Municipality/Organization:	Town of Upton, MA
EPA NPDES Permit Number:	MAR041165
MassDEP Transmittal Number:	X274829
Annual Report Number & Reporting Period:	**Year 14** **April 1, 2016 – March 31, 2017**

NPDES PII Small MS4 General Permit Annual Report
(Due: May 1, 2017)

Part I. General Information

Contact Person: Vincent Roy Title: Director of Public Works

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Certification:

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

Signature: Robert T. Reed

Printed Name: Robert T. Reed, Interim Town Manager

Title: Town Manager, Town of Upton

Date: April 28, 2017

Part II. Self-Assessment

In Year 14, the Town of Upton continued to be an active participant in the Central Massachusetts Regional Stormwater Coalition (the Coalition). The Coalition's work in Year 14 (which overlaps municipal fiscal years 2015 and 2016) was funded entirely by contributions of approximately $4,000 from each of the 31 participating Towns, including Upton.

Overview of the Coalition

The Central Massachusetts Regional Stormwater Coalition (CMRSWC) is an MS4 resource for all member communities. In 2017, total membership reached 31 towns. In December 2016, CMRSWC created four standing sub-committees to allow members to focus efforts on specific issues important to the Coalition. These sub-committees are:

- Education Sub-Committee: responsible for developing and promoting outreach and educational materials for audiences targeted in the 2016-MS4 permit. The committee is the primary liaison to the WPI Project Centers and other university partnerships.
- Program Sub-Committee: responsible for planning and scheduling Annual Meeting, Steering Committee Meetings, educational workshops, and other forums for discussion of MS4 topics.
- Technical Sub-Committee: responsible for managing Coalition's website and shared equipment resources; advising members on relevant technical issues including GIS system maintenance and upgrades.
- Legislative Sub-Committee: serves as the liaison to the Massachusetts Statewide Stormwater Collaborative; responsible for tracking MS4 related legislation and regulations and keeping the legislature and regulatory agencies informed of the concerns of member communities.

The CMRSWC Steering Committee held four meetings during this 12 month reporting cycle. The CMRSWC Annual Meeting was held on September 20, 2016 in Holden. CMRSWC's Needham MS4 Technical Training Workshop and Stormwater Video were featured at the Annual Meeting of the Statewide Collaborative on September 27, 2016 at the Massachusetts Department of Environmental Protection central region office in Worcester. Members of CMRSWC attended and actively participated in the Massachusetts Statewide Stormwater Collaborative meetings.

MS4 Workshops and Technical Training (Minimum Control Measures 3, 4, 5, and 6)

Municipal Stormwater Technical Assistant Project

The CMRSWC was awarded a $50,000 Municipal Stormwater Technical Assistance Contract Grant from the Massachusetts Department of Environmental Protection to provide technical assistance support and materials designed to help regulated communities in Massachusetts begin to cost-effectively comply with the requirements of the 2016 MS4 Permit. The grant funded the Needham MS4 training workshop, educational and training videos, and stormwater templates.

Needham Workshop

On June 29, 2016, CMRSWC and the Fuss & O'Neill project team held an MS4 training workshop at the Needham Public Services Administration Building. This site was selected

because it contains several features that provided participants hands-on training and exposure to actual operations and conditions affected by the new MS4 permit requirements. These features include new SWPPP regulated activities, outfalls discharging to an on-site stream, vegetated swales, infiltration basins, catch basin and manholes, gravel surface parking area, and more.

The program targeted new or inexperienced public works professionals, stormwater coordinators, and other municipal staff responsible for their community's NPDES Phase II Stormwater Permit Minimum Control Measures 3, 4, 5, and 6. The program included classroom presentation, site visits, and hands-on experience on the following MS4 topics:

- Outfall inspections and water quality sampling – safety, tools, protocols, hits
- Mapping stormwater system attributes – paper versus GIS
- Stormwater BMPs and LID – construction, operations, and maintenance
- SWPPPs – site characteristics

Millbury Workshop

CMRSWC held a second workshop for Coalition members on October 28, 2016 at the Millbury Public Works Facility. The program targeted public works professionals, stormwater coordinators, and other municipal staff responsible for the NPDES Phase II Stormwater Permit Minimum Control Measures 3, 4, 5, and 6.

