

MAY 4 2009

Municipality/Organization: Town of Concord, MA

EPA NPDES Permit Number: MA041187

MassDEP Transmittal Number: W-035280

Annual Report Number

& Reporting Period: No. 6: March 08-March 09

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2009)

Part I. General Information

Contact Person: William J. Renault

Title: Acting Town Engineer

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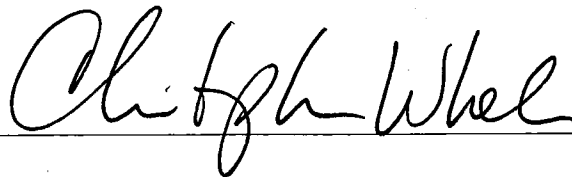
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Certification:

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: Christopher Whelan

Title: Town Manager

Date:

4/30/09

Part II. Self-Assessment

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

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
1	Stormwater information page on Town of Concord website.	Concord Public Works (CPW)	Creation of website in 2009	The website has been created and linked to the town website. The page can be viewed at: http://www.concordma.gov under the Engineering Division's Page.	Maintain the web page. As questions or comments arise, make edits to the page based upon frequently asked questions or comments.
Revised					
2	Provide annual stormwater informational bill inserts.	CPW	Annual bill inserts to be mailed in 2009.	Provided annual stormwater information via website.	Continue to make the information available.
Revised					
3	Drop-off/Swap-off recycling days	CPW	Hold twice a year, every year	2009 Dates are scheduled for May 9 and Oct. 17.	Continue to hold Drop-off/Swap-off recycling days twice per year.
4	Provide stormwater information to businesses	CPW	Provide to businesses in conjunction with annual recycling information in 2008	Add Notification and supplemental information about the stormwater web page via email to the available businesses which we have contacts with from existing recycling information.	Continue to notify businesses about stormwater information utilizing available contact information for businesses in Concord.
Revised			Notify and send link via email to the available businesses.		
5	Provide informational brochures on recycling, household hazardous materials, composting, and water conservation.	CPW	Maintain at Town House, CPW Administration, and Dept. 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.	Division of Natural Resources (DNR)	Hold Monthly	Held Monthly	Continue to hold monthly.

7	Provide informational brochures on open spaces and waterways.	Natural Resources Commission (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	Continued affiliations	Continue affiliations

1a. Additions

9	Provide stormwater education to Concord Public Schools	CPW	Conduct an educational session with 8 th graders as part of Public Works Day	CPW conducted an educational session to 8 th graders during Public Works Day in August 2008.	Conduct educational session to 8 th graders during 2009 Public Works Day. Provide informational packets to bring home.
10	Provide stormwater information to annual "Healthy Lawns" workshop	CPW	Provide information to workshop participants	Educational material developed, presented and discussed during 2008 workshop.	Continue to provide information to workshop participants annually.
11	Post stormwater including web page address information on popular town bulletin boards and informational centers.	CPW	Post information on bulletin boards and informational brochures on Stormwater and Phase II Program.	Maintain at Town House, CPW Administration, Dept. of Planning and Land management (DPLM) and Natural Resources Division.	Continue to maintain and make available.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
12	Provide logistical support to river, etc. clean-up days.	CPW/DNR	Provide support once per year, on average	Provide support to Green Team clean-up day	Continue to provide support.
13	Tag catch basins draining to Mill Brook	NRC	Tag all known catch basins as they are discovered and/or tags require replacement	Continued monitoring, mapping and tagging of catch basins by the Mill Brook Task Force of the NRC.	Continue to monitor, map and tag catch basins as they are discovered and/or tags require replacement

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
14	Create GIS based drainage map of the entire Town	CPW	Create by year 2, maintain and update as needed.	2002 GIS inventory updated using documentation provided by CPW work crews working with the Stormwater/Drainage Program Manager.	Continue to update GIS inventory as new information becomes available.
15	Town of Concord Public Storm Drainage Connection Policy	CPW	In place; enforce at all times Yr. 6- Policy Modification (sec.6.3)	Delineation of subwatersheds and their respective outfalls. Policy modified to include expanded section on illicit detection and elimination specifically. (Section 6.3) Public Hearing advertised and presented for approval by PWC in April 2009.	Continue to enforce policy.
16	Develop system to locate priority areas of illicit connections.	CPW	System in place by end of year 5. System in place by end of year 6.	Utilizing the information from the 2002 survey of the drainage infrastructure, 16 “Areas of Concern” Maps were generated based on potential illicit discharge indicator factors.	Utilizing the subwatersheds created in BMP #14, screen outfalls for indicator factors typical of illicit discharges. This BMP shall be done on an annual basis until all outfalls have been monitored Town-wide.
17	Develop procedure for tracing source of illicit connections.	CPW	System in place by end of year 3. Begin tracing beginning of May 2009.	Outfalls from the “Areas of Concern” maps have been narrowed down to HPID (High Priority Illicit Discharges) using visual screening.	Areas are scheduled to be professionally tested for contaminants such as E. Coli and base line characteristics such as pH and hardness. Continue to narrow down Areas of Concern from the subwatersheds delineated in BMP 14 into HPIDs and test outfalls as necessary.
Revised					

