

Received 5/1/18

Municipality/Organization: Town of Sharon, MA

EPA NPDES Permit Number: MA041061

MaDEP Transmittal Number: W- 040625

Annual Report Number 15

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

NPDES Phase II Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Peter O'Cain, P.E.

Title: Town Engineer

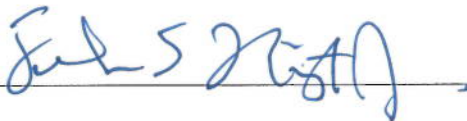
Telephone #: (781)784-1525, ext. 2316

Email: pocain@townofsharon.org

Certification:

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

Signature:



Printed Name: Fred Turkington

Title: Town Administrator, Town of Sharon, MA

Date: 4/26/18

Part II. Self-Assessment

The Town of Sharon has continued to enforce by-laws requiring Stormwater Pollution Prevention Plans for all projects disturbing more than one acre and erosion and sedimentation control issues have been strictly controlled. Coordination with the Sharon Conservation is part of every project enforcement phase. The Conservation Agent is also contacted prior to the start of any Town project that may impact wetlands, drinking water wells or waterways.

The Town has taken measurements of sediment, depth of sump and depth to invert measurements as part of our catch basin cleaning program and will complete work in 2018. Additionally, our GIS Coordinator is working has placed identifiers on all outfalls and catch basins. The MAPC has identified catchments for all catch basins and outfalls and we have a geodatabase file for all catchments with unique ID's. Our Notice of Intent will be filed within 90 days of July 1, 2018, as the NPDES requirements.

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 – Permit Year 16
1.1	Design and distribute S/W Educational Brochures	Town Engineer: Peter O'Cain Nancy Fyler – Neponset River	Mailing list of homes contacted	Information on improving and reducing water use sent in water bills and maintained on town's website.	Continue to educate the public through the town website, cable TV and through water bill mailings. Include specific stormwater education to mailing pamphlets.
Revised			All residents reached		
1.2	Recruit volunteers from mailing	Nancy Fyler Paid educator	List of volunteers	The Town has continued our education program with Ms.	Use our stormwater and water educator as a means of

revised				Nancy Fyler as a water educator in the Sharon School system. Ms. Fyler has organized a program that included the mailing of water conservation and quality information on a quarterly basis, in conjunction with the Sharon Water Department. Also, an annual "Water Quality Report" is mailed to every home in Sharon. The report includes an entire page of "Keeping Water Clean". Ms. Fyler is a member of the Neponset River Watershed Association whose website is linked on the home page of townofsharon.net website.	gathering volunteers for volunteers for stream cleanups and continue public education projects. Utilize Boy Scouts to organize stenciling, public notices dissemination, stream clean-ups and other stormwater measures.
1.3	Create Stormwater Hotline	Peter O'Cain	Done	The stormwater hotline was maintained and all calls were addressed by the Stormwater Manager (Town Engineer).	Maintain stormwater hotline and track calls and follow-up actions, as needed.
Revised			Maintain hotline, # calls & record of follow-up actions		
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 – Permit Year 16
1.4	Educate students	Teachers, Nancy Fyler of Neponset River Watershed Association.	Unknown	The Town has continued working with Ms. Nancy Fyler as a stormwater educator in the Sharon School system. Ms. Fyler. Has taught students water conservation, water infrastructure and has organized a program that included the posting of signs all over town regarding water conservation.	Continue education component with Ms. Fyler. Use our new water/stormwater educator as a means of gathering volunteers for stream cleanups and continue public education projects. Will continue to work with Boy Scouts to arrange cleanup events.
Revised	Stormwater Awareness Education for Students		Lesson plan developed, # students taught		
1.5	Create tributary signage	Peter O'Cain	Signs made.	16 tributary signs have been installed at all tributaries in Sharon.	No further signage needed at this time. Any signs damaged or removed for any reason will be replaced as needed.
Revised			Signs posted at all named tributaries		

1a. Addition.

