

Municipality/Organization: City of Beverly, MA
EPA NPDES Permit Number: MAR041181
MassDEP Transmittal Number: W-040371
Annual Report Number & Reporting Period: Year 11
April 1, 2013 – March 30, 2014

**NPDES PII Small MS4 General Permit
Annual Report
(Due: May 1, 2014)**

Part I. General Information

Contact Person: Roland Adams **Title:** GIS Coordinator
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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: MICHAEL P. CANILL
Title: MAYOR
Date: April 28, 2014

Part II. Self-Assessment

The Stormwater Committee completed a self-assessment at the March 11, 2014 Committee Meeting. Details of the plan were reviewed and we believe the City is in compliance with the 2003 permit.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-1 Revised	Article/brochure about stormwater in the annual Consumer Confidence Report	Engineering Dept.	Article published in the Water Quality Report annually distributed to all residents	Article in 2012 Water Quality Report distributed summer 2013	Continue
1-2 Revised	Stormwater education program for school children	Engineering Dept.	Integration of stormwater program in school curriculum Contracted with Greenscapes for outreach	Greenscapes publications at various locations, at “Touch a Truck” public youth event and City/Recreational web sites	Continue as appropriate
1-3 Revised	Public Education and protection	Health Dept.	Beach sampling report to public	Sampling at 11 beaches during the summer season and results posted on Mass. Dept. of Public Health and City of Beverly websites.	Continue
1-4 Revised	Educate dog owners about picking up dog waste		Recreation Dept.	Greenscapes—“Scoop it” brochure and add message to City web sites. Recreation Dept. brochure with rules/regulations mailed 3 times/year. Also Recreational & Beverly Dog Park Committee web sites.	Continue
1-5 Revised	Install and maintain pet waste clean-up signs at parks	Recreation Dept.		Signs updated at Lynch Park with Carry in/Carry out program. Signs at other parks updated as required.	Continue
1-6 Revised	Annual update of SWMP at televised City Council Meeting	Engineering Dept.	Annual update	Not completed—waiting new permit as vehicle	Continue as appropriate

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2-1 Revised	Form Stormwater Advisory Committee	Engineering Dept.	Form Committee	Committee formed by City Ordinance	Continue
2-2 Revised	Comply with State public notification guidelines at MGL Ch 39c23B	Planning Dept.	Public Notice	Public notice of Committee meetings	Continue
2-3 Revised	Stencil up to 25 catch basins with do not dump message	Public Services	Stencil catch basins	Community Service Volunteer was identified, but did not complete by report deadline	Continue
Revised					
Revised					
Revised					
Revised					

2a. Additions

	Medication Take Back Program	Health Dept.	Collection Events	Medication collection day April 26	Continue
	Mercury Recovery Program	Health Dept.	Drop off facility	Products containing mercury can be dropped off at the Health Dept. and Dawson's Hardware	Continue

