

Municipality/Organization: Town of Millis

EPA NPDES Permit Number: MAR041137

MassDEP Transmittal Number: W-040942

Annual Report Number & Reporting Period: **Year 13**
April 1, 2015 – March 31, 2016

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2016)

Part I. General Information

Contact Person: Charles J. Aspinwall Title: Town Administrator

Telephone #: 508-376-7040 Email: caspinwall@millis.net

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: Charles J. Aspinwall

Title: Town Administrator

Date: 4/28/16

Part II. Self-Assessment

The Town of Millis has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions with the following provisions related to BMP schedules:

- **BMP 1A-F: Public Education and Outreach**

The Town of Millis has started a review of its existing plan for Public Education and Outreach, and will be revising and implementing an improved strategy to effectively deliver educational messages to a wider audience and engage the public on stormwater concerns. EPA fact sheet #EPA 821-F-11-001, “Stormwater Rule Making to Strengthen National Stormwater Regulations” was mailed to water customers on February 12, 2016. On March 25, 2016 the Town submitted to the MADEP, a Water Quality Management Planning Grant under RFR# BWR-2016-01, a proposal for a Stormwater Assessment to Reduce Phosphorus and Increase Recharge in Millis. The grant application contains a scope of work for the education of key stakeholder groups in Millis including Town Staff (DPW, Planning, and Conservation Commission). Officials of other boards will be invited to one meeting held during the day and one held in the evening. “The purposes of the workshops are to educate stakeholders about the issues of phosphorus pollution and streamflow reduction in the Charles River.” Workshops will be videotaped and will be shown on local cable stations.

- **BMP 2A: Establish a Stormwater Telephone Hotline**

The Town of Millis is exploring options for implementing improved tools to communicate with the public on stormwater infrastructure management requests. While the Town is responsive to information reported by the public related to stormwater infrastructure through phone calls, the Town began using www.seeclixfix.com in March 2015 to respond to requests from the public and communicate status changes. The Town continues to accept and respond to stormwater related communications to various departments but does not advertise a centralized Hotline for such requests. The Town will re-evaluate best management practices for two-way communication with the public on stormwater issues in the next Permit Term, in connection with the Final Permit.

In the next Permit Year, the Town will update its outline of program needs over the 5-year permit term and will estimate a budget for each of the five years the Final Permit is effective. Additionally, the Town will develop program documentation framework for streamlined access of monitoring data, condition assessment information, and inspection reports; update the outline for a Phosphorous Control Plan (PCP); and will continue to make incremental improvements to its Stormwater Management Program. Additional compliance measures will be evaluated during Permit Year 13 and steps will be taken to ensure compliance as the Permit becomes effective. Within this report, if no “planned activities” are specifically denoted in the last column, default activity should be presumed to be evaluation of new or modified BMPs to meet 2016 Final MS4 general permit terms associated with the specified 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 13	Planned Activities
1A	Distribute Brochures & Fact Sheets to Residents & Businesses	Dept. of Public Works (DPW)	Number of Articles & Copies of Materials.	EPA fact sheet #EPA 821-F-11-001, “Stormwater Rule Making to Strengthen National Stormwater Regulations” was mailed to water customers on February 12, 2016.	Continue to distribute educational materials to Millis residents and businesses in accordance to the Public Outreach and Educational plan.
Revised				“After the Storm” brochure and the “Clean Charles Coalition” pamphlet continued to be made available at the offices of the Selectmen and Town Clerk.	Continue to make materials available at Town offices. New educational materials will be developed in connection with the Final Permit.
1B	Develop and Broadcast Stormwater Presentation on Local Cable Network	DPW & Town Selectmen	Cable TV tapes of presentations shown annually.	The Town did not broadcast the EPA video “After the Storm” on cable this permit year.	Continue cable broadcast of pertinent presentations and meetings.
Revised			“After the Storm” video shown biannually.	DPW presented the Stormwater Program, budgets, and proposed permit requirements at 3 meetings with the Board of Selectmen on 6/22/2015, 2/29/2016, and 4/11/2016. Stormwater is a topic of regular discussion at Planning Board meetings and at other public meetings.	Continue to consider future cable broadcasts of the EPA video “After the Storm.” Continue to review other available stormwater educational videos to evaluate their applicability to address specific behaviors and targeted audiences.
1C	Send out Stormwater Press Releases	DPW	Copies of Articles.	Stormwater press releases from prior Permit years remain available on the Town Website, however, no additional stormwater press releases were issued during Permit Year 13.	Continue to publish newspaper articles and press releases, as relevant.
Revised					