18	Develop procedure for removing source of illicit/illegal discharges.	CPW	System in place by end of year 4.	The process has been finalized consistent with the policy outlined in BMP #15.	Positive Tests from BMP 17 requires further investigation scheduled for May 2009. The entire upstream drainage system of those outfalls with positive tests shall be investigated until the illicit discharge is eliminated.
19	Develop procedure for evaluating the progress of the programs.	CPW	System in place by end of year 4.	The process has been finalized consistent with the policy outlined in BMP #15.	Update GIS town wide drainage map to reflect areas screened, outfalls tested, illicit discharges located and eliminated. Re-test the outfalls to verify the elimination of the illicit discharge.
20	Implement BMPs 15-18	CPW	Begin implementation by Fall 2006	BMPs 15- 17 Implemented	Will continue BMPs consistent with this report and the Town's revised Drainage Connection Policy described in BMP 15.
Revised			Begin implementation by Fall 2008.		
21	Develop Wastewater Master Plan	CPW/Water/Sewer	Completed creation by end of Year 1.	Board of Selectman created Wastewater Planning Task Force to further examine centralized wastewater treatment facility capacity constraints and develop recommendations for Town Meeting 2009 Approval	Following approval of Town Meeting Article 41, Wastewater Capacity Study, investigate alternatives analysis to address wastewater capacity constraint align comprehensive long range plan, planned production housing plan and comprehensive wastewater management plan .

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
22	All projects required to file MADEP Stormwater Management Form (Standards #1 - #10)	NRC	100% compliance for all work within wetland resource areas and buffer zones.	Continued to require full compliance.	Continue to require compliance.
23	Sediment and Erosion Control Bylaw for all construction, through Subdivision Control Law and site review standards.	Planning Division (PD)	Ordinance approved and enforced by end of Year 4.	Planning and drafting language and developing Town typical standards available on the Town website and in the Engineering Division.	Enact and enforce section regarding Soil Erosion and Sediment Control for all construction after approval of changes to the Subdivision Rules and Regulations, and development of Town typical construction standards.
Revised	Soil Erosion and Sediment Control Section incorporated into Subdivision Control Law and Site Reviews.		Section drafted by PD by end of Year 7.		
24	Site Plan Reviews by Town Staff	PD, DNR, CPW	All site plans reviewed for water quality concerns.	All regulated site plans reviewed.	Continue to review regulated site plans including but not limited to Erosion Control and Operations and Management for stormwater BMPs.
25	Public input on all proposed projects subject to local regulations.	PD, NRC	Planning Board, Board of Appeals & NRC allow public comment on regulated projects.	Ongoing at all times.	Continue at all times.
26	Site inspection of construction projects for proper erosion control.	CPW, DNR	100% of construction sites receive a periodic visit upon the enactment of BMP #23.	Inspections of construction sites conducted for compliance with approvals and BMPs set for in the stormwater handbook if applicable.	Continue to monitor and inspect construction activities in Town. Continue NRC inspections.
Revised			Incl. NRC inspects all sites with an active Order of Conditions	NRC inspected all sites with active Order of Conditions	

27	All work within the public right-of-way (ROW) is inspected to prevent erosion and sediments from washing into the public way.	CPW	Minimize erosion and sedimentation from construction sites onto the public way.	All known construction sites that disturb the ROW are permitted and inspected through the ROW program.	Continue permitting and inspecting relevant construction sites.
Revised					
28	Stormwater pollution prevention training provided to Town's inspectors of construction sites, and Municipal Operations	CPW, DNR	Appropriate employees currently receive stormwater training. Upon completion of BMP #23 additional training will be provided.	Training provided to CPW employees by outside professional consultants of the methods concerning pollution prevention and appropriate spill control and protocol. Updated Spill Prevention Control and Countermeasure (SPCC) plan and contracted professional consulting services to complete a facility wide environmental audit	Continue to implement appropriate protocol and train new employees of the correct methods of stormwater pollution prevention and spill control. Implement recommendations developed from environmental audit and manage continued compliance with creation of compliance calendar.
revised					

