

Municipality/Organization: Town of Westford, MA

EPA NPDES Permit Number: MA041232

MADEP Transmittal Number: W-035577

Annual Report Number 10

& Reporting Period: April 1, 2012 -March 31, 2013

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Paul Starratt, P.E.

Title: Town Engineer

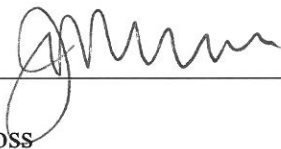
Telephone #: 978-692-5520

Email: stormwater@westfordma.gov

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: Jodi Ross

Title: Town Manager

Date: April 30, 2013

Part II. Self-Assessment

The Town of Westford has completed the required assessment and determined that our municipality is in compliance with all permit conditions.

On November 5, 2012 after several public meetings and discussions, the Westford Planning Board adopted Stormwater Management Rules & Regulations to support the Stormwater Management Bylaw that was adopted at Town Meeting in 2008. The new regulations require that all projects with more than 1 acre of land disturbance comply with the Massachusetts Stormwater Management Standards as well as other locally established performance standards in order to receive a Stormwater Management Permit. Permit applicants are also required to prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Planning Board during the permitting process and they must also provide the Town with a copy of the NOI once filed with the EPA for coverage under the Construction General Permit.

A capital appropriation of \$300,000 was approved at Annual Town Meeting on March 23, 2013 to fund a town-wide Stormwater Master Plan (SMP). The SMP will: evaluate the Town's current stormwater infrastructure, identify current and future needs, and develop a plan and prioritization process for the maintenance, repairs, and capital improvements required to protect the Town's natural resources. The SMP will also include a "Does it Make Sense" (DIMS) study to determine if the creation of a Stormwater Utility could be an effective and sustainable solution that would provide the funding necessary to fully implement the recommendations of the SMP.

The Northern Middlesex Council of Governments (NMCOG) received a \$98,000 Stormwater Management grant from the Northern Middlesex Stormwater Collaborative (NMSC). The NMSC will be a regional collaborative that will include the Town of Westford and eight other municipalities. The collaborative will be focused on controlling and treating stormwater runoff in the greater Lowell area. The NMSC will assist communities with public education, procurement, management and administrative tasks required to manage stormwater.

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 – Interim Period
1A	Stormwater Flyer for Residents	SuAsCo & Westford DPW	Flyers distributed to 75% of residents, compiled & considered “survey” results.	Flyers were mailed in year 1 to all residents. The same flyers were placed on display at the Town Hall. (SuAsCo). Pollution Warning mailed to all Westford Residents in 2013 Census Newsletter.	Continue displaying flyers at public places. Join mailing opportunities with Town Clerk’s Office, Water Department and Town Manager’s Monthly Newsletter.
Revised					
1B	Lesson Plan for 5 th Graders	SuAsCo & Westford DPW	Develop & distribute lesson plan, teach in one or more grade 5 classes.	The Westford Engineering Department continued to use the SuAsCo curriculum “Stormwater Matters” to teach an introductory lesson plan to all grade 5 classes during the 2012-2013 Living Lab program.	The Westford Engineering Department has elected to continue the lesson plan on an annual basis with assistance from local schools. Every 5 th grader in the Westford Public Schools participates.
Revised			Continued beyond Year 5 based on success of program.		
1C	Stormwater Flyer for Businesses	SuAsCo & Westford DPW	Flyers distributed to 50% of businesses, stormwater logo displayed by 25% of businesses.	<i>Stormwater Matters</i> local business flyer, as prepared by SuAsCo, mailed to 450 business addresses in Westford in Year 8.	Continue to promote stormwater awareness to the local business community.
Revised					
1D	Stormwater Media Campaign	SuAsCo & Westford DPW	Media information packet, 4 press releases generated.	Implement SuAsCo Year 6 product Survey and display for Stormwater “Go Green” product at Special & Annual Town Meetings.	Continue to implement and utilize SuAsCo Year 1-6 products and display products at Special & Annual Town Meetings and at other appropriate community meetings.
Revised					
1E	Stormwater Video	SuAsCo & Westford DPW	Show video at one public meeting and once on local cable.	Web link added to Engineering website for <i>Spotlight on Stormwater</i> as broadcast on Westford Community Access TV and presented at Board of Selectmen meeting by Town Engineer.	Broadcast <i>Reining in the Storm</i> on local access TV in 2013.
Revised					

