticides and fertilizer usage, pet waste disposal, residential vehicle washing, and proper disposal of hazardous waste.	Continue to provide stormwater fact sheets for download. Explore the use of additional public education materials to increase public awareness. Explore ways to advertise the Household Hazardous Waste (HHW) event to improve community participation as outlined in BMPs 2D and 3E.
Revised	Distribute Fact Sheets Brochures	Department of Public Works & Water Department	Provide stormwater-related information to as many households in Town as possible		
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. The EPA video "After the Storm" was broadcast twice during Permit Year 10, on March 26 and March 27, 2013.	Continue to broadcast Planning Board and Town Selectmen meetings on the cable channel. Continue to broadcast the EPA video "After the Storm" on the local cable channel as airtime is available.
Revised	Broadcast Stormwater Meetings and Informational Videos	Department of Public Works	Televis meetings and informational video for a minimum of 2 airings		

1a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (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	The Town's DPW website was updated during Permit Year 10 and now provides the Annual Water Quality Report, water conservation tips, and two fact sheets for download as outlined in BMP 1A.	Continue to update the website to provide information and links to outside stormwater website such as EPA. Provide additional educational information and SWMP materials for download as feasible.
Revised	Publish Stormwater Information on the Town 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 10 (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. No additional work occurred during Permit Year 10.	The Mill River Steering Committee is not expected to be reinstated. Continue cooperating with other organizations such as the Stormwater Management Steering Committee and Pioneer Valley Regional Planning Commission as necessary as outlined in BMPs 2B and 2E.
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 likely meet again once the new Phase II requirements are finalized by MassDEP. The Committee will review the new regulations to determine applicability to Hadley and work towards updating bylaws and regulations as necessary.
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. The meetings were televised on the local cable channel (see BMP 1C). Internal Public Works meetings are held as needed to coordinate among personnel. Additional discussion takes place as needed concerning ongoing stormwater construction projects in town.	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	Meet with other departments as necessary and televisе all meetings		

2a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (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	Hadley participated in the Amherst Hazardous Waste Collection event on September 29, 2012 as outlined in BMP 3E. Members of the public were allowed to bring hazardous products to the Amherst Transfer Station and Recycling Center for disposal.	Continue to participate in a local HHW collection event. Explore ways to improve attendance of Hadley residents by increasing event advertising. Track participation and quantities collected for disposal.
Revised	Community Participation in Household Hazardous Waste Collection	Department of Public Works, Town of Amherst	Hold at least one HHW a year and track participation and quantities received		
2E	Create a Partnership with the Pioneer Valley Planning Commission (PVPC)	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 PVPC to provide professional assistance on regulatory and zoning development. The DPW discussed possible future coordination on public education over the upcoming permit years.	Hadley will continue to partner with the PVPC for assistance, particularly when the new Phase II regulations are released by MassDEP. Future collaboration topics will likely include regulatory revisions, bylaw adoption, and public education.
Revised		Planning Board, Department of Public Works	Establish an agreement for the PVPC to provide assistance to the Town of Hadley as needed		
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 four times per year. Crews typically target areas prone to excess trash dumping and accumulation, as well as pocket areas where illegal dumping occurs.	Continue to work with the Department of Corrections to collect roadway trash and debris. Track the number of participants in the event and trash/debris collected.
Revised		Department of Public Works, Department of Corrections, Volunteers	Perform roadside cleanups at least 3 times per year. Track the number of volunteers and trash/debris collected		

