

**Municipality/Organization: Groton**

**EPA NPDES Permit Number: #ma041193**

**MaDEP Transmittal Number: W-041197**

Annual Report Number  
**& Reporting Period: No. 12: March 17 -March 18**

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: Robert T Delaney Jr

Title: DPW DIRECTOR

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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: Robert T Delaney Jr

Title: DPW director

Date:

## Part II. Self-Assessment

The Town Of Groton has completed its self assessment and has determined we are in compliance with the permit except for the following provisions.

### **Groton may have influence on two water bodies of concern which have a TMDL.**

The town is investigating additional implementation strategies components that with the actions currently being taken by the Town that will enhance its existing Storm water Management Program as needed to be protective of impaired waters. Neither of the impaired waters originate in Groton and classified of concern before they reach Groton. One of which has no direct outfalls associated with Groton's MS4.

## Part III. Summary of Minimum Control Measures

### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
1a	Yearly flyer in tax bills	Tom Delaney/ DPW	Reach all home owners	Complete	Access new material to distribute with new permit.
Revised	<i>Town wide mailing in corporation with NWRA</i>				
1b	Hazardous waste day	Board of Health/Recycling	Reduce waste	New Regional facility open and continue operations and collection twice a month	Continue operation
Revised					
1c	Increase recycling efforts within the Town	Board of Health/recycling	Reduce waste	Regionalized recycle program operational Try to encourage more towns and businesses to join facility	. Local business involvement now. 4 business picked up by town. Increase when possible
Revised					
1d	Water conservation equipment	Water Department	Reduce water use	Department continues to distribute water saving devices.	Continue with program.

1e	Educational programming	DPW	Inform public of educational programming		

### 1a. Additions

1f	Rotating themes related to storm water on kiosk built in environmentally sensitive area for education	Earth removal storm water advisory committee and DPW	Public and contractor education	Update as needed. New material added	Update as needed
<b>1G</b>	<b>Plans to accept new recyclable items at recycling center</b>	<b>DPW</b>	Reduce waste	Advertise collection of new material. Dep grant has enhanced visibility and improved participation.	Find new items to recycle. ongoing

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
2a	Stenciling	Tom Delaney/ DPW	Stencil Basins to Waterways	Installing Drain Labels continues	Look for more areas and update missing labels.
Revised	<i>Drain markers on basin tops</i>	Tom Delaney/ DPW	Label basins as water only		
2b	Stream Cleaning and Ditch maintenance	Tom Delaney/ DPW	Increase water Flows, sump in front of pipes to collect sediment.	500+- feet of and 4 inlets and road side ditches cleaned and Rip Rapped in <b>2017</b>	Continue with maintenance program
Revised					
2c	Increase cooperation with Nashua River Watershed Association	Tom Delaney/ DPW MRWA	Assist when we can to improve water quality	Continue to pickup debris from stream cleaning days.	Continue Cooperation with NWRA
Revised					

### 2a. Additions

2d	Installation of water crossing signs	DPW /NRWA	Mark streams that cross under roadways	complete	Replace as needed
2e	Low Impact development Workshop	Planning Board/ DPW	A move towards LID	Update and educate as needed ongoing efforts	Updated bylaw as needed, push contractors to implement

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
3a	Visual inspection	Tom Delaney/ DPW	Detect illegal hookups	No new in <b>2017</b>	Continue to monitor for illegal connections
3b	Bylaw prohibiting hookups into Town System	Tom Delaney/ DPW	Prohibit Discharge into MS4	Bylaw adopted	In place, revise as needed
3c	Mapping of Basins and Outfalls	Tom Delaney/ DPW	Map System	Manholes and outfalls together and put on Town GIS update as needed.	In place revise as needed update new subdivision onto GIS. In process, April 18

#### 3a. Additions


#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
4a	Bylaw Subdivision Regulation	Planning Board	No net increase of water runoff from sites.	Bylaw in place	Revisit and make additions if and when necessary when our education of new and better requirements improve.
Revised					
4b	Town of Groton Wetlands Bylaw	Conservation Commission	Strict Regulations	50 foot no disturb bylaw in place and increased buffer to 200, <b>Town meeting approved 4/14</b>	Bylaw review committee looking at ways to make bylaw more effective. <b>Town meeting approved 4/14</b>
Revised					
4c	Site Plan Review	Planning Board	Water Management in projects	Bylaws in place regarding any storm water management	In place revise as needed
Revised					
4d	Erosion Control Bylaw	Planning Board	Sedimentation and erosion control.	<b>New revision and updates in April 2015</b>	<b>2018 update planned</b>
Revised					
4e	Bylaw for open drainage in New construction LID	Planning Board/ Highway	Open drainage for ground water recharge	In place	In place revise as needed
Revised	<i>Also long term maintenance addressed in new regulations.</i>				

