05

.pality/Organization: Town of Weston

EPA NPDES Permit Number: 3MAR041068

2005 MAY -3 AM 9:39

MaDEP Transmittal Number: W-035252

Annual Report Number & Reporting Period: **No. 2: March 04-March 05**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Stephen R. Fogg, P.E. Title: Town Engineer

Telephone #: 781-893-1263 x15 Email: fogg.s@westonmass.org

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: Carl F Valente

Printed Name: Carl F. Valente

Title: Town Manager

Date: April 28, 2005

Part II. Self-Assessment

The Town of Weston has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

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	Flyer to residents	SUASCO WCC and SRF	Distribute to 75% of residents	Completed in year 1	
Revised					
1-2	Lesson Plan for Fifth Graders	SUASCO WCC and SRF	Lesson plan taught	Lesson plan provided to School Dept.	Provide support as needed
Revised					
1-3	Media Campaign*	SUASCO WCC and SRF	Media packet given to press	Meetings with SUASCO to plan	Develop and distribute media packet
Revised					
1-4	Flyer to Businesses*	SUASCO WCC and SRF	Distribute to 50% of businesses	None – planned for permit year 4	None – planned for permit year 4
Revised					
1-5	Video	SUASCO WCC and SRF	Show video at public meeting	None - planned for permit year 5	None – planned for permit year 5
Revised					

* BMPs reversed from last year's report.

1a. Additions

1-6	Outreach to Private Ways	DPW	Develop and send correspondence to road trusts and private way owners about stormwater issues	None	Send correspondence

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	Traveling Display	SUASCO WCC and SRF	3 months on display	None - Completed in year 1	Use display as opportunity arises
Revised					
2-2	Poster contest (5th grade)	SUASCO WCC and SRF	Hold contest	Contest rules provided to School Dept.	None
Revised					
2-3	Summit Event*	SUASCO WCC and SRF	Hold local stormwater summit meeting	None – planned for year 3	Develop materials for summit meeting
Revised					
2-4	Photo contest (High School)	SUASCO WCC and SRF	Hold contest	None – planned for year 4	None – planned for year 4
Revised					
2-5	Super—summit event	SUASCO WCC and SRF	Participate in regional "super-summit"	None – planned for year 5	None – planned for year 5
Revised					

* BMPs reversed from last year's report.

2a. Additions

2-6	Stream team survey of Seaverns Brook	SRF and stream team	Complete survey	None – GIS data needed for better base mapping	Complete survey

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	Stormwater System Mapping	DPW	Complete mapping of stormwater system over a 3 year period	GIS base mapping completed including locations of catch basins and drain manholes; outfalls located by GPS	Completion of stormwater system mapping using GPS to construct pipe network
3-2	Dry weather screening of outfalls	DPW	Visual inspection/report of known outfalls, 33% each year	All 241 outfalls checked in dry weather – no flow detected	Revisit outfalls during task 3-1 to confirm no flow.
3-3	Illicit Discharge Elimination	DPW, Board of Health	Trace non-stormwater flows and eliminate within 1 year	No non-stormwater flows found, therefore tracing and elimination not necessary	Document and trace non-stormwater flows as detected and eliminate
3-4	Water Quality Monitoring	Cambridge Water Supply	Obtain results of regular monitoring	Water quality data from CWS attached	Same as year 2
3-5	Amend Stormwater Regulations	DPW	Amended regulations adopted at 2003 Annual town Meeting	Goal met	Prepare amendment for 2006 ATM to incorporate Erosion and Sediment Control provisions
3-6	Septic System Monitoring Program	Board of Health	Develop, implement and enforce septic pumping	BOH not planning to institute mandatory pumping	
Revised			System in place to identify frequent pumping	GIS program development task includes septic system database management tool	Database created and in use; frequent pumping locations are investigated
3-7	Dechlorination of New Water Mains	DPW - Water Div.	Use dechlorination tablets when flushing new mains	No new mains installed during year 2	As needed
3-8	Trench Dewatering Policy	DPW	Require siltation control on all trench dewatering projects	Siltation control specified on all capital projects; controls used on DPW projects	As needed

