

Municipality/Organization: Westwood Massachusetts

EPA NPDES Permit Number: MA 041069/MA DEP

MaDEP Transmittal Number: W- 036108

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

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MAY - 1 2006

NPDES PII Small MS4 General Permit Annual Report

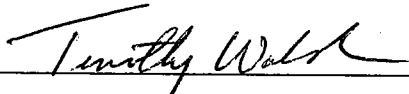
Part I. General Information

Contact Person: Timothy Walsh **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: Timothy Walsh

Title: Director of Public Works

Date: April 26, 2006

Part II. Self-Assessment

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

Part 1.5 Survey of public awareness. A survey has been developed and will be distributed to residents within the upcoming months.
(Attached)

Part 1.10 Catch Basin Stencil. Work is being done to determine which catch basins have been stenciled and which ones need to be done in the future.

Part 3.31 TMDL plans for implementation of BMP's to clean up polluted water bodies is in progress but yet to be completed.

Permit Year Four Tasks

Completed	BMP ID	BMP	When	Goal
X	1	Develop brochure to be distributed 1/year with sewer bills	Fall	Brochure 1/year for 3 years
X	2	Prepare article for newsletter explaining concerns and documenting progress	Winter 06-07	Article 1/year for 3 years
X	4	Newspaper article on storm water 1/year	Summer	Article 1/year for 3 years
In Review	10	CB stencil program (scouts)	All	CB stencil
X	12	Map Outfalls and Receiving waters	All	GPS/GIS mapping
X	18	Hazardous Waste Day	Fall	Hazardous Waste Day
X	19	Physical Inspection of all outfalls	All	Report on dry weather screening
X	20	Dry and Wet weather sampling to identify illicit discharges	All	Illicit discharge identification
X	21	Conduct Dry weather sampling of possible contaminants	All	Report on dry weather sampling
X	22	Test suspicious dry weather flows	All	Report for tests on suspicious flows
NA	23	Dye test to find source of identified illicit discharge	All	Report for dye test
X	24	Clean 5 miles of sanitary sewer each year	All	Report on sanitary sewer cleaned
X	25	Camera to identify problem areas - 5 miles (as needed)	All	Results of camera inspections
X	26	Rehabilitate, Patch problem areas identified by infiltration detection and elimination. Eliminate surcharges of existing sewer system with discharges to nearby water	All	Reports on Rehabilitated areas - eliminate surcharges
NA	28	Publicize reports of illicit discharges starting in 2004	All	Newspaper article
NA	29	Sump Pump - 5 year period - eliminate surcharge of over taxed sewer systems discharging pollutants to water	All	Eliminate illegal connections
X	30	Create GIS plan for entire drainage system	All	GIS plan for entire drainage system
In Progress	31	Work with DEP - TMDL - plans for implementation of BMPs	All	TMDL plan, BMP implementation
In Progress	34	Conduct pre-construction review of site plans through a formal site plan review. Plan Bd can enhance through subdivision regulations	All	Site plan review process
X	35	Conduct regular inspections during construction	All	Inspections
Expanded	37	Provide mechanism for public inquiries into on-going or planned construction	All	Mechanism for public inquires
X	38	NPDES permit required over 1 acre. SWPP, and notice of termination at conclusion of construction	All	NPDES, SWPP, Notice of Termination
X	39	Phasing of large construction projects to control storm water pollution	All	Phasing of large construction projects
X	45	Inspection of construction sites by Town Engineer using a storm water quality checklist	All	Inspection with checklist
X	46	Conservation Admin will inspect major construction sites on a weekly basis	All	Con Comm
X	47	Fines will be levied to those who do not abide by plan	All	Fines - selectman
X	50	Yearly Report on maintenance of installed BMPs (owners)	All	Log of yearly reports
X	51	Inspect discharge once a year	All	Inspect discharge

X	52	Employee Training using materials from EPA	All	Training
X	53	Increase street and parking lot sweeping	All	Cleaner parking areas
X	54	Improve CB operations - quantity of material removed	All	Reports on quantity removed
X	55	Experiment with alternatives to road salt	All	Alternative de-icing
X	56	Investigate alternatives to pesticide and fertilizer	All	Alternative pesticide and fertilizer
X	57	Investigate alternatives planting/landscaping	All	Alternative schemes for landscape
X	58	Ensure proper storage of drums or bulk material	All	Proper storage
X	59	Investigate recycling program enhancements	All	Expand recycling program
X	62	Expand employee training	All	Training
In Progress	63	Develop yard clippings ordinance	All	Ordinance

7b. WLA Assessment

The Town of Westwood's Phase II plan includes BMPs to identify bacteria sources in the stormwater system. Public education will provide residents with information about potential problems added to bacteria counts in the system. Field inspections and dry weather sampling have been conducted to detect bacteria in stormwater outfalls. Work has also been conducted with the Neponset River Watershed Association. Along with inspecting stormwater outfalls, a minimum of five miles of the sewer system was cleaned and videoed to detect any potential deficiencies.