1a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 13	Planned Activities
1D	Distribute Stormwater Pamphlets at Town Hall	Board of Health	Copies of Pamphlets	<p>In prior Permit years, the Millis Board of Health provided copies of the Clean Charles Coalition pamphlet “What You Can Do To Help” at the Town Hall, and the following materials were also made available at the offices of the Selectmen and Town Clerk: “Protecting Water Quality from Urban Runoff” and the pamphlet “After the Storm.” Copies of these pamphlets are were not distributed in this Permit Year, and new educational materials will be developed in connection with the Final Permit.</p>	<p>Town will provide educational materials, will evaluate requirements of the Final MS4 General Permit, and institute necessary modifications to the program in accordance with requirements of the permit.</p>
Revised					
1E	Post Stormwater Information on Millis Website	DPW	Copies of Pages and Hits Annually	<p>Information related to the Millis Beautification Day was posted on the Town’s website.</p> <p>The Town’s home page has a link to the Town’s stormwater management regulations.</p> <p>The Stormwater Hotline is not currently advertised on the website for residents to report stormwater concerns and illicit discharges.</p>	<p>The Town will continue to update the website with stormwater information, as appropriate.</p>
Revised			Copy of website page.		
1F	Classroom Stormwater Education	DPW, School Department & Consultant	Stormwater lesson plan and number of students participated	No stormwater outreach activities took place in schools during Permit Year 13.	

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 13	Planned Activities
2A	Establish a Stormwater Telephone Hotline	DPW	Record number of phone calls to hotline, copies of articles.	During permit year 13, the Town began piloting the use of seeclickfix.com to improve two-way communication between public and Town on stormwater issues and other public infrastructure repair or improvement needs.	The Town will evaluate best practices for two-way communication on stormwater issues under the Final permit including the feasibility of a Town-wide roll-out of seeclickfix.com or reinstating a stormwater hotline. The Town will continue to respond to public feedback regarding stormwater concerns in a timely manner.
Revised	<i>Improve two-way communication between public and Town on stormwater issues.</i>				
2B	Mark Storm Drains with Stencils During Cleaning	DPW	Storm drains marked in the highest priority subbasins in Year 2.	The DPW previously completed stenciling activities in high priority areas. Stenciling activities in Permit Year 13 took place on major thoroughfares including Route 109 and Dover Road. The DPW continued to use its own stencils and non-toxic street marking paint.	Assess the condition of stencils in high and medium priority sub-basins and along main roads and areas with heavy pedestrian activity. Refresh stencils where necessary. The Town will solicit volunteers and pursue stenciling in low priority sub-basins, such as side streets.
Revised			Mark as many as possible with volunteers.		
2C	Conduct River, Stream, and Pond Cleanups	DPW & Volunteers	Cleaner streams as documented by before and after photographs	Millis Beautification Day, a community event to clean up debris in targeted areas around the Town, took place on May 9, 2015 and April 9, 2016. At the most recent event, 129 participants assisted with cleanups at 25 targeted sites throughout the Town. An estimated 180 cubic yards of debris and trash was collected at the 2016 event.	Additional river, stream and pond cleanups will continue to be conducted in the Town led by the Millis Garden Club & Millis Lions Club with assistance from the Millis DPW. Cleanup activities will be coordinated with the CRWA as projects arise. Continue to recruit volunteers through existing contacts and other interested parties.
Revised					