1.6	Develop stormwater web site	Peter O'Cain: Town Engineer	Continue to post stormwater information on DPW and Water Dept. page of townofsharon.net website.	Stormwater page (in water department and DPW area of website) has been maintained and updated periodically with new topics and additional stormwater education resources.	Maintain the stormwater page and update periodically with new topics and additional stormwater education resources.
Revised	Develop & Maintain Stormwater Web Site		Update annually & record # of hits (if feasible)		

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 – Permit Year 16 See 1.6
2.6	Encourage public participation through adverts and brochures	Peter O'Cain Dave Masciarelli	Make 6000 brochures and send out in water bills	A copy of the brochure was maintained on the website 6000 stormwater mailings were distributed to all homeowners and water conservation flyers distributed in all water bills. Town also has provided rain barrels, drought resistant grass seed and toilet and washing machine rebate program for many years.	Maintain brochure and notices on cable to encourage public participation. Work with our water educator will continue in 2018 and 2019.
Revised					Will continue rain barrel sales, drought resistant grass seed sales. Will continue rebate program for low flow toilets and washing machines.
2.7	Stencil storm drains	Volunteers/ Highway Dept.	Stencil of town's catch basins that feed impaired waterways	Stenciling not continued due to failure of markings to last for more than a year.	Explore other options for catch basin marking.
Revised			# drains stenciled		
2.8	Organize Community clean-ups of tributaries.	Nancy Fyler Linda Berger	At least one clean-up per year.	Our education organizer has started a "We love Lake Massapoag" campaign. The lake is a major distribution point for much of the fresh water in Sharon, including Canoe River and Massapoag Brook. The Recreation Department with Neponset River Watershed had a beach clean-up in June 2017.	Seek help from Boy Scouts, the Recreation Department and other groups in Town, such as students at local schools. Continue water conservation programs to minimize watering, fertilization and use appropriate car washing techniques to minimize polluted and excessive runoff.
Revised			Amount of debris removed		
2.9	Residents assist with by-law enforcement.	Volunteers Peter O'Cain	Residents report violations.	Oil dumping in catch basin on Essex Road was reported and the oil was cleaned up under the direction of the Sharon Fire Department.	Log and track enforcement/ follow-up actions utilizing new software.
Revised			# calls & record of follow-up actions		
2.10	Initiate "adopt a drain" programs/stream monitoring	Volunteers	Record number of drains adopted.	The Town has completed dry weather outfall monitoring program has not identified dry weather outfall flows first	We will continue to support existing stream/ lake monitoring programs and track progress, as well as

Revised				identified as being possible risks. Follow-up inspections during dry weather did not reveal outfall flows at sites initially identified. Will begin work on new permit requirements in 2018 and 2019.	provide support as staff time and budget allows. Use data collected for illicit discharge identification to perform further water quality tests and identify sources of illicit discharge, if present. Outfall monitoring by intern will commence in summer of 2019, since due in 2021.
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2a. Additions

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 – Permit Year 16
3.11	Storm water management and illicit discharge by-law.	Peter O'Cain	Town adopts by-law prohibiting non-sw discharges.	An illicit discharge prohibition by-law was previously approved at the October 2004 Town Meeting. Applications were reviewed and approved in accordance with the by-law. No new connections or enforcement actions occurred in 2017 or 2018 to date.	Continue to enforce the by-law and record corrective actions. Continue to review applications for new connections.
Revised					
3.12	Develop storm drain map with outfalls.	April Forsman Peter O'Cain	Map of MS4 outfalls.	The drainage system map was updated in past years and entered into a GIS database. All outfalls, catch basins and manholes have been mapped using a GPS and are on the town GIS system. Outfalls and catch basins have been numbered and catchments identified, mapped and ranked.	Continue to update the drainage system map based on new information and the results of BMPs 3.14 and 3.15. Any illicit discharge locations will be added to the map database. Water quality tests will be performed on outfalls that flow in dry weather, as identified.
Revised					
3.13	Develop plan to detect and address non s/w discharge.	DPW/Eng Dept	Plan developed	Outfalls will be revisited in the summer of 2019. Any dry weather flows will be	Any dry weather flows will be identified and tested. Illicit sources are few, so