#### 4a. Additions

	New storm water committee	Selectman	Update Erosion committee to include Stormwater in scope	in place	In place
	New Storm water Bylaw	Stormwater/erosion committee	Update regulations and maintenance plan bylaw for new systems	In place	Update when needed

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
5a	Subdivision Regulation	Planning Board	No net increase of water flows from new construction	In Place	In place
Revised					
5b	Site Plan Review	Planning Board	Storm Water Management Plan required for developments	In Place	In place
Revised					
5c	Erosion Control Bylaw	Earth removal Committee	Erosion and Sedimentation control	In Place <b>Updated April 2015</b>	<b>Update planned 2018</b>
Revised					

### 5a. Additions

5d	Expanded Post construction Bylaw	Earth Removal Planning Board	Revise Bylaw to mimic state regulations	In place	In place Update as needed
5c	Updating regulations	Planning Board and Stormwater	All regulations above to be reviewed and updated	In place	In place Update as needed

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
6a	Environmental assessment	Tom Delaney/ DPW	Town facility assessment and environmental compliance	Completed	Environmental and facility review in progress April 2018
6b	Spill response	Tom Delaney/ DPW	Spill plan	In place	In place Update as needed July 2015 update
6c	Illegal Dumping Control	Tom Delaney/ DPW	Reduce illegal dumping	Allowing residents to dump brush for fee	Continue as needed
6d	Oil Recycling	Tom Delaney/ DPW	Continue oil collection and Used oil heat technology	Continue with program	Continue
6e	Increased frequency of Street Sweeping	Tom Delaney/ DPW	Increase sweeping in environmentally sensitive areas	In Place	Continue

### 6a. Additions

6f	Hazardous waste training for employees	Tom Delaney/DPW	Training by insurance company to recognize hazards	Summer 2015	Implement items learned Update biannually



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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
7a	Increase Basin Cleaning	Tom Delaney/ DPW	Increase Cleanings in sensitive areas	In Place	Continue
Revised					
7b	Salt Spreader calibrations to reduce salt usage	Tom Delaney/ DPW	Reduce Salt use by 10%	In Place	Went to new salt calibration technique and lower lane mile application with good results.
Revised					
7c	Oil traps on Basins in Sensitive areas	Planning Board/ Tom Delaney/ DPW	Oil traps in New Subdivisions on all catch Basins	In Place	Continue
Revised					
7d	Conversion to Leaching Basins when Practical	Tom Delaney/ DPW	Recharge ground water when possible	<b>1 leaching basin installed 2017</b>	Continue Goal of 2
Revised					

### 7a. Additions

7e	Oil hoods on basins	DPW	Install oil traps on basins	Try to adapt 5 per year	continue
7f	Eliminate basins	DPW	Eliminate Basins	Eliminate basins in areas where natural runoff can be achieved. Goal of 4 per year. <b>0 in 2014, 1 2016</b>	<b>Goal of two 2018</b>

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

### **Year 1**

Basin Inspections list is being compiled and will be integrated into the mapping phase of our Plan. Details will include if there was an illicit connection, type, condition, oil trap condition if present, dates cleaned, etc..

No other data to report at this time.

### **Year 2**

Nothing new to report at this time. No illicit connections have been discovered during repairs, inspections and cleanings.

### **Year 3**

All location of known manholes, basins, and outfalls have been GIS located and added to our base map system. No illicit discharges were located during mapping and inventory. Several LID workshops and public hearings and New LID and erosion control Bylaw have been approved at Town Meeting to encourage open drainage and LID. Several old as well as new videos were shown on local access channel relative to storm water as well as television interviews with Planning Administrator and Highway Surveyor relative to LID. Town wide mailing of river awareness flyers cosponsored by Nashua River Watershed Association

### **Year 4**

Major components of permit complete.

Information left to obtain for species habitat is forthcoming.

### **Year 5**

See Self assessment for new accomplishments.

Waiting to hear for federal listed species.

### **Year 6**

Continue public education

Update rules and regulations as needed

### **Year 7**

The major components of the EPA storm water grant have been completed, because we saved money and were under budget, we have money for an additional project.

BMP's for ditch cleaning established in house to be consistent town wide.

Updating bylaws and regulations as required, most were in place prior to permit.

TMDL recommendations received and plan for updating is in process. Most of the recommendations have been in place prior to report.

Copy of recommendation available.

### **Year 8**

Major goals of the permit goals have been completed. Maintenance items ongoing and done as routine work are geared to enhance the aspects of this plan. Hazardous waste training this summer for staff to recognize problems.

New IT personnel on board to help enhance GIS mapping and new web based program to make access to maps of stormwater infrastructure easier. Stream teams monitoring with NWRA quarterly on select water ways.

New members of Stormwater committee appointed that may have new ideas for enhancement of program now on board

Awaiting new regulations for continuation of program.