The MS4 Training Workshop emphasized hands-on training on the following topics:

- IDDE – review of CMRSWC IDDE template and inspection form
- BMPs and LID–BMP retrofits; BMP & LID construction, O&M
- SWPPPs – using CMRSWC template to develop a facility-specific SWPPP

The Workshop included a Vendor Fair with products and services that support MS4 compliance. There were scheduled presentations by Environmental K9 Services, People GIS, and Civil View drone services.

Videos and Templates (Minimum Control Measures 1, 3, 4, 5, 6)

In addition to the Needham training workshop, the Municipal Stormwater Technical Assistance Contract Grant funded the following stormwater videos, new templates, updates of existing CMRSWC templates, and referenced additional online resources associated with various stormwater management topics to assist regulated communities.

Long-Format Stormwater Videos

- MS4 workshop from June 29, 2016
- Questions, concerns, and contributions from workshop participants
- Stormwater Utility options presented by municipal finance expert Mark Abrahams
- The success of Franklin, MA in considering stormwater BMPs and LID in their public works projects

Short-Format Classroom Videos

- Outfall inspections and water quality sampling – safety, tools, protocols, hits
- Mapping stormwater system attributes – paper versus GIS
- BMPs – construction, operations, and maintenance SWPPPs – site characteristics

Short-Format Videos Targeting Information on Specific MS4 Requirements

- Exterior salt and sand storage
- Proprietary systems for stormwater management
- Vegetated swales
- Outfall screening
- Tablet tools
- Stormwater infiltration basins
- Introduction to water quality testing procedures and tools
- Public works facility SWPPPs

Underscoring the value of the videos and templates developed by CMRSWC, in advance of the Millbury Technical Training Workshop participants were asked to review the MS4 training videos on CMRSWC's website. These videos provided background on the permit requirements, which facilitated the field training component of this workshop. CMRSWC MS4 templates were used and referenced for the SWPPP and IDDE program elements.

Worcester Polytech Institute Worcester Community Project Center (Minimum Control Measures 1 and 2)

From September 27, 2016 Statewide Stormwater Collaborative Minutes: Andrea Briggs of DEP provided a review of WPI Student projects, and an overview of the program. Andrea facilitates the program. In 2012 WPI and DEP approached the CMRSWC to pair students with communities who need assistance. Since that time WPI has created a new center called the Water Research Outreach Center (WROC), which is a Worcester Project Center. They also have a Boston Project Center. There are three ways through WPI that students can help cities and towns. WPI project timeline is structured in 4 quarters. A, B, C and D term. During the A term they prepare to work (e.g. learning the permit); during the B term the students are available full time to the communities. This past summer the student group looked at cost estimates for municipalities and created a permit summary. Andrea showed 5-minute educational video on stormwater and the connection to local resources, which is posted on the town of Holden webpage. WPI students in attendance introduced themselves and the projects they have been working on. Project #1 involves developing a methodology to help communities estimate cost and hopefully to compare to EPA's cost estimators. Project #2 involves developing an education and outreach campaign to educate municipalities and looking to conduct education and outreach to communities. Andrea described how the partnership between the state and WPI has been very beneficial. Holden has had at least 3 projects now.

WPI students developed a stormwater toolkit featuring an activity book and stickers for children. The activity book includes opportunities for parents to participate and ask questions. The students participated in a craft fair at Union Station in Worcester where they surveyed attendees on logo schemes for their stormwater project branding.

Member Needs Survey

In September 2016, CMRSWC developed a technical needs survey that measured the concerns of member communities with respect to the issuance of the 2016-MS4 General Permit for Stormwater Discharges. The survey also asked members to rank certain programs and tasks that CMRSWC could support to assist members in complying with the MS4 Permit.

