Municipality/Organization: **Town of Concord, MA**

EPA NPDES Permit Number: **MA041187**

2004 OCT 25 A 8:10

MaDEP Transmittal Number: **W-035280**

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: John Woodsmall Title: Public Works Engineer

Telephone #: (978) 318-3210 Email: jwoodsmall@concordnet.org

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: Christopher Whelan

Printed Name: Christopher Whelan

Title: Town Manager

Date: 10/18/04

Part II. Self-Assessment

The Town of Concord, Massachusetts, has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

Part II.F Failed to submit annual report on or before May 1, 2004. Submitted on October 18, 2004.

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	Stormwater information page on Town of Concord website.	Concord Public Works (CPW)	Creation of website by end of year one.	In process of developing website content.	Activate website in Winter 2004-2005.
Revised			Creation of website in Fall 2004.		
2	Provide annual stormwater informational bill inserts.	CPW	Annual bill inserts to Water and Sewer customers, beginning in Fall 2003.	No Progress	Develop inserts, and distribute in Winter '04-'05.
Revised			Annual bill inserts to be mailed in Winter '04-'05.		
3	Household hazardous waste collection days.	CPW	Hold twice a year, every year.	Hazardous waste not collected at these days.	Hazardous waste not collected at these days.
Revised	Drop-off/Swap-off recycling days.			Held in Spring and Fall, 2003.	Hold in Spring and Fall, 2004.
4	Provide stormwater information to businesses.	CPW	Provide to businesses.	No Progress.	Develop and distribute in Winter '04-'05.
Revised			Provide to businesses in conjunction with annual recycling information.		
5	Provide informational brochures on recycling, household hazardous materials, composting, and water conservation.	CPW	Maintain at Town House, CPW Administration, and Department of Planning and Land Management (DPLM)	Always available.	Continue to display and make available.

6	Hold "Conservation Coffees", informational and idea exchange sessions regarding maintenance of environmental quality.	Natural Resources Commission (NRC)	Hold Monthly	Held Monthly	Continue to hold monthly.
7	Provide informational brochures on open spaces and water ways.	NRC	Maintain at Town House and NRC office.	Always maintained.	Continue to maintain and make available.
8	Maintain affiliations with various public conservation groups	NRC	Maintain affiliations.	Always maintained.	Continue to maintain.

1a. Additions

None.

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
9	Provide logistical support to river, etc. clean-up days.	CPW/NRC	Provide support once a year, on average.	Provided support to Green Team clean up day.	Continue to provide support.
10	Tag catch basins draining to Mill Brook.	NRC	Tag 100% of known catch basins to Mill Brook by end of year 1.	All known catch basins tagged.	Tag any newly discovered basins which drain to Mill Brook.

2a. Additions

None.

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
11	Create GIS based Drainage Map of entire Town.	CPW	Create by year 2; maintain and update as needed.	Drainage Map created, updated continuously.	Continue to maintain and update.
12	Town of Concord Public Storm Drainage Connection Policy	CPW	In place; Enforce at all times.	Enforced at all times.	Enforcement to continue.
13	Develop system to locate priority areas of illicit conn.'s	CPW	System in place by end of year 2.	No Progress	Discuss with members of CPW Stormwater Team, and develop a system.
14	Develop proceedure for tracing source of illicit conn.'s	CPW	System in place by end of year 3.	Smoke and dye testing of sewers for drainage cross connections in commercial areas of downtown Concord.	None, dependent upon completion of BMP 13.
15	Develop procedure for removing source of illicit/illegal discharges.	CPW	System in place by end of year 4.	No Progress	None, dependent upon completion of BMP 14.
16	Develop procedure for evaluating the progress of the programs.	CPW	System in place by end of year 4.	No Progress	None, dependent upon completion of BMP 15
17	Implement BMPs 13-16.	CPW	Begin implementation by start of year 2.	No Progress	Begin discussions with CPW Stormwater Team in regards to BMP #13.
Revised			Begin implementation by Fall 2004.		
18	Develop Wastewater Master Plan.	CPW	Complete creation by end of year 1.	Plan completed and accepted by Town and State.	Begin construction of Phase I.

3a. Additions

None.