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 13	Planned Activities
3A	Make Annual Household Hazardous Waste Collections Available to Residents	DPW & Board of Health (BOH)	Document Quantity of Tickets Sold.	Household Hazardous Waste (HHW) disposal was available for a fee on Wednesdays from April 1, 2015 through September 30, 2015 and April 1, 2016 - present at the Norfolk Transfer Station. Notice of the events and application forms were made available on the Town website. 11 Millis residents participated in the HHW disposal events during Permit Year 13.	Continue effort with the Charles River Household Hazardous Waste Collaborative to provide residents with regular opportunities to properly dispose of hazardous waste.
Revised		Document Quantity of Visitor Authorizations Forms completed.			
3B	Develop Primary Town Storm Drain System Map	DPW	95 % of system mapped on GIS.	Outfall and storm drain system mapping was completed in Year 9 and no updates occurred during the permit reporting period.	Continue to revise base map as needed based on new development or differences observed in the field.
Revised					
3C	Identify Illicit Floor Drain Connections at Businesses	DPW	Over the course of the permit term, 27 illicit connections identified and removed, 2 from the storm drain system and/or waterways in Millis.	Floor drains at the fire station were tested in Permit Year 12 and were found to discharge to a dry well. As a part of the new Fire Station building design, the Town is currently in the planning stage to close the well in accordance with regulatory requirements and redesign the floor drain system to discharge to an oil/water separator and the sanitary sewer system.	Illicit floor drains will be removed as they are identified. Illicit floor connections will be addressed as part of the Millis Illicit Discharge Detection and Elimination Plan. The Town plans to start construction on the new Fire Station in November 2016.
Revised					
3D	Complete Storm Drain Map	DPW	Map All Outfalls by Year 4	Outfall and storm drain system mapping was completed in Year 9. The Town previously completed its GIS system and conducted field verification for all utilities.	The storm drain system map will continually be updated based on any new subdivisions and roads constructed in the Town.
Revised					

3E	Develop Illicit Discharge Prohibition Ordinance	DPW & BOH	Regulation at Town meeting by the end of Year 2.	The Illicit Discharge Prohibition Regulation was developed based on available model ordinances to meet the Phase II requirements. It was enacted June 28, 2004 and no changes have occurred.	Continue to enforce Illicit Discharge Prohibition regulations and remove illicit discharges as they are identified via the hotline or other methods.
Revised			Keep record of enforcement issues and eliminate illicit discharges within 1 year		
3F	Develop Illicit Discharge Detection and Elimination (IDDE) Plan and Implement Activities	DPW, BOH, Consultant	IDDE Plan – Year 2, All outfalls examined by Year 4. Sources traced and results documented within one year of discovery.	As discussed in the Year 10 report, all outfalls have been screened for illicit discharges and follow-up sampling and investigation activities did not identify any illicit discharges. As discussed under BMP 3C, all known	Sample any identified dry weather discharges and update the town map, if needed.

<p>Revised</p>			<p>All outfalls examined by Year 5</p>	<p>potential illicit discharges were investigated according to the Town's IDDE procedure.</p> <p>One potential illicit discharge was reported during Permit Year 13, on Village Street. MassDEP, BOH agents, and DPW officials investigated this location and field tests indicated that non-stormwater input was unlikely. This location will be rescreened according to the Town's IDDE procedure.</p> <p>On April 3, 2015, the Town investigated the Hickory Hills Subdivision construction project on Acorn Street and reported issues of sedimentation and runoff discharged into the MS4 system. The developer was notified and implemented measures to control runoff. The Town continued to monitor progress, and due to ongoing runoff, the Town issued a cease and desist order and held several meetings to discuss corrective actions implement a plan to provide regular updates on erosion control and implementation of BMPs. On August 20, 2015, silt and sediment was manually removed from impacted areas in accordance to the stop-work order.</p> <p>The Sewer System Rehabilitation Project continued in Permit Year 13 and, between 2008- September 2015, has resulted in 126,950 gpd removed through investigations and repair work. It is recommended by the Town's Consultant, GCG, that the remaining 23,760 gpd of clear flow be investigated during high groundwater season to complete review of clear flows for the system and the Town plans to complete these investigations as funding is available.</p> <p>Sanitary sewer system improvements</p>	
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3G	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	DPW & BOH	Copies of Materials.	Illicit discharges information and stormwater impacts have been incorporated into the pamphlets described in BMPs 1A & 1D.	
Revised					
3H	Setup and Advertise a Hotline for Illicit Discharges	DPW & BOH	Log of Complaints and Action Taken.	See BMP 2A.	Continue to advertise the DPW and phone number with press releases, the Town's stormwater website, and the stormwater educational materials.
Revised					Continue tracking calls and recording investigative and corrective actions taken by the Town.