Coalition members ranked their needs as follows:

1. Provide Comprehensive Training Programs
2. Continue Standardization of Templates and Forms
3. Provide Web-Based Tools That Support GIS Mapping

Coalition members ranked their compliance concerns as follows:

1. Funding
2. Preparation of NOI and SWMP
3. Designing and Constructing BMP Retrofits
4. Performing Outfall Inspections
5. Performing Outfall Inventory Ranking
6. Developing a Written IDDE Program
7. Meeting TMDL Requirements
8. Developing Written Catchment Investigation Procedures
9. Identifying and Removing Illicit/Illegal Discharges
10. Developing and Maintaining SWPPPs

Conclusion

More than 40 representatives, including CMRSWC members, from MS4 communities participated in the MS4 Workshop in Needham. More than 35 CMRSWC members participated in the Millbury Workshop. The production of 16 videos targeting specific MS4 topics and training opportunities expands the learning opportunities to anyone with access to the web.

The enhanced MS4 templates and information sources on developing IDDE plans, SWPPPs, bylaw review, and LID, which are accessible on the Coalition's website, provide relevant tools to communities implementing their MS4 program with local staff and resources. They are just as relevant to MS4 communities choosing to partner with associations or consultants in the implementation of

their MS4 requirements.

CMRSWC members receive ongoing value from the Coalition's workshops, field training, video library, and templates. CMRSWC membership provides consistency to an MS4 constituency subject to routine staff changes, questionable access to funding, and ongoing regulatory demands.

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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1	Develop & distribute brochures to residents.	Upton DPW	Distribution of brochures.	*Note: BMP #1 was revised in Permit Year 11 to reflect that outreach opportunities have expanded beyond stated "brochure" format.* Continued brochure distribution to residents. Brochures included as mail stuffers for water bills. Also available at Town Hall & Code Enforcement office. In Permit Year 14, the DPW distributed a Town-specific flyer about its Stormwater Management Program as a bill stuffer for residential areas on spring yard maintenance. The latter addresses pet waste management, respecting Stormwater BMPs, good fertilizer application practices, and household hazardous waste management.	Review different brochures, provide additional information and continue distribution. Consider CMRSWC brochures and pamphlets for distribution. In Year 1 of the new MS4 Permit, all new outreach and educational materials, including flyers and articles, will be available on the Town's DPW Stormwater website page. Stormwater information is also available within the Town's Water Quality Report. Materials will also be placed on Upton's local cable access channel.
Revised	Develop & distribute educational materials to residents.	Upton DPW	Distribution of information using multiple media formats.		

2 Revised	Develop & distribute brochures to businesses.	Upton DPW	Distribution of brochures.	Continued brochure distribution to businesses. Brochures included as mail stuffers for water bills. Also available at Town Hall & Code Enforcement office.	Review different brochures, provide additional information and continue distribution. Consider CMRSWC brochures and pamphlets for distribution. Brochures will be placed on new DPW "Stormwater Information" section of the Town's website.
3 Revised	Install watershed signage.	Upton DPW	Installation of watershed signs.	In Permit Year 11, the Town designed a sign that reads "Help Upton Keep the Blackstone River Watershed Clean", and includes the Town seal and the CMRSWC logo. Ten were installed in Year 13. These signs have been placed on well-traveled roadways so that they are visible to people entering Upton or when entering the Blackstone River Watershed from another watershed.	Maintain signs that have already been posted
4 Revised	Develop collection program for household hazardous waste.	Upton DPW / Board of Health	Conduct collection program.	One Household Hazardous Waste (HHW) Collection day event was hosted in Permit Year 13, on May 2, 2015.	A similar HHW Collection Day event, "Spring Cleanup", will be held on June 4, 2016. Flyer attached.
5 Revised	Develop school curricula & and distribute to schools.	Upton DPW / Board of Health	Implementation of curricula.	No program has been developed yet. In previous years, discussed several alternatives within school administration to include awareness/ education into existing curricula.	Focus on incorporating CMRSWC teaching materials, such as Enviroscape table and World Water Monitoring Day kits into curricula.