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (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 Town created a map of all catch basins and outfalls within the Route 9 corridor in July 2005. All drainage structures and outfalls were incorporated into the drainage system map as outlined in BMP 3B. No additional structures were mapped in this area during Permit Year 10.	Continue to work with MassDOT to update the map with any State-owned structures.
Revised		Department of Public Works	Map the drainage corridor within Route 9 by the end of Permit Year 5		
3B	Storm Drain System Map within 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. Approximately 40 outfalls and 400 catch basins have been located to date. No additional structures were mapped during Permit Year 10.	Continue to update the drainage map to include any new structures located or installed within the Town, such as outfalls, catch basins, manholes, pipes, stormwater BMPs, etc.
Revised		Department of Public Works	Map the urbanized area drainage system by the end of Permit Year 5		
3C	Dry Weather Screening and Video Inspection	Highway Department	Screen 20% of outfalls per year, video suspicious pipelines yearly	Screening of all outfalls located within the urbanized area was completed in Spring 2006, and no suspected illicit connections were found. No additional sampling was performed during Permit Year 10.	Continue to monitor and inspect for possible illicit discharges during routine operations. Follow up on any potential problem areas. Pursue additional illicit discharge detection efforts in locations outside the Urbanized Area as funding and personnel allows.
Revised		Department of Public Works	Screen all outfalls for illicit discharges in the urbanized area by the end of Permit Year 5		
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 DPW as appropriate. The DPW 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 with mailed flyers or via the website.
Revised	Provide Contact Information for Reporting an Illicit Discharge	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 10 (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	Hadley participated in the Amherst Hazardous Waste Collection event on September 29, 2012 as outlined in BMP 2D. Members of the public were allowed to bring hazardous products to the Amherst Transfer Station and Recycling Center for disposal.	Continue to participate in a local HHW collection event. Explore ways to improve attendance of Hadley residents by increasing event advertising. Track participation and quantities collected for disposal.
Revised		Department of Public Works, Town of Amherst	Hold at least one HHW a year and track participation and quantities received		
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 is ongoing as budget allows. A portion of the Hadley MS4 along the western ends of Russell Street (Route 9) and Bay Road has been mapped to date. No additional structures were mapped during Permit Year 10.	Continue to update the drainage map to include any new structures located or installed within the Town, such as outfalls, catch basins, manholes, pipes, stormwater BMPs, etc.
Revised		Department of Public Works			
3G	Develop an Illicit Discharge By-Law	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 10.	Continue to enforce the illicit discharge bylaw as approved in 2005.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
4A	Develop By-Law 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 which in part mandates that erosion and sediment controls be in place for all construction projects to be approved. No additional action was taken during Permit Year 10.	Continue to enforce the bylaw as approved during 2005. 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 10 (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 paid for by the developer during all large scale construction activities. Town departments, primarily the DPW and Planning Board, also perform periodic site inspections to ensure erosion and sediment controls are in place and being properly maintained. Inspections also check that stormwater system construction is progressing according to the approved design.	Continue to enforce the current inspection program. Work towards documenting any problems or issues for follow-up action.
Revised		Department of Public Works, Outside Firm			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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/or DPW as necessary to ensure the proposed plans were in compliance with Local, State and Federal regulations and potential environmental impacts were minimized. Large projects are required to prepare a stormwater plan for review by an outside engineering firm. The DPW worked with other Town departments to ensure proper design as necessary. Projects must conform to the Massachusetts Stormwater Handbook for construction approval. Contractors for projects connecting to the Town's water system are required to submit as-builts to the DPW.	Continue with the current project review methods.
Revised		Planning Board, Department of Public Works, Conservation Commission	Ensure a preconstruction review for all projects		
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.	Any calls or complaints concerning the MS4 system are directed to the DPW. All construction site issues in Town were handled through the DPW, Planning Board and Conservation Commission as appropriate. Additional Town departments, including the Board of Health and/or Building Inspector coordinate as required to address the complaint. Contact information is provided in informational flyers and on the Town website.	The DPW will continue to handle stormwater related phone calls. The DPW 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 10 (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 which in part mandates that projects conform to the Massachusetts Stormwater Management Handbook. No additional action was taken during Permit Year 10.	Continue to enforce the bylaw as approved during 2005.
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 10 (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 10 (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	The joint SPCC Plans for the DPW Yard and Wastewater Treatment Facility were most recently updated in 2007 and 2008, respectively. The plan was updated during Permit Year 10, and does not need to be updated again until 2017, or Permit Year 15.	Continue complying with SPCC Plan requirements and regulations. Prepare SPCC plans for other town facilities as necessary.
Revised		Department of Public Works			
6B	Training Program for Maintenance and Landscape Crews	Highway Department	Develop pollution prevention workshop for municipal employees	Pollution prevention and proper operation and maintenance of the MS4 were informally discussed as part of routine DPW operations meetings.	Continue training of town employees, particularly the DPW on stormwater system operation and maintenance.
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 DPW purchased 9,955 gallons of calcium chloride mix to reduce sand loads to the roadways. 694 tons of salt and 2,756 tons of sand were purchased for use during Permit Year 10. Sand and salt are typically mixed at a 3:1 to 4:1 sand to salt ratio.	Continue to explore salt reduction options as available. Ensure proper storage of sand and salt as outlined in BMP 6J.
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 10 (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 DPW decided not to use volunteers and instead use DPW personnel to perform this task. Catch basins have been stenciled with a nearby arrow located in the street to easily locate basins when covered with leaves, snow, debris, water, etc.	Repaint faded stencils and mark new basins when they are constructed in the Town as funding and manpower are available.
Revised		Department of Public Works and Volunteers			
6E	Clean Catch Basins	Highway Department	Clean half of catch basins annually	The DPW cleaned approximately 50 to 60 catch basins using a Vactor truck shared with the Wastewater Department during Permit Year 10. The DPW cleaned high priority basins first, followed by leaching basins, and finally the remainder of catch basins. The DPW also rebuilt approximately 15 catch basins found to be collapsing or otherwise failing during routine inspections or in response to calls from the public.	Continue catch basin cleaning program. Clean high priority basins first followed by lower priority areas. Continue to repair drainage structures as necessary in response to public complaints. Catch basins found to be in poor condition during cleaning are documented for future replacement.
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). High priority basins typically include those prone to sediment accumulation such as those located at the bottom of a hill, in high traffic areas such as the downtown district, or located in environmentally sensitive areas. Disposal occurred as outlined in BMP 6G.	Track sediment accumulation for future cleaning priorities.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6G	Properly Dispose of Catch Basin Cleanings	Highway Department	Disposal of catch basin cleanings at an approved landfill	The Town previously received MassDEP approval for temporary storage of catch basin cleanings at the DPW garage, however the storage location was recently changed to the transfer station as approved by MassDEP. The DPW constructed a containment area in a low spot at the transfer station to store catch basin cleanings. Sediments are then sampled for environmental compliance by Huntley before being removed by Solid Waste Solutions for disposal at the Northampton Landfill.	Continue to store and properly dispose of catch basin cleanings in compliance with MassDEP regulations.
Revised		Department of Public Works			
6H	Sweep Streets in Town	Highway Department	Street sweeping schedule	Continued a street sweeping program in town that included two sweeping events throughout the year. Urbanized and commercial areas were cleaned more frequently as necessary. A pre-sweep down the center of heavily sanded streets was conducted in March and early April. Standard roadway edge and gutter sweeping occurred during the remainder of the year.	Continue annual street sweeping program and continually evaluate future sweeping priorities.
Revised		Department of Public Works	Sweep all streets twice per year		
6I	Properly Dispose of Street Sweeping Cleanings	Highway Department	Disposal of street sweeping cleanings at the Hadley Transfer Station	A total of 144 cubic yards of street sweeping residuals were generated from DPW operations during 2012. The DPW brought all street sweepings to the Transfer Station for storage, separate from the catch basin cleanings. Street sweeping residuals are placed in a low spot on-site, with an estimated 572 cubic yards of storage remaining, enough for approximately 2 to 3 years worth of storage. The Town used two street sweepers for its cleaning efforts.	Continue to track quantities and properly dispose of street sweeping cleanings. Establish a new approved storage location prior to filling the depression at the Transfer Station.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6J	Ensure Covered Storage for Salt Materials	Highway Department	All salt is covered in the storage shed	All salt materials were stored under cover 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			
6L	Inspect and Maintain Stormwater BMPs	Highway Department	All stormwater BMPs functioning as intended	The DPW performed inspections of Town-owned BMPs during routine operations, and none required maintenance during Permit Year 10. There are several detention ponds and Vortech units in non-approved subdivisions that are maintained by outside contractors.	Continue current inspection activities. If necessary, provide BMP maintenance to facilitate proper operation.
Revised		Department of Public Works	Inspect all BMPs during routine operations at least annually		