3a. Additions

3I	Sewer Projects to Address Failed Septic Systems	DPW & BOH	Proposed Sewer Plan by end of Permit Year 5.	Millis conducted the following septic inspections in Permit Year 13:	The Town will continue to address septic system issues and conduct sewer projects as issues are
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Revised			Homes on Sewer System in 2006.	<ul style="list-style-type: none"> - Perc Tests and Soil Evaluations: 20 - Septic Construction Permits (repairs): 13 - Septic Construction Permits (new): 20 - Title 5 Inspection Report reviews: 49 - Septic Abandonment: 21 - Distribution Box Repairs (D-Box): 32 - Inspections of I/A Systems: 13 - Certifications of Compliance Issued: 30 <p>Requests for funding of sewer projects were made in Permit Year 13, but were not funded.</p>	identified and funding is available.
3J	Model Study for Localized Sewerage Treatment Facilities	DPW	Study results by end of Permit Year 5.	The Town previously purchased more sewer capacity from the Town of Franklin to address the Dyer, Village, and Pleasant Street neighborhood. The Millis Sewer Study Committee also reserved additional capacity for Farm Street and the downtown area.	No further activities related to local sewerage treatment facilities are planned at this time.
Revised			Homes on Sewer System in 2006.		

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 13	Planned Activities
4A	Develop Erosion Control Regulation	Building Inspector (BI) & DPW	Regulation at Town Meeting by End of Yr 2.	A stormwater bylaw was developed and regulations were enacted June 28, 2004 to meet the Phase II requirements.	Continue to review projects and enforce existing Erosion and Sedimentation Control Regulations. The Town anticipates revisiting the bylaw and authority once the Phase II permit concurrent with the issuance of the Final Permit, effective July 1, 2017.
Revised					
4B	Establish a Procedure for the Receipt of Information Submitted by the Public	BI & DPW	Record number of phone calls to hotline, copies of articles advertising the hotline.	As discussed under BMP 2A, the DPW responds to information received regarding stormwater issues. During Permit Year 13, the Town investigated a potential illicit discharge at Village Street and Acorn St.	The DPW will continue to handle stormwater related phone calls and administer investigative and corrective actions.
Revised				Department phone numbers are advertised on the DPW website and calls are addressed as they are received.	
4C	Develop & Adopt Design Standards Guidance for Erosion Controls	Planning Board (PB), DPW, Conservation Commission (Con. Com.)	Inspection checklist and documented inspections.	The Town carried out inspections in accordance with schedules and frequency outlined in the Permit. BMP 3F provides details of actions taken to respond to erosion and sediment control issues at the Hickory	Continue inspections of construction sites for compliance with erosion and sediment control plans and procedures, utilizing the Town's standard inspection form and procedure.