1a. Additions

(None)

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6	Public meeting to discuss Stormwater management plan.	Upton DPW/Board of Selectmen	Conduct a public meeting to discuss goals of the Stormwater management plan.	Three meeting were held in Permit Year 14 with the Town Manager and other stake holders in preparation of the new requirements with the new permit.	The Stormwater Committee may convene in **new Permit Year 1** to host a multi-departmental refresher training workshop on illicit discharge detection and elimination, based on an approach developed by the CMRSWC. Coordinate with cable access personnel on televising pertinent material on local cable access.
Revised					
7	Public Hearing to discuss water quality data of beach.	Board of Health/Board of Selectmen	Conduct a public discussion of goals and results of water testing.	No public hearings were held in Permit Year 14 as this was not necessary: no pathogens were detected in weekly sampling of Pratt Pond. Upton DPW continue to perform regular cleanups of waterfowl feces and litter at Pratt Pond.	Similar to above, utilize local cable access programming to notify public of water quality results. A public hearing will be conducted if pathogens in Pratt Pond are detected above allowed limits. Continue to perform regular cleanups at Pratt Pond.
Revised		Board of Health/Upton DPW			
8	Develop and implement composting program.	Board of Health	Implementation of composting program.	A composting program has not been implemented due to lack of a proper location.	Currently, the Town is not planning to implement a composting program. Implementation still to be determined.
Revised					
9	Coordinate & implement beach cleanup program.	Board of Health/Board of Selectmen	Conduct a beach clean-up.	The Upton DPW staff routinely performs regular cleanups of waterfowl feces and litter at this location. "Don't feed waterfowl" signs have been installed at the beach.	Encourage and continue similar efforts annually, including coordination with local volunteer groups. Continue to perform regular cleanups at Pratt Pond.
Revised		Board of Health/Upton DPW			

10	Form citizen watch groups to identify polluters to waterways.	Board of Health / Board of Selectmen	Creation of watch group.	No public advertisement or meetings have been held. Community citizens are very vigilant about reporting pollution.	Generate to generate public interest by using additional media to explain and demonstrate the Town's stormwater management responsibilities and activities.
Revised					

2a. Additions

(None)

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities
11	Develop Stormwater system map.	Upton DPW	Creation of system map.	Progress toward this goal was completed in previous Permit years but this task is ongoing, by its nature. In Permit Year 14, Upton DPW continued efforts to map portions throughout of the community as well as mapping stormwater infrastructure beyond outfalls. Mapping and inspections completed in Year 14 fully utilized the CMRSWC online platform and equipment.	Continue to inspect outfalls and map new outfalls as they are constructed and that are in Urbanized Area. Mapping efforts will focus on catch basins, drain manholes, and pipe infrastructure, consistent with new requirements in 2016 MS4 Permit. The stormwater system map will continue to be revised as necessary to reflect actual conditions.
Revised					
12	Identify illicit discharges.	Upton DPW	Create a list of illicit discharges.	Efforts to detect illicit discharges are ongoing. In Permit Year 14, outfall inspection and catch basin mapping and inspection by the Upton DPW did not indicate the presence of any illicit discharges. No illicit discharges were identified in Permit Year 14.	Continue to investigate illicit discharges in Town through additional dry weather and wet weather monitoring and sampling on an as-needed basis.
Revised		Upton DPW/ Code Enforcement			

13 Revised	Commence with elimination of identified illicit discharges.	Upton DPW	Removal of all identified illicit discharges.	No illicit discharges were identified during Permit Year 14.	Continue monitoring discharges as funding allows. Follow up on discharges within schedule identified.
14 Revised	Review & implement ordinances.	Board of Selectmen	Adoption of additional bylaws & regulations.	Prior to Permit Year 14, Final Regulations based on the SMB were put in place. These continue to be implemented.	Continue to implement activities regulated by the SMB.
15 Revised	Develop employee training program to identify discharges.	Upton DPW	Implementation of training program.	In Permit Year 14, Upton DPW staff members received training at CMRSWC workshops. Topics addressed included practical illicit discharge detection and elimination tools, and using the Coalition's water quality field kits and meters, among other things.	The Town will use CMRSWC tools including the IDDE Documentation and Communication program to update its IDDE program. The Town will use online mapping and inspection platform and field water quality monitoring and test kits as much as possible under the new permit requirements.

