

Municipality/Organization:

EPA NPDES Permit Number:

MassDEP Transmittal Number: W-

Annual Report Number **Year 15**
& Reporting Period: **April 1, 2014 – March 31, 2015**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2015)

Part I. General Information

Contact Person: William A. Fitzgerald, Jr.

Title: DPW Director

Telephone #: 508-588-1414x1024

Email: wfitzgerald@avonmass.org

Mailing Address: Town Hall, 65 East Main St, Avon MA 02322

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 A. Fitzgerald, Jr.

Title: DPW Director

Date: April 30th, 2015

Part II. Self-Assessment

Self Assessment

New

The town created a Department of Public Works on July 1, 2014, managing the Highway and Water Departments, with all responsibilities under the Board of Selectmen. A DPW Director was hired and started in early September. This creates a single point of responsibility to manage the full scope of stormwater issues. Since almost all stormwater in Avon releases into the drinking water well Zone II's,--and much of it flows through Zone I's, maintenance and performance of the stormwater system is as much a drinking water issue as a receiving water concern.

An early initiative of the new DPW was to modernize the Town's snow fighting approach. In earlier days, there was a public assumption that sand was benign as far as impact on receiving waters, and salt use should be severely limited. It's now known sand is as much if not more environmental detrimental., collecting heavy metals, oil, grease and other automotive byproducts. A large amount of the material flushes into storm drains before spring sweeping can occur, and, as said by EPA Region 1, sand spread on roads during the winter "...clogs storm water catch basins and fills streambeds. It also clouds the water, hurting aquatic animals and leading to an increase in microorganisms. Sand is also ground into a fine dust by traffic. This dust can trigger respiratory problems like asthma." Snowfighting changes included:

- eliminating use of sand (after 2013-2014 purchased stockpiles were depleted) except at extreme cold temperatures where salt would not be effective
- calibrating spreaders to control the amount of salt put down;
- piloting an agricultural additive that allowed a normal amount of salt to be effective at lower temperatures that would require a great increase in the amount of salt per lane mile.

These approaches are believed to have greatly reduced environmental impacts of winter operations, while improving public safety.

FEMA status?

storm water comments,

check to make sure the water protection stabilization account is still the small amount

TEC did the Pond Street study I thought. Call George Block for the info.

BMP 201 - I misspelled regulation

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
101	Stormwater Impacts Mailer	Selectmen	1 Town Wide Mailing	Included in town wide Selectmen's mailing May 2014	To be included in town wide Selectmen's 2015 mailing.
Revised					
102	School Stormwater Science Project	TA/School Sup't	1 Class Science Project	Progress year 15 unknown	Will discuss feasibility of project with school, versus other Town/School joint education priorities
Revised		DPW			
103	Stormwater on Local Cable Access Show		1 show on environmental/stormwater issues	Showed EPA/DEP stormwater programs on Avon local cable	Confirm ability to have EPA/DEP programs shown. Continue to hold annual cable show including storm water issues
Revised					
104	Youth Stream Cleanup	Town Administrator	Annual Stream Clean Up Day	Held May 10 th , 2014	Scheduled for May 3rd, 2015
Revised		Board of Health			
Revised					
Revised					

1a. Additions

105		DPW	TBD	New	319 grant under development will include public education component.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
201	Stormwater Management Task Force	Town Administrator	Establishment of Task Force	We have put together a work group consisting of the Highway Department Foreman Operations Manager, the Water Department Superintendent, the Town Administrator and the Chairman of the Board of Selectmen	Workgroup will include the new DPW Director position and the Highway Foreman. Water Department Superintendent position eliminated. Awaiting new Phase II permit
Revised		DPW Director			
202	Publicity of Stormwater related articles/hearings	Town Administrator	Public Announcements for all stormwater articles/hearing	Information distributed on the Town