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**Municipality/Organization:** Westwood Massachusetts

**EPA NPDES Permit Number:** MA 041069/MA DEP

**MaDEP Transmittal Number:** W- 036108

**Annual Report Number & Reporting Period:** No. 7: March 10-March 11

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Vicki Quiram **Title:** Director of Public Works

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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:** Vicki Quiram

**Title:** Director of Public Works

**Date:** April 29, 2011

## **Part II. Self-Assessment**

In the past year, the Town of Westwood has continued to successfully implement the best management practices submitted with the Notice of Intent and established under General Permit No. MA041069/MA DEP.

Public education and participation has continued through the school system and community through mailings, information on websites, articles in the newsletter and newspaper, community participation in stenciling, trash cleanups, and other mechanisms.

Water quality testing continues with participation with the Neponset River Watershed Authority and outfall screening, investigation and testing. The town collected samples from 10 outfalls, along with working with the Neponset River Watershed Association to monitor tributaries to the Neponset. The Town is continuing to follow up on one location where slightly elevated levels of bacteria were found.

Although construction in Westwood is largely residential, all development projects continue to be reviewed and conditioned by the Conservation Commission to meet or exceed Massachusetts DEP Stormwater Management Standards. BMPs are installed and maintenance responsibilities clearly specified.

A major sewer system inflow and infiltration study was completed this year. Priority areas were identified and a \$600,000 sewer lining project will begin this summer. This year's investigation included camera of 5 additional miles of sewer main, cleaning, and smoke testing in search of illicit connections.

Single stream recycling was announced this year, with widespread community interest. Westwood's recycling program is expecting a boost due to the implementation of single stream recycling. The continuation of leaf and grass clipping pick ups, ten per year, eliminates these products from entering the solid waste stream.

At the present time, the Town is planning to continue to implement the existing program during the upcoming year. However, upon adoption of the new General Permit, the Town's staff and Stormwater Committee will be working to planning and implement a new stormwater program that will comply with all new regulations.

### 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
1.1 Revised	Develop brochure to be Distributed with sewer bills.	DPW/ V Vickrey	Brochure 1/yr for 3 years Brochures continue to be distributed.	Year 7 – Brochure was printed and mailed March 2011.	Continue program.
1.2 Revised	Newsletter Article	DPW/ V Vickrey	Article 1/yr for 3 years Articles continue to be published	Year 7 – Talking Trash and Water Conservation	Continue program.
1.3 Revised	Establish storm water hotline.	DPW/ V Vickrey	Storm water hotline 781-326-8661	Maintained on website.	Continue program.
1.4 Revised	Newspaper Article	DPW/ V Vickrey	Article 1/yr Articles continue to be published.	Article in local newspaper on Eagle Scout project and catchbasin stenciling.	Publish article.
1.5 Revised	Survey of public awareness	DPW/ V Vickrey	Survey of Public Awareness	Survey online with mailing conducted.	Results will be used to determine focus of next years education program.

#### 1a. Additions

1.6	Public Education	DPW/School Department	Yearly program in school system as part of curriculum.	Students learn effects of polluting stormwater.	Continue program, possibility to expand in classroom learning.
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## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
2.7 Revised	Signage for major tributaries	DPW/ V Vickrey	Signs installed & Maintained	Completed - Signs installed	Maintain signs as needed.
2.8 Revised	Storm water planning committee	DPW/ V Vickrey	Storm water planning committee	New program will be established with new permit adoption.	Committee will review new permit, goals, and stormwater management plan.
2.9 Revised	Volunteer water quality monitoring	DPW/ V Vickrey	Monitoring results, identify cleanup if needed	Work done with NepRWA, sampling of brooks in Westwood. Keep Westwood Clean website lists areas in town to be cleaned and monitored.	Continue work with NepRWA
2.11 Revised	Catch basin stencil program	DPW/ V Vickrey	Catch basin Stenciling	1000 Catch basins were stenciled as part of an Eagle Scout project.	Continue program.
2.12 Revised	Establish Education Program	Sch. Dept.	Engender public education support	Working with existing 7 <sup>th</sup> grade watersheds and stormwater. Watershed in a box and 5' Topo mapping – Pollution in stormwater.	Continue program.
2.13 Revised	Keep Westwood Clean Committee	Keep WW clean committee	Number of residents involved and sites cleaned up.	“Town Cleanup” website continued by resident. <a href="http://www.keepourtownclean.com/ma/westwood/westwood.php">http://www.keepourtownclean.com/ma/westwood/westwood.php</a>	Continue with program. Keep wetlands and streams clean.