Part IV. Summary of Information Collected and Analyzed

Samples from Mill Brook at Sunrise Road taken on September 9, 2005 showed high fecal coliform levels. Lab results indicated 11,000 Fecal Coliform/100mL and 25,000 E.Coli/100mL. A second set of samples were taken on October 20, 2005 along Mill Brook going up towards High St and did not help to further locate the source of the problem. Testing will soon be conducted on the manholes going up Sunrise Road to narrow down any potential illegal connections.

Several other outfalls were tested on September 23, 2005 and the results were not representative of any problems.

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 %)	14000
Stormwater management committee established	(y/n)	y
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	n
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1/yr
▪ community participation	(%)	12
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	n

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				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				X
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	99%
Estimated or actual number of outfalls	(#)	220
System-Wide mapping complete	(%)	99%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	96%
% of population on septic systems	(%)	4%

Construction

Number of construction starts (>1-acre)	(#)	2
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 %)	
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%
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)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	2109
Storm drain cleaned	(LF or 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.)		Landfill
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/yr
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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)	10x10,5x6
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost
Cost of sweepings disposal	(\$)	600
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 = MgCL2 15.11% Protein 4.50% Iron 0.20ppm Cacl2 1.5% Fat 0.80% Copper 0.70ppm Crube Fibre 1.2% Manganese 0.50ppm Kcl 1.00% 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 ₂ % MgCl ₂ % 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
Storage shed(s) in design or under construction	(y/n)	No

Stormwater Survey

As part of the Town of Westwood required public outreach and education program for stormwater, this survey is being conducted so as to provide valuable information to be used in directing the education and outreach program. There is a correct response to each of the questions asked and the citizens' understanding of stormwater and water quality is vital to the success of the program. The responses given will be used to determine the areas where education of the public may be focused. We thank you for your participation in the survey.

Following is a list of the questions asked, please answer True or False.

1. I am a resident of Westwood.

2. Rain and snow melt flows to storm drains along the streets and roads in Westwood. The storm drains collect and pipe this water to the Water Reclamation Facility for treatment before discharging this water into the Neponset and Charles Rivers.

True

3. Sweeping lawn and garden trimmings into the gutter or down storm drains is good for nearby streams and creeks.

False

4. Vegetative cover is extremely important in controlling erosion and sediment deposit into the town's storm water system.

True

5. All septic systems should be pumped every 3 to 5 years.

True. *However this is the minimum recommendation for maintenance. Routine maintenance and inspection of your septic system helps to assure that failure does not occur, thus protecting our ground water quality*

6. Fecal coli form is bacteria related to pet waste and failing septic systems.

True

7. Tracking mud onto streets and allowing dirt to drain from construction sites before and after construction will impact water quality and aquatic life in Neponset and Charles Rivers.

True

8. The stormwater drainage system in Westwood is as critical to the residents as water and sewer.

True *The storm drainage system not only protects us from loss of life and property but also enhances water quality for the users downstream.*

9. If the Town does not maintain and expand the stormwater drainage system as the Town grows, degradation of surface water quality, loss of life and loss of property may result.

True

If you would like to know what you as a citizen can do to help improve water quality in Westwood, we suggest you visit the links on this page and pass on what you learn to others.

WHAT IS STORMWATER RUNOFF?

Stormwater runoff is rain or snowmelt that flows over the ground. As it flows over driveways, streets, lawns, and sidewalks; it picks up debris, chemicals, dirt, and other pollutants.

Stormwater flows into drainage ditches or catch basins which are part of the municipal separate storm sewer system (or MS4). Stormwater runoff is discharged untreated directly into lakes, streams, rivers, wetlands, or coastal waters.



THE EFFECTS OF POLLUTION

Water that we use for swimming, fishing, recreation, or for drinking can be harmed by polluted stormwater runoff. High bacteria levels in lakes will result in swimming not being allowed. Hazardous wastes in lakes and streams will poison fish and humans. Trash washed into these lakes and streams can choke birds and small animals.

WHAT MUNICIPALITIES ARE DOING

In 1972 Congress enacted The Clean Water Act to prohibit the discharge of any pollutants into waters of the U.S. from a point source (e.g. from a wastewater treatment plant). Later Congress prohibited polluted stormwater discharges as well. In 2003 local

governments were assigned responsibility for protecting the quality of the stormwater that they discharge from their MS4 into waters of the U.S.

Municipalities are now required to prepare and follow their

stormwater management plan. Municipalities are

using best management good housekeeping practices at town-owned facilities and during vehicle maintenance to prevent leachate from polluting the stormwater that exits the

site. Municipalities are sweeping streets and

cleaning out catch basins regularly to keep debris

out of the MS4. Municipalities will be adopting local

regulations that will prohibit dumping or discharging contaminants into the MS4. Municipalities are adopting

up-to-date methods to keep our water resources clean.