	Butt Bin and Water Canteen Borrow Program	Planning Dept.	Provide bins for cigarette disposal and water canteens at public events	Farmers Market, art events and other community events.	Continue
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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-1 Revised	Map Stormwater Outfalls	Engineering Dept.	Map outfalls	Completed—GIS database updated as needed	Continue to update
3-2 Revised	Review and amend City's Ordinance to prohibit illicit discharges and connections, and to require inspection of new construction for correct connection	Planning & Engineering Depts.	Create an illicit discharge and connection ordinance	Component in the Ordinance—“Stormwater Management and Construction Site Ordinance” adopted May 12, 2008. Sanitary Sewer connections inspected at connection	Completed
3-3 Revised	Conduct dry weather outfall screening	Public Services	Sample outfalls	Outfalls mapped and inspected. Those from observation requiring sampling are sampled—sampling also done by local activist group—Salem Sound Coastwatch	Continue
3-4 Revised	Develop and implement plan to identify and remove non-stormwater discharges	Public Services	Illicit connection removed	Remove as found	Continue
3-5 Revised	Create a GIS for the stormwater collection system	Engineering Dept.	GIS Stormwater System	Completed and updated as require	Continue to update
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4-1 Revised	Erosion Sediment Control (ESC) Ordinance for construction sites greater than 1 acre in area	Planning Dept.	Create and adopt an ordinance	Component in the Ordinance—“Stormwater Management and Construction Site Ordinance” adopted May 12, 2008.	Completed
4-2 Revised	Require a waste management plan at construction sites greater than 1 acre	Planning & Engineering	Create and adopt an ordinance	Component in the Ordinance—“Stormwater Management and Construction Site Ordinance” adopted May 12, 2008.	Completed
4-3 Revised	Consider public input on project greater than 1 acre	Planning Dept.		Completed	Continue
4-4 Revised	Inspect erosion and sediment controls on projects greater than 1 acre	Planning & Engineering	Inspection of construction sites	Inspections at milestones—continuing on an “as need” basis	Continue
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5-1 Revised	Develop an ordinance to apply standards 2,3,4,7 and 9 of the Mass. Stormwater Policy to the entire City	Planning	Develop and adopt an Ordinance	Component in the Ordinance—“Stormwater Management and Construction Site Ordinance” adopted May 12, 2008.	Completed
5-2 Revised	Specify a stormwater BMP manual to be used for consistent design and performance standards	Planning & Engineering	Specify a manual	Completed—Stormwater Management, Stormwater Policy Handbook, Volumes 1&2	Completed
5-3 Revised	Develop an Ordinance that ensures long term maintenance of structural BMP's	Planning, Health & Public Services	Develop and adopt an Ordinance	Component in the Ordinance—“Stormwater Management and Construction Site Ordinance” adopted May 12, 2008.	Completed
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6-1 Revised	Identify sensitive receptors within the City	Engineering & Public Services		Completed	Continue
6-2 Revised	In house employee training program	Public Services		Continuing to train pesticide licensed employees	Continue
6-3 Revised	Hazardous Material Inventory & Training	Public Services		Motor pool employees trained for housekeeping measures relative to waste oils etc. and operation of fueling depot	Continue
6-4 Revised	Street Sweeping	Public Services		All streets swept 3 times per year with commercial/critical areas swept more frequently	Continue
6-5 Revised	Storm Drain Maintenance	Public Services		Catch basins city wide cleaned once per year	Continue
6-6 Revised	Roadway deicing	Public Services		Trucks purchased after 2008 with computerized ground speed controlled sander. All trucks as replaced to be fitted with similar units.	Continue
6-7 Revised	Minimize impacts from vehicle washing	Public Services	Secure funding	Facility under consideration—dependent on funding	

6-8 Revised	Park & Landscape maintenance	Public Services		Dispensers of herbicide/fertilizers are licensed. License requirement includes continuing education. Total 5 employees	Continue
6-8 Revised	Hazardous Waste Day	Health Dept.	Annual Hazardous Waste Day	Hazardous waste day was held- April 26, 2014. Also by agreement Beverly Residents can dispose of material at Salem's hazardous waste day	Continue

6a Additions

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2010 through March 31, 2011)

Programmatic

	(Preferred Units)		Response
	(y/n)		
Stormwater management position created/staffed			Y-Part Time
Annual program budget/expenditures **	(\$)		In dept Budgets
Total program expenditures since beginning of permit coverage	(\$)		In Dept Budgets
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)			General Fund & Enterprise

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)		100%
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 ** Volunteer	(y/n or mi.)		Y
Shoreline cleaned since beginning of permit coverage	(mi.)		
Household Hazardous Waste Collection Days			
▪ days sponsored **	(#)		2- with Salem
▪ community participation **	(# or %)		
▪ material collected ** Data for 2013 event—not available for 2014 event	(tons or gal)		3315 gal.
School curricula implemented	(y/n)		Y
• Change is Simple Program			

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
▪ 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

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	Discharge point 548
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	37%
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	2
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	2

% of population on sewer	(%)	92%
% of population on septic systems	(%)	8%

Construction

	(Preferred Units) Response	
Number of construction starts (>1-acre) **	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	11
Tickets/Stop work orders issued **	(# or %)	None
Fines collected **	(# and \$)	None
Complaints/concerns received from public **	(#)	None

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections (for proper BMP installation & operation) completed **	(# or %)	3
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

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
Qty of structures cleaned **	(#)	3500
Qty. of storm drain cleaned **	(%, LF or mi.)	400 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	576 Ton

Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill via BUD
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Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	30,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	10/each
• Disposal cost**	(\$)	15,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	N
• % Structures cleaned with clam shells **	(%)	99
• % Structures cleaned with vacor **	(%)	1

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	3
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	60
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	505 Ton
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill via BUD
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	10,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	NA
• Disposal cost**	(\$)	15,000
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)			
▪ Fertilizers	(lbs. or %)	Same as Last	
▪ Herbicides	(lbs. or %)		
▪ Pesticides	(lbs. or %)		
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y	

(Preferred Units)		Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	Same as Last
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	60%
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	Same as Last
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	NA
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n
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Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	

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