1F	Recycling/Trash Info. on Website	Recycling Commission	Update website regularly, display pamphlets in Town Clerk's Office	The Recycling Commission updated the website as needed. http://www.westfordrecycles.org/ Collection calendar at Clerk's Office.	Continue website updates and display pamphlets in Town Clerk's Office.
Revised				Westford Litter League Green Team was established to remove trash across the Town. Information can be found on Recycling Commission's website.	
1G	Recycling/Trash Mailing to Residents	Recycling Commission	Mail to 75% of residents and display pamphlets in Town offices.	Pamphlets were mailed to all residents and copies were made available at the Town Hall and on the Town's website.	Continue displaying pamphlets at public places and on Town website at http://www.westfordrecycles.org/
Revised					
1H	Advertise HHW Info. in Community Phonebook	Recycling Commission	Copy of advertisement in the phonebook.	Information about the household hazardous waste collection was advertised in the local phonebook "2013-2014 Westford Directory" on pages 36-37 and "Community Phonebook," pages 22 & 23.	Continue to advertise the proper method of disposal for hazardous household wastes.
Revised					
1I	Advertise Brush/Multi Collection on Cable and in Paper	Recycling Commission	Copy of advertisement on cable, website and local paper.	The brush and multi collection events were advertised on cable, website, the local paper, roadside signs and local phone directory.	Continue advertising the brush and multi collection events.
Revised					
1J	Leaf Dumping Article in Paper	Conservation Commission	Copy of article in local paper once per year.	An article discussing the proper disposal of leaves and yard waste published in "2013-2014 Westford Directory" on pages 12 & 21.	Continue placing the leaf dumping article in the Westford Directory.
Revised			Posted on Cons- Comm website		
1K	Leaf Dumping Pamphlet to Public	Conservation Commission	Copy of pamphlet, # of residents reached.	Contact information for leaf disposal and compost published in local phone book, "2013-2014 Westford Directory" on Page 12 & 21.	Continue publishing information on proper leaf disposal and composting.
Revised			Publish leaf disposal notice in local phone book		
1L	Leaf Dumping Pamphlet at Events	Conservation/ Water/ Board of Health	Pamphlet displayed at two events.	Conservation Resource Planner distributed pamphlets to various residents suspected of leaf dumping.	Display at 2013 Health Fair and Water Department Open House.
Revised					

1M	Fertilizer Pamphlet to Businesses	Water Department	Copy of pamphlet, distributed to all landscaping businesses.	Town Staff participated in panel discussion at Sustainable Westford Winter Series on Organic Lawn Care with Chip Osborne to promote residential compliance with town's Pesticide Policy.	Continue to eliminate where possible and otherwise minimize the use of pesticides on Town-owned land and to encourage the same on private-owned land. Enforce Pesticide Policy.
Revised	Town of Westford Pesticide Policy		Develop Pesticide Policy for Town of Westford		
1N	Fertilizer Info. in Newsletter	Water Department/ Engineering	Copies of semi-annual newsletters discussing fertilizers.	Healthy Lawns for Healthy Families fertilizer information was added to the Westford Water Department website.	Continue promoting Healthy Lawns for Healthy Families.
Revised					
1O	Septic System Pamphlets in Water Department	Water Department	Pamphlets available at Water Department at all times.	Septic system Pamphlets were made available at the Water Department throughout the year.	Continue to make septic system pamphlets available.
Revised					
1P	Septic System Pamphlets at Events	Water Department/ Board of Health	Display pamphlets at two events.	The septic system educational pamphlet was made available at the Board of Health Department and Water Department.	Continue displaying pamphlet at Water Department May 2013 Open House, and annual Health Fair.
Revised					
1Q	Hazardous Material Bylaw Info. on Website	Board of Health	Maintain website regularly.	Hazardous material bylaw information was posted on the Town's website.	Continue website postings.
Revised					

1a. Additions

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 – Interim Period
2A	Stormwater Traveling Display	SuAsCo & Westford DPW		Completed in Year 1. Display used at 5 th grade Living Lab program and Town Meeting. SuAsCo "Go Green" display added to Town Meeting.	Continue using the displays and pamphlets at the 5 th grade Living Lab program, Town Meeting, Water Department Open House and other appropriate public events.
Revised					