Revised	Develop a Work Plan for Illicit Discharge Detection & Elimination		Record of field inspections	identified and sources will be determined.	sources will be determined by tracing back sources up the drainage system until a connection is found. If not found, water will be tested to determine whether it is simply groundwater. If needed, a video camera will be used as a final option.
3.14	Identify and document illicit outfalls.	volunteers DPW/ENG	Keep record of suspected sites.	No new information regarding dry weather outfall flows were observed for the summer of 2017 and 2018 to date.	If outfall dry weather flows are found, the Town will identify the source of flows.
Revised					
3.15	Monitor accomplishment of goals of reducing illicit discharge.	Peter O'Cain	Create spreadsheet with goals and percentage completed.	Dry weather discharges have been identified and reinspected and found not to flow upon subsequent inspection. An intern will be inspecting all outfalls in the summer of 2019	Continue to identify non-stormwater discharges and determine whether they pose a risk to surface waters. Permit connections as appropriate and document enforcement actions for illicit discharges. Identify dry flow discharges and determine source of water and the water quality.
Revised					
Revised					

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 – Permit Year 16
3.16	Catch basins are now measured for sediment levels, in addition to being cleaned.	Town Engineer/Contractor	Clean catch basins in Clean half the 2017 and then all of them in 2018.	Cleaned 1358 catch basins in 2017. Will clean all remaining 1357 basins in 2018.	Clean the remaining 1357 catch basins and create a long-term plan for catch basin cleaning based on sediment measurements in each basin.
Revised					

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 – Permit Year 16
4.16	Include E&S BMP's/req's in all applicable town regulations.	Planning, zoning, Con-com, Peter O'Cain	Regs modified and accepted by all applicable boards.	Section 3.3.2.21 of the Land Subdivision Rules and Regs of the Planning Board requires E&S plan. Also lot drainage section 4.5.3 refers to NPDES standards. The previously adopted Construction Activity By-Law addresses the Phase II requirements for any disturbance over 1 acre. Enforcement was continued in 2017 and 2018. Planning Board regulations now have approved drainage section that includes LID principles and requirements. Erosion control and SWPPP required for all projects over 1 acre.	Continue to enforce regulations and improve, if needed. Planning Board Regulations have just been updated and approved by a paid consultant and LID measures and references to new BMP's were added. The regulations were approved in February of 2014 and are now in use and have been enforced on new projects. Existing SWPPP requirements are being enforced on all new projects.
Revised					
4.17	Include construction E&S plan as part of review.	Planning, Zoning, BOH.	Approval of modified regulations.	Planning Board requires E&S plan and includes in review. Zoning by-law section 3340. The previously adopted Construction Activity By-Law addresses the Phase II requirements for any disturbance over 1 acre. Article 38 of the General By-Laws requires a complete stormwater erosion control plan and an operation and maintenance plan.	Continue to enforce requirements and new Planning Board LID and stormwater requirements in the Zoning and General By-Laws.
Revised					
4.18	Inspect site for E&S problems	Greg Meister Conservation Agent and/or Town Engineer	Record Inspections and enforcement issues	Conservation Agent and Town Engineer inspected all developments and construction projects over 1 acre for erosion and sedimentation control. Town Engineer also checks these items on a daily basis and works closely with Building and Conservation on inspections.	Continue to enforce requirements and document follow-up actions. Have purchased software and tablets for recording inspections in a timely manner.
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 – Permit Year 16
4.19	Create sanctions to ensure compliance with E&S req's	Con-Com, Board of Selectmen, Town Engineer	List of sanctions approved by Town.	The current comprehensive by-law (articles 37 and 38) includes sanctions and fines.	Enforce sanctions as required.
Revised					
4.20	Include construction site runoff on stormwater hotline	Residents/ Volunteers	Established hotline with phone records.	Continued to advertise the hotline using existing public education avenues.	Continue to monitor hotline and advertise through existing education avenues – website primarily.
Revised					

