TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT

470 Dedham Ave., Needham, MA 02492
Telephone: (781) 455-7537 Fax: (781) 449-9023

RICHARD P. MERSON
Director

2004 MAY -7 A 9:38

04

1737

May 4, 2004

U.S. Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

RE: NPDES Phase II Small MS4 General Permit Annual Report

To Whom It May Concern:

Please find enclosed an executed copy of the Town of Needham's NPDES Phase II Annual Report for the period March 2003 thru March 2004.

Respectfully,

Richard P. Merson
Director of Public Works

cc: Kate Fitzpatrick, Town Administrator

Municipality/Organization: **Town of Needham**

EPA NPDES Permit Number: 2004 MAY -7 A 9:38

MaDEP Transmittal Number: **W-041019**

Annual Report Number & Reporting Period: **No. 1: March 03-March 04**

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:

Printed Name: **James G. Healy**

Title: **Chairman , Board of Selectmen**

Date: **April 29, 2004**

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 application Permit Year 1 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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
1-1	Classroom education on Storm Water	DPW Director	3 sets of educational materials, 3 grade levels, 2 teacher workshops	Collected materials and distributed to schools	Follow up with School Dept. to review curriculum
1-2	Flyer and Brochure Distribution and Web Site Link	DPW Director	Gather and make available one flyer and two fact sheets, provide web site link	Flyer has been designed	Publish flyer and distribute
1-3	Using the Media	DPW Director	One local cable public service announcement, one yearly press release, and one annual storm water article	"Talk About Needham" local public access show featured a segment about Needham's storm water drainage system in January, 2004. Storm water related article was published within the past year.	Continue to appear annually on the local public access channel. Issue press release and initiate another storm water related local newspaper article.
1-4	Hazardous Waste Management	DPW Director	Track amount of hazardous waste collected, continue to distribute educational materials	Surplus Paint Program (collection) runs once/month from April thru Oct.; Hazardous Waste Day was held during the fall of 2003	Continue offering both programs at the same frequency.
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
2-1	Adopt-a-Stream Programs	DPW Director	Adopt two streams and track quantity of trash removed	No named stream from Booth St. to Hillside School was adopted by developer of Gerber Cir. subdivision	Establish Adopt-a-Stream groups
2-2	Stencil Storm Drains	DPW Director	Stencil 50 storm drains per year	Areas prioritized several years ago for Boy Scout project which stenciled approximately 50 catch basins	Town employees to continue to stencil catch basins routinely. Will contact Boy Scouts for continued participation
2-3	Community Hotline	DPW Director	Establish a hotline, track # of calls and problems / incidents remedied	No action	Establish a hot line phone number
2-4	Storm Water Committee	DPW Director	Establish committee and hold annual meetings	Committee has been established. The chair of the committee is the Director of the DPW, the vice chair is the Town Engineer supported by the Water & Sewer Superintendent.	Committee will hold an annual meeting in the fall to assess the SWMP.
2-5	Pet Waste By-Law	DPW Director	# of signs posted, # of educational materials, and # of dog licenses issued	No action	Will incorporate an informational brochure to be issued with each dog license.
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
3-1	Outfall Testing Program	DPW Director	Follow-up testing for eight areas, perform study to verify need for TV inspections	No action	Will do follow-up testing in eight areas listed in permit application
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	Illegal dumps were reported at Town well field on Charles River Street. Installed locked gate at this location to prevent access.	Will be included in public education/outreach program
3-3	Septic System Controls (Board of Health)	DPW Director	# of systems, # regularly maintained, # of educational flyers, # of trained people, # of failed systems	Between Jan. 2000 and Dec. 2003 there were 70 septic systems removed and connected to Town sewer system. Board of Health continues the management of their septic system program.	BMP on-going
Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
4-1	Policy and Procedure Review and Updates	Town Engineer	Revise existing policies and procedures, develop Storm Drain Connection Permit requirement	Storm Drain Connection Permit requirement established prior to Permit Year 1. Existing policies and procedures under review.	Update current policies and procedures.
4-2	Construction Reviews	Town Engineer	Develop requirement to inspect sites, # of inadequate sites/plans reported by inspectors, # of non-compliant permits	Had two non-compliant sites reported and addressed. Both were in the 400 block of Hillside Avenue.	Current practices to be on-going.
Revised					
Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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	Policy is listed in 1995 Needham Standard Construction Specifications.	Policy is scheduled to be revised in 2004.
5-2	BMP Inspection and Maintenance	Town Engineer	Inspect all Town maintained BMPs annually, document # of problems identified and remedied and changes in effluent	No action.	Will initiate inspections/maintenance.
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
6-1	Predictive Catch Basin Program	DPW Director	Develop, collect data, and refine program	Current program in place for cleaning catch basins.	Continue program and develop …
6-2	Street Cleaning	DPW Director	Sweep all streets annually years 1&2, sweep twice years 3-5, sweep all parking lots annually,	Streets were swept and amount of collected debris documented.	Continue to sweep the streets and include Town parking lots.
6-3	Pipe Inspections	DPW Director	Analyze 10% of drainage system/yr.	4,100 lf of pipe analyzed with in-house CCTV equipment	
6-4	Pipe Cleaning	DPW Director	Clean 4,750' of drain pipe per year, jet flush 19,000' of drain pipe/yr.		
6-5	New Pipe and Structure Installations	DPW Director	Replace 10 catch basins and 475' of drain pipe/yr.		
6-6	Investigate Town Owned BMPs for Retrofit Opportunities	DPW Director	Inspect 3 structural BMPs annually, implement two retrofit projects by year five		
6-7	Integrated Pest Management	DPW Director	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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
N/A					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Not yet determined.

