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07/09/07

Municipality/Organization: Town of Needham

EPA NPDES Permit Number: _____

MaDEP Transmittal Number: W-041019

Annual Report Number

& Reporting Period: No. 4: May 06 - May 07

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Richard P. Merson

Title: Director, Dept. of Public Works

Telephone #: 781-455-7534

Email: RMerson@town.needham.ma.us

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: Richard P. Merson

Printed Name: RICHARD P. Merson

Title: DIRECTOR OF PUBLIC WORKS

Date: JULY 5, 2007

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 4 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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1-1	Classroom education on Storm Water	DPW Director	Teachers instruct classes and present materials gathered in year one, Volunteer outreach to youth groups and Public Schools	Needham DPW in collaboration with the Needham Science Center has hosted an auditorium presentation entitled “Oh no! Not down the drain” along with a “touch the trucks” display for 2 local elementary schools encompassing all children grades K-5. Dated 4/10/07 and 4/24/07	Complete presentations and truck displays at remaining 2 elementary schools.
1-2	Flyer and Brochure Distribution and Web Site Link	DPW Director	Supply the DPW, Town Hall, and Public Library with a Flyer and Fact Sheet	A flyer aimed at what local business can do to help, and a “What you can do...” fact sheet where supplied at all suggested locations.	Re-distribute current flyers and fact sheets, establish a link on the Town web-site to the Charles River Watershed web-site.

1-3	Using the Media	DPW Director	One local cable public service announcement, one yearly press release, and one annual storm water article	An article entitled "Needham doing its part in Keeping Charles Clean" appeared The Needham Times on 11/7/06. One Press release entitled "Needham begins new program to curb pollution" was sent to The Needham Times on 4/30/07. It is scheduled to appear in the 5/10/07 issue.	Continue to issue press releases in local paper, continue to have local cable air the PSA provided by American Oceans Campaign.
1-4	Hazardous Waste Management	DPW Director	Track amount of hazardous waste collected, continue to distribute educational materials	The Town of Needham continues to holds both Hazardous waste days yearly, and paint collection days multiple times per year. All amount information is provided in section five of the report.	Continue to offer same program to the community.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2-1	Adopt-a-Stream Programs	DPW Director	Clean adopted local water bodies, adopt a stream program continued	Adopted water bodies are cleaned on an as needed basis by the adoptive caretakers	Continue to clean and have cleaned adopted local water bodies.
2-2	Stencil Storm Drains	DPW Director	Stencil 50 storm drains per year, and maintain records	50 designated storm drains are currently being stenciled in the summer of 2007	Continue current program
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. Number is posted on traveling display used at Town Hall, Post Offices, and Schools etc. It also appears on some flyers and fact sheets.	Illegal Dumping reports are immediately inspected. Areas are noted and random checks ensue.
2-4	Storm Water Committee	DPW Director	Hold annual meetings	Last meeting held on 3/20/06	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.	Continue to Post signs where applicable.
Revised					

2a. Additions

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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3-1	Outfall Testing Program	DPW Director	Continue to monitor outfalls in local area	Hired Walton Systems to use vector truck to clear all litter debris and sediment at outfalls, brooks, and culverts throughout the Town.	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	On three occasions this past year large items such as appliances and furniture have been dumped on public land. The Needham police department managed in two cases to find the owners of the material and educate them to the penalties of illegal dumping.	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	• Board of Health Educational Flyer • 12 failed systems that are currently in the process of being restored.	Continue Current Program
Revised					

3a. Additions

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4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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 PY04	Continue to implementation 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 PY04	Continue inspections
Revised					

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5-1	Policy for Post Construction Runoff	Town Engineer	Develop town-wide policy for post-construction runoff control, a storm drain connection permit requirement, develop and implement standard construction details and policies	Continued implementation of Board of Selectmen / NPDES Policy, Standard Construction Specifications, Details and Policies	Revise Standard Construction Specifications and Details
5-2	BMP Inspection and Maintenance	Town Engineer	Inspect all Town maintained BMPs annually, document # of problems identified and remedied and changes in effluent	Continued Inspection of BMPs - DPW water quality swale - Water Quality Tanks at Broad Meadow 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					

5a. Additions

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6-1	Predictive Catch Basin Program	DPW Director	Develop, collect data, and refine program	As catch basins are 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	Sweep all streets annually years 1&2, sweep twice years 3-5, sweep all parking lots annually,	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.	Continue current sweeping program.
6-3	Pipe Inspections	DPW Director	Analyze 10% of drainage system/yr.	Visual inspections have been ongoing throughout the year despite the loss of our video camera equipment to mechanical failures. We accomplished about 300 lf of inspections.	Continue Current Program
6-4	Pipe Cleaning	DPW Director	Clean 4,750' of drain pipe per year, jet flush 19,000' of drain pipe/yr.	This effort has been accomplished with the Mechanical Rodder and Power Flushing Units.	Continue Current Program
6-5	New Pipe and Structure Installations	DPW Director	Replace 10 catch basins and 475' of drain pipe/yr.	Thirteen CBs were replaced or rebuilt this year. No drain pipe has been installed.	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	Lake Drive drainage BMP is in it's final review and will be constructed this calander year.	Continue to meet requirements

6-7	Integrated Pest Management	DPW Director	Continue established program in the future	Continue established program in the future. Program submitted in year 2 report.	Continue established program in the future
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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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
N/A					
Revised					
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

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	\$0

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	100%
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		
▪ days sponsored	(#)	1
▪ community participation	(%)	2.8%
▪ material collected	(tons or gal)	2.8 tons
Annual Paint collections – The Town of Needham sponsors 7 paint collections annually. Materials Collected:	(tons or gal)	22.48 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)	3013 gallons
School curricula implemented	(y/n)	No

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ 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	(%)	N/A
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	56%
Illicit discharges identified	(#)	N/A
Illicit connections removed	(#) (est. gpd)	N/A
% of population on sewer	(%)	98%
% of population on septic systems	(%)	2%

Construction

Number of construction starts (>1-acre)	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	N/A
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	6

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	90%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Unavailable

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Year Round
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Year Round
Total number of structures cleaned	(#)	1078
Storm drain cleaned	(LF or mi.)	32,000 l.f.
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	425.17 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	(location)	Landfill
Cost of screenings disposal	(\$)	\$921.62

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	(lbs. or tons)	738.36 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	\$4,369.47
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	(lbs. or %)	1706lbs (Changed from synthetic to organic)
▪ Herbicides	(lbs. or %)	0lbs
▪ Pesticides	(lbs. or %)	0lbs

Anti-/De-Icing products and ratios	% NaCl	1,962 tons
	% CaCl ₂	
	% MgCl ₂	5,370 gallons
	% CMA	
	% Kac	
	% KCl	
	% Sand	480 tons
Pre-wetting techniques utilized	(y/n)	Yes
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	Yes
Estimated net reduction in typical year salt application	(lbs. or %)	20%
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	Yes