4a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15	Planned Activities – Permit Year 16
4.21	Create procedure to receive and consider information submitted by the public and include requirements for the construction site operators to control waste such as discarded building materials.	Peter O'Cain	The Town passed the construction activity by-law that requires a public hearing be held for stormwater plans submitted on lots that will have more than an acre of disturbed area. The by-law requires a SWWP that addresses construction wastes of all kinds.	Stormwater Discharges Generated by Construction Activity By-Law approved in October 2004. Approved by Attorney General in January of 2005. Public hearings were held for permit application during the permit term when needed.	Continue to enforce Stormwater Discharges Generated by Construction Activity By-Law.

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 – Permit Year 16
5.21	Planning Board/Con-Com regs, BMP for runoff control +1 acre	Planning Board, Con-Com: Greg Meister	Passed Construction Activity General By-Law to address sites that are disturbed over 1 acre.	Construction Activity General By-Law passed and approved at October 2004 Town Meeting. By-Law requires a public hearing and requirements for post-construction stormwater management inspection and maintenance.	Enforce By-Law when required.
Revised					

5.22	Require operation and maintenance plans for ret/det basins	Peter O'Cain Greg Meister	Include plan requirement in Planning regs and maint fee.	O&M Plans for BMPs are required for all lots with over an acre of disturbance as part of the Construction Activity By-Law.	Operation and maintenance plans have been required on all new projects with stormwater infrastructure, if an SWPPP is required – developments over 1 acre. The Town of Sharon requires detention basins to be placed on Town-owned lots to ensure maintenance. In private developments the O & M plan must require that money be placed in escrow account by homeowner's association to ensure maintenance is done.
Revised					
5.23	In addition to BMP's develop community BMP's	Peter O'Cain Greg Meister	Make a list of community BMP's, if any.	The newly approved Planning Board Rules and Regulations encourage LID solutions in section 4.5 on page 50.	The new Planning Board regulations will be enforced and LID BMP's will be encouraged and BMP's and requirements from the MassDEP Stormwater handbook will continue to be enforced.
Revised	BMP Manual				
5.24	If community BMP's desired, add to appropriate regulations	Planning, Zoning, Con-Com Boards/ Town Engineer	Additions to appropriate regulations.	The BMP's required by the new Planning regulations track the MassDEP Stormwater Handbook requirements and encourage LID solutions to runoff issues.	We will enforce the new Planning Board regulations that track with Mass DEP's Stormwater handbook and encourage LID solutions.
Revised					