Part IV. Summary of Information Collected and Analyzed

N/A

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	($)	$318,663

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
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.)	No
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	Two
▪ community participation	(%)	
▪ material collected	(tons or gal)	3+ tons
School curricula implemented	(y/n)	

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)	196 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	($)	1,956

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "**X**")				
▪ 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	(%)	
Mapping method(s)		
▪ 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	(%)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	Once/yr.
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Once/yr.
Qty. of sand/debris collected by sweeping	(lbs. or tons)	825 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	17,267
Vacuum street sweepers purchased/leased	(#)	Three
Vacuum street sweepers specified in contracts	(y/n)	Yes

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	On an as needed basis
▪ Pesticides	(lbs. or %)	On an as needed basis

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	91 9
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No

TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT
WATER & SEWER DIVISION

470 Dedham Ave., Needham, MA 02492
Fax: (781) 449-9023

Robert A. Lewis	Paul R. Evans	Carol A. Sinesi MAY?	William T. Wanberg
Superintendent	Assistant Superintendent	Assistant Superintendent	Water Treatment Manager
(781) 455-7547	(781) 455-7563	(781) 455-7546	(781) 416-4071

2004 JUN -4 A 12: 25

Duplicate

Memorandum

To: U.S. Environmental Protection Agency
Water Technical Unit

From: Bob Lewis, Superintendent

Date: 4/30/2004

Re: NPDES Report

Attached, please find a copy of the Town of Needham NPDES Report for the periods of March 03 to March 04.

Please note this copy is unexecuted. We are unable to obtain the appropriate signature at this time. A fully executed copy will be forwarded on or before May 7, 2004.

recycled

Municipality/Organization: **Town of Needham**

EPA NPDES Permit Number:

MaDEP Transmittal Number: **W-041019** 2005 JUN -4 A 12: 25

Annual Report Number & Reporting Period: **No. 1: March 03-March 04**

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:

Printed Name: **James G. Healy**

Title: **Chairman , Board of Selectmen**

Date: **April 29, 2004**

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 application Permit Year 1 goals except as noted in Part III of this report.

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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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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2-2	Stencil Storm Drains	DPW Director	Stencil 50 storm drains per year	Areas prioritized several years ago for Boy Scout project which stenciled approximately 50 catch basins	Town employees to continue to stencil catch basins routinely. Will contact Boy Scouts for continued participation
2-3	Community Hotline	DPW Director	Establish a hotline, track # of calls and problems / incidents remedied	No action	Establish a hot line phone number
2-4	Storm Water Committee	DPW Director	Establish committee and hold annual meetings	Committee has been established. The chair of the committee is the Director of the DPW, the vice chair is the Town Engineer supported by the Water & Sewer Superintendent.	Committee will hold an annual meeting in the fall to assess the SWMP.
2-5	Pet Waste By-Law	DPW Director	# of signs posted, # of educational materials, and # of dog licenses issued	No action	Will incorporate an informational brochure to be issued with each dog license.
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

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Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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Revised					
Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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6. Pollution Prevention and Good Housekeeping in Municipal Operations

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6-2	Street Cleaning	DPW Director	Sweep all streets annually years 1&2, sweep twice years 3-5, sweep all parking lots annually,	Streets were swept and amount of collected debris documented.	Continue to sweep the streets and include Town parking lots.
6-3	Pipe Inspections	DPW Director	Analyze 10% of drainage system/yr.	4,100 lf of pipe analyzed with in-house CCTV equipment	
6-4	Pipe Cleaning	DPW Director	Clean 4,750' of drain pipe per year, jet flush 19,000' of drain pipe/yr.		
6-5	New Pipe and Structure Installations	DPW Director	Replace 10 catch basins and 475' of drain pipe/yr.		
6-6	Investigate Town Owned BMPs for Retrofit Opportunities	DPW Director	Inspect 3 structural BMPs annually, implement two retrofit projects by year five		
6-7	Integrated Pest Management	DPW Director	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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
N/A					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Not yet determined.

Part IV. Summary of Information Collected and Analyzed

N/A

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	($)	$318,663

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
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.)	No
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	Two
▪ community participation	(%)	
▪ material collected	(tons or gal)	3+ tons
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "**X**")				
▪ 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	(%)	
Mapping method(s)		
▪ 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)	196 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	($)	1,956

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	Once/yr.
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Once/yr.
Qty. of sand/debris collected by sweeping	(lbs. or tons)	825 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	17,267
Vacuum street sweepers purchased/leased	(#)	Three
Vacuum street sweepers specified in contracts	(y/n)	Yes

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	On an as needed basis
▪ Pesticides	(lbs. or %)	On an as needed basis

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	91 9
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No