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
29	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.
30	Pre-construction review of regulated developments.	NRC, PD, CPW	100% of proposed regulated projects reviewed.	All regulated projects were reviewed.	Continue to review all regulated projects.
31	Massachusetts Wetland Protection Act.	DNR	100% of projects within wetland jurisdiction areas reviewed.	All regulated projects were reviewed and permitted as necessary.	Continue to review and permit all projects as appropriate.
32	Inspection of regulated subdivisions.	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 as appropriate.
33	Recommended list of BMPs to be used in new construction to be developed and provided to potential developers.	DNR, PD, CPW	Provide a list of reference documents for all efficient and accepted BMPs.	EPA poster "Stormwater and the Construction Industry" is posted prominently in the CPW Engineering Office. Poster depicts the proper use and placement of BMPs on construction sites.	Continue to make available to potential developers a list of reference documents for efficient and accepted BMPs. Draft requirements for site specific BMPs if necessary.
34	Subdivision Rules and Regulations;	PD, CPW	Completed; evaluate yearly for effectiveness.	Continued progress on updating Stormwater and Erosion Control performance criteria in the Subdivision Rules and Regulations.	Continue Storm Drainage/Erosion Control performance criteria.

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
35	Cleaning of catch basins	CPW	25% of catch basins cleaned each year.	At least 25% of catch basins cleaned	Clean at least 25% of catch basins within Town.
36	Annual street sweeping	CPW	100% of Town streets are swept of sand and sediments annually.	100% of streets swept of sand and sediments.	Continue to sweep all public streets at least once annually.
37	Central Business District (CBD) street sweeping.	CPW	CBD swept weekly, weather permitting, April to November.	CBD sweeping performed as planned.	Continue with weekly sweeping in CBD from April to November.
38	Sewer main and manhole cleanings go to WWTP.	CPW	All cleanings are properly disposed at WWTP.	All cleanings are properly disposed at WWTP.	Continue to properly dispose all sewer main and manhole cleanings at WWTP.
39	Composting facility open to public, accepts used paint.	CPW	Open to public once a week from April to November.	Composting facility opened as planned.	Continue to open and operate composting facility as planned.
40	Member of Minuteman Regional Household Hazardous Waste Facility.	CPW	Maintain membership at this regional facility.	Membership maintained.	Continue to maintain membership.
41	CPW drainage maintenance within the right-of-way controlled by Drainage Maintenance Permit issued by NRC	NRC, CPW	Meet terms and conditions of the permit.	General maintenance permit extended with the NRC.	Follow terms and conditions of the permit.
42	Stormwater Pollution Prevention Plan (SWPPP) and Integrated Contingency Plan (ICP) in place and in effect for CPW facility.	CPW	Maintain SWPPP and ICP, review and update as needed.	Continued to comply with SWPPP, and ICP. Comply with SPCC Plan adopted in November 2008 and outlined in BMP 28.	Continue to comply with SWPPP, ICP, and SPCC Plan . Update as necessary.

43	CPW operation employees receive stormwater, spill control and prevention, and wetlands training.	CPW	100% of operations employees receive training.	All new employees receive initial orientation training.	All new employees continue to receive initial orientation. Develop and implement ongoing training program for all operations personnel.
44	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 needed.	Continue to edit and update drainage map as appropriate.
45	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.	At least 5 catch basins removed/retrofitted/repared.	Continue to upgrade at least 5 catch basins.
46	Increase use of infiltration chambers, LID technologies and stormwater pretreatment for roadway and parking lot redevelopment projects.	CPW	Where soil and site conditions are appropriate, use infiltration chambers/low impact development techniques for stormwater treatment.	See Section 6b	Continue to identify new and retrofit projects where LID techniques can be employed.

6a. Additions

None

6b. Assessment

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
47	NRC Order of Conditions, Special Condition #27 prohibits the use of herbicides, pesticides, or fertilizers within resources areas except in a case-by-case basis for invasive species removal.	NRC	In place, will enforce at all times.	Special condition enforced.	Continue to enforce special conditions.
48	Remove direct discharge of Walden Street stormwater to Walden Pond.	CPW (in partnership with Walden Pond State Reservation)	Walden Pond infiltration system installed. Monitor system efficiency.	System efficiency monitored.	Continue monitoring system efficiency.