5a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15	Planned Activities – Permit Year 16
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5.25	Zoning that encourages low impact development.	Peter O'Cain	Zoning that encourages low impact development	The Town of Sharon approved 40R and 43D districts in 2009. The Sharon Commons area off South Main Street and the Post office Square area in downtown Sharon. 40R districts construction has begun for 192-units of rental housing 10.07 acres. Redevelopment of the former Charles Wilber High School has resulted in the creation of 75 apartments near the town center and near the train station. This development re-used an old school building and allows for walking access to the train station. The project minimizes sprawl, utilizes a historic abandoned building and created almost no site runoff. The new Planning Board Regulations encourage use of LID measures to the extent possible. Avalon Bay apartments created 156 rental units on 9.12 acres on a 26.8 acres site-most conservation restricted. 192 apartment units were approved on our 40R district in March of 2017.	None at this time. Existing regulations for Zoning, planning and General By-Laws already do that when combined with Mass DEP Stormwater Handbook guidelines. Our regulations are constantly reviewed by the Neponset River Watershed Association and also conservations groups within Sharon.
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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 – Permit Year 16
6.25	Develop municipal operation and maintenance plan.	Superintendent of public Works: Eric Hooper	Completed plan.	Tibbetts Engineering has written a municipal O&M plan. No new plan was written in light of waiting on new permit release.	The recently approved permit will guide our actions on municipal operation and maintenance plan requirements.
Revised					
6.26	Implement operation and maintenance plan w/schedule.	Highway Dept/Mike Teixeira	Maintain records of maintenance compliance.	Catch basin records of maintenance now being kept.	Continue to keep records of catch basin cleaning and begin implementing Operation and maintenance Plan as required by new permit.
Revised					
6.27	Use E&S controls for road repairs.	Highway Dept: Mike Teixeira Con-Com: Greg Meister	Record work and erosion controls taken	All roadway work is assessed by the Conservation Agent and Town Engineer for erosion issues. Work is silt	Continue to use erosion and sedimentation controls as needed on all projects and file for construction general

Revised				fenced and hay baled as needed. Any work over 1 acre has a NPDES construction permit filed. All town projects were reviewed for E&S requirements and BMP's were implemented as approved.	permits for work over 1 acre.
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 – Permit Year 16
6.28	Fill Drains in areas of equipment cleaning or work	Highway Dept: Mike Teixeira	Drains covered or filled in.	All drains were previously covered or filled in.	None
Revised					
6.29	Clean catch basins on regular schedule	Highway Dept: Mike Teixeira	Maintain record of cleaning	Half of the catch basins in town were cleaned this year and records were kept by the DPW.	Will review new permit requirements on catch basin cleaning and adopt new program, as needed.
Revised					

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 – Permit Year 16
6.30	Construct Vehicle wash building with recycling wash system to eliminate pollutants from entering groundwater.	Peter O'Cain Town Engineer	Construct building and utilize for vehicle washing	The vehicle wash building was maintained to ensure proper use for vehicle washing activities.	Utilize and maintain wash building, as needed
6.31	Added employee training to operation and maintenance plan requirements	Peter O'Cain	Operation and maintenance plan includes employee training component.	Plan implemented.	New employees are educated on a continuing basis through work with the Conservation Agent and the Town Engineer.
Revised			Training attendance sheet		

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 – Permit Year 16
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7.30	Utilize list of impaired bodies as a basis for areas to study	Town Engineer: Peter O'Cain	Determine how to reduce causes of impairment.	The grant programs we are currently working with NEWPRA and the SERG group on will determine our plan of action for addressing impairments. Sharon is primarily addressing high bacterial levels and not chemical impairments.	Use dry flow outfalls to identify locations of illicit discharges and test the water quality of those discharges. Educate public through website on septic system maintenance, especially regular pumping.
Revised					
7.31	Set up plan utilizing outfall mapping to reduce impairment	Town Engineer: Peter O'Cain	Written plan	Outfall locations have been mapped on GIS.	See 7.30
Revised					
7.32	Ensure WLA met by stormwater BMP's	Superintendent of Public Works: Eric Hooper	Determine if additional BMP's needed.	No dry weather outfalls identified on subsequent inspections.	New illicit discharge plan will be generated, as needed to address new permit. Dry weather outfall monitoring will be performed in the summer of 2019.
Revised					
7.33	Reduce pollutant discharges coming through MS4	Conservation Agent: Greg Meister/Town Engineer	Inspect water for reduction in turbidity, increase in DO	Used catch basin cleaning and roadway sweeping program to reduce turbidity and reduce pollutants.	Use catch basin cleaning and roadway sweeping program to reduce turbidity and reduce pollutants. Modify catch basin cleaning schedule once all basins are measured for sediments.
Revised					

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 – Permit Year 16
7.31A	Set up plan using outfall mapping to reduce impairment	Peter O'Cain	Adjust mapping as direct connection data is collected from applications submitted related to the Illicit Discharge By-Law and through catch basing cleaning process.	Outfall and direct connection information was updated on the Town drainage map when found.	Continue to update mapping of catch basins, outfalls and catchments to meet new permit requirements.