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	Erosion and Sediment Control Bylaw	Planning Board, Conservation Commission, DPW	Develop, implement and enforce bylaw	Bylaw deferred until ATM 2006; DPW inspector assigned to enforce existing stormwater regulations	Amend stormwater regulations to incorporate erosion and sediment control provisions
Revised	*Incorporate provisions into Stormwater Regulations as policies*	DPW	All construction projects subject to Building Permit reviewed for compliance with policy	DPW inspector assigned to enforce policies	Same as year 2
4-2	Planning Board review of projects	Planning Board	All projects reviewed for compliance with runoff control measures	All applicants are required to demonstrate that they are addressing stormwater runoff control during construction	Same as year 2
4-3	Conservation Commission review of projects	Conservation Commission	All projects reviewed for compliance with runoff control measures	All applicants are required to demonstrate that they are addressing stormwater runoff control during construction	Same as year 2
4-4	Street Opening permit process	DPW	Inspections conducted for compliance with Stormwater Regulations	DPW inspector assigned to this task	Inspections documented and reported in annual report
4-5	Building Permit process	Building Dept.	Appropriate applicants referred to DPW for stormwater controls	Estimated that 100% of applicants are being referred to DPW for stormwater review	Implement permit tracking program to ensure compliance

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	Erosion and Sediment Control ByLaw	DPW	Same as control measure 4-1	Bylaw deferred until ATM 2006; DPW inspector assigned to enforce existing stormwater regulations	Amend stormwater regulations to incorporate erosion and sediment control provisions
Revised	*Incorporate provisions into Stormwater Regulations as policies*	DPW	All construction projects subject to Building Permit reviewed for compliance with policy	DPW inspector assigned to this task	Projects documented and reported in annual report
5-2	DPW Runoff Control Policy	DPW	Development / redevelopment projects required to handle stormwater on-site	Plan review and inspection procedure in place; estimated that 75% of potential projects are being reviewed	Goal is 100% of applicable projects are reviewed and inspected

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	Street Sweeping	DPW	Sweep all public streets annually	All public streets swept at least once per year	Same as year 2
6-2	Catch Basin Cleaning	DPW	Clean all public catch basins annually	All public catch basins cleaned at least annually	Same as year 2
6-3	Drainage Improvement Projects	DPW	Incorporate structural BMPs into each project	NA – no drainage improvement projects completed during permit year	
6-4	DPW Housekeeping	DPW	Conduct environmental audit, implement recommendations	Completed	
Revised	*Environmental Management System*	*DPW*	*Develop and Implement Environmental Management System*	*Consultant retained to develop system and provide training*	*System implemented*
6-5	Roadway De-icing Program	DPW	Install computerized spreader controls; alt. dispensing equipment	Equipment purchased, installed and utilized on two trucks in winter '04-05	Install and place into operation on remainder of fleet
6-6	Waterway Maintenance	DPW	Clear waterways of debris, 3 year rotating basis	Waterway maintenance work suspended due to lack of manpower	
Revised	*Ditch maintenance*	East Middlesex Mosquito Control Project	Clear sediment from ditches	Approx.3,200 l.f. of ditch clearing accomplished along Rte 20 area	Identify and clean as time and budget allows

6a. Additions

6-7	Employee Training Program	DPW	Provide all departments with training	Not done	Training planned for fall '05

Part IV. Summary of Information Collected and Analyzed

A summary of water quality monitoring results from Cambridge Water Supply (CWS) is attached. In general the data shows a slight decline in water quality compared to last year's data. Weston has received no indication of specific water quality concerns from staff in the Watershed Protection Division of CWS

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures	($)	$305,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

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	(#)	245*
System-Wide mapping complete	(%)	50
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS / GPS	(%)	100
Outfalls inspected/screened	(# or %)	100
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	NA
% of population on sewer	(%)	0.3**
% of population on septic systems	(%)	99.7

* not including Roads Trust area.

