

Municipality/Organization: Town of Westford, MA

EPA NPDES Permit Number: MA041232

MADEP Transmittal Number: W-035577

Annual Report Number 15

& Reporting Period: April 1, 2017 -March 31, 2018

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Paul Starratt, P.E.

Title: Town Engineer

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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 27, 2018

Part II. Self-Assessment

As part of the annual report development, the Town evaluated the appropriateness of all BMPs in efforts towards achieving the defined measurable goals as required by Part II.D.2 of the permit. This year, the majority of BMPs and measurable goals continued to be appropriate. See Part III for proposed modifications to some BMPs. Westford plans to reevaluate all BMPs when preparing the Notice of Intent and Stormwater Management Plan for compliance with the new General Permit requirements and will identify suitable BMPs at that time.

Below are some highlights of the initiatives and stormwater related advancements made over the last year.

- **319 Grant to Develop a Stormwater Fee.** In November of 2017, the town was awarded a Section 319 Nonpoint Source Pollution Competitive Grant in the amount of \$99,982 from the Massachusetts Department of Environmental Protection. The grant was awarded to assist the town in securing the resources necessary to develop a stormwater fee as a funding source to support the recommendations of Westford's Stormwater Management Master Plan. The grant will provide the supplemental funding necessary to: develop the basis, structure, mechanics and rates for a stormwater utility; create an equitable funding mechanism to support the long-term funding needs identified in the town's Stormwater Management Master Plan; and help the town maintain a proactive approach to stormwater management.
- **2016 Stormy Award-winning Living Lab Program.** The Westford Engineering Department continued participating in the Living Lab Program which teaches every 5th grader in the Westford school system about natural resources, pollution and stormwater management. The program provides both classroom discussions and hands-on field demonstrations designed to educate the students on the importance of responsible stormwater management. In the spring of 2018, upon request from the Statewide Stormwater Coalition, the Engineering Department met with Worcester Polytechnic Institute (WPI) students to discuss the Living Lab program as part of a project to help develop their own 5th grade watershed curriculum that would meet the new Massachusetts Next Generation Science Standards.
- **Northern Middlesex Stormwater Collaborative.** The Town of Westford continued its participation in the Northern Middlesex Stormwater Collaborative (NMSC). NMSC activities included: regular meetings, participation in various stormwater related webinars and training events, preparation of public outreach and education materials, GIS tools for stormwater inventories and inspections, and provided general stormwater related support to each member community. On March 20th, 2018 NMSC sponsored a stormwater management training session that included various topics including: phasing

of MS4 permit requirements, preparing stormwater pollution prevention plans (SWPPP) for municipal facilities, field demonstration of high accuracy GPS equipment for stormwater asset data collection, overview of GPS to GIS workflow solutions, and drone usage in DPW and stormwater programs. The Town Engineer continued to serve on the Technical and Advocacy Committee for the Statewide Stormwater Coalition.

- **New Permit Year 1 Activities Underway.** The Town continued to plan and prepare for the new MS4 General Permit by contracting with Tighe & Bond to provide services for Permit Year 1 compliance. These services include: notice of intent & stormwater management program, public education & outreach, illicit discharge detection & elimination assistance, outfall/interconnection inventory & ranking, and catchment investigation & delineation.
- **Roadway Salt Reduction Program.** The Westford Highway Department recently began a new anti-icing program designed to improve winter snow & ice operations and to reduce the overall amount of salt and de-icing chemicals that are typically applied to our roads each year. The new program involves pre-treating roadways with a brine solution that is made on-demand at the Westford Highway Facility using new state of the art equipment. The overall result is a reduction in road salt and de-icing chemicals that ultimately end up in our natural resources while still achieving an acceptable level of public safety on our roadways.

The “Planned Activities – Interim Period” column of this report has been completed as in past years; however, in Fiscal Year 2019, the Town of Westford will focus on compliance with the new requirements of the new MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for each Minimum Control Measure.

