

Municipality/Organization: Town of Hadley

EPA NPDES Permit Number: MAR041008

MassDEP Transmittal Number: W-222972

Annual Report Number
& Reporting Period: No. 15: May 1, 2017 - April 30, 2018

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Marlo Warner Title: Director

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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: David J. Nixon

Printed Name: David Nixon

Title: Town Administrator

Date: 4/25/18

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 once in February 2018.

At the conclusion of Permit Year 14 and with the expected July 1, 2017 effective date of the new permit approaching, the Town budgeted for implementation of many items required during the first year, including the Notice of Intent (NOI), written Stormwater Management Program (SWMP) Plan, and Illicit Discharge, Detection, and Elimination (IDDE) Plan. With the 1-year delay of the permit, the Town opted to continue preparation of the NOI and redirect funding for other items into an expanded mapping campaign that addressed areas developed since completion of earlier mapping and the expanded urbanized area from the 2010 census. Using the remaining available funding, the Town expects to prepare a draft SWMP Plan and draft IDDE Plan by the July 1, 2018 effective date, approximately 1-year in advance of the required deadline.

As a result of the expanded infrastructure mapping program, the Town added several dozen catch basins and approximately one dozen outfalls within town-owned roadways to its existing map. Additional infrastructure such as manholes and culverts have also been added to the map. Combined with mapping efforts during previous years, approximately 50 outfalls and 450 catch basins and leaching basins have been located to date. All information was added as a GIS layer for incorporation into a future GIS library of town infrastructure, and supporting information such as land use and roadways was also added. This information will be used in part to prioritize outfalls and catchment areas for additional follow-up field work.

With the new permit finalized and expected to become effective this coming July 1, the Town has continued to conduct numerous internal interdepartmental meetings, as well as attended meetings with the Pioneer Valley Regional Planning Commission (PVPC). Additional department head meetings will be held to further coordination on the new permit.

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.

Stormwater outfalls and BMPs are 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.

