

5/2/13

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**Municipality/Organization:** Town of Needham

**EPA NPDES Permit Number:** \_\_\_\_\_

**MaDEP Transmittal Number:** W-041019

**Annual Report Number  
& Reporting Period:** No. 10: May 2012 - May 2013

## NPDES Phase II Small MS4 General Permit Annual Report


### Part I. General Information

**Contact Person:** Richard P. Merson **Title:** Director, Dept. of Public Works

**Telephone #:** 781-455-7550 **Email:** RMerson@needhamma.gov

#### 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:** Richard P. Merson

**Title:** Director, Public Works Department

**Date:** May 2, 2013

**Part II. Self-Assessment**

The Town of Needham has completed the required self-assessment and has determined that our municipality is in compliance with all proposed permit applications Permit Year 9 goals except as noted in Part III of this report.

**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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
1-1	Classroom education on Storm Water	DPW Director	<ul style="list-style-type: none"> <li>- Teachers instruct classes and present materials gathered in year one.</li> <li>- Volunteer outreach to youth groups and Public Schools</li> </ul>	Needham DPW host at the DPW yard on Dedham Ave. "Touch the Trucks" display for the elementary schools comprising all children grades K-5. Dated 5/19/21, and hosted a field trip to the Water Treatment Plant on October 22 <sup>nd</sup> for the Pollard Elementary School	Continue presentations and truck displays along with (Catch Basin Cleaner and Vector truck) at 2 elementary schools.
1-2	Flyer and Brochure Distribution and Web Site Link	DPW Director	<ul style="list-style-type: none"> <li>- Supply the DPW, Town Hall, and Public Library with a Flyer and Fact Sheet</li> <li>- Provide a Web Link on the Town's Web Site to the Charles River Watershed Web Site</li> </ul>	A flyer aimed at what local business can do to help, and a "What you can do..." fact sheet were supplied at all suggested locations. (PSA Building, Town Hall, and Public Library).	Re-distribute current flyers and fact sheets, establish a link on the Town web-site to the Charles River Watershed web-site.



## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
2-1	Adopt-a-Stream Programs	DPW Director	- Clean adopted local water bodies, - adopt a stream program continued - Stencil 50 storm drains per year - maintain records	Adopted water bodies are cleaned on an as needed basis by the DPW Rosemary Brook and Mallard Brook	Continue to clean and have cleaned adopted local water bodies.
2-2	Stencil Storm Drains	DPW Director	- Stencil 50 storm drains per year - maintain records	50 designated storm drains were stenciled in the summer of 2012	Continue current program for 2013
2-3	Community Hotline	DPW Director	- Residents use hotline and DPW personnel investigate illegal dumping reports	Hotline is direct number to the Needham Water & Sewer Division, posted on the Town website (781-455-7550, extension 340).	Illegal Dumping reports are immediately inspected. Areas are noted and random checks ensued.
2-4	Storm Water Committee	DPW Director	Hold annual meetings	Last meeting held on 3/26/13	Continue to hold annual meetings and discuss current issues
2-5	Pet Waste By-Law	DPW Director	Post signs near parks and other areas where the town by-law is applicable	Signs are posted at areas that are problematic with pet waste deposits. These signs will be replaced if they are destroyed or vandalized. Amendment 3.7.7 to existing Town bylaw stating for that pet waste on public areas and catch basins is prohibited and is finable.	Continue to Post signs where applicable.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3-1	Outfall Testing Program	DPW Director	Continue to monitor outfalls in local area	Required initial outfall testing completed in Year 1. Continued outfall visual inspections annually.	Continue this process yearly.
3-2	Illegal Dumping Education	DPW Director	# of education tools distributed, # of illegal dumps reported, # of penalties given to dumpers, # of meritorious acknowledgements to citizens	<ul style="list-style-type: none"> <li>Parks and Forestry Department receive illegal dumping complaints. One complaint was filed in 2012 and rectified.</li> </ul>	Continue Current Program
3-3	Septic System Controls (Board of Health)	DPW Director	# of systems, # regularly maintained, # of educational flyers, # of trained people, # of failed systems	<ul style="list-style-type: none"> <li>355 Private Septic Systems</li> <li>One system failed 1012 South Street               <ol style="list-style-type: none"> <li>Webster St. 245</li> <li>South St. 166</li> <li>Greendale Ave. 779</li> <li>Hillside Ave. 175</li> </ol> </li> </ul>	Continue Current Program
Revised					

**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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
4-1	Policy and Procedure Review and Updates	Town Engineer	Revise existing policies and procedures, develop Storm Drain Connection Permit requirement	No action required in PY10	Continue to implement of policies
4-2	Construction Reviews	Town Engineer	Develop requirement to inspect sites, # of inadequate sites/plans reported by inspectors, # of non-compliant permits	Continue monitoring of site plans at the planning board level – No reported incidents in PY10 <ul style="list-style-type: none"> <li>5 sites have been submitted and revised by Engineering and Planning Board</li> <li>All plans are adequate</li> <li>All permits were in compliance</li> </ul>	Continue inspections