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 – 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).	Continue displaying flyers at public places. Join mailing opportunities with Town Clerk’s Office, Water Department and Town Manager’s Monthly Newsletter.
Revised				A Stormwater Management Program Frequently Asked Questions handout was made available to residents at Annual Town Meeting in March 2018. Stormwater information was included in the Westford Water Department’s Spring 2017 & 2018 “Resource” newsletter and the 2018 Town Census newsletter.	
1B	Lesson Plan for 5 th Graders	SuAsCo & Westford DPW	Develop & distribute lesson plan, teach in one or more grade 5 classes. Continued beyond Year 5 based on success of program.	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 2017-2018 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					

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.	Displayed SuAsCo stormwater materials and Stormwater Management Program display at Special & Annual Town Meetings.	Continue to implement and utilize SuAsCo products and display products at Special & Annual Town Meetings and at other appropriate community meetings. Promote the Town's Stormwater Management Master Plan.
Revised					
1E	Stormwater Video	SuAsCo & Westford DPW	Show video at one public meeting and once on local cable.	Northern Middlesex Stormwater Collaborative (NMSC) Public Service Announcements were broadcasted on Westford Cable Access TV. Links to the videos are also posted on the Westford stormwater website at stormwater@westfordma.gov .	Continue to post video links on Westford's stormwater website. Re-broadcast stormwater videos on local access TV.
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. www.westfordrecycles.org/ Collection calendar at Clerk's Office.	Continue website updates and display pamphlets in Town Clerk's Office. Continue to support Westford's Litter League. Information can be found on Recycling Commission's website.
Revised				Westford Litter League Green Team continues 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 mailings and 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 (2017-2018 Westford Directory) and available on the Town's Recycling Commission's website.	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	Posted on Cons-Comm website	An article discussing the proper disposal of leaves and yard waste published in 2017-2018 Westford Directory.	Continue placing the leaf dumping article in the Westford Directory.
Revised	Promote Yard Waste and Leaf Disposal Guidance				
1K	Leaf Dumping Pamphlet to Public	Conservation Commission	Publish leaf disposal notice in local phone book	Leaf disposal and compost notice published in local phone book (2017-2018 Westford Directory) and on the town's website.	Continue publishing information on proper leaf disposal and composting.
Revised					
1L	Leaf Dumping Pamphlet at Events	Conservation/ Water/ Board of Health	Pamphlet displayed at two events.	Conservation Resource Planner distributes notices to residents suspected of leaf dumping into water bodies or the MS4.	Continue to distribute leaf dumping notices to residents suspected of leaf dumping.
Revised	Enforcement of Leaf Dumping Prohibition	Conservation	Educate individual property owners		
1M	Town of Westford Pesticide Policy	Water Department	Develop Pesticide Policy for Town of Westford	Enforced town 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. Continue to enforce Pesticide Policy.
Revised					

1N	Fertilizer Info. in Newsletter	Water Department/ Engineering	Copies of semi-annual newsletters discussing fertilizers.	Healthy Lawns for Healthy Families fertilizer information provided on Water Department's website. Fertilizer information also provided on Westford Healthy Lakes & Ponds Collaborative (WHLPC) website. On 2/20/18 WHLPC sponsored an informative session open to the public entitled "How to Keep your Lawn Green and your Lake Blue" which included a discussion on responsible fertilizer use. An article on cyanobacteria was published in the Town Manager's newsletter warning residents on impacts of fertilizer use near town water bodies.	Continue promoting Healthy Lawns for Healthy Families and include fertilizer information in newsletters and post on Water Department & WHLPC websites.
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. Additional septic system information provided on the Health Department's website.	Continue displaying pamphlet at the Board of Health and Water Department in addition to displaying at other town events. Continue to post septic system information on Health Department's website.
Revised					
1Q	Hazardous Material Bylaw Info. on Website	Board of Health	Maintain website regularly.	Info on the Town's Hazardous Materials Storage bylaw is posted on the Town's Health Department website.	Continue posting information related to the Hazardous Materials Storage Bylaw and regulations on the Health Department's website.
Revised					

1a. No additions at this time.