Revised				<p>Hills construction site on Acorn Street.</p> <p>Stormwater permit hearings were held on October 5, 2015 for the South End Farm Project and a hearing was held on 3/14/15 regarding a proposal on Main St. to build a tractor Supply Store. Based on the stormwater control plans presented, both projects were granted permits.</p>	<p>Continue to monitor construction projects for stormwater runoff.</p> <p>Continue to hold hearings, as needed, to assess the erosion and sediment control plans for construction projects.</p>
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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 13	Planned Activities
5A	Develop BMP Regulation	BI & DPW	Regulation at Town Meeting by end of Year 2	Regulations to meet the Phase II requirements were enacted June 28, 2004.	Continue to enforce Post-Construction Regulations. Re-evaluate the Stormwater bylaw that promotes LID, consider amendments, and seek additional support for adoption (see BMP 4A). As discussed under BMP 4A, the Town anticipates revisiting the bylaw and authority concurrent with the issuance of the Final Permit, effective July 1, 2017.
Revised					
5B	Develop and Implement Inspection Program	BI & DPW	Copies of maintenance reports received annually, plus records of inspections completed and results.	Inspections were conducted to ensure BMPs are maintained in accordance with the O&M Plans on file. 43 sanitary sewer manholes were inspected in 2011 for infiltration/inflow (I/I). 36 sanitary sewer manholes were inspected for I/I in 2012. In 2013 36 sewer manholes were inspected. In 2014 59 sewer manholes were inspected. In 2014 and early 2015 1261 catch basins were inspected. \$133,000 in funds were appropriated to conduct I/I repairs. Repair work will commence late Spring 2016.	Continue site inspections and maintenance tracking program for regulated sites.
Revised					
5C	Develop BMP Design Standards	PB, DPW, Con. Com. & Consultant	Improved Bylaws – Year 4	The Millis Stormwater Management Regulations are used to review BMP design criteria requirements for developers on a case by case basis. A consultant is retained for a more detailed review of stormwater designs for additional water quality protection.	Continue detailed review of plans and sites in accordance with the Millis regulations. Review additional design standards as part of BMP 4A & 5A.
Revised					

5a. No additions at this time

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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 13	Planned Activities
6A	Clean Catch Basins	DPW	Clean all catch basins.	940 catch basins in town were cleaned, yielding approximately 151 cubic yards of cleanings that were stored at the Millis DPW Facility for reuse through the existing Beneficial Use Determination (BUD) approval. All Stormceptors were also cleaned, and cleanings which were disposed of in accordance with regulatory requirements.	Continue catch basin cleaning program annually and track sediment quantities. Evaluate the cost/benefit of additional cleaning versus other maintenance or drainage system improvements that have the potential to improve water quality.
Revised					
6B	Sweep Streets in Town	DPW	Priority plan of sweepings based on water quality impact. Volume of sweepings collected.	All streets in town were swept once and some streets and sidewalks in the downtown area were swept twice with a Town-owned street sweeper. The SOP developed during Permit Year 6 was used and approximately 25 cubic yards of sweepings were reused through the Town's BUD. The Town coordinates with the Tresca concrete facility at the Millis/Medway Town line to sweep Route 109 approximately 5 times a week due to truck traffic.	Continue existing street sweeping program. The Town is investigating the feasibility of replacing its street sweeping equipment and has requested funds to purchase new equipment in Permit Year 14. Evaluate the cost/benefit of additional cleaning and develop a priority street map for streets (if any) that should receive additional sweeping based on data collected, traffic loads and/or pollutant loads.
Revised					
6C	Store Road Salt Under Cover and Clean Loading Area	DPW	Minimize Stormwater Contact with Salt	Road salt materials are stored under cover at the Highway Garage and the loading area is cleaned as needed.	Continue existing practices and conduct repairs as needed.
Revised					
6D	Calibrate Salt Spreading Equipment	DPW	Prevent overapplication of salt as shown with calibration records.	Equipment is calibrated annually. Salt use is tracked through purchase records. 1646.26 tons of salt and 69 tons of sand were purchased this winter.	Continue to calibrate equipment and record quantities annually. The Town plans to hire a firm to review its operational procedures for salt spreading in Permit Year 14.
Revised					

