

<b>Municipality/Organization:</b>	Town of Millis
<b>EPA NPDES Permit Number:</b>	MAR041137
<b>Annual Report Number &amp; Reporting Period:</b>	<b>Year 15</b> <b>April 1, 2017 – March 31, 2018</b>

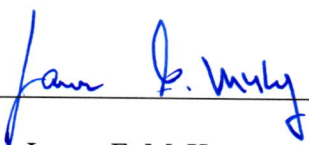
## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2018)

### Part I. General Information

Contact Person: James F. McKay	Title: DPW Deputy Director
Telephone #: 508-376-5424	Email: jmckay@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:	James F. McKay
Title:	DPW Deputy Director
Date:	4/23/2018

## **Part II. Self-Assessment**

The Town of Millis has completed the required self-assessment and has determined that our municipality is in compliance with the conditions of this Permit.

During this past year, the Town has gained a more complete understanding of the requirements of the 2016 Final Permit and the significant resources that will be required to meet compliance requirements. The town hired a full-time employee to support street sweeping activities, increased administrative staffing hours to support program documentation, and purchased additional equipment to prepare for the requirements of the 2016 Final Permit.

During this reporting period, the Town completed a Stormwater Utility Feasibility Study through support from a grant from MassDEP. Through the Utility Feasibility Study, the Town conducted multiple workshops and public meetings to discuss components of an effective stormwater management program and funding mechanisms. The workshops were videotaped and shown on the local cable television station. In November 2017, the Town passed a Stormwater Utility by-law and is continuing implementation in 2018.

There were successful activities in regards to the Public Education and Outreach and IDDE implemented this reporting period. The Board of Health (BOH) distributed a new form of literature, "Protect Local Drinking Water: Pick Up Your Dog's Waste" during its April 8, 2017 Rabies Clinic. The literature is currently available for the public at the Board of Health Office. Millis Beautification Day, a community event to clean up debris in targeted areas around the Town, took place on April 8, 2017 and another cleanup was organized to promote Earth Day, April 22, 2017, which focused along the Charles River by Route 109, both Millis/Medford and Forest Road boat launch areas. The Town has a Sewer Study Committee that meets regularly to discuss possible sewer expansion to areas of Town not currently serviced by sewer.

### Part III. Summary of Minimum Control Measures

#### 1. Public Education and Outreach

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit 15</b>	<b>Planned Activities</b>
1A	Distribute Brochures & Fact Sheets to Residents & Businesses	Board of Health	Number of Articles & Copies of Materials	“Understanding Stormwater Management” brochure was distributed to residents during Town Hall meetings for the Stormwater Utility Fund discussions.	Revise Program to meet new requirements while building on past successful materials and continuing to distribute educational materials to Millis residents and businesses in accordance to the Public Outreach and Educational plan.
1B	Develop and Broadcast Stormwater Presentation on Local Cable Network	DPW & Town Selectmen	Cable TV tapes of presentations shown annually.	<p>The Town did not broadcast the EPA video “After the Storm” on cable this permit year.</p> <p>Stormwater Utility workshops were videotaped and broadcasted on local cable stations. An episode of “Millis After Dark” featuring a discussion of the Stormwater Management Utility was first aired in October 2017 and is currently available for viewing on Millis Community Media.</p> <p>Stormwater is a topic of regular discussion at Planning Board meetings and at other public meetings.</p>	Revise Program to meet new requirements while building on past successful activities and continuing cable broadcast of pertinent presentations and meetings.
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 15.	Revise Program to meet new requirements while building on past successful materials.

1D	Distribute Stormwater Pamphlets at Town Hall	Board of Health	Copies of Pamphlets	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 pamphlet “After the Storm” which was also made available at the offices of the Selectmen and Town Clerk. Copies of these pamphlets were not distributed in this Permit Year.	Revise Program to meet new requirements while building on past successful materials.
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 links to:</p> <ul style="list-style-type: none"> <li>• Stormwater Management Regulations – Article I and II</li> <li>• Stormwater Management Education Plan</li> <li>• Stormwater Education Fertilizers and Pesticides</li> <li>• The Solution to Stormwater Pollution</li> <li>• Protecting Water Quality from Urban Runoff</li> <li>• Strategies for Coping with Polluted Runoff</li> </ul> <p>Understanding the Stormwater Management Issues Oct 19, 2017 presentations available on the website.</p> <p>BoS Memo regarding the Stormwater Utility Cost Program Cost Details, March 2018 available on the website.</p> <p>The Stormwater Hotline is not currently advertised on the website for residents to report stormwater concerns and illicit discharges but a direct line to DPW is posted and available.</p>	Revise Program to meet new requirements while building on past successful activities and materials.