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 – Interim Period
2A	Stormwater Traveling Display	SuAsCo & Westford DPW		Completed in Year 1. SuAsCo “Go Green” display used at Annual Town Meeting and Special Town Meeting.	Continue using the displays and pamphlets Annual Town Meeting, Special Town Meeting, Water Department Open House and other appropriate public events.
Revised					
2B	Poster Contest for Fourth Graders	Westford Water Department	Poster contest is held and entries are received, judged and displayed in year 2.	The 4 th Grade Poster Contest was part of the Westford Water Department’s Open House program which was complete in previous years but not held this year.	No new activities planned for this one-time BMP.
Revised					
2C	Poster Contest for High Schoolers	Eliminated from Year 3 product by SuAsCo.		NOI specified to begin this BMP in Permit Year 3. Eliminated from Year 3 product by SuAsCo. Water Department has held a Poster Contest for 4 th Graders under BMP 2B. BMP 2B achieves the goals of this BMP previously determined to be infeasible.	BMP determined to be infeasible and was replaced by BMP 2B in Permit Year 3.
Revised					
2D	Local Stormwater Summit Event	SuAsCo W. C. C. Land and Habitat Working Group	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					
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.	Electronics Collection was on 5/6/17 & 9/9/17 at the Westford Highway Facility. Household hazardous waste (HHW) collection event occurred on 11/5/16 and scheduled for Fall 2018 (held every other year).	Continue to hold electronics collection twice a year and HHW event in Westford in fall of 2018.
Revised			Every other year.		
2H	HHW Drop-off in Lexington	Department of Public Works	Advertise service on the Town website and in flyers.	Advertised on Recycling Commission website at www.westfordma.gov and in the 2017-2018 Westford Directory. Town advertised 12/2/17 leaf collection day sponsored by ACME Waste Systems.	Continue to advertise and promote HHW collection opportunities.
Revised			Also advertise in local phone book.		
2I	Leaf Drop-off at Laughton's Nursery	Department of Public Works	Continue service of leaf drop-off. Advertise on the Town website.	Laughton's Nursery is no longer in business. Leaf pick up was available for drop-off at Red Wagon Landscaping (Lowell), Jones Farm (Chelmsford) and BMC Corp. (Tewksbury) for a fee. Leaf pickup in Westford was available through Acme Waste Systems for a fee on 12/2/17. All drop-off and pick up options were advertised on the town website and in the local phonebook.	Continue to advertise leaf drop-off and pick up options available on the Town's website and local phonebook.
Revised	Promote Leaf Disposal Options				
2J	Brush Drop-off in Westford	Department of Public Works	Hold one collection in April and October.	Brush chipping service provided on 10/14/17 & 3/31/18 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 5/6/17 & 9/9/17.	Continue to collect electronic devices at events twice per year.
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	Mercury Drop-off available at Board of Health Office.	Small mercury-containing devices were collected at the Board of Health Department counter. Mercury drop-off information available on the Westford Recycling Commission's website.	Continue Mercury Drop-off at Board of Health office and advertise on town website.
Revised		Board of Health			
2N	Public Meetings	Engineering Department	Advertise and hold at least one public meeting every year for stormwater.	Stormwater management was discussed at several public, advertised meetings of the Planning Board and Board of Selectmen.	Hold a public meeting to inform residents of the stormwater program.
Revised					
2O	Procedure to Address Public Comment	Highway Department	Establish contact and include information in pamphlets and on the Town's website. Record of calls and issues addressed.	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: 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.
Revised		Highway and Engineering		Highway Department also responds to public complaints through a work order system.	

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 15 (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. The Stormwater Map includes the location of all drainage structures (catch basins, drainage manholes), outfalls, receiving waters and some connectivity.	Maintain GIS database and continue to improve Stormwater Mapping as additional information is collected.
Revised		Engineering Department/ GIS			
3B	Illicit Discharge Bylaw	Board of Health	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					

3C	Detection & Elimination Plan	Highway Department	Prioritize areas of known water quality problems for inspections and removal of illicit discharges.	The Engineering Dept. continued with the ongoing implementation of the Town's written IDDE plan including field inspections and screening outfalls in areas of the town. Information and data collected was used to update GIS maps. IDDE Plan procedures and catchment prioritization was updated to meet the new permit.	Continue to screen and inspect outfalls for illicit discharges. Continue to implement the Town's IDDE plan.
Revised		Engineering Department		The Town's stormwater consultant and Highway Department staff completed six days of field work from August through December 2017 and investigated 251 outfalls, including gathering outfall inventory data and screening outfalls for dry weather flow. No locations investigated during this field effort met EPA's criteria for a likely sewer input.	
3D	Illicit Discharge Education for Public	SuAsCo/Public Works/ Highway/ Water/ Board of Health	Continued public education under Control Measures 1 and 2.	A stormwater message was included in the January 2018 census newsletter that was mailed to all Westford Residents. A stormwater article was also included in the Westford Water Department's Resource newsletter in the Spring of 2017 & 2018. "Watershed Protection Tips for Residents" brochure prepared by the Northern Middlesex Council of Governments and made available to the public.	Continue public education. Support and encourage public participation and involvement in local Stream Teams and groups that promote environmental awareness and activism.
Revised					