3a. Additions

(None)

4. Construction Site Stormwater Runoff Control

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 14** (Reliance on non-municipal partners indicated, if any)	**Planned Activities**

16 Revised	Develop procedures to inform public of upcoming projects.	Planning Board/ Conservation Commission/ Upton DPW	Advertise to the pubic of upcoming activities. Develop and implement review process.	The SMB includes review by the Conservation Commission of upcoming construction projects. Upcoming projects are placed on the meeting agenda allowing public notification. Meeting minutes also allow public viewing of upcoming projects and conservation commission decisions.	Continued review of projects as required by the SMB. Develop and consider further mediums for notifying public of upcoming projects.
17 Revised	Develop & implement site plan review process for sites.	Planning Board/ Conservation Commission/ Upton DPW	Develop and implement review process.	The approved SMB includes a site plan review process. Reviews are completed in accordance with the SMB. The SMB continues to be considered adequate to fully comply with permit requirements.	Continue to review site plans in accordance with the SMB, and consider any amendments to the SMB that may be necessary. Continue to utilize Checklist for a Stormwater Management Operation & Maintenance Plan, Stormwater Management Plan Application, Construction Notification Form and Checklist, and the Erosion and Sediment Control Plan Application and Checklist.
18 Revised	Develop & implement erosion & sediment control ordinances.	Planning Board/ Conservation Commission	Develop and implement control ordinances.	The SMB addresses erosion and sedimentation, including an Erosion and Sediment Control Plan Application and Checklist, and a Construction Notification Form and Checklist for qualifying projects. The SMB continues to be considered adequate to fully comply with permit requirements. Site plans are being reviewed in accordance with the SMB. Fines are categorized in the SMB based on the severity of the violation.	Continue to review site plans in accordance with the SMB, and consider any amendments to the SMB that may be necessary. Continue to utilize Checklist for a Stormwater Management Operation & Maintenance Plan, Stormwater Management Plan Application, Construction Notification Form and Checklist, and the Erosion and Sediment Control Plan Application and Checklist.
19	Develop construction inspection program.	Planning Board/ Conservation Commission	Implementation of inspection program.	The Town developed a successful construction inspection program in previous Permit Years and has	Continue performing inspections of active construction projects.

Revised				continued to implement that program, which is adequate to comply with permit requirements.	Consider any necessary changes to the SMB inspection procedure based upon new state or federal regulations.
20	Implement construction inspection program with fines for violations.	Planning Board / Conservation Commission	Implementation of inspection program and fine schedule.	The SMB addresses enforcement of construction erosion and sediment controls. The SMB delineates a fine schedule based on the severity of the violation. The SMB continues to be considered adequate to fully comply with permit requirements. In Permit Year 14, the Conservation Commission regularly inspected the Crosswinds development, JR Estates development and Whitney Estates. No violations were detected, no "stop work" orders were issued, and no fines were assessed.	Continue inspection program in accordance with the SMB and state regulations. Consider changes to inspection procedures based on new state or federal regulations.
Revised					

4a. Additions

(None)

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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities
21	Review existing nonstructural BMPs.	Planning Board/ Conservation Commission/ Upton DPW	Development and addition of any necessary amendments and/or bylaws.	Progress toward this goal was completed in previous Permit years, including development of Good Housekeeping Practices in the Stormwater Pollution Prevention Plan for the Upton DPW Garage. Street sweeping and catch basin cleaning are completed once a year.	Review existing non-structural BMPs as necessary and recommend improvements.
Revised					
22	Review of existing structural BMPs.	Conservation Commission/ Planning Board/ Upton DPW	Development and addition of any necessary amendments and/or bylaws.	Prior to Permit Year 14, the SMB was approved which provides reasonable guidance for the regulation of development and post-development stormwater runoff for protecting local water resources from degradation. The SMB continues to be considered adequate to fully comply with permit requirements.	Review existing structural BMPs as necessary and recommend improvements.
Revised					
23	Require O&M manuals for newly installed BMPs.	Conservation Commission/ Upton DPW	Catalogue and review of all new structural BMPs.	The DPW installed a new infiltration system on newly constructed municipal parking lot off Grove Street.	As part of the SMB, operation and maintenance plan is required for qualifying projects and will be enforced going forward.
Revised					
24	Develop inspection program of newly installed BMPs.	Conservation Commission/ Upton DPW	Implement new BMP inspection program.	The Town has a successful inspection program for newly installed BMPs.	Continue to enforce BMP Operations and Maintenance Plans that are submitted by applicants as part of meeting the SMB.
Revised					
25	Conduct inspections of BMPs within 1st year of operation.	Conservation Commission / Upton DPW	Conduct Inspections.	Upton DPW and Conservation Commission conducted inspections as necessary and as part of routine	Maintenance of BMPs is a challenge that will continue to be addressed in future permit years. Rehabilitate

Revised				maintenance.	BMPs that were noted as requiring maintenance when inspected.