## 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
3.14 Revised	Map outfalls & receiving waters	DPW/ V Vickrey	GPS/GIS mapping	100% complete. PDF atlases created with user friendly format.	Add new drainage as needed.
3.15 Revised	Effective storm sewer bylaw	DPW/ V Vickrey	Storm Sewer Bylaw	Storm water Management, Discharges to the Municipal Drain System was added to the town's General Bylaw.	
3.16 Revised	Dry weather screening of outfalls	DPW/ V Vickrey	Report on dry weather screening	20 outfalls were inspected during dry weather.	Continue program.
3.17	Develop system for elimination of illicit discharges	DPW/ V Vickrey	Identification of illicit discharges	Combined efforts of the Engineering and Sewer department have conducted dry weather screening, outfall testing, and report follow up.	Continue program.
3.18	Apply the system from BMP 15, above	DPW V Vickrey	Remove Illicit discharge	No Illicit discharges identified.	Program up to date. Continue program.
3.20 Revised	Hazardous waste recycling day	DPW/ V Vickrey	Hazardous Waste Recycling Day	A town wide hazardous waste recycling day in September 2010. Electronic Recycling Day held 2010 and planned and scheduled for 5/14/11.	Hazardous Waste Recycling Day in Fall 2011 Electronic Recycling Day May 14, 2011
3.21, 22,23 Revised	Dry & Wet weather sampling	DPW/ V Vickrey	Reports on sampling	Cooperative effort with Neponset River Watershed Association. 10 outfalls sampled based on Dry Weather Screening.	Continue program based on new permit.
3.24 Revised	Dye test to find source of identified illicit discharge	DPW/ V Vickrey	Reports for dye tests on identified illicit Discharge	No Illicit discharges identified.	Continue program.

3.26	Clean 5 miles of sanitary sewer each year	DPW/ R. Angelo	Reports on cleaned sewer	Cleaned 5 miles of sanitary sewer cleaned.	Continue program.
Revised					
3.27	Camera to identify problem areas of sanitary sewer	DPW/ R. Angelo	Reports on cleaned sewer	5 miles of sanitary sewer televised.	Continue program.
Revised					
3.28	Rehabilitate, patch, etc. problem areas.	DPW/R. Angelo	Reports on areas rehabbed.	Lining project was implemented, designed and funded.	Complete first phase of lining project.
Revised					
3.30	Publicize Reports of illicit discharges	DPW/ R. Angelo	Newspaper article publicizing reports	No Illicit discharges detected.	If illicit connection found, publicize report.
Revised					
3.31	Sump pumps – 5 year program to eliminate surcharge.	DPW/ R. Angelo	Elimination of illegal connections	Smoke testing used in search of illicit discharge.	Continue program.
Revised					
3.33	Work with DEP – TMDL plans	DPW/ V. Vickrey	TMDL Plan, BMP Implementation		Work with CRWA and DEP for BMP implementation
Revised					