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 15.	Revise Program to meet new requirements while building on past successful activities.
1G	Promote Responsible Pet Waste Management	BOH	Copies of Pamphlets	The BoH provided literature, "Protect Local Drinking Water: Pick Up Your Dog's Waste" during its 4/8/17 Rabies Clinic. The literature is currently posted at the BoH Office.	Revise Program to meet new requirements while building on past successful materials

**1a. No additions at this time**

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	Planned Activities
2A	Establish a Stormwater Telephone Hotline	DPW	Record number of phone calls to hotline, copies of articles.	The Town continues to solicit information on stormwater issues and other public infrastructure repair or improvement needs using a hotline that is monitored by DPW.	Revise Program to meet new requirements while building on past successful activities such as the monitoring the voicemail to the DPW direct line.
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 continued to use its own stencils and non-toxic street marking paint on major thoroughfares including Route 109, Main Street and Dover Road.	Revise Program to meet new requirements while building on past successful activities. 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	<p>Millis Beautification Day, a community event to clean up debris in targeted areas around the Town, took place on April 8, 2017. At the most recent event, high-school students participated at three sites in Millis.</p> <p>The Town organized a community cleanup campaign on Earth Day, April 22, 2017, which focused on the river area along Route 109, Millis/Medford and Forest Road boat launch areas. 15 people participated in the clean-up.</p>	<p>Revise Program to meet new requirements while building on past successful activities and continuing cleanups in the Town led by the Millis Garden Club &amp; Millis Lions Club with assistance from the Millis DPW.</p> <p>Cleanup activities will be coordinated with the CRWA as projects arise. Continue to recruit volunteers through existing contacts and other interested parties.</p>

### 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 15	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, 2017 through September 30, 2018 at the Norfolk Transfer Station. Notice of the events and application forms were made available on the Town website which was also revised and maintained by the BOH. 10 Millis residents participated in the HHW disposal events during Permit Year 15.	Revise Program to meet new requirements while building on past successful activities like continuing the 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 as it was then understood was completed in Year 9.	The stormwater system map is currently under revisions based on the Phase I mapping requirements of the 2016 Final Permit.
3C	Identify Illicit Floor Drain Connections at Businesses	DPW & BOH	Over the course of the permit term, 27 illicit connections identified and removed, 2 from the storm drain system and/or waterways in Millis.	This year DPW and BoH have worked with Fresh Box Farms to ensure floor drains properly discontinued as well as walked the Ann and Hope Facility. The Buildings Commissioner goes out regularly to check them.	Revise Program to meet new requirements while building on past successful inspection procedures on illicit floor drain removal. The Town will continue to provide the floor drain regulations on the website.
3D	Complete Storm Drain Map	DPW	Map All Outfalls by Year 4	Outfall and storm drain system mapping as it was then understood was completed in Year 9.	The stormwater system map is currently under revision based on the Phase I mapping requirements of the 2016 Final Permit.
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.	Revise Program to meet new requirements while building on past successful procedures to enforce removal of illicit discharges.
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.	<p>As discussed in the Year 10 report, all identified 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 potential illicit discharges were investigated according to the Town’s IDDE procedure.</p> <p>Four outfall pipes that were broken were replaced during PY 15:</p> <ul style="list-style-type: none"> <li>- 75 feet on Curve Street, under the street</li> <li>- 50 foot connection on Village Street, which eliminated the major flooding problem in the area</li> <li>- new 36” outflow pipe under the road, new swale on Village Street.</li> </ul> <p>Periodic inspections of the grates on Causeway Street because of beavers.</p>	<p>Revise Program to meet new requirements while building on past inspection reports.</p> <p>The Hickory Hills Subdivision construction project is still under construction and will continued to be inspected until it is stabilized according to the Town’s IDDE procedure. Inspection is performed by an outside company.</p> <p>Quarterly cleanings will continue as scheduled at the Clyde Brown School until the opening which is predicted to be in the Fall of 2019. Four storm interceptors will be added and inspected.</p>
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.	Revise Program to meet new requirements while building on past successful materials.
3H	Setup and Advertise a Hotline for Illicit Discharges	DPW & BOH	Log of Complaints and Action Taken.	See BMP 2A.	<p>Revise Program to meet new requirements while building on past successful activities and continuing to advertise the DPW and phone number with press releases, the Town’s stormwater website, and the stormwater educational materials.</p> <p>Continue tracking calls and recording investigative and corrective actions taken by the Town.</p>