2B	Poster Contest for Fifth Grader	SuAsCo & Westford DPW	Poster contest is held and entries are received, judged and displayed in year 2.	Annual Water Department 4 th Grade Poster Contest to include pollution prevention. Cash prizes awarded to top three posters from each school.	Continue 4 th Grade Poster Contest
Revised	<i>Revised to 4th Graders</i>	Westford Water Department			
2C	Poster Contest for High Schoolers	SuAsCo & Westford DPW	Poster contest is held and entries are received, judged and displayed in year 3.	NOI specified to begin this BMP in Permit Year 3. Eliminated from Year 3 product by SuAsCo. Water Department will hold Poster Contest for 4 th Graders.	Continue 4 th Grade Poster Contest
Revised		Eliminated from Year 3 product by SuAsCo.			
2D	Local Stormwater Summit Event	SuAsCo & Westford DPW	Hold local multi-community summit in year 4.	Completed in Year 4.	Continue information sharing with other stakeholders across the Nashoba Brook sub-basin.
Revised		SuAsCo W. C. C. Land and Habitat Working Group			
2E	Stormwater Super Summit Event	SuAsCo & Westford DPW	Municipal participation in the Super Summit, stormwater “survey” to 75% residents, compiled & considered results.	Stormwater Super Summit eliminated from SuAsCo Year 5 product	Reevaluate possibility of a future summit with SuAsCo.
Revised					
2F	Curbside Recycling	Department of Public Works	Continued Town service.	Curbside recycling was picked up every other week.	Continue Curbside Recycling program.
Revised					
2G	In Town HHW Drop-off	Department of Public Works	Hold at least one event per year.	Household hazardous waste collection event occurred on 11/3/12 and Electronics Collection was on 6/23/12 & 9/22/12 at the Westford Highway Facility.	Continue HHW event.
Revised			Every other year.		

2H	HHW Drop-off in Lexington	Department of Public Works	Advertise service on the Town website and in flyers.	www.westfordma.gov/recycle	Continue advertise and promote HHW collection opportunities.
Revised			Also advertise in local phone book.	2013- 2014 Westford Directory on Page 36-37	
2I	Leaf Drop-off at Laughton's Nursery	Department of Public Works	Continue service of leaf drop-off.	Laughton's Nursery has been closed and developed into a residential subdivision. Leaf drop off is available at Eric's Garden Center or Jones Farm for a fee.	Continue to use Eric's Garden Center and Jones Farm as a leaf drop off.
Revised			Advertise on the Town website and in flyers.		
2J	Brush Drop-off in Westford	Department of Public Works	Hold one collection in April and October.	Brush chipping service provided on 4/21/12, 4/28/12 & 10/20/12 at Westford Highway Facility.	Hold at least two collection events.
Revised					
2K	Multi-Collection Events	Dep't of Public Works/Board of Health	Hold one multi-collection event twice per year.	Electronic devices were collected at the Highway Department on 6/23/12 & 9/22/12.	Continue to collect electronic devices at an annual event.
Revised					
2L	Mercury Drop-off at Board of Health	Board of Health	Collect mercury devices in the Board of Health office daily.	The Board of Health office was open daily to receive mercury-containing devices.	Continue mercury drop-off program.
Revised					
2M	Mercury Drop-off at Multi-Collection Event	Department of Public Works	Hold one multi-collection event twice per year.	Small mercury-containing devices were collected at the Board of Heath Department counter.	Hold at least two collection events.
Revised					
2N	Public Meetings	Department of Public Works	Advertise and hold at least one public meeting every year for stormwater.	<i>Spotlight on Stormwater</i> was broadcast on Westford Community Access TV as presented at Board of Selectmen meeting by Town Engineer.	Hold a public meeting to inform residents of the stormwater program.
Revised		Engineering Department		<i>Spotlight on Stormwater</i> is available for viewing on Westford Community Access TV with a link on the Engineering Department website.	

2O	Stormwater Contact	Highway Department	Establish contact and include information in pamphlets and on the Town's website.	The Town Engineer was identified as the stormwater contact regarding pollution and complaints in Year 1. Information was posted on the Town's website. Established stormwater email contact at stormwater@westfordma.gov	Update information as needed and continue to include stormwater contact information on the Town's website. Include contact information in educational pamphlets. Track stormwater emails and issues addressed.
Revised	Procedure to Address Public Comment		Record of calls and issues addressed.		