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
4.35 Revised	Conduct regular inspections during construction	Conservation/DPW	Inspections	Engineering Dept and Conservation Agent conduct inspections during construction.	Continue program.
4.37 Revised	Mechanism for inquiries of on-going projects	Conservation/Planning	Mechanism for public inquiries	Conservation Commission/Planning Board meetings advertised and agenda and meetings updated on website.	Continue program.
4.47 Revised	Inspection of sites by Town Engineer w/ checklist	DPW/ C Gallagher	Construction site inspection by checklist	Checklist has been established.	Inspect using checklist.
Revised					
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
5.50 Revised	Add specific BMPs to Subdivision Rules/Regs	PL.BD		Planning Board Rules/Regs are under review.	Rules and Regs review will be completed.
5.51 Revised	Require installation of Water Quality Enhancement	PL.BD/Conservation	Water Quality Structures	Water quality structures included in design of new land development. LID is incorporated into plan review.	Continue to require water quality structures for development.
5.52 Revised	Yearly report on installed BMPs	Conservation		Have list of O&M plans from Conservation.	Will work with Conservation to make sure maintenance is being completed.
5.53 Revised	Inspect discharges	DPW/ V Vickrey	Inspect Discharges	Samples taken from 10 locations.	Continue program based on new permit.
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
6.55 Revised	Improve street and parking lot sweeping	DPW/ V Vickrey	Cleaner streets and parking areas.	Major roads are swept twice a year, Secondary roads once a year and then as needed.	Continue street sweeping program.
6.56 Revised	Improve CB operations.	DPW/ V Vickrey	Report on material removed.	2194 catch basins were cleaned in 2010.	Catch basins will be cleaned in 2011.
6.57 Revised	Experiment with alternatives to road salt.	DPW/ V Vickrey	Alternative roadway De-icing methods.	Ice-Ban is used to aid in de-icing roadways.	Alternatives will be researched.
6.59 Revised	Investigate Alternative Planting/Landscape	DWWD/ B. Alexander	Alternative schemes for landscaped areas	Link from Dedham Westwood Water District website to EPA Watersense <a href="http://epa.gov/watersense/">http://epa.gov/watersense/</a>	Continue program.
6.61 Revised	Investigate recycling program enhancement	DPW/ V Vickrey	Expanded recycling program	Single stream recycling now in place.	New solid waste contract Spring 2012
6.64 Revised	Expand employee training	DPW/ V Vickrey	Training	Purchased new training materials.	Will train all employees with new material and new permit when adopted.
6.65 Revised	Develop yard clipping ordinance	Planning Board	Ordinance	Leaves and grass clippings are collected separate from solid waste 10 times per year.	Continue program.
6.64 Revised	Prepare SWPPP	DPW/ V Vickrey	Plan	Updated original SWPPP with new contact information and buildings.	Will propose new plan upon adoption of new permit.

#### **Part IV. Summary of Information Collected and Analyzed**

Samples collected at 10 locations. One sample showed slightly elevated Bacteria level. This location is under investigation and will be retested to see if bacteria level continues, and if illicit discharge is present it will be removed. See attached results.

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic**

Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures	(\$)	7000

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	13000
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
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1/yr
▪ community participation	(%)	8
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	y

## 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	Mass DEP	Stormwater	Management	
▪ Post-Development Stormwater Management	Standards	Called for	In Zoning	Bylaws
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control	Mass DEP	Stormwater	Management	
▪ Post-Development Stormwater Management	Standards	Called for	In Zoning	Bylaws

## Mapping and Illicit Discharges

Outfall mapping complete		(%)		100%
Estimated or actual number of outfalls		(#)		227
System-Wide mapping complete		(%)		100%
Mapping method(s)				
▪ Paper/Mylar		(%)		100%
▪ CADD		(%)		0
▪ GIS		(%)		100%
Outfalls inspected/screened		(# or %)		20
Illicit discharges identified		(#)		0
Illicit connections removed		(#)		0
		(est. gpd)		
% of population on sewer		(%)		97%
% of population on septic systems		(%)		3%

### Construction

Number of construction starts (>1-acre)	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	1/wk
Tickets/Stop work orders issued	(# or %)	4
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	4

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	n/a
Estimated volume of stormwater recharged	(gpy)	

### 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	(#)	2194
Storm drain cleaned	(LF or mi.)	2500(ft)
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	Unknown
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Recycle
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	149 ton
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost
Cost of sweepings disposal	(\$)	\$2085
Vacuum street sweepers purchased/leased	(#)	0
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 %)	0
▪ Pesticides	(lbs. or %)	0

Anti-/De-Icing products and ratios: straight salt and magic used as needed Ice Magic at 8 gallons per ton of salt Magic = MgCl <sub>2</sub> 15.11% Protein 4.50% Iron 0.20ppm Cacl <sub>2</sub> 1.5% Fat 0.80% Copper 0.70ppm Kcl 1.00% Crube Fibre 1.2% Phosphorous 0.34% Zinc 1.3ppm Nacl 1.00% Sulfur 0.34% Carbohydrates 11% Magic is bio-degradable, safe around vegetation and people	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	20% +/-
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	10%
Salt pile(s) covered in storage shed(s)	(y/n)	Yes(new)
Storage shed(s) in design or under construction	(y/n)	No