5a. Additions

(None)

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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities
26	Inspection of Town - owned sand/salt storage areas.	Upton DPW	Conduct inspections, make recommendations, and review procedures.	The Stormwater Pollution Prevention Plan and SPCC for the Upton DPW Garage, developed and implemented prior to Permit Year 12, continue to be reviewed regularly. Refresher training on the importance of SWPPPs was provided in Permit Year 13.	Continue inspection and good housekeeping efforts. Review existing stockpile locations and implement any appropriate improvements.
Revised					
27	Review snow removal & street sweeping procedures.	Upton DPW	Review procedures and make recommendations	Review of procedures continues. Town contracts Lloyd Truax for catch	Continue catch basin cleaning, street sweeping, and sidewalk sweeping.

Revised				basin cleaning, and Dan Amarillo for street sweeping. Street sweeping and catch basins cleaning were conducted once a year.	Moving forward, the DPW plans to document how full catch basins are when they are cleaned (using CMRSWC online inspection system) and document structures that may require more than one cleaning per year. Town will use CMRSWC Salt/Sand Application Benchmarking Tool to review deicing operations. Town will use CMRSWC integrated mapping and inspection forms to conduct catch basin inspection and cleaning operations.
28	Develop & implement maintenance schedules – BMPs.	Upton DPW	Implement annual BMP maintenance program.	Upton DPW and Conservation Commission have been active in addressing private BMP neglect.	Maintenance of BMPs by Upton DPW and coordination with Conservation Commission are challenges that will be continue to be reviewed in Year 14.
Revised		Upton DPW/ Conservation Commission			
29	Develop & implement employee training program.	Upton DPW	Implement training program.	In Permit Year 14, numerous Upton DPW staff members received training at CMRSWC workshops. Topics addressed included calibrating deicing equipment, stormwater pollution prevention, practical illicit discharge detection and elimination tools, and using the Coalition's water quality field kits and meters, among other things. DPW staff also attended a Baystate Roads course on calibrating deicing equipment.	Continue to increase employee awareness and aid in IDDE, catch basin inspection, chloride application reduction, and water quality monitoring using CMRSWC Tools. Implement additional CMRSWC tools in employee training programs.
Revised					

30	Review & Update Town's recycling program.	Upton DPW/ Board of Health/ Board of Selectmen	Review existing program and make recommendations.	Curbside, single-stream recycling was introduced in previous Permit Years.	Continue existing program, reviewing as needed.
Revised					

6a. Additions

(None)

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 14** (Reliance on non-municipal partners indicated, if any)	**Planned Activities**
	Not Applicable	Not Applicable	Not Applicable	The following Upton water bodies are considered impaired (per the *Final*	Evaluate any TMDLs developed for Upton impaired waters.

Revised				*Massachusetts Year 2012 Integrated List of Waters* (CWA Sections 303d and 305b): Mill River: Category 5- Requires a TMDL (Aquatic Plants, Non-Native Aquatic Plants, PCB in Fish Tissue) West River: Category 5- Requires a TMDL (Non-Native Aquatic Plants, low pH, Cadmium, Chloride, Copper, Lead, and Nutrient/ Eutrophication Biological Indicators) Mill Pond: Category 4C: no TMDL required (Non-Native Aquatic Plants) Pratt Pond: Category 4C: no TMDL required (Non-Native Aquatic Plants) Taft Pond: Category 4C: no TMDL required (Non-Native Aquatic Plants) However, final TMDLs have not been developed for any of these water bodies at this time.	