6E	Use Low Salt Applications at Designated Areas	DPW	Use less salt at Norfolk county line than at other roadways as demonstrated with application rate.	Low-traffic side streets are sanded less often than the main streets in an effort to reduce the amount of sand and salt used each year.	Continue existing practices and evaluate appropriate application rates for various routes and watersheds while maintaining safe winter drivability.
Revised				Continued to use the rear-mounted spreader to reduce salt application rates significantly (estimated greater than 10% reduction) compared to arterials and major roads.	
6F	Use IPM Practices for Application of Pesticides in Town	DPW	Copy of IPM Plan.	The DPW performs routine inspections of town-maintained lands for pest persistence and promotes the use of cultural management techniques for pest and turf management. All turf treatment for athletic fields is subcontracted and the Town's subcontractor agreement contains requirements to protect human health and the environment related to chemical applications. This agreement serves as the Town's policy for turf management.	Ensure that turf management techniques for athletic fields are consistent with IPM techniques and past activities. Ensure that any right-of-way applications are consistent with the VMP and YOP.
Revised				The Town hired a licensed contractor to apply pesticides four times during Permit Year 13.	
6G	Use Licensed Applicators for Fertilizers and Insecticides in Town	DPW	Record quantities of fertilizers and pesticides purchased annually.	Chemical quantities are tracked through purchase records. Subcontracted chemical applicators are licensed, as required by the Town's subcontractor agreement for turf management. The Town hired a licensed contractor to apply fertilizer four times during Permit Year 13.	The Town will monitor ways to reduce the use of chemical applications if possible
Revised					
6H	Ensure Compliance with SPCC Plan for the Highway Garage	DPW	Prevent releases of oil at the Highway Garage through weekly inspections, annual training, and annual plan evaluation.	Informal SPCC training sessions for DPW employees occurred during monthly staff meetings. Spill prevention and response training occurred in summer 2015.	Recertify the SPCC Plan as needed. Follow the updated SPCC Plan and continue with DPW employee training. Annual training is planned for summer 2016.

Revised				Routine inspections were completed in accordance with the existing SPCC Plan.	
6I	Ensure Compliance for Snow Disposal in Town	DPW	Map of Acceptable Snow Disposal Areas.	Snow disposal occurred at acceptable areas at Oak Grove, which is outside the Zone II designation.	Continue existing practices to ensure proper disposal of snow in town.
Revised					
6J	Use Filter Socks for Excavation and Hydrant Waters	DPW	Prevent discharge of sediments during dewatering and hydrant flow testing activities.	Filter socks are used during hydrant flushing and excavation dewatering (e.g., during water main breaks). The Town estimates that water used over this reporting period for firefighting activities and training, hydrant flushing, street cleaning, and water main breaks this permit year. Detailed estimations will be provided in the ASR. The Town also requires contractors to use filter socks during excavations to prevent excess sediment discharge.	Continue existing practices.
Revised					
6K	Evaluate Pollution Prevention BMPs for the Fueling Station at the Highway Garage	DPW	As-built sketches or plans and photos.	This task was completed during Permit Year 2. No additional changes were made.	No further action is required.
Revised					
6L	Evaluate BMPs at the Highway Garage to Prevent Sedimentation to the Adjacent Waterway from Site Runoff and Road Material Storage	DPW	As-built sketches or plans and photos.	DPW maintained the BMPs and cleaned the detention area to ensure the BMPs are properly functioning to prevent sediment discharges to the adjacent waterway.	
Revised					
6M	Develop an Inspection and Maintenance Plan	DPW	Written Policy – Year 3, Records of inspections and maintenance.	DPW implemented the SOPs and Inspection & Maintenance Plan. The Town has a Beneficial Use	Operate BUD site in accordance with DEP permit, SOPs, and Inspection & Maintenance Plan.

Revised				Determination (BUD) approval from DEP for the reuse of street sweepings and catch basins in town to construct a town-owned tree nursery at an old gravel pit site. Sediments generated in Town (BMPs 6A & 6B) were reused under the BUD. The Town previously secured \$25K in funding for Phase II of the BUD site. Phase II is still ongoing to meet site requirements. The Town continued to conduct beaver control activities (e.g., pipe & catch basin cleaning) to address clogged pipes and culverts.	
6N	Ensure Water Quality Improvements are Considered for Flood Projects	DPW	Records of Flood Control Projects.	The Town employs a protocol for flood project review, including NOI permitting and subsequent steps towards approval.	
Revised				Design began for a culvert replacement on Village Street and opportunities for stormwater improvements will be considered.	
6O	Conduct Town Employee Stormwater Training	DPW	Attendance Sheet & Copy of Program.	SPCC and NPDES Phase II Stormwater Training occurred in summer 2015.	Annual training will take place in summer 2016.
Revised					