3E	Illicit Discharge Education for Municipal Employees	Highway Department	Education for employees under BMP 6H.	A Northern Middlesex Stormwater Collaborative (NMSC) technical training seminar was hosted at the Westford Highway Facility on 3/29/17. The seminar was attended by Westford Highway Department & Engineering Department personnel. IDDE, including outfall testing with field kits and catch basin inspections, was one of the main topics of the training seminar. A NMSC seminar was also held at the Westford Highway Facility on 3/20/18 providing training on Stormwater Pollution Prevention Plans.	Continue municipal employee training programs.
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 15 (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. Stormwater Management Regulations adopted by the Planning Board in November 2012. During Permit Year 15, Town continued to implement permitting process defined in bylaw and require projects to manage stormwater runoff during construction.	Continue enforcement of Stormwater Management Bylaw and Stormwater Management Regulations.
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. Stormwater Management Regulations adopted by the Planning Board in November 2012. The Bylaw and Regulations include requirements to control constructions wastes (e.g. building materials, litter, sanitary waste).	Continue enforcement of Stormwater Management Bylaw and Stormwater Management Regulations.
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 as well as for compliance with the Stormwater Management Standards. Site Plans are also reviewed and discussed with a Technical Review group comprised of town staff from various Departments along with developers.	Continue to review Site Plans in accordance with Site Plan Review Bylaw, Wetlands Bylaw & Stormwater Management Bylaw procedures. Also, 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 and all subdivisions enforced as outlined in the Stormwater Management Regulations and in accordance with the mandatory SWPPP. Active sites are inspected on a daily to weekly basis depending on site activity and weather conditions.	Continue enforcement of Stormwater Management Bylaw & Stormwater Management Rules & Regulations.
Revised					
4F	Procedure to Address Public Comment	Highway Department	Establish contact and include information in pamphlets and on the Town's website. Record of calls and issues addressed.	The Town Engineer was identified as the stormwater contact regarding pollution prevention, complaints and construction runoff in Year 1. 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 and stormwater related mailings.
Revised					

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 15 (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 SWPPP with O&M requirements.	Continue enforcement of Stormwater Management Bylaw and Regulations.
Revised					
5B	BMP Design Standards	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 meetings with local developers and project designers to evaluate BMPs and design standards.
Revised					
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 Regulations, including a requirement to record applicable Operation & Maintenance agreements. The Regulations also include provisions to require continuing inspection and maintenance and submitting reports on inspections to the Planning Board.	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 15 (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.	Approximately 75% of the catch basins were cleaned in Town. Catch basins are visually inspected during cleaning to ensure proper function of the drainage system and to identify any potential illicit discharge connections. The need for any repairs or maintenance were also identified and recorded during cleaning operations.	Continue catch basin cleaning and inspection program annually. Continue documenting structure conditions and sediment data for future cleaning and maintenance priorities. Continue to visually screen for illicit discharge.
Revised					
6B	Regular Street Sweeping	Highway Department	Sweep streets a minimum of twice per year.	All streets were swept once during 2017.	Continue street sweeping program annually and evaluate frequency of sweeping per the new permit requirements.
Revised			Sweep streets a minimum of once per year.		
6C	Sand/Salt Covered	Highway Department	Sand and salt storage is covered.	Sand and salt storage continued to be 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 recycling.	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 BMPs at Garage	Highway Department	SWPPP BMPs implemented.	The Highway Department implemented BMPs outlined in the Garage SWPPP.	Continue existing practices for pollution prevention and good housekeeping.
Revised					
6G	Increase Vehicle Fueling Cover	Highway Department	Increase cover until new facility is constructed.	Occupied new facility in September 2006. Facility includes a covered fueling station.	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 Superintendent attends multiple training events per year through APWA and other regional associations and informs personnel of proper good housekeeping practices. A NMSC technical training seminar was hosted at the Westford Highway Facility on 3/29/17. The seminar was attended by Westford Highway Department & Engineering Department personnel. Good housekeeping and pollution prevention, including oil and spill controls, was one of the main topics of the training seminar. A NMSC seminar was also held at the Westford Highway Facility on 3/20/18 providing training on stormwater pollution prevention plans.	Continue providing 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 were evaluated for good housekeeping practices as part of the town's Stormwater Management Master Plan. The Town's Hazardous Materials Storage Bylaw also requires reporting & record keeping, regular inspections, yearly permitting and more stringent storage practices at both private and municipal facilities.	Continue to follow the requirements of the updated Hazardous Materials Storage Bylaw and good housekeeping recommendations from the Stormwater Management Master Plan. Continue to look for opportunities at town facilities to improve operations.
Revised					
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.	Continue mosquito control program.
Revised					