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

N/A

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2016 through March 31, 2017)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	($)	$50,000
Total program expenditures since beginning of permit coverage	($)	$230,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	75%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	0.1
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	21%
▪ material collected **	(tons or gal)	485 lbs. and 22 DF
School curricula implemented	(y/n)	N

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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

	(Preferred Units)	Response
Outfall mapping complete	(%)	209
Estimated or actual number of outfalls	(#)	209
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	90
Mapping method(s)		
▪ Paper/Mylar	(%)	20%
▪ CADD	(%)	0
▪ GIS	(%)	100
Outfalls inspected/screened **	(# or %)	209
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	209
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0

% of population on sewer	(%)	30
% of population on septic systems	(%)	70

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	0
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 **	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	40%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

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
Qty of structures cleaned **	(#)	858
Qty. of storm drain cleaned **	(%, LF or mi.)	100%
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or	100%

	tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$20,000
• Hourly or per basin contract rate **	($/hr. or $ per basin)	
• Disposal cost**	($)	5,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
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)	1,400 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$20,000
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	$110/hr.
• Disposal cost**	($)	$5,000
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	0
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N

• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	2,200 lbs.
▪ Herbicides	(lbs. or %)	10.9 lbs.
▪ Pesticides	(lbs. or %)	0.6 lbs.
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Yes

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	85 - - - - - 15
Pre-wetting techniques utilized **	(y/n or %)	Y 3,900 gal CaCl2
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	+2,061 tons/yr
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	50%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	N

100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

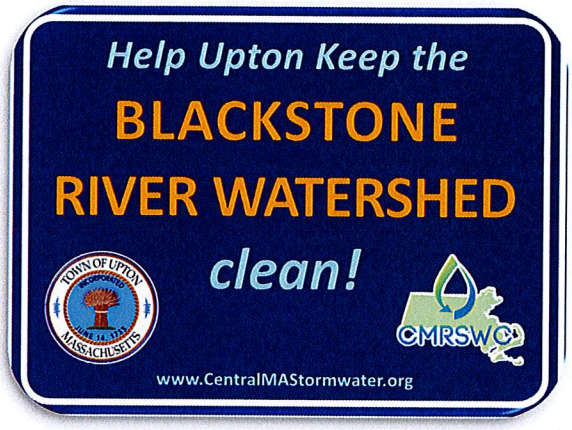
Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N/A

Attachment- MCM 1: Public Education and Outreach

Help Upton Keep the Blackstone River Watershed Clean!

We hope that you've seen the new signs posted around Upton asking for your help to keep the Blackstone River Watershed clean. It may have surprised you to see the Blackstone River's name shown on the sign, since it1's miles away. It's true, though: with the exception of the northernmost edge of Town, any drop of rain that lands in Upton is going to flow toward the Blackstone River. The challenge for the Blackstone River is that it receives stormwater from 28 other Massachusetts communities in addition to Upton- from Paxton to Plainville- and ten more in Rhode Island, and treated wastewater from several facilities, too. The watershed draining to the Blackstone River covers a whopping 640 square miles, 60% of which is here in Massachusetts!



With a watershed that large, how can an individual resident possibly do anything to keep it clean?
Well, we can start by not treating our stormwater systems like trash cans. Our drainage systems- which include pipe, ditches, catch basins, drain manholes, rain gardens, and more- are designed to move water safely away from roadways during storm events. Catch basins can remove some sand, salt, rocks, gravel and other debris present in that stormwater (as long as they're cleaned out regularly), and some structures can remove oil, metals, and some nutrients, like nitrogen and phosphorus. However, stormwater is NOT treated by a facility like the one that treats Upton's wastewater. When motor oil is dumped (or a bag of pet waste is flung) into a catch basin, those pollutants enter the surface water body. Grass clippings dumped into a ditch or stream don't become *habitat*- they *decompose*, removing dissolved oxygen from water and stressing fish and other aquatic life. Leaves and dirt swept from a sidewalk into a catch basin don't *disappear*- they enter a steam, if they don't clog the pipe first!

Thinking about connectivity of the drainage system to surface water can go a long way to reducing pollution.

Preventing water pollution can include some other simple changes in everyday behavior. Before deciding if fertilizer would improve your yard, test your soil with a kit commonly available at home improvement centers: it may be that your soil would not be improved by the addition of nitrogen, phosphorus, or potassium present in most fertilizers. If you chose to use fertilizer, follow the application instructions on the package, including the time of year to apply it. The "more is better" approach to lawn care has been proven ineffective: applying twice the recommended weight per square foot won't make the grass twice as green. When applied in excess, nitrogen and phosphorus run off lawns during rain and enter surface waters, where they create algae blooms and remove dissolved oxygen from the water. Don't apply fertilizer right before a large storm, and take care to prevent spreading it on your driveway, paved walk, or other impervious surfaces where it will run off with the rain. Removal of piles of pet waste from your lawn will prevent bacteria and more nutrients from washing into streams.

