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

EPA NPDES Permit Number: **MA041066**

MaDEP Transmittal Number: **W-041267**

Annual Report Number & Reporting Period: **No. 4: April 06-March 07**

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: 4/27/07

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: 4/30/07

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. 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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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. The website was updated regularly in year three. Over three hundred hits were received this permit year.	Continue to maintain web site
Revised					
1.2	Office Park Targeted Communication	DPW Director	The City will use periodic billing inserts to inform the residents of the location of the availability of comprehensive stormwater brochure on the website.	The City is currently developing a comprehensive stormwater brochure to add to the website.	Complete the draft 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 websites to its CPW, Engineering Dept., and Conservation Commission web pages.
Revised		City Engineer CPW Director Conservation Commission			
1.3	NPDES Phase II Brochure	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.	The City is currently developing a comprehensive stormwater brochure to add to the website.	Complete the draft 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,

Revised		Environmental Specialist, Environmental Committee, City Engineer and CPW Director			
1.4	Watershed Signage	City Engineer	Install 10 Watershed signs.	Ongoing	Signs to be made, areas to be identified by Engineering.
Revised		City Engineer Traffic Engineer			

1a. Additions

	Recycling Department	Recycling Coordinator	The Department is developing recycling literature in Spanish.		The literature will be circulated to the Spanish community this permit year.
	Recycling Department	Recycling Coordinator	Promote the sale of rain barrels to conserve rainwater.	The sale was promoted through inserts in the water bills, cable television and newspaper announcements.	Evaluate rain barrel program and repeat if it is successful.

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	Earth Day Celebration	CPW Director/Mayor	Provide & staff a booth at the City's annual celebration.	CPW and Mayor's Office Coordinated Earth Day Observance at Kennedy Middle School 4/22/06	Earth Day Celebration scheduled 04/22/07
Revised			Organize and staff annual celebration.		
2.2	Stream Clean-Up	CPW Director	Support existing cleanup program & identify new areas for future clean up efforts.	Streams were cleaned of blockages, trees, and debris on a regular basis.	Work ongoing.
Revised					

2.3	Catch Basin Stenciling	Supt. Of Streets & Forestry	Stencil 80 CBs per year, install castings at 15 CBs per year	City stenciled over 100 basins on the northwest part of town in permit year 3 around water reservoirs. Over 100 CB castings were replaced	Continue catch basin stenciling activities. CPW is purchasing decals to mark storm drains as they last longer than stencils. A service project will be planned.
Revised		City Engineer CPW Director			
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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.	The draft of the ordinance has been reviewed by the Environmental Committee. The Law Department will craft the ordinance.
Revised					

3.3	Illicit Discharge Detection Program	City Engineer	Inspect 40 or more outfalls per year	In 2006 the City removed 5 illicit connections.	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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4.1	Construction Site Runoff Control Ordinance	City Engineer	Enforce existing runoff BMP's	Implemented	Continue implementation.
Revised					
4.2	Conservation Commission Rules & Regulations	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.	Implemented	Continue implementation.
Revised					

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 4 and 5.
Revised					
4.4	Plan Review Process	City Engineer	Develop a checklist to be completed and submitted for a plan review process.		
Revised				The City reviewed the plan checklist.	New checklist is complete.

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	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. Discussion is ongoing.
Revised		City Engineer GIS Specialist	Develop database for BMP's and GIS map.		

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6.1	Catch Basin Cleaning	City Engineer	Perform annual cleaning of catch basins.	Completed approximately 500 catch Basin cleanings.	Responsibility transferred to the City Engineer. Continue implementation. Consultant will prepare specifications, inspect and develop overall program.
Revised					
6.2	Drain Cleaning	City Engineer	Address emerging issues throughout the year.		Responsibility transferred to the City Engineer. Continue implementation, including capital program for citywide catch basin cleaning.
Revised					
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	CPW/Conservation Commission	Implement pilot program on two streams.	Chester & West Chester Brook Cleaning project is complete. The City is in the process of identifying the next stream for cleaning.	City with perform ongoing maintenance of brooks and streams
Revised		City Engineer Conservation Commission			
				Chester & West Chester Brook Phase I Stream Channel Improvements project is complete. Phase II is in planning process.	City will 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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6.6	Watershed Maintenance Program	CPW Director	Perform Annual Weed Harvesting	The City completed the annual weed harvesting in Hardy Pond to improve water quality and aquatic life.	Ongoing annually. Contract awarded for 2007.
Revised					
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 completed and submitted a SWPPP to the EPA.	Constructed improvements are designed. Anticipate submittal of project to Conservation Commission for approval and obtaining funding from the City Council during Permit Year 5. The existing City Yard site maintenance is being implemented.
6.9	Recycling Program	Recycling Coordinator	New initiative to reduce idling of vehicles in the City to reduce air pollution.	Idling-reduction street signs from a MADEP grant program have been posted at City schools.	The Department will publish and distribute anti-idling-Reduction brochure to Waltham residents.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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. Five illicit connections were removed.

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 Under

	Phase II	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	(#)	56
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	(#)	5
Illicit connections removed	(#) (est. gpd)	5
% 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	(#)	0

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.)	
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	($)	$29,000
Vacuum street sweepers purchased/leased	(#)	2
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