2a. No additions at this time.

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 – Interim Period
3A	Storm Sewer Map	Highway Department/ GIS	Expand and field verify all outfalls by year 5.	Stormwater Map completed.	Maintain GIS database.
Revised		Engineering Department/ GIS			
3B	Illicit Discharge Bylaw	Engineering/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	Illicit Discharge Bylaw completed and adopted in 2008.	Continue to enforce Illicit Discharge Bylaw.
Revised		Board of Health			
3C	Detection & Elimination Plan	Highway Department	Screen 25% of outfalls each year in 4 divided sections of Town.	An IDDE plan and manual was finalized in June 2012 by Woodard & Curran which included a protocol and written strategy for Illicit Discharge Detection and Elimination activities.	Continue to screen and inspect outfalls for illicit discharges. Implement the IDDE plan developed by Woodard & Curran.
Revised			Prioritize areas of known water quality problems for inspections and removal of illicit discharges.		

3D	Illicit Discharge Education for Public	SuAsCo/Public Works/ Highway/ Water/ Board of Health	Continued public education under Control Measures 1 and 2.	Pollution Warning mailed to all Westford Residents in 2013 Census Newsletter. Supported Westford Stream Team request for funding to purchase water sampling equipment.	Support and encourage public participation and involvement in local Stream Teams and groups that promote environmental awareness and activism.
Revised			Partner with Westford Environmental News and Action Committee (WENAC) and the Organization for the Assabet River (OAR).		
3E	Illicit Discharge Education for Municipal Employees	Highway Department	Education for employees under BMP 6H.	Woodard & Curran provided IDDE training on 4/4/12 for various town departments.	Continue municipal employee training program.
Revised					

3a. No additions at this time.

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 – Interim Period
4A	Wetlands Bylaw	Conservation Commission	Continue to implement existing Wetlands Bylaw.	The Town of Westford Conservation Commission enforced the Westford Wetlands Bylaw and Regulations.	Continue enforcement of Wetlands Bylaw and Regulations.
Revised					
4B	Construction Site Runoff Bylaw	Engineering/ Planning/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	Stormwater Management Bylaw adopted at Special Town Meeting on May 10, 2008 and approved by Attorney General on August 5, 2008.	Continue enforcement of Stormwater Management Bylaw.
Revised					
4C	Erosion, Sediment & Waste Controls	Engineering/ Planning/ Conservation	Copies of meeting minutes and memos. Improved site controls in year 4.	Stormwater Management Bylaw adopted at Special Town Meeting on May 10, 2008 and approved by Attorney General on August 5, 2008.	Continue enforcement of Stormwater Management Bylaw.

Revised					
4D	Site Plan Review Procedures	Engineering/ Planning/ Conservation	Improved site plan review procedures in year 4.	Site plans are currently reviewed by the Engineering Department and Conservation Commission for erosion and construction site runoff BMPs.	Continue to hold Technical Review meetings with developers and designers to evaluate site plan criteria and incorporate Stormwater Regulations during early stages of design.
Revised					
4E	Site Inspection & Enforcement	Engineering/ Planning/ Conservation	Records of current enforcement actions, site inspection procedures for all land disturbance >1 acre.	Site inspection procedures for land disturbances > 1 Acre enforced as outlined in the new Stormwater Management Regulations.	Continue enforcement of Stormwater Management Bylaw & Stormwater Management Rules & Regulations.
Revised					
4F	Construction Site Contact	Highway Department	Establish contact and include information in pamphlets and on the Town's website.	The Town Engineer was identified as the stormwater contact regarding pollution prevention, complaints and construction runoff in Year 1.	Update information as needed and continue to include stormwater contact information on the Town's website. Include contact information in educational pamphlets. Track stormwater calls and emails.
Revised	Procedure to Address Public Comment		Record of calls and issues addressed.	Established stormwater email contact at stormwater@westfordma.gov	

4a. No additions at this time.