In the next few months, we'll share more information about how the Upton's Department of Public Works (DPW), Conservation Commission, and Planning Board are working together to protect our local water resources- part of helping keep the Blackstone River Watershed clean. This will involve a new page on the current DPW website, www.upton.ma.us/Pages/UptonMA_DPW/index, that's dedicated to sharing information on how our daily activities- like catch basin cleaning and street sweeping- help reduce stormwater pollution. Until then, you can learn more by visiting the Central Massachusetts Regional Stormwater Coalition website- Upton is one of 30 members!- at www.CentralMAStormwater.org, or the Blackstone River Watershed Association page at www.thebrwa.org.

Upton's Annual Hazardous Waste Day

SATURDAY – May 2nd
8:00 a.m to 12:00 Noon
at the
Department of Public Works (DPW)
100 Pleasant Street, adjacent to Nipmuc Reg. High School
UPTON RESIDENTS ONLY. PROOF OF RESIDENCY WILL BE REQUIRED.

HAZARDOUS WASTE

Upton residents are allowed to bring up to 10 gallons or 10 lbs. of hazardous waste free of charge. **Anything over the 10 lbs. or 10 gallons will be charged per item.** Latex paint will not be accepted; it is not considered hazardous waste. For information on how to properly dispose of latex, contact the Board of Health office.

- ***Acceptable Items:*** Consolidated Paint (non-latex), flammable liquids/solvents, lab pack chemicals, pesticides, herbicides, consolidated waste oil, small cans resins/adhesives, flammable resins/adhesives, antifreeze, aerosols, lead acid batteries, NiCad or lithium batteries, and fluorescent bulbs.
- ***Home use syringes can be brought to the event to be disposed of at no cost. The sharps must be in a puncture proof container.***

- ***Non-Acceptable Items:*** PCB's, mercury wastes, explosives, biological/medical waste, pressurized gas cylinders, commercially or industrially generated hazardous waste, radioactives, propane tanks (see metal items below for disposal) fire extinguishers, ammunition, and latex paint.

RECYCLE ITEMS – Cash only

- ***Freon Items*** - *Refrigerators - $10.00 each, Dehumidifiers and Air Conditioners - $5.00 each*
- ***Other Appliances*** – *Washers, dryers and stoves - $ 10.00 each, microwaves - $5.00 each*
- ***Electronic Equipment*** – *Televisions (all sizes), Computer monitors - $10.00 each. Computers, keyboards, cd players, VCR's etc. - free of charge*
- ***Tires*** *will be accepted at $3.00 per car tire and $8.00 per truck tire. No tires larger than 24" will be accepted*
- ***Propane tanks*** – *All tanks including 1 lb. - $1.00 each (sorry – no tanks over 60 lbs.)*
- ***Styrofoam*** - *Clean Styrofoam; produce and meat trays, take out containers, hot cups, and packing blocks, will be accepted at no charge. All peanuts and bubble wrap must be bagged separately. No soft foam, colored insulation boards or foam sheets will be accepted.*
- ***Car Batteries*** – *No charge*

- ***Metal Items*** – *Most residential items $5.00(cash only) for each item (e.g. push mower, gas grill (without propane tank), swing sets - disassembled and cut to 5' lengths, etc.). Items must not contain materials that burn (e.g. wood, cushions, padding, etc.). Items that can be cut must not be longer than 5'. Extra large items will cost more and smaller items may cost less at the discretion of the vendor.*

BULK TRASH

Items too large to fit into your weekly trash bags will be accepted. Charges will depend on the size and weight of the item. Couch's, chairs, mattress's, box spring's, etc. - $5.00 ea. Metal Items will not be accepted as bulk trash. They can be brought to the metal recycling area for a fee (see above)

Contact the Board of Health at 508-529-6813 or dtierman@uptonma.gov with questions.