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 15 (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	Both the Friends of Lake Warner and Mill River Greenway Initiative watershed groups are actively pursuing cleanup efforts and fundraising to support their efforts. Hadley supports the efforts of both groups	Continue to support both watershed organizations.
Revised	Establish partnerships with Friends of Lake Warner and Mill River Greenway Initiative Watershed Groups	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. Future public education topics will address new permit requirements for targeted audiences and distribution frequencies once it becomes effective. For example, provide a flyer on pet waste pickup through the Town Clerk when registering dogs and another flyer provided through various permitting agencies to educate developers on the use of erosion and sediment controls during construction
Revised	Distribute Fact Sheets Brochures	Department of Public Works & Water Department	Provide stormwater-related information to as many households in Town as possible		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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 once during Permit Year 15 on February 28, 2018.	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 15 (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 previously 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. It is anticipated that the website will be substantially updated during future permit years to comply with new permit requirements once it becomes effective, such as having targeted audience messages.
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 15 (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	Both the Friends of Lake Warner and Mill River Greenway Initiative watershed groups are actively pursuing cleanup efforts and fundraising to support their efforts. Hadley supports the efforts of both groups.	Continue to support both watershed organizations.
Revised	Establish partnerships with Friends of Lake Warner and Mill River Greenway Initiative Watershed Groups	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 (SWMSC) 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 during earlier years to satisfy Phase II erosion & sediment control and illicit discharge requirements as outlined in BMPs 3G, 4A, and 5A. During Permit Year 15, a draft NOI was prepared by the DPW and the Town's consultant that will meet the requirements of the new permit. Primary responsible departments include DPW, Planning Board, Building Department, Conservation Commission, Town Clerk, Selectmen, Board of Health, and Board of Selectmen. These departments will form a new SWMSC that will begin meeting next year once the permit becomes effective.	Responsible departments established in the NOI will form a new SWMSC that will meet internally to review the NOI and make applicable changes once the permit becomes effective and before the September 29, 2018 NOI due date. The committee will then meet again throughout the year to discuss the SWMP Plan for detailed program implementation.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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, Planning Board, and Conservation Commission as needed to discuss stormwater 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 as noted under BMP 2B. 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 15 (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 24, 2017 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, currently scheduled for September 23, 2018. 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 Collection a year and track participation and quantities received		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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 Town has recently been attending coordination meetings at PVPC to discuss the new permit on a near-monthly basis during 2018.	Hadley will continue to partner with the PVPC for assistance, particularly after the effective permit date. Future collaboration topics will likely include templates, regulatory revisions, bylaw adoption, and public education messages and materials.
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 several 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		
2G	Earth Day Roadside Cleanup	Board of Selectmen	Number of volunteers and trash/debris collected	An Earth Day roadside cleanup event was not held this year.	Explore the feasibility of hosting an environmentally friendly cleanup event during future years.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (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 15, however other areas were mapped as outlined under BMP 3B.	Continue to work with MassDOT to update the map with any State-owned structures. Map known interconnections with MassDOT and Hadley MS4 systems as required under the new permit once it becomes effective.
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 year 2000 Urbanized Area was completed in July 2005. Hadley recently performed additional infrastructure mapping during Permit Year 15, during which several dozen catch basins and approximately one dozen new outfalls within town-owned roadways were mapped, including many within the expanded urbanized area. All information was added as a GIS layer for incorporation into a future GIS library of town infrastructure, and supporting information such as land use and roadways was also added.	Continue to update the drainage map to include any new structures located or installed within the Town's latest urbanized area, such as outfalls, catch basins, manholes, pipes, stormwater BMPs, etc. Use the latest information for outfall prioritization as required under the new permit once it becomes effective.
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 15.	Continue to monitor and inspect for possible illicit discharges during routine operations. Follow up on any potential problem areas. During subsequent years, perform additional dry weather IDDE investigations, anticipated to occur during years 2 and 3 of the new permit.
Revised		Department of Public Works	Screen all outfalls for illicit discharges in the urbanized area by the end of Permit Year 5		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (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 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 15 (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 24, 2017 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, currently scheduled for September 23, 2018. 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. No additional structures were mapped outside the expanded urbanized area during Permit Year 15, however many were mapped within the UA as outlined under BMP 3B.	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. as funding and personnel allows. It is expected that mapping will focus on areas within the UA, as these areas are required under the new permit.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
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 15.	Continue to enforce the illicit discharge bylaw as approved in 2005. Review for compliance with new permit requirements and update if required once it becomes effective.
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 15 (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 15.	Continue to enforce the bylaw as approved during 2005. Explore additional erosion control enforcement measures as needed. Review for compliance with new permit requirements and update if required once it becomes effective.
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 15 (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. Prepare written procedures for site inspections during preparation of the new SWMP Plan as required by the new permit. Incorporate procedures into the SWMP Plan by the end of Year 1.
Revised		Department of Public Works, Outside Firm			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (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 with 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. Prepare written procedures for project review during preparation of the new SWMP Plan as required by the new permit. Incorporate procedures into the SWMP Plan by the end of Year 1.