#### Year 9

Maintenance items in plan continue. Upgrading and cleaning of our system is our priority. Conversions, cleaning and retrofitting of basins with oil hoods is new goal. Hazardous waste center operational as well as regional recycling center and efforts being made to increase use of both. Continuing to work with NWRA and stream teams for cleanings and monitoring. Updating Master plan to encourage LID techniques in new developments.

#### Year 10

Routine items that are in place are continued. Conservation Commission reviewing bylaw for any changes. Our engineers are looking at new 319 grant for low impact improvements. Local stream monitoring teams working with NRWA collecting and reviewing data to monitor hot spots. New town website will make permitting and informing public easier and more accessible. New strategy of removing catch basins where they are redundant and in areas where LD methods can be deployed.

#### Year 11

Cpa funding approved for bank stabilization on shore line of town beach area, to stabilize and stop erosion into lake, 110k. Closed drainage systems on roads being resurfaced are being aggressively scaled back or eliminated. New additions to wetland bylaw adopted at town meeting will help the permitting process with clearer language. Two new developments as well as 1 redevelopment utilizing lid techniques instead of conventional drainage; this is in part of our bylaws

#### Year 12

Routine Maintenance continues with MS4 system. Storm water regulations just revised by Nitche engineering, reviewed and adopted by storm water committee April 2015. One set of regulations now being used between Storm water, planning and conservation. CPA town beach erosion project complete. NWRA to increase stream project and Town will remove collected materials.

#### Year 13

We continue to monitor and update our program. Awaiting new permit to implement new additions. Second recycling dumpster added at school.

#### Year 14

Continued to implement strategies of storm water program. Updates in current bylaws have been implemented and a minor concerns addressed. Visual Inspections of first LID systems two years ago show little or no maintenance required, great news for new open system designs. Updating of housekeeping plans for DPW in progress.

**Year 15**

Continue with program and start to prepare for new permit application. JNEI engineering to help update storm water bylaws this year. App Geo updating one subdivision to GIS. Two new LID subdivisions accepted by town. DEP grant enhanced recycle awareness and participation. Town wide roadside cleanup 2018 complete. New dumping bylaw adopted in 2017 town meeting. School educating class rooms on recycling.

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

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures ** <b>INCLUDES INSPECTIONS</b>	(\$)	5000
Total program expenditures since beginning of permit coverage	(\$)	80K+_
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)	GENERAL	REVOLVING

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s) <b>ELECTRIC CUSTOMERS</b>	(# or %)	100%
Storm water management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned ** <b>Yearly Event</b>	(y/n or mi.)	10+
Shoreline cleaned since beginning of permit coverage	100+	ANNUAL PROGRAM
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	2 per month
▪ community participation ** customers	(# or %)	25%
▪ material collected **	(tons or gal)	
School curricula implemented <b>recycle dumpster in place collected by town</b>	(y/n)	y

## Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination <b>bylaw</b>					X
▪ Erosion & Sediment Control	X				X 4/15
▪ Post-Development Stormwater Management	X				X 4/15
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination <b>bylaw</b>					X
▪ Erosion & Sediment Control	X				X 4/15
▪ Post-Development Stormwater Management	X				X 4/15

## Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	252
System-Wide mapping complete (complete storm sewer infrastructure) <b>BASINS+MANHOLES</b>	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	0

▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	100%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	100%
Illicit discharges identified (Since beginning of permit coverage)	(#)	9
Illicit connections removed **	(# ); and (est. gpd)	9
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	9
% of population on sewer	(%)	12%
% of population on septic systems	(%)	98%

### Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	5	5
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	100%	100%
Site inspections completed **	(100 %)	100%
Tickets/Stop work orders issued **	(# or %)	4
Fines collected **	\$0	0
Complaints/concerns received from public **	(#) 4	All resolved

### Post-Development Storm water Management

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


## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	As needed
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	AS NEEDED
Qty of structures cleaned **	(#)	20+_
Qty. of storm drain cleaned **	(%, LF or mi.)	100 +/-feet
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	50+_ TON
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	COMPOST
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	GENERAL
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	0
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	owned	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	20+/-
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	2+
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	4+
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	350 TON
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	COMPOST
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	BUDGET
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	0

• Disposal cost**	(\$)	0
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	owned	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	n
• % Roads swept with rotary brush sweepers **	%	60
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	20%
▪ Herbicides	(lbs. or %)	NA
▪ Pesticides	(lbs. or %)	NA
Integrated Pest Management (IPM) Practices Implemented	(y/n)	N

	(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	50 10 0 0 0 0 40
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	N
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l <sub>n</sub> mi. or %)	25-30%



Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	25%
% of salt/chemical pile(s) covered in storage shed(s) <b>SAND COVERD AS WELL</b>	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	NONE
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n	NONE