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
19	All projects required to file MA DEP Stormwater Mgmt. form.	NRC	100% Compliance for all work within Wetland Districts.	All regulated work complies with this practice.	Continue, with no changes.
20	Sediment and Erosion Control by-law for all construction.	Planning Division (PD)	Ordinance approved and in force by end of Year 2.	No Progress	Begin formulation of proposed ordinance.
Revised			Ordinance approved and in force by end of Year 3.		
21	Site plan reviews by Town staff.	PD, NRC, CPW	All site plans reviewed for water quality concerns.	All regulated site plans reviewed.	Continue to review regulated site plans.
22	Public input on all proposed projects subject to local regulations.	PD, NRC	Planning Board, Board of Appeals, & NRC allow public comment on regulated projects.	On going at all times.	Continue at all times.
23	Site inspection of construction projects.	Building Inspector (BI)	100% of construction sites receive a periodic visit by end of year 2.	No Progress	Provide erosion control inspection training, develop process for ensuring each construction site is visited.
Revised	Site inspection of construction projects for proper erosion control.		100% of construction sites receive a periodic visit upon the enactment of the BMP #20.		

24	All work within the public right of way is inspected to prevent erosion and sedimentation from washing in to the public way.	CPW	Minimize erosion and sedimentation from construction sites onto the public way.	Created Right-of-Way (ROW) Permit Construction Access/ Disturbance category. All construction sites that disturb ROW are permitted and inspected.	Continue permitting and inspecting relevant construction sites.
25	Storm water pollution prevention training provided to Town's inspectors of construction sites.	CPW/BI/NRC	Pertinent employees receive storm water training upon completion of erosion control by-law.	None.	Begin development of training program. Begin implementation upon completion of Erosion Control By-Law passage.

4a. Additions

None.

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
26	MADEP Stormwater Standards 2,3,4 and 7.	NRC	100% Compliance for all work within wetlands jurisdiction.	All regulated projects comply with this standard.	Continue with compliance with all regulated projects.
27	Pre-construction review of regulated developments.	NRC/PD/CPW	100% of proposed regulated projects reviewed.	All regulated projects were reviewed.	Continue reviewing all regulated projects.
28	Massachusetts Wetland Protection Act.	NRC	100% of projects within wetland jurisdiction areas reviewed and permitted under the Act.	All regulated projects were reviewed and permitted as necessary.	Continue reviewing and permitting all regulated projects.

29	Inspection of regulated subdivisions.	NRC/CPW	100% of regulated subdivisions inspected to ensure proper construction of environmental protections and drainage utilities.	All regulated projects were inspected.	Continue to inspect all regulated projects.
30	Recommended list of BMPs to be used in new construction to be developed and provided to potential developers.	NRC/PD/CPW	By end of year 2, a list has been developed as guidance.	None.	Develop list, and upon finalization, post list in areas that construction companies and developers will have access to it.
31	Subdivision Rules & Regulations; Storm Drainage Requirements	PD/CPW	Completed, evaluate yearly for effectiveness	None.	Must analyze for effectiveness, and change as necessary.

5a. Additions

None.

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
32	Cleaning of catch basins.	CPW	25% of basins cleaned each year.	25% of basins were cleaned.	Clean at least 25% of catch basins, and more as funding allows.
33	Annual street sweeping.	CPW	100% of streets are swept of sand and sediments yearly.	All streets were swept twice during the spring.	Continue to sweep all streets at least once each spring.
34	Central Business District (CBD) street sweeping.	CPW	CBD swept weekly, weather permitting, April to November.	CBD sweeping performed as planned.	Continue CBD sweeping weekly, weather permitting, from April to November.