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 are 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 15 (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 15.	Continue to enforce the bylaw as approved during 2005. During subsequent years, review for compliance with the new permit requirements and amend as necessary once it becomes effective. It is anticipated that this item will need revisions in order to meet permit requirements, however this item is not due until Year 2 of the new permit.
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 15 (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 15 (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 Plan for the DPW Yard and Wastewater Treatment Facility was updated in Permit Year 15 as required by EPA's 5-year schedule. Changes were minor, and the SPCC Plan now does not need to be updated again until February 2023.	Continue complying with SPCC Plan requirements and regulations. Prepare SPCC plans for other town facilities as necessary. Perform 5-year update in 2023, or earlier if a technical change to product storage areas occurs.
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 reconfigured their salt and sand program to eliminate the use of sand.	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 15 (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			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6E	Clean Catch Basins	Highway Department	Clean half of catch basins annually	Approximately 40 catch basins (10% of catch basins within the regulated area) were cleaned during Permit Year 15. Cleaning focused on high priority catch basins that are typically subject to heavy sediment accumulation as outlined in BMP 6F.	Continue to clean high priority basins first followed by lower priority areas. Catch basins found to be in poor condition during cleaning are documented for future replacement. Begin review and preparation of a catch basin optimization plan.
Revised		Department of Public Works			
6F	Track Catch Basin Cleanings	Highway Department	Sediment quantity records and dates cleaned of each catch basin	The Town typically targets specific basins for more frequent cleaning based on known problem areas. 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 occurs 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 MassDEP approval for temporary storage of catch basin cleanings at 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. Incorporate procedures into the SWMP Plan by the end of Year 1.
Revised		Department of Public Works			
6H	Sweep Streets in Town	Highway Department	Street sweeping schedule	No street sweeping was performed during Permit Year 15.	Review the need for a targeted sweeping plan for rural, uncurbed roadways.
Revised		Department of Public Works	Sweep all streets twice per year		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6I	Properly Dispose of Street Sweeping Cleanings	Highway Department	Disposal of street sweeping cleanings at the Hadley Transfer Station	No street sweeping residuals were generated from DPW operations during Permit Year 15. Existing street sweepings from previous years remained stored at the Transfer Station, separate from the catch basin cleanings. Street sweeping residuals are placed in a low spot on-site, with an estimated 449 cubic yards of storage remaining, enough for approximately 3 years worth of storage.	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			
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. Incorporate procedures into the SWMP Plan by the end of Year 1.
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. The Town hired a consultant to perform an inspection of approximately 10 to 12 high priority culverts to assess maintenance needs, and applied for a grant to repair a priority culvert during Permit Year 15.	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 15. There are several detention ponds and Vortech units in non-approved subdivisions that are maintained by outside contractors.	Begin to perform BMP inspections annually, with maintenance performed as needed as outlined in the new permit requirements. Incorporate inspection, operation, and maintenance procedures into the SWMP Plan by the end of Year 2.
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 15 (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	Both the Friends of Lake Warner and Mill River Greenway Initiative watershed groups are actively pursuing cleanup efforts and fundraising to support their efforts. Hadley supports the efforts of both groups	Continue to support both watershed organizations.
Revised	Establish partnerships with Friends of Lake Warner and Mill River Greenway Initiative Watershed Groups	Department of Public Works			
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 15.	Continue to monitor and inspect for possible illicit discharges during routine operations. Follow up on any potential problem areas. During subsequent years, perform additional dry weather IDDE investigations, anticipated to occur during years 2 and 3 of the new permit.
Revised		Department of Public Works	Screen all outfalls for illicit discharges in the urbanized area by the end of Permit Year 5		
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 15.	Continue to enforce the bylaw as approved during 2005. Explore additional erosion control enforcement measures as needed. Review for compliance with new permit requirements and update if required once it becomes effective.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			
6A	Existing Spill Prevention Control Plans for Town Facilities	Highway Department	Revise plan/conduct annual training	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 15.	Continue to enforce the bylaw as approved during 2005. Explore additional erosion control enforcement measures as needed. Review for compliance with new permit requirements and update if required once it becomes effective.
Revised		Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (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 reconfigured their salt and sand program to eliminate the use of sand.	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 15 (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 via the website.
Revised	Provide Contact Information for Reporting an Illicit Discharge	Police, Fire & 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 15.	Continue to enforce the illicit discharge bylaw as approved in 2005. Review for compliance with new permit requirements and update if required once it becomes effective.
Revised		NPDES Steering Committee, Department of Public Works, Planning Board			

7b. WLA Assessment

The MassDEP final 2014 303(d) Integrated List of Waters outlines three waterbodies 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, and the Connecticut River (MA34-04), impaired for E.coli bacteria and PCB in Fish Tissue. Once TMDLs are developed for any of these waterbodies, Section 7 of the annual report will be updated to reflect changes associated with each TMDL. Water quality concerns associated with 303d waters are also addressed through the implementation of BMPs under the six minimum measures for Phase II. Additional public education materials and messages will be developed under the new permit to address bacteria-impaired waterbodies.

The final 2014 303(d) List also identifies Lake Warner (34098) as a Category 4a (TMDL is completed) for excess algal growth, 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.

Under the new permit, Hadley will also need to address nitrogen discharges to the Connecticut River as part of the Long Island Sound nitrogen TMDL. The Town will need to prepare a Water Quality Response Plan to address nitrogen in stormwater from its MS4

Part IV. Summary of Information Collected and Analyzed

Hadley has completed a map of all known stormwater structures, including catch basins, manholes, culverts and outfalls within the expanded 2010 Urbanized Area. Approximately 450 catch basins and 50 outfalls have been located. Structure locations were imported into a GIS base map as part of a GIS infrastructure library. 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	(#)	~50
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)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
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)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
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	
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