### 3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	Planned Activities
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 15: -Septic Certificate of Compliance: 31 -Septic system construction permits: 33 -Soil testing (both septic and stormwater permits): 42 -Septic abandonment permits: 7 -Septic Plan reviews: 31 -Title V reviews: 30	Revise Program to meet new requirements while building on past successful inspections addressing septic system issues and conducting sewer projects as issues are identified and funding is available.
Revised			Homes on Sewer System in 2006.		
3J	Localized Sewerage Treatment	BOS & BOH	Homes on Sewer System in 2006.	The Town has a Sewer Study Committee which meets regularly to discuss possible sewer expansion to areas of Town not currently serviced by sewer.	Revise Program to meet new requirements while building on past successful activities in regards to getting the town to use public utilities.

### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	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.	Revise Program to meet new requirements while building on past existing Erosion and Sedimentation Control Regulations.
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.  Department phone numbers are advertised on the DPW website and calls are addressed as they are received.	Revise Program to meet new requirements while continuing to handle stormwater related phone calls and administer investigative and corrective actions.
4C	Develop & Adopt Design Standards Guidance for Erosion Controls	Planning Board (PB), DPW, Conservation Commission (Con. Com.) & BOS	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	Revise Program to meet new requirements while building on past successful inspections of construction sites for compliance with erosion and sediment control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	Planned Activities
				<p>taken to respond to erosion and sediment control issues at the Hickory Hills construction site on Acorn Street.</p> <p>Because portions of the South End Farm Subdivision are located within the Zone II, the PB required the installation of groundwater monitoring wells during construction. These wells are monitored annually for pH, Specific Conductance, Nitrate, Nitrite, total Nitrite and Nitrite, Ammonia and Volatile Organic Compounds. Monitoring is on-going.</p> <p>Also because portions of the South End Farm Subdivision are located within the Zone II, the BoS's Stormwater and Erosion Control Permit of April 2006 requires that each lot within the subdivision must maintain at least 30% of its area in a natural/undeveloped condition.</p>	<p>plans and procedures, utilizing the Town's standard inspection form and procedure.</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>

**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 15	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.	Revise Program to meet new requirements while continuing to enforce Post- Construction Regulations. Re-evaluate the Stormwater bylaw that promotes LID, consider amendments, and seek additional support for adoption (see BMP 4A).
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.  Phase IV of the projects is the final phase to fix I/I and requires that all work completed in the past 5 years to be inspected.	Revise Program to meet new requirements while building on past successful site inspections and maintenance tracking program for regulated sites.
5C	Develop BMP Design Standards	PB, BOS, BOH, 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.	Revise Program to meet new requirements while building on past successful review of plans and sites in accordance with the Millis regulations. Review additional design standards as part of BMP 4A & 5A.

### 5a. No additions at this time



## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	Planned Activities
6A	Clean Catch Basins	DPW	Clean all catch basins.	1,100 catch basins in town were cleaned during this reporting period, yielding approximately 210 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.	Revise Program to meet new requirements while building on the past catch basin cleaning program.
6B	Sweep Streets in Town	DPW	Priority plan of sweepings based on water quality impact. Volume of sweepings collected.	<p>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.</p> <p>Town purchased a new street sweeper and hired a new employee to support the street cleaning program.</p> <p>The Town coordinates with the Tresca concrete facility at the Millis/Medway Town line to sweep Route 109 approx. 5 times a week due to truck traffic.</p>	Revise Program to meet new requirements while building on past successful activities as part of existing street sweeping program.
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.	Revise Program to meet new requirements while building on past successful practices.
6D	Calibrate Salt Spreading Equipment	DPW	Prevent over application of salt as shown with calibration records.	Equipment is calibrated annually. Salt use is tracked through purchase records. 3,600 tons of salt were used this winter.	Revise Program to meet new requirements while building on past successful activities calibrating equipment and recording quantities.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit 15</b>	<b>Planned Activities</b>
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.	<p>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.</p> <p>The Millis PB's standard conditions do not allow the application of de-icing salt in parking areas located within Zone IIs.</p> <p>Continued to use the rear-mounted spreader to reduce salt application rates significantly (estimated greater than 10% reduction) compared to arterials and major roads.</p>	Revise Program to meet new requirements while building on past successful existing practices and evaluate appropriate application rates for various routes and watersheds while maintaining safe winter drivability.
6F	Use IPM Practices for Application of Pesticides in Town	DPW	Copy of IPM Plan.	<p>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.</p> <p>The Town hired a licensed contractor to apply pesticides four times during Permit Year 15.</p>	Revise Program to meet new requirements while ensuring that existing 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.
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 15.	Revise Program to meet new requirements while building on past successful activities to reduce the use of chemical applications if possible