** residents at Regis College, which is sewered to the MWRA via private force main.

Construction

Number of construction starts (>1-acre)	(#)	20
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	75
Site inspections completed	(# or %)	25
Tickets/Stop work orders issued	(# or %)	2
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	5

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	25
Estimated volume of stormwater recharged	(gpy)	unknown

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
Number of drainage structures repaired or rebuilt	#	41
Total number of structures cleaned	(#)	587
Storm drain cleaned	(LF or mi.)	25 systems (length unk.)
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	386 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		landfill
Cost of screenings disposal (including trucking and disposal)	($)	$23/ton

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)	2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	2,075 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	landfill cover
Cost of sweepings disposal	($)	$9/ton
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers (reductions on Recreation Dept. fields only)	(lbs. or %)	25%
▪ Herbicides (reductions on Recreation Dept. fields only)	(lbs. or %)	25%
▪ Pesticides (reductions on Recreation Dept. fields only)	(lbs. or %)	25%

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	25-50% 5% pre-wet 0 0 0 0 75-50%
Pre-wetting techniques utilized	(y/n)	Y
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 %)	25%
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	NA

Attachment B
Cambridge Water Supply
Watershed Protection Division
2004 Water Quality Data Summary

Attachment A
Weston DPW
Stormwater Division
2004 Annual Report

STORMWATER DIVISION

The Stormwater Division is responsible for the maintenance of the Town's storm drains and waterways. This division is made up of five individuals whose focus is promoting Stormwater Management as prescribed by the EPA. Areas of attention include street sweeping, catch basin cleaning, repairs to catch basins and drainage systems and the clearing of brush and debris from brooks, streams and waterways.

Operation highlights of the past year include:

- Rebuilding, Repair and installation of 41 drainage structures in various locations around town. **(6-3)**

- The jetting of 25 drainage systems. **(6-3)**

- Removed 386 tons of debris from 587 catch basins and treated all the catch basins in town with Bacillus Sphaericus to help prevent the spread of the West Nile Virus. **(6-2)**

- Cleared streams, brooks and waterways of brush and debris along Boston Post Rd. By Pass, Ridgeway Rd., Corwood Dr., Bullard Rd., Warren Ave. to Concord Rd., Cliff Rd., Linden Cir., Golden Ball Rd. and the Deer Path Rd. Highland St. areas. **(3-2, 3-3, 6-6)**

- Swept 87 miles of roadway and the main roads twice, removing 2075 tons of debris. **(6-1)**

- Worked with the Town Engineer, Board of Health and The Conservation Commission to eliminate Stormwater, Wetland and Pollution problems. **(4-1, 4-3, 4-4, 5-1)**

- Finished mapping the drainage outfalls in the town using the GPS system. **(3-1)**

- Assisted the other DPW divisions in emergencies and their day to day operations.

The Stormwater Division also responds to snow and ice emergencies as well as all reports of flooding in the Town.

	Sampling Station: Primary Tribs					Sampling Station: Secondary Tribs				
	Stony Brook at Kendal Green	Hobbs Brook at Kendal Green	Stony Brook near Rte 20 interchange	stream at summer street		Mass Broken Stone Site	Weston Brook Rte 20 near brooks school	Church St	Cherry Brook at Conant Rd.	Stony Brook at Conant Rd.
Subbasin Properties										
					Fecal Coliform					
Baseflow:										
Concentration:										
Max	200	70	100	300		20	170	6	50	22
Min	92	9	100	300			300	100		
Median	98	40	100	300						
Average	130	40	100	300						
Load (kg/d)	510,609	160,839	583,326	18,179		N/A	N/A	N/A	N/A	N/A
Yield (kg/km2/d)	18,982	7,344	10,234	8,263		N/A	N/A	N/A	N/A	N/A
Storm:										
Concentration:										
Max	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Min	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Median	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Average	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Load (kg/d)	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Yield (kg/km2/d)	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
					Manganese					
Baseflow:										
Concentration:										
Max	0.24	0.52	0.31	0.05						
Min	0.16	0.21	0.31	0.05						
Median	0.19	0.23	0.31	0.05						
Average	0.20	0.32	0.31	0.05						
Load (kg/d)	53.80	60.96	180.83	0.30		N/A	N/A	N/A	N/A	N/A
Yield (kg/km2/d)	2.00	2.78	2.78	0.14		N/A	N/A	N/A	N/A	N/A
Storm:										
Concentration:										
Max	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Min	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Median	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Average	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Load (kg/d)	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Yield (kg/km2/d)	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A
					Sodium					
Baseflow:										
Concentration:										
Max	41	150	70	40						
Min	29	100	70	40						
Median	30	110	70	40						
Average	33.33	120.00	70	40						
Load (kg/d)	8,495	39,587	40,833	242		N/A	N/A	N/A	N/A	N/A
Yield (kg/km2/d)	316	316	716	110		N/A	N/A	N/A	N/A	N/A
Storm:										
Concentration:										