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

Not Applicable - There are no final TMDLs at this time, however Westford continues to evaluate the impairment status of receiving waters. See below.

7a. No additions at this time.

7b. WLA Assessment

Forge Pond and Nabnasset Pond are classified as Category 4A Waters “TMDL is complete” for mercury, which is a legacy pollutant not likely to be found in stormwater discharges from the MS4, based on the Final Massachusetts Year 2014 Integrated List of Waters. Beaver Brook, Deep Brook, Heart Pond, Stony Brook, and Tadmuck Brook are classified as Category 5 Waters “Waters requiring a TMDL”. Nashoba Brook is also listed as a Category 5 Water for pollutants not likely to be found in stormwater discharges.

Water quality concerns associated with the Town’s impaired waters are and will continue to be addressed through the implementation of recommended BMPs as well as the implementation of BMPs specified under the six minimum control measures for Phase II, as outlined in the Westford Stormwater Management Plan. The Stormwater Management Master Plan reviews the status of surface waters within the town and provides further recommendations on addressing existing impairments to comply with the 2016 General Permit. Tighe & Bond will also provide the town with TMDL recommendations including the potential need and costs for future retrofit projects.

Part IV. Summary of Information Collected and Analyzed

All town catch basins were inspected by the Westford Highway Department during catch basin cleaning activities and the Engineering Department was notified of any suspicious pipes or connections observed. Inspections and smoke testing was performed at various locations to investigate potential illicit discharge connections, determine connectivity, and for data collection to be used for Capital Improvement Projects. GIS mapping was updated as necessary based on field investigations. The results of outfall investigations and screening is also available in the Engineering Department.

Part V. Program Outputs & Accomplishments (OPTIONAL)

A summary of the significant program outputs and accomplishments can be found under the Part II. Self-Assessment section of this report.

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures (Fiscal Year)	(\$)	\$82,000

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	(#)	See Section 2G
▪ community participation	(%)	U.K.
▪ material collected	(tons or gal)	U.K.
School curricula implemented	(y/n)	Yes: 5 th Grade
* 2018 Census Newsletter mailing sent to every Westford Household.		
** Northern Middlesex Stormwater Collaborative, Healthy Lakes & Ponds Collaborative & Stormwater Management Master Plan Advisory Group (SwAG).		
*** 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

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	(%)	0%
% 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 continues to systematically inspect outfalls for illicit discharge detection and elimination.		

Construction

Number of construction starts (>1-acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	1
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	4

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	(#)	2,200 +/-
Storm drain cleaned	(LF or mi.)	380' +/-
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	162 Tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Disposal
Cost of screenings disposal	(\$)	\$4,812
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)	1
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of sand/debris collected by sweeping	(lbs. or tons)	191 Tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Disposal
Cost of sweepings disposal	(\$)	\$2,763
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 salt (NaCl) with a sprayer for use in de-icing activities. The town follows MassDOT guidelines for anti/de-icing material application. The town also began a new pre-treating program to treat roads with a salt brine prior to a storm event with the goal of reducing salt usage.</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)	Auto
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