35	Sewer main and manhole cleanings go to WWTP.	CPW	All cleanings are disposed of at WWTP.	All cleanings disposed of properly at WWTP.	Continue to properly dispose of cleanings.
36	Composting facility, open to public, accepts used paint.	CPW	Open to public once a week from April through November.	Composting facility opened as planned.	Continue opening facility as planned.
37	Member of Minuteman Regional Household Hazardous Waste Facility.	Board of Health/CPW		Maintain membership in this regional facility.	Continue to maintain membership.
Revised		CPW			
38	CPW drainage maintenance within the right of way controlled by Drainage Maintenance Permit, issued by the NRC.	NRC/CPW	Meet terms and conditions of permit.	Have met conditions of permit.	Continue to meet conditions of permit.
39	Storm Water Pollution Prevention Plan (SWPPP) and Integrated Contingency Plan (ICP) in place and in effect for CPW facility.	CPW	Maintain ICP and SWPPP, review and update as needed.	Have complied with ICP and SWPPP.	Evaluate and revise ICP and SWPPP as necessary.
40	CPW operation employees receive storm water, spill control and prevention, and wetlands training.	CPW	100% of operations employees receive training.	None.	Develop and implement training program for all operations employees.
41	Drainage system mapping and GIS system will be used to optimize catch basin cleaning program.	CPW	By year 5, catch basin cleaning program has been optimized.	Edits are made to drainage map as they are needed.	Continue to edit and update drainage map.

42	Use GIS/Drainage system inventory/mapping to identify catch basins in poor condition and then repair and/or retrofit those basins.	CPW	Remove/Retrofit/Repair at least 5 catch basins a year, beginning in year 1.	17 catch basins were retrofitted, repaired, or replaced. All new catch basins were installed with deep sumps.	Continue upgrade at least 5 catch basins.

6a. Additions

None.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

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
43	NRC Order of Conditions, Special Condition #27, prohibits use of herbicides, pesticides, or fertilizers within all resource areas.	NRC	In place, will enforce at all times.	Special Condition enforced.	Continue enforcement.

7a. Additions

None.

7b. WLA Assessment

BMP #43 was chosen as a means to attempt to limit fertilizers that may be entering Warner's Pond. Warner's Pond has a proposed TMDL due to impairments caused by Metals, Noxious Aquatic Plants and Exotic Species. While there is no known direct discharges into the pond from the Town's drainage system, it is believed that enforcement of this special condition of the NRC's standard Order of Condition will help to control the growth of the Noxious Aquatic Plants. As additional information is collected regarding the pond, additional BMP's may be added as needed.

Part IV. Summary of Information Collected and Analyzed

None.

Part V. Program Outputs & Accomplishments

Programmatic

Stormwater management position created/staffed	(y/n)	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)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	-
Drop-off/Swap-off Recycling Days		
▪ days sponsored	(#)	2
▪ community participation	# of cars per day # of volunteers	812 140
▪ material collected ▪ Fluorescent bulbs (linear feet) ▪ Mercury (lbs.) ▪ Misc. batteries and lead ballast (lbs.) ▪ Oil based paints (gallons)	(lbs, gal, linear feet)	 15,992 l.f. 78 lbs. 347 lbs. 165 gal.
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	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% of known
Estimated or actual number of outfalls	(#)	183
System-Wide mapping complete	(%)	100% of known
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	N/A
% of population on sewer	(%)	30% of parcels are sewered.

% of population on septic systems	(%)	70% of parcels are not sewered.

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 %)	1
Fines collected	(# and $)	$50.00
Complaints/concerns received from public	(#)	3

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
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)	.5/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	.5/year
Total number of structures cleaned	(#)	1300/year
Storm drain cleaned	(LF or mi.)	1 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 catch basin/drain cleaning and screenings disposal	($)	$14,363

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)	3/yr, 64 days total in business districts.
Qty. of sand/debris collected by sweeping	(lbs. or tons)	1,000
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost, roadside use.
Cost of sweepings disposal	($)	-
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

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

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	3,500 tons (54%) 7,500 gallons. 3,000 tons (46%)
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	5%
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N/A

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

BRP WM 08A NPDES Stormwater General Permit Notice of Intent for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

F. Storm Water Management Program TIME FRAMES

Transmittal Number W035280

Facility ID (if known)

2003-2004 Annual Update Revised Time Frame

	PERMIT YEAR ONE				PERMIT YEAR TWO				PERMIT YEAR THREE				PERMIT YEAR FOUR				PERMIT YEAR FIVE				
BMP ID #	Spring 03	Summer 03	Fall 03	Winter 03-04	Spring 04	Summer 04	Fall 04	Winter 04-05	Spring 05	Summer 05	Fall 05	Winter 05-06	Spring 06	Summer 06	Fall 06	Winter 06-07	Spring 07	Summer 07	Fall 07	Winter 07-08	Next Permit
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