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 – Interim Period
5A	Post-Construction Site Runoff Bylaw	Engineering/ Planning/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	Planning Board continued to issue Stormwater Management Permits under the Stormwater Management Bylaw & Stormwater Management Regulations, including a SWPPP with O&M requirements.	Continue enforcement of Stormwater Management Bylaw.
Revised					
5B	Structural & Non-Structural BMPs	Engineering/ Planning/ Conservation	BMP design standards specific to the Town of Westford.	BMP design standards were incorporated in the Stormwater Management Rules & Regulations as adopted on November 5, 2012.	Hold progress meetings with local developers and project designers to evaluate BMPs and design standards.
Revised	BMP Design Standards				
5C	Long-Term Operation & Maintenance	Engineering/ Planning/ Conservation	O&M Plan/template and procedures required for new and redevelopment	O&M standards were incorporated in the Stormwater Management Rules & Regulations, including a requirement to record applicable Operation & Maintenance agreements.	Oversee compliance of O&M plans for all projects subject to the Stormwater Management Rules & Regulations.
Revised					
5D	Structural BMP Implementation Procedures	Engineering/ Planning/ Conservation	Inspection and enforcement procedures to ensure BMPs are installed properly.	Structural BMP's installed and inspected for compliance with the Stormwater Management Rules & Regulations.	Continue inspections for compliance.
Revised					

5a. No additions at this time.

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 – Interim Period
6A	Catch Basin Schedule	Highway Department	Clean all catch basins and prioritize locations for cleaning.	All catch basins were cleaned in town at least once and twice on hills. Catch basins are visually inspected during cleaning to ensure proper function of the drainage system and to identify any illicit discharge connections.	Continue catch basin cleaning and inspection program annually. Continue documenting structure conditions and sediment data for future cleaning and maintenance priorities. Continue to identify illicit discharge connections.
Revised					
6B	Regular Street Sweeping	Department of Public Works	Sweep streets a minimum of twice per year.	All streets were swept twice a year in town.	Continue street sweeping program annually.
Revised		Highway Department			
6C	Sand/Salt Covered	Highway Department	Sand and salt storage is covered.	Sand and salt storage was covered.	Continue to cover sand and salt.
Revised					
6D	Used Oil is Recycled	Highway Department	Waste oil recycling at the Highway Facility is permitted.	The Highway Department maintained permit compliance for the waste oil heater and recycling operation.	Continue existing practices for waste oil recycling to maintain permit compliance.
Revised					
6E	Municipal Hazardous Material Stored Inside	Highway Department	All hazardous materials are stored indoors.	The Highway Department stored all hazardous materials indoors.	Continue to store all hazardous materials indoors.
Revised					
6F	Implement SWPPP at Garage	Highway Department	SWPPP implemented and maintained.	The Highway Department implemented BMPs outlined in the Garage SWPPP.	Continue existing practices for pollution prevention and good housekeeping.
Revised	Implement SWPPP BMPs at Garage		SWPPP BMPs implemented.		
6G	Increase Vehicle Fueling Cover	Highway Department	Increase cover until new facility is constructed.	Occupied new facility in September 2006.	Utilize covered fueling station at the new DPW Facility.

Revised					
6H	Municipal Employee Training	Highway Department	All Highway Department employees trained annually, record of attendance sheet. Copy of training program	Highway Department issued copies of the Illicit Discharges to the Municipal Storm Drain System dashboard reference card. Cards installed in Highway Department vehicles. Woodard & Curran provided IDDE training on 4/4/12 for various town departments.	Continue existing training programs, incorporate new topics and expand programs as appropriate.
Revised					
6I	Municipal Operation/Maintenance Plan	Highway Department	Improved operations at municipal facilities and throughout Town.	Municipal facilities are evaluated on a regular basis for pollution issues. Work began to document protocols for municipal operations. The Town began work to develop a Beneficial Use Determination (BUD) for the reuse of stormwater residuals.	Evaluate and document BMP evaluations and draft BMPs for municipal facilities and operations. Begin compiling a draft Municipal Operation and Maintenance Plan and continue to develop a BUD for stormwater residuals.
Revised					

6a. Addition

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 – Interim Period
6J	Mosquito Control Project & Drainage System Maintenance	Engineering/Conservation	Record of improved drainage system inspection and maintenance.	Through the efforts of the Central Massachusetts Mosquito Control Project, brush and other accumulated debris was removed from culverts and streams to ensure proper flow conditions and reduce the amount of stagnant water available for mosquito breeding. Cleaning areas were recorded to determine future cleaning needs.	Continue mosquito control program.
Revised				Final design and environmental permitting was completed for the removal and replacement of an under-sized culvert on Route 40 at Keyes Brook in order to improve drainage.	The Town is awaiting HMGP funding from FEMA in order to put the Route 40 culvert out for public bid.