#### 4a. Additions


**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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
5-1	Policy for Post Construction Runoff	Town Engineer	<ul style="list-style-type: none"> <li>- Develop town-wide policy for post-construction runoff control, a storm drain connection permit requirement</li> <li>- Develop and implement standard construction details and policies</li> </ul>	<ul style="list-style-type: none"> <li>• Continued implementation of Board of Selectmen / NPDES Procedure, Standard Construction Specifications, Details and Policies</li> <li>• Memorandum Of Understanding (MOU) with EPA signed June 1996</li> </ul>	Continue Standard Construction Specifications and Details along with development of new Stormwater Management Procedures.
5-2	BMP Inspection and Maintenance	Town Engineer	<ul style="list-style-type: none"> <li>- Inspect all Town maintained BMPs annually,</li> <li>- Document # of problems identified and remedied and changes in effluent</li> </ul>	Continued Inspection of BMPs - DPW water quality swale - Water Quality Tanks installed at Broad Meadow, Pollard School, Newman School and Elliot Schools - Detention Basins at RTS and Bridle Trail, Rosemary Pool (Servicing Library Parking lot, and High School also). -Infiltration Basin on Heath St. development.	Continue to inspect and document issues
Revised					

Revised						
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**5a. Additions**

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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 Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6-1	Predictive Catch Basin Program	DPW Director	Develop, collect data, and refine program	755 catch basins out of 3,293 were cleaned a record of the condition of the structure and conduits to the structure as well as the amount of materials is collected and entered to a database for asset management.	Continue Current Program
6-2	Street Cleaning	DPW Director	<ul style="list-style-type: none"> <li>- Sweep all streets annually years 1&amp;2</li> <li>- Sweep twice years 3</li> <li>-5 sweep all parking lots annually,</li> <li>- Document Amount of Collected Debris</li> </ul>	Spring and Fall street sweeping programs are in place and active. All parking lots also swept twice per year. Collected debris is documented and recorded at the RTS. Spring sweeping between April 15 and May 15, Fall sweeping between October 15 and November 15	Continue current sweeping program.
6-3	Pipe Inspections	DPW Director	Analyze 10% of drainage system/yr.	Camera inspections have been ongoing. 47,311 linear feet of inspections.	Continue Current Program
6-4	Pipe Cleaning	DPW Director	<ul style="list-style-type: none"> <li>-Clean 4,750' of drain pipe per year,</li> <li>-jet flush 19,000' of drain pipe/yr.</li> </ul>	Flushed 47,311 linear feet of drain pipe inspected.	Continue Current Program
6-5	New Pipe and Structure Installations	DPW Director	- Replace 10 catch basins and 475' of drain pipe/yr.	12 replaced catch basins, 14 repaired catch basin's, 600' of 8" and 80' of 6" drain pipe	Continue Current Program
6-6	Investigate Town Owned BMPs for Retrofit Opportunities	DPW Director	- Inspect 3 structural BMPs annually Implement two retrofit projects by year five	Trash grate relocated on Lake Drive for better access by Vector Truck	Continue to meet requirements
6-7	Integrated Pest Management	DPW Director	Continue established program in the future	Continue established program with Norfolk Mosquito Control. As submitted in year 2 report.	Continue established program in the future

### 6a. Additions


**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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
N/A					
Revised					
Revised					
Revised					
Revised					
Revised					

**7a. Additions**


**7b. WLA Assessment**

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

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

**Programmatic**

	(y/n)	Yes
Stormwater management position created/staffed		
Annual program budget/expenditures	\$	\$64,480.50
Purchase of Services =		
Expenses =		\$ 658.00
Salaries =		\$50,278.00

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s) via Town web site...	(# or %)	50%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	N/A
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N/A
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored (October 20, 2012)</li> <li>▪ community participation</li> <li>▪ material collected</li> </ul>	(#)	1
	# of Vehicles	275
	(tons or gal)	Not Recorded
Annual Paint collections – The Town of Needham sponsors 7 paint collections annually. Every third Saturday of the month starting in April Materials Collected:	(tons or gal)	16.04 Tons



The Town of Needham allows for the collection of waste oil and used anti-freeze 256 days a year. Amount Collected:	(tons or gal)	4.9 Tons
School curricula implemented	(y/n)	No

### Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place			Drafted	Adopted
	Prior to Phase II	Under Review	Under Review		
▪ 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

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	295
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	N/A
▪ CADD	(%)	100%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	Information unavailable
Illicit discharges identified	(#)	0
Illicit connections removed	(#)	0
	(est. gpd)	

% of population on sewer	(%)	94%
% of population on septic systems	(%)	6%

### Construction

Number of construction starts (>1-acre)	(#)	7
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	0

no no no

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Unknown

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once within nine month period
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once within nine month period
Total number of structures cleaned	(#)	755
Storm drain cleaned	(LF or mi.)	47,311 l.f.
Qty. of screenings/debris removed from storm sewer infrastructure / combined with street sweepings	(lbs. or tons)	661.47/tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	(location)	Landfill
Cost of combined screenings and sweepings disposal-collection/ trucking / disposal	(annual cost)	\$30,283.19


Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2/year
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	4/year Downtown/Business area swept weekly during non-winter months
Qty. of sand/debris collected by sweeping. Note: combined with C.B. debris, collected at local RTS	(lbs. or tons)	Listed above
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal/ combined with screening above	(\$)	\$30,283.19
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	No

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)	
Fertilizers	43,500 lbs used this last year, a 16 % percent increase from last year 37,550 figure
Herbicides	None used
Pesticides	None used

Anti-/De-Icing products and ratios	Meltdown 30 Ice Ban	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % K <sub>ac</sub> % KCl % Sand	1,505 tons 5,650 gallons
Pre-wetting techniques utilized		(y/n)	53.5 tons yes

Manual control spreaders used	(y/n)	yes
Automatic or Zero-velocity spreaders used	(y/n)	yes
Estimated net reduction in typical year salt application	(lbs. or %)	3.76%
Salt pile(s) covered in storage shed(s)	(y/n)	yes
Storage shed(s) in design or under construction	(y/n)	yes