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 10 (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. No additional work occurred during Permit Year 10.	The Mill River Steering Committee is not expected to be reinstated. Continue cooperating with other organizations such as the Stormwater Management Steering Committee and PVPC as necessary as outlined in BMPs 2B and 2E.
3C Revised	Dry Weather Screening and Video Inspection	Highway Department Department of Public Works	Screen 20% of outfalls per year, video suspicious pipelines yearly Screen all outfalls for illicit discharges in the Urbanized Area by the end of Permit Year 5	Screening of all outfalls located within the Urbanized Area was completed in Spring 2006, and no suspected illicit connections were found. No additional sampling was performed during Permit Year 10.	Continue to monitor and inspect for possible illicit discharges during routine operations. Follow up on any potential problem areas. 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 which in part mandates that erosion and sediment controls be in place for all construction projects to be approved. No additional action was taken during Permit Year 10.	Continue to enforce the bylaw as approved during 2005. 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	The joint SPCC Plans for the DPW Yard and Wastewater Treatment Facility were most recently updated in 2007 and 2008, respectively. The plan was updated during Permit Year 10, and does not need to be updated again until 2017, or Permit Year 15.	Continue complying with SPCC Plan requirements and regulations. Prepare SPCC plans for other town facilities as necessary.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (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 DPW purchased 9,955 gallons of calcium chloride mix to reduce sand loads to the roadways. 694 tons of salt and 2,756 tons of sand were purchased for use during Permit Year 10. Sand and salt are typically mixed at a 3:1 to 4:1 sand to salt ratio.	Continue to explore salt reduction options as available. Ensure proper storage of sand and salt as outlined in BMP 6J.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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 DPW as appropriate. The DPW 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 with mailed flyers or via the website.
Revised	Provide Contact Information for Reporting an Illicit Discharge	Police, Fire & 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 10.	Continue to enforce the illicit discharge bylaw as approved in 2005.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			