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit 15	Planned Activities
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.	<p>No inspections or SPCC training sessions for DPW employees occurred during this permit period.</p> <p>Monthly check at the garages are performed to visually inspect the gas pumps, floor drains, open containers, water tanks, and water wells.</p>	<p>Revise Program to meet new requirements while building on past successful areas of the SPCC Plan and DPW employee trainings.</p> <p>Training is scheduled for PY 16.</p>
6I	Ensure Compliance for Snow Disposal in Town	DPW & PB	Map of Acceptable Snow Disposal Areas.	<p>Snow disposal occurred at acceptable areas at Oak Grove, which is outside the Zone II designation.</p> <p>The Millis PB requires that site plans include proposed snow storage areas. PB and BoH approvals include a standard condition that snow may not be stored in stormwater components and environmental resources.</p>	Revise Program to meet new requirements while building on past successful activities as a part of the existing practices to ensure proper disposal of snow in <u>T</u> own.
6J	Use Filter Socks for Excavation and Hydrant Waters	DPW	Prevent discharge of sediments during dewatering and hydrant flow testing activities.	<p>Filter socks are used during hydrant flushing and excavation dewatering (e.g., during water main breaks). The Town estimates <del>that</del> 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.</p> <p>The Town also requires contractors to use filter socks during excavations to prevent excess sediment discharge.</p>	Revise Program to meet new requirements while building on past successful practices.
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. During permit year 14, the Town made all forms available for digital download. No further actions were taken in this PY.	Revise Program to meet new requirements while building on past successful activities.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit 15</b>	<b>Planned Activities</b>
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.	Revise Program to meet new requirements while building on past successful activities.
6M	Develop an Inspection and Maintenance Plan	DPW	Written Policy – Year 3, Records of inspections and maintenance.	<p>DPW implemented the SOPs and Inspection &amp; Maintenance Plan. The Town has a Beneficial Use 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 &amp; 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 and are actively seeking quotes for next year.</p> <p>The Town continued to conduct beaver control activities (e.g., pipe &amp; catch basin cleaning) to address clogged pipes and culverts.</p> <p>During PY 15, the following BMPs were inspected and cleaned:</p> <ul style="list-style-type: none"> <li>- the infiltration basin at the DPW garage.</li> <li>- the infiltration basin on Route 109.</li> </ul>	Revise Program to meet new requirements while building on past successful activities as a part of the BUD site in accordance with DEP permit, SOPs, and Inspection & Maintenance Plan.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit 15</b>	<b>Planned Activities</b>
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.  Design began for a culvert replacement on Village Street and opportunities for stormwater improvements will be considered.	Revise Program to meet new requirements while building on past successful projects.
6O	Conduct Town Employee Stormwater Training	DPW	Attendance Sheet & Copy of Program.	SPCC and NPDES Phase II Stormwater Training did not occur during this permit year.	Revise Program to meet new requirements while building on past successful annual trainings.

#### **6a. Additions**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit 15</b>	<b>Planned Activities</b>
6P	Additional Covered Storage for Sanders & Equipment	DPW	Written/ photo documentation	Sanding and other outdoor equipment was stored under cover to minimize stormwater contact.	Revise Program to meet new requirements while building on past successful practices to store equipment under cover.
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.	Revise Program to meet new requirements while building on past successful activities regarding chemicals that are stored in an adequate facility.

## 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 15	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.	Revise Program to meet new requirements while building on past successful strategies.

### 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. The Town is working to address identified sources that contribute to the impairment of water bodies and notable accomplishments in Year 15 and has budgeted to continue I/I activities throughout Town.

### 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. This site continues to be monitored.
- Millis Beautification Day occurred on April 8, 2017 and Earth Day Cleanup on April 22, 2017.
- 1,100 catch basins were cleaned, generating 210 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, 2017 through March 31, 2018)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
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 %)	10
▪ 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)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	0
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 %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

## 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 **	(#)	1,100
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	210 cy
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	BUD
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	

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 vactor **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	2/yr
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2/yr <sup>1</sup>
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	(#)	2
• 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
<sup>1</sup> 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) <sup>3</sup>		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	10%
▪ Pesticides	(lbs. or %)	0%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	
<sup>3</sup> 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.		

	(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 <sub>2</sub> % MgCl <sub>2</sub> % 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/l <sub>n</sub> mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l <sub>n</sub> 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	