

Municipality/Organization: Town of Essex

EPA NPDES Permit Number: MA041239

MaDEP Transmittal Number: W-035216

Annual Report Number  
& Reporting Period: No. 13: April 15 - April 16

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: Paul Goodwin

Title: Superintendent

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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: 

Printed Name: Paul Goodwin

Title: Superintendent

Date: April 7, 2016

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

**The Town of Essex continues our good housekeeping practices for all municipal operations. Annually the town has all public roadways swept and catch basins cleaned by outside contractors. Public Works staff repaired six catch basins that were deteriorating. We often check basins, outfalls and vector drain lines as needed.**

**The sewer collection system flows are monitored daily by staff. Greenscapes North Shore Coalition mailed educational brochures to Essex residents as part of our public outreach. Through a grant the town had GIS mapping performed on most of its sewer, water, and drainage systems.**

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**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 Year 13 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities –</b>
SX1 Revised	Hazardous Waste Day	DPW Paul Goodwin	See Attachment 1	HHWD was held on May 16, 2015 and run by Clean Harbors and DPW personnel.	HHWD is scheduled for May 21, 2016.
SX2 Revised	Water Conservation	Water Dept. Paul Goodwin	See Attachment 1	Part of Public Outreach that was posted on the Dept. of Public Works website was updated on April 13, 2015.	Update website as needed.
SX3 Revised	Lawn & Garden	Wastewater	See Attachment 1	For the third year town provided saplings for Earth Day.	Offer saplings again in 2016.
SX4 Revised	Classroom Education	Wastewater Paul Goodwin	See Attachment 1	Greenscapes North Shore Coalition educational brochures.	Greenscapes North Shore Coalition educational brochures.
Revised					
Revised					

**1a. Additions**


## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities –
SX5	Drain Stencils	Wastewater Paul Goodwin	See Attachment 1	DPW stenciled catch basins in town.	Continue stencil work as time allows.
Revised					
SX6	Elementary School Projects	Wastewater Paul Goodwin	See Attachment 1	Greenscapes Northshore Coalition Services obtained for education.	Look to continue with Greenscapes.
Revised					
SX7	Hazardous Waste Day	DPW Paul Goodwin	See Attachment 1	Annual House Hold Hazardous Waste day and mercury shed in place at Transfer Station.	Continue with current practices.
Revised					

### 2a. Additions


### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities –
SX8 Revised	Identify Failing Septic Systems	Board of Health Erin Kirchner	See Attachment 1	All occupied mandatory/failed systems with in the sewer service area, are connected to the Town Sewer System.	Continue to identify and work together with the local Board of Health agent.
SX9 Revised	Drain Connection Permit	DPW Paul Goodwin	See Attachment 1	Local MS-4 by-law in place.	Continue to identify and require permits as needed.
SX10 Revised	Stormwater Sampling	Wastewater Paul Goodwin	See Attachment 1	Satisfied DEP requirement for Storm Water sampling.	Program ended.
SX11 Revised	Outfall Inspections	Wastewater Paul Goodwin	See Attachment 1	Inspected annually and cleaned/maintained as needed by Public works employees.	Maintain current inspection process.
SX24 Revised	Illicit Discharge Enforcement	Wastewater Paul Goodwin	See Attachment 2	IDDE plan complete utilizing town staff and outside engineers.	Updated IDDE plan if needed.
Revised					

#### 3a. Additions


**4. Construction Site Stormwater Runoff Control**

<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 Year 13</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities –</b>
SX12 Revised	Inspection and Maintenance	Conservation Commission	See Attachment 1	Construction plan review by various Town Boards. Site plan review by law.	Continue with current practices.
SX13 Revised	Construction Entrances	DPW Paul Goodwin	See Attachment 1	Address construction site maintenance, as needed. Have contractor clean street if needed.	Keep local contractors informed about accountability of site maintenance.
SX14 Revised	Silt Fence	Conservation Commission	See Attachment 1	Con Com inspects and requires upkeep/maintenance and proper silt fence installation.	Continue with current practices.
SX25 Revised	Enforcement	Conservation Commission Planning Board	See Attachment 2	Work with local town departments.	Continue with current practice.
Revised					
Revised					

**4a. Additions**


**5. Post-Construction Stormwater Management in New Development and Redevelopment**

<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 Year 13 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities –</b>
SX15	Alternative Pavers	Planning Board	See Attachment 1	Planning board has made this a suggestion.	Continue with current practices.
Revised					
SX16	Catch Basins	DPW Paul Goodwin	See Attachment 1	Planning Board sends the DPW plans of proposed drainage work for new developments, for our input.	Continue with current practices.
Revised					
SX17	Street Curbing	Planning Board	See Attachment 1	Mass Highway installing new side walks, curbing etc, along a 1mile stretch of Route #133, project completed November 2011	Repair/replace curbing as needed.
Revised					
SX26	Enforcement	Conservation Commission	See Attachment 2	Work with town departments on new development.	Continue current practice.
Revised		Planning Board			
Revised					
Revised					

**5a. Additions**


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

<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 Year 13</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities –</b>
SX18	Truck Wash Bay	DPW Paul Goodwin	See Attachment 1	Highway garage completed. Gas/sand trap installed for floor drains. Oil/sand tank pumped 5 years ago by Clean Harbors.	Maintain good housekeeping practices. Will have pumped in 2016.
Revised					
SX19	Street Cleaning	DPW Paul Goodwin	See Attachment 1	Annual sweeping of all streets and sidewalks.	Continue current practices.
Revised					
SX20	Catch Basin Cleaning	DPW Paul Goodwin	See Attachment 1	Have all town catch basins cleaned annually.	Continue current practices
Revised					
SX21	Drain Repair / Replacement	DPW Paul Goodwin	See Attachment 1	Catch basins and drainage repaired as needed. Inspected 5 bridges.	Continue annual cleaning and repairs. 5 Stone culverts to be inspected by outside vendor.
Revised					
SX22	Salt Storage	DPW Paul Goodwin	See Attachment 1	Maintain good housekeeping practices.	Maintain good housekeeping practices.
Revised					
Revised					

**6a. Additions**


**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

<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 Year 13 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities –</b>
SX23 Revised	Public Sewer System	Wastewater Paul Goodwin	See Attachment 1	New Sewer collection system finished September 2006.	Look to identify and repair as needed. Infiltration/inflow (I/I) of system.
SX27 Revised	Outfall Map	Wastewater Paul Goodwin	See Attachment 2	GIS mapping of most of drainage systems catch basins.	Modernize current drain map.
Revised					

**7a. Additions**


**7b. WLA Assessment**

**Part IV. Summary of Information Collected and Analyzed**

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic**

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

**Legal/Regulatory**

	In Place Prior to Phase II	Under Review	Drafted	Adopted
<b>Regulatory Mechanism Status (indicate with "X")</b>				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
<b>Accompanying Regulation Status (indicate with "X")</b>				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

**Mapping and Illicit Discharges**

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
<b>Mapping method(s)</b>		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

## Construction

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
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Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

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

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