

Municipality/Organization: City of Beverly
EPA NPDES Permit Number: MAR041181
MassDEP Transmittal Number: W-040371

4/20/12
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Annual Report Number Year 9
& Reporting Period: April 1, 2011 – March 31, 2012

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2012)

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: William F. Scanlon, Jr

Title: Mayor

Date: 18 APR 2012

Part II. Self-Assessment

The City of Beverly has completed a self-assessment and is in compliance with the 2003 permit. Our Stormwater Committee has not been as active this past year waiting the new 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 9 (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 CCR annually distributed to all residents	Article in Water Quality Report distributed summer 2011	Continue
1-2 Revised	Stormwater education program for school children	Engineering dept	Integration of stormwater program in school curriculum	Not completed this year. Contracted with Salem Sound CoastWatch (local non profit environmental group) for outreach. Modeling new permit draft.	Developing an outreach program targeting specific audiences.
1-3 Revised	Public Education and Protection	Health Dept	Beach sampling reported to public	Beach test results summer 2011 posted Beverly and DPH web sites	Continue
1-4 Revised	Educate dog owners about picking up dog waste	Recreation Dept	Fact sheet mailed to dog owners	Recreation Dept Brochure with rules/regulations mailed 3 times/year. Also Beverly Recreational & Beverly Dog Park Committee web sites and email blasts to dog owners.	Continue
1-5 Revised	Install and maintain pet waste clean-up signs at parks	Recreation Dept		Signs posted at Parks and up dated as required. Dog waste collection container deployed to selected parks where dogs permitted.	Continue
1-6 Revised	Annual update of SWMP at televised City Council Meeting	Engineering Dept	Annual up-date	Not completed—waiting new permit as vehicle	

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (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	Continue program	Continue
Revised					
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 9 (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 Dept	Create an illicit discharge and connection ordinance for City Council	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 have been sampled. Sampling also done by local activist group.	Continue
3-4 Revised	Develop and implement plan to identify and remove non-stormwater discharges	Public Services	Illicit connection removed	Removed as found	Continue
3-5 Revised	Create a GIS for the stormwater collection system	Engineering Dept	GIS Stormwater System	Completed and updated as required	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 9 (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	Adopted—completed	Completed
4-2 Revised	Require a waste management plan at construction sites greater than 1 acre.	Planning and Engineering	Create and adopt an ordinance	Adopted—completed	Completed
4-3 Revised	Consider public input on project greater than 1 acre	Planning		Completed	Continue
4-4 Revised	Inspect erosion and sediment controls on projects greater than 1 acre.	Planning and Engineering	Inspection of construction sites	Inspections at milestones—continuing inspections on an “as need” basis	Continue
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5-1	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	Completed	Completed
Revised					
5-2	Specify a stormwater BMP manual to be used for consistent design and performance standards	Planning and Engineering	Specify a manual	Completed	Completed
Revised					
5-3	Develop an Ordinance that ensures long term maintenance of structural BMP's	Planning, health & Public Services		Completed	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 9 (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 annually	Continue
6-3 Revised	Hazardous Materials 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	Percent of roads swept annually	All streets swept 3 times per year with commercial/critical areas swept more frequently	Continue
6-5 Revised	Storm Drain Maintenance	Public Services	Number of catch basins cleaned annually	Catch basins City wide cleaned once per year	Continue
6-6 Revised	Roadway deicing	Public Services	Investigate alternative deicers & spreaders— Maintain records on deicer dispensing & spreader calibration	Trucks purchased after 2008 with computerized ground speed controlled sander. All trucks as replaced to be fitted with same unit	Continue
6-7	Minimize impacts from vehicle washing	Public Services	Secure funding	Facility under consideration—dependent on funding	

Revised						
6-8	Park & Landscape maintenance	Public Services			Dispensers of herbicide/fertilizers are licensed. License requirement includes continuing education. Total 5 employees	Continue
Revised						
6-9	Hazardous Waste Day	Health Dept	Annual Hazardous Waste Day		Hazardous Waste Day was held April 23, 2011. Also by agreement Beverly Residents can dispose of material at Salem's Hazardous Waste Day.	Continue
Revised						

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 9 (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, 2011 through March 31, 2012)

Programmatic

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

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	Thru Mailing 100%
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
Shoreline cleaned since beginning of permit coverage	(mi.)	N
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	259 vehicles
▪ material collected **	(tons or gal)	3480 gal

School curricula implemented	(y/n)	N

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=533
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)	
% of population on sewer	(%)	92%
% of population on septic systems	(%)	8%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	100%
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 (for proper BMP installation & operation) completed **	(# or %)	100%
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.)	350 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	1600 tons

Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill BUD
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Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$35,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$10/Basin
• Disposal cost**	(\$)	\$75,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• 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)	UP TO 60
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	200 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill BUD
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$50,000
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	
• Disposal cost**	(\$)	\$10,000
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 **	%	

Reduction (since beginning of permit coverage) in application on public land of:
 ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

(Preferred Units)		Response
Average Ratio of Anti-/De-Icing products used **	% NaCl	95
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl ₂	5
	% MgCl ₂	
	% CMA	
	% Kac	
	% KCl	
	% Sand	
Pre-wetting techniques utilized **	(y/n or %)	100%
Manual control spreaders used **	(y/n or %)	66%
Zero-velocity spreaders used **	(y/n or %)	0%
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	Est. 75%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	
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	0
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	0
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	0