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 – Interim Period
				Woodard & Curran completed <i>Receiving Waters Impairment and TMDL Update</i> .	Incorporate BMPs into Westford Stormwater Management Plan.

7a. No additions at this time.

7b. WLA Assessment

In June of 2012 the Town's stormwater consultant (Woodard & Curran) prepared a "Receiving Waters Impairment and TMDL Town of Westford NPDES PII Small MS4 General Permit Annual Report
MADEP Transmittal Number: W-035577

Update” report which serves as an update to the Watershed Action Plan (WAP) developed for the Town in 2007. The update provided a summary of water quality impairments in Westford including pollutant sources, applicable TMDLs and respective waste load allocations, and classification under the State Surface Water Quality Standards. The update also outlined the EPA’s General Permit requirements applicable to impaired waterbodies and TMDLs.

Beaver Brook, Stony Brook, Deep Brook, Heart Pond and Nashoba Brook are listed as 303(d) listed waters that are classified as Category 5 “Waters Requiring a TMDL” based on the Final 2010 Integrated List of Waters. Woodard & Curran’s report summarizes recommended BMPs for pollutants of concern for each of these impaired waterbodies. Water quality concerns associated with the impaired waters are and will continue to be addressed through the implementation of these recommended BMPs as well as the implementation of BMPs specified under the six minimum measures for Phase II, as outlined in the Westford Stormwater Management Plan (SWMP).

Part IV. Summary of Information Collected and Analyzed

14 unauthorized connections were discovered in Year 10 and determined to be conveyance of stormwater from residential properties.

Part V. Program Outputs & Accomplishments (OPTIONAL)

The Westford Stream Team continued sampling rivers in streams across Westford and published findings to the Westford Conservation Commission. Water Department, in support of an Eagle Scout project, installed a rain garden at their Forge Village Road property, including an educational component.

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures (Fiscal Year)	(\$)	\$91,325

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Households*
Stormwater management committee established	(y/n)	Yes**

Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	2.5 Miles***
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	3
▪ community participation	(%)	U.K.
▪ material collected	(tons or gal)	See Below
School curricula implemented	(y/n)	Yes: 5 th Grade
* 2013 Census Newsletter mailing sent to every Westford Household. ** Project Advisory Committee (Smart Growth Technical Assistance Grant) *** Nabnasset Improvement Association & Friends of Forge Pond Annual Clean Up		

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				X
▪ Erosion & Sediment Control				X*
▪ Post-Development Stormwater Management				X*

* Planning Board adopted Stormwater Management Regulations on November 5, 2012.

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	616

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)	0
% of population on sewer	(%)	
% of population on septic systems	(%)	100%
*The Westford Highway Department inspects stormwater outfalls on an annual basis for drainage and erosion problems. The Engineering Department is systematically inspecting outfalls for illicit discharge detection and elimination.		

Construction

Number of construction starts (>1-acre)	(#)	6 (Approx.)
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	5

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
--	-----	------

Site inspections completed	(# or %)	U.K.
Estimated volume of stormwater recharged	(gpy)	Not Assessed

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1-2/yr ¹
Total number of structures cleaned	(#)	3,145
Storm drain cleaned	(LF or mi.)	250 LF Approx.
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	252.17 Tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Disposal
Cost of screenings disposal	(\$)	\$7,060.76
1. Drainage structures in hilly areas are cleaned more frequently based on the rate of sediment accumulation.		

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)	455.58 Tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Disposal
Cost of sweepings disposal	(\$)	\$8,883.84
Vacuum street sweepers purchased/leased	(#)	1 owned*
Vacuum street sweepers specified in contracts	(y/n)	Y
*The Town owns 1 mechanical sweeper and contracts another sweeper when needed.		

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	95%*
▪ Pesticides	(lbs. or %)	95%*

* Town of Westford Pesticide Policy requires 100% elimination except in emergencies. Estimated 5% emergency applications.

Anti-/De-Icing products and ratios <i>Ice-Ban (MgCl₂) is applied to a 90:10 sand/salt mixture with a sprayer as the materials are dispensed from trucks during de-icing activities. On some occasions, straight salt applications are used in town.</i>	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	U.K.
Pre-wetting techniques utilized	(y/n)	Yes
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	Zero Velocity
Estimated net reduction in typical year salt application	(lbs. or %)	Not Assessed
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No