Municipality/Organization: **City of Waltham, MA**

EPA NPDES Permit Number: **MA041066**

MaDEP Transmittal Number: **W-041267**

Annual Report Number & Reporting Period: **No. 3: April 05-March 06**

P

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Joan Lastovica, P.E. City Engineer

Telephone #: 781-314-3830 Email: jlastovica@city.waltham.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: Joan Lastovica

Printed Name: Joan Lastovica, P.E.

Title: City Engineer

Date: 4/28/06

Signature: _____

Printed Name: _____

Title: _____

Date: _____

I acknowledge the Certification of the parties who have signed above.

Signature: Jeannette A. McCarthy

Printed Name: Ms. Jeannette A. McCarthy

Title: Mayor

Date: 4/28/06

Part II. Self-Assessment

The City of Waltham 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.C.2 The City of Waltham has been actively working with the City of Cambridge to identify stormwater discharges which are tributary to the Cambridge Reservoir. These two cities have worked together to develop spill response plans and evaluate potential sources of pollution. The Cambridge Water Board also works with the Waltham Conservation Commission and the City Engineer to review proposed development projects and ensure that adequate water quality BMP's are implemented.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1.1	Recycling Department Web Site	Recycling Coordinator	An Operational Web Site	The web site was created during year 1. During year 2 the website was updated and maintained with revisions and additional information.	Continue to maintain web site
Revised					
1.2	Office Park Targeted Communication	DPW Director	Contact Office parks which discharge directly to the City's receiving waters.	The City is currently developing a comprehensive stormwater brochure to add to the website.	Finalize comprehensive stormwater brochure and post it on website. Continue to maintain website. A separate mailing to facility managers of commercial accounts will be made. The City will add links to the DEP and EPA website to its CPW, Engineering Dept., and Conservation Commission web pages.
Revised		City Engineer	The City will use the periodic billing inserts to inform the residents of the location of the availability of comprehensive stormwater brochure on the website.		
1.3	NPDES Phase II Brochure	Environmental Specialist	Distribution of brochure to City water Customers	The City is currently developing a comprehensive stormwater brochure to add to the website.	Finalize comprehensive stormwater brochure and post it on website. Continue to maintain website. The City will add links to the DEP and EPA websites to its CPW, Engineering Dept. and Conservation Commission web pages.
Revised		City Engineer	The City will use the periodic billing inserts to inform the residents of the location of the availability of comprehensive stormwater brochure on the website.		
1.4	Watershed Signage	Supt. Of Streets & Forestry	Install 10 Watershed signs.		Signs to be made, areas to be identified by Engineering.
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2.1	Earth Day Celebration	Environmental Specialist	Provide & staff a booth at the City's annual celebration.	City held observance of Earth Day in the Fall of 2005.	CPW and Mayor's Office Coordinated Earth Day Observance at Kennedy Middle School 4/22/06
Revised		CPW Director/Mayor			
2.2	Stream Clean-Up	DPW Director	Support existing cleanup program & identify new areas for future clean up efforts.	CPW provided support to City Council/resident organized clean-up efforts. Two segments of the Charles River were cleaned.	Work ongoing.
Revised		CPW Director			
2.3	Catch Basin Stenciling	Supt. Of Streets & Forestry	Stencil 80 CBs per year, install castings at 15 CBs per year	City has stenciled over 100 basins on the northwest part of town. Around water reservoirs. Over 100 CB castings were replaced	Continue catch basin stenciling activities.
Revised					
Revised					
Revised					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3.1	Mapping	City Engineer	Completion of city-wide drainage GIS	The City has completed the Drainage GIS mapping. The City has completed the review of the mapping and has since made updates.	Continue to make updates.
Revised					
3.2	Illicit Discharge Ordinance	City Engineer	Acceptance of ordinance into City bylaws.	The City is reviewing the ordinance and recommending improvements.	Finalize recommendations and submit to City council in early 2007.
Revised					
3.3	Illicit Discharge Detection Program	City Engineer	Inspect 40 or more outfalls per year	The City will determine which of the 49 are problematic outfalls and continued to follow upstream of those. One was eliminated.	Continue to televise and repair where there are illicit sanitary laterals.
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4.1	Construction Site Runoff Control Ordinance	City Engineer	Enforce existing runoff control ordinance.	Implemented	Continue implementation.
Revised			Enforce existing runoff BMP's		
4.2	Conservation Commission Rules & Regulations	City Engineer	Continue to review projects and uphold the WPA and the Massachusetts Stormwater Management Policy.	Implemented	Continue implementation.
Revised		Conservation Commission	Continue to review projects and uphold the WPA, which includes the Rivers Act, and Massachusetts Stormwater Management Policy. Address stormwater management with special conditions added to every permitted project.		
4.3	Review Existing Runoff Control Ordinance	City Engineer	Review existing text, revise and implement as needed.	The City is reviewing the ordinance and recommending improvements.	Finalize recommendations and submit to City council to be adopted during years 3 and 4.
Revised					
4.4	Plan Review Process	City Engineer	Update review process to address ordinance changes and develop a plan to review checklist.		