6a. Additions

6P	Additional Covered Storage for Sanders & Equipment	DPW	Written/ photo documentation	Sanding and other outdoor equipment was stored under cover to minimize stormwater contact.	Continue existing practices to store equipment under cover.
Revised					

6Q	Roof Repairs to Improve Good Housekeeping for Water Treatment Chemicals	DPW	Written/ photo documentation	This was completed in Permit Year 5. No additional changes were made.	Ensure chemicals are stored in an adequate facility.
Revised					

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 13	Planned Activities
7A	Develop a Water Quality Strategy for 303d Waters	DPW, Conservation Commission, and Consultant	Summary of pollution prevention efforts, future needs, and responsible parties.	As discussed in previous reports, the Town developed a preliminary strategy to meet TMDL requirements for the Charles River and impairments for Bogastow Brook, considering existing actions under the current program and available resources. The Town evaluated program and funding needs for the next permit term and decided to incorporate the preliminary strategy into the SWMP Update that will be required following the permit reissuance.	
Revised					

7a. No additions at this time

b. WLA Assessment

Three TMDLs have been finalized for the Charles River Basin. These include: the Total Maximum Daily Load for Nutrients in the Lower Charles River Basin, Massachusetts CN 301.0, June 2007; the Pathogen TMDL for the Charles River Watershed, CN 0156.0, January 2007; and the Nutrient TMDL for the Upper/Middle Charles River, CN 272.0, May 2011. Bogastow Brook is listed as impaired for pathogens and was addressed as part of the Charles River pathogen TMDL. The recommendations in this TMDL apply to Bogastow Brook. In general, the Town is working to address identified sources that contribute to the impairment of water bodies and notable accomplishments in Year 13 include continued I/I activities throughout Town.

The Town has reviewed the requirements of the draft 2014 Phase II Permit and considered previous work/ progress under the current program to develop an understanding of activities to meet these permit requirements and address water quality objectives outlined in the TMDLs. It appears that the preliminary TMDL strategy previously developed by the Town’s consultant is generally consistent with the 2014 Draft Phase II Permit requirements. Further action is planned to comply with the Final Phase II Permit effective July 1, 2017.

Part IV. Summary of Information Collected and Analyzed

- Number of Outfalls Inspected for Illicit Discharges: 1, addressed in Year 8.

- Number of Illicit Discharges Found: The Hickory Hill Subdivision construction project on Acorn Street resulted in several inspections and corrective actions related to runoff and sedimentation discharged into the MS4 system.
- Millis Beautification Day was occurred on May 9, 2015 and April 9, 2016.
- 940 catch basins were cleaned, generating 151 cubic yards of catch basin cleanings during this permit term.

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, 2015 through March 31, 2016)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	100%
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Yes
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	†
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	No
†The Town of Millis participates in the Charles River Household Hazardous Waste Collaborative to provide residents with regular opportunities to properly dispose of hazardous waste between April-September of each year.		

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Under Review	Drafted	Adopted
▪ 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	(%)	100%
Estimated or actual number of outfalls	(#)	148 mapped
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	1
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	1
Illicit discharges identified (Since beginning of permit coverage)	(#)	27
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

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

Post-Development Stormwater Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1/yr
Qty of structures cleaned **	(#)	940
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	151 cy
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	BUD
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$13,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$13.85
• Disposal cost**	(\$)	\$25.90

Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vector **	(%)	
	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1-2/yr ¹
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	BUD Millis DPW Facility
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	NA
• Vacuum street sweepers specified in contracts	(y/n)	NA
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	NA
¹ Some drainage structures in the downtown area are cleaned more frequently based on the rate of sediment accumulation and historical flooding issues.		

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination) ²		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	10%
▪ Pesticides	(lbs. or %)	0%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	
² The DPW performs routine inspections of town-maintained lands for pest persistence and promotes the use of cultural management techniques for pest and turf management in an effort to minimize the use of chemicals. The Town continued its reduced chemical applications at fields from 4 at the start of the program to 2 applications during this permit year. No right-of-way spraying was done in Permit Year 13.		

	(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	Only road salt used as deicing product
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	Y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	

Water Supply Protection

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