7b. WLA Assessment

The MassDEP final 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 (MA34-27) and Mill River (MA34-25), both impaired for *E.coli* bacteria. The final 2010 303(d) List also identifies Lake Warner (34098) as a Category 4a (TMDL is completed) for excess algal growth, non-native aquatic plants, dissolved oxygen, turbidity and phosphorus.

The applicable TMDL is EPA number 651, titled “Total Maximum Daily Loads of Phosphorus for Selected Connecticut Basin Lakes”. The TMDL estimates current total phosphorus loadings to the lake at 7,150 kg/yr, with a target of 1,790 kg/yr. To achieve this reduction, EPA targets a 90 percent reduction to the internal phosphorus load (possibly with an alum treatment), and remaining non-forested land use areas are targeted for a 41 percent reduction. The TMDL lists the following implementation strategies to reduce phosphorus loadings to Lake Warner:

- Public education;
- Nonpoint Source (NPS) survey;
- Lake management plan;
- Agriculture BMPs;
- Residential BMPs;
- Septic system maintenance;
- Highway BMPs; and
- In-lake management.

Although Lake Warner is located within the Town of Hadley, it is located outside of the Urbanized Area and thus is not subject to the Phase II regulations. However, some Phase II BMPs currently employed by the Town can be used to target the above implementation strategies, such as public education, stormwater BMPs, and proper septic system maintenance. General 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.

The draft 2012 303(d) Integrated List of Waters does not indicate any changes from the final 2010 List for Hadley waterbodies. Waterbodies and category numbers remain unchanged for Lake Warner, the Fort River, and the Mill River as discussed above.

Part IV. Summary of Information Collected and Analyzed

Hadley has completed a map of all stormwater structures, including catch basins, manholes, culverts and outfalls within the Urbanized Area (UA). Approximately 400 catch basins and 40 outfalls have been located. Structure locations were imported into a GIS base map to form a complete map depicting all locations within the Town’s UA. An illicit discharge sampling program was completed during Spring 2006 and focused on outfalls within the Urbanized Area, and no 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	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	No

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				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%*
Estimated or actual number of outfalls	(#)	~40
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 Urbanized Area.

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 %)	0
Fines collected	(# and \$)	0
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	(#)	50-60
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)	2
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	144 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	9,955 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