Revised			Develop a checklist to be completed and submitted for a plan review process.		

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5.1	Plan Rules & Regulations	City Engineer	Continue to enforce the existing rules and regulations.	Existing rules and regulations are being enforced.	Continue to enforce existing rules and regs.
Revised					
5.2	Enhance Engineering Guidelines	City Engineer	Implementation of improved engineering design guidelines.	The City is reviewing the existing engineering design guidelines and will make improvements as required.	Implement recommended improvements.
Revised					
5.3	BMP Monitoring & Maintenance Plan	City Engineer	Develop database for population by City.	The City Engineer has initiated talks with the GIS system manager to begin development of this system.	Identify relevant data for database and integrate into GIS.
Revised					
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.1	Catch Basin Cleaning	Supt. Of Streets & Forestry	Perform annual cleaning of catch basins.	Completed approximately 500 catch Basin cleanings.	Responsibility transferred to the City Engineer. Continue implementation.
Revised		City Engineer			
6.2	Drain Cleaning	Supt. Of Streets & Forestry	Address clogged drain issues as they emerge throughout the year.	Status Quo - DPW to address emerging issues.	Responsibility transferred to the City Engineer. Continue implementation.
Revised		City Engineer	Address Emerging issues throughout the year.		
6.3	Street Sweeping	Supt. Of Streets & Forestry	Sweep city streets at least once annually.	The City has performed street sweeping at least 3-4 times on major roads and 2 times on secondary roads.	Continue implementation.
Revised					
6.4	Recycling Program	Recycling Coordinator	Continue to publicize recycling activities.	Web page is up & recycling events are well publicized.	Continue implementation.
Revised					
6.5	Watershed Maintenance Program	Supt. Of Water & Sewer	Implement pilot program on two streams.	Chester & West Chester Brook Cleaning project is complete. The City is in the process of identifying the next	City with perform ongoing maintenance of brooks and streams

Revised		CPW/Conservation Commission			
				Chester & West Chester Brook Phase I Stream Channel Improvements project is complete. Phase II is in planning process.	City with perform ongoing maintenance of brooks and streams
Revised					

6a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.6	Watershed Maintenance Program	Supt. Of Water & Sewer	Perform Annual Weed Harvesting	The City completed the annual weed harvesting in Hardy Pond to improve water quality and aquatic life.	Ongoing annually.
Revised		CPW Director			
6.7	BMP maintenance	Engineering	Annual cleaning of sediment and debris from particle separators	The City has completed cleaning of the 10 particle separators located near Hardy Pond and various public schools.	The City will continue to perform this on an annual basis.
6.8	City Yard Drainage Study and Improvements	City Engineer & Environment Committee	Assess City Yard drainage and implement measures to improve stormwater discharges	The City is working with EPA to complete an assessment of current drainage of the City Yard. In addition, the City has developed and implemented a Soils Management Plan for various materials handled/stored at the City Yard and is implementing other BMPs for City Yard operations.	The City will work with EPA to identify and implement stormwater enhancements at the City Yard, including if necessary, stormwater treatment devices. The City will also continue to evaluate City Yard operations and develop and implement BMPs for these operations.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<*if applicable*>> N/A

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
Revised					
Revised					

7a. Additions

7b. WLA Assessment

N/A

Part IV. Summary of Information Collected and Analyzed

Historically catch basins were cleaned approximately once every two years. The City plans to continue with this schedule. We are generating approximately 1,500 hundred tons per year of catch basin cleanings assuming the above schedule.
The City of Waltham has a water-sampling program. There were approximately 200 water samples drawn and analyzed during the time period covered by this report.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No

Annual program budget/expenditures	($)	DNA
GIS		Yes

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Approx 10%
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.)	Yes
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	8 days per yr
▪ community participation	(%)	1.6 % of population
▪ material collected	(tons or gal)	*
School curricula implemented	(y/n)	No

* Several communities participated and quantities collected are not broken down. Waltham had 239 cars participate.

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	(#)	46
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	N/A
▪ CADD	(%)	N/A
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	25%±
Illicit discharges identified	(#)	2
Illicit connections removed	(#) (est. gpd)	2
% of population on sewer	(%)	99.9%
% of population on septic systems	(%)	<1%

Construction

Number of construction starts (>1-acre)	(#)	6
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	180±
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	2

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)	Unk.

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	Approx. 1200-1500
Storm drain cleaned	(LF or mi.)	1,000lf as needed
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	1,500 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	($)	$40,000

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)	>1 (monthly)
Qty. of sand/debris collected by sweeping	(lbs. or tons)	1500CY
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	$50,000 est.
Vacuum street sweepers purchased/leased	(#)	1 Leased
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(Lbs. or %)	0
▪ Herbicides	(Lbs. or %)	100%
▪ Pesticides	(Lbs. or %)	100%

Anti-/De-Icing products and ratios Typical mix of 30% salt and 70% sand used predominantly.	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	98 2 0 0 0 0 100
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(Lbs. or %)	0%
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N