7b. WLA Assessment

The Town is working on reducing loads to streams through strict enforcement of our Illicit Discharge and Construction Activity By-laws. The Construction Activity By-Law in combination with strict enforcement of soil and erosion control plans will help reduce the TSS entering the town waterways. Planning Board Regulations and the two new by-laws require strict compliance with all Mass DEP stormwater regulations and

water quality regulations.

The Town of Sharon is working with the Neponset River Watershed Association and a regional coalition that will assist the Town of Sharon in addressing the requirements of the newly released MS4 permit.

The Planning Board had hired PSC of Foxboro to rewrite the Planning Board Rules and Regulations to reflect references to new General By-Laws regarding construction activity and illicit discharge. The new regulations are complete and being utilized, as of February 2014. The new regulations are very detailed with respect to drainage design and encouragement of LID measures.

Neponset River Watershed Association is hired yearly to provide public education and outreach services for the Town of Sharon. They are also worked with the Town on education at the DPW and provided the Town with tributary signage designs and ordering. Their latest efforts, in coordination with the Town of Sharon, included obtaining the Community Innovation Grant funds and developing a regional stormwater coalition.

Part IV. Summary of Information Collected and Analyzed

The Town has completed its stormwater drainage system mapping of outfalls. Dry weather observation of all outfalls will be performed and water testing will proceed again in the summer of 2019, if dry weather outfall flows found, determination of sources will proceed.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures	(\$)	Town Engineer salary includes these tasks. Conservation Agent also performs many stormwater enforcement tasks.

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	All water bills, website, cable, school education, inserts in Annual Town Report. Approximately 6000 total.
Stormwater management committee established	(y/n)	No committee established but ZBA and Planning Board, Conservation Commission and DPW all work together to address stormwater issues during approvals, during and after construction.
Stream teams established or supported	(# or y/n)	No but a stream cleanup was organized in 2016 and will again be in 2017.
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.) Yes, June 2015	Lake Massapoag Education program started.
Household Hazardous Waste Collection Days		Y
▪ days sponsored	(#)	1
▪ community participation	(%)	7.5%

▪ material collected	(tons or gal)	Approx 500 gallons of chemicals and we accept TV's, computers, printers, batteries, tires
School curricula implemented	(y/n)	Yes

Legal/Regulatory

	In Place Prior to Phase II Drafted	Under Review Adopted	
Regulatory Mechanism Status (indicate with "X")			
▪ Illicit Discharge Detection & Elimination			
▪ Erosion & Sediment Control	some		
▪ Post-Development Stormwater Management			
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 (see attached spreadsheet)	(#)	237
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	

Illicit discharges identified	(#)	No consistent dry weather flows found.
Illicit connections removed	(#) (est. gpd)	None- preexisting sump pumps or foundation drains.
% of population on sewer	(%)	Less than 1%
% of population on septic systems	(%)	99%+

Construction

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections completed	(# or %)	Not recorded in 2017. Have new software to collect inspection data for 2018.
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	½ of town per year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	½ of town per year
Total number of structures cleaned	(#)	1250
Storm drain cleaned	(LF or mi.)	1200
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.)	truck to asphalt plant	
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2.0/year
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2.0/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Asphalt plant
Cost of sweepings disposal	(\$)	\$3/ton
Vacuum street sweepers purchased/leased	(#)	Purchased and contracted
Vacuum street sweepers specified in contracts	(y/n)	no

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

Anti-/De-Icing products and ratios	% NaCl	50
	% CaCl ₂	0
	% MgCl ₂	0
	% CMA	0
	% Kac	0
	% KCl	0
	% Sand	50
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Completed