7a. Additions

None

Part IV. Summary of Information Collected and Analyzed

None

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2007 through March 31, 2008)

Programmatic

	(Preferred Units)		Response
	(y/n)		
Stormwater management position created/staffed			Y
Annual program budget/expenditures **		(\$)	\$105,000 (FY10)
Total program expenditures since beginning of permit coverage		(\$)	\$775,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)			General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)		(# or %)	300
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.)	N/A
Shoreline cleaned since beginning of permit coverage		(mi.)	N/A
Household Hazardous Waste Collection Days			
▪ days sponsored **		(#)	8
▪ community participation **		(# or %)	63
		(cars/day))	

- material collected ** - Fluorescent bulbs (# of bulbs) - Mercury (lbs.) - Rechargeable and Specialty Batteries (lbs.) - Lead batteries and lead ballast (lbs.) - Latex based paints (non-hazardous) (gals.) - Oil and alkyd based paints, polyurethane, paint thinner and stripper (hazardous) (gals.)	(tons or gal)	6,351 51 147 535 600 500
School curricula implemented	(y/n)	Y

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")						
	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted	
- Illicit Discharge Detection & Elimination (Expanded existing policy, (section 6.3 of the Drainage Connection Policy) - Erosion & Sediment Control (Stormwater Management Standards- MA DEP) - Post-Development Stormwater Management (Stormwater Management Standards- MA DEP)	X				X	
Accompanying Regulation Status (indicate with "X")						
- Illicit Discharge Detection & Elimination - Erosion & Sediment Control - Post-Development Stormwater Management	X			X		

Mapping and Illicit Discharges

(Preferred Units)			Response
Outfall mapping complete	(%)		100% of known
Estimated or actual number of outfalls	(#)		341

System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100% of known
Mapping method(s)		
▪ Paper/Mylar	(%)	25%
▪ CADD	(%)	10%
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	17% in year 6
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100% in year 1
Illicit discharges identified **	(#)	0 (year 5)
Illicit discharges identified (Since beginning of permit coverage)	(#)	9
Illicit connections removed **	(#); and (est. gpd)	0 (year 5)
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	9
% of population on sewer	(%)	35%
% of population on septic systems	(%)	65%

Construction

(Preferred Units)	Response
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	(%)	100%
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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)	Every other year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1/yr
Qty of structures cleaned **	(#)	1175/yr
Qty. of storm drain cleaned **	(%, LF or mi.)	25%-50% of catch basins
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	Removed by Contractor under Contract with contractual requirement for regulatory compliant disposal
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	See Above

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$28,200
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$24/basin
• Disposal cost**	(\$)	Included in contract

Cleaning Equipment			
• Clam shell truck(s) owned/leased	(#)		By contractor
• Vacuum truck(s) owned/leased	(#)		1 (town)
• Vacuum trucks specified in contracts	(y/n)		N
• % Structures cleaned with clam shells **	(%)		90
• % Structures cleaned with vacor **	(%)		10

(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)		52
Qty. of sand/debris collected by sweeping **	(lbs. or tons)		2,000 tons (est.)
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)		Town Storage
Annual Sweeping Costs			
• Annual budget/expenditure (labor & equipment)**	(\$)		\$50,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)		N/A
• Disposal cost**	(\$)		N/A
Sweeping Equipment			
• Rotary brush street sweepers owned/leased	(#)		2 owned
• Vacuum street sweepers owned/leased	(#)		0
• Vacuum street sweepers specified in contracts	(y/n)		N
• % Roads swept with rotary brush sweepers **	%		100%
• % Roads swept with vacuum sweepers **	%		0%

Reduction (since beginning of permit coverage) in application on public land of:

▪ Fertilizers	(lbs. or %)		0% (level use)
▪ Herbicides	(lbs. or %)		N/A
▪ Pesticides	(lbs. or %)		N/A

Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

(Preferred Units)		Response
Average Ratio of Anti-/De-Icing products used **	% NaCl	50%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl ₂	1%
	% MgCl ₂	0%
	% CMA	0%
	% Kac	0%
	% KCl	0%
	% Sand	49%
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	Y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	10%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	20%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	Existing
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	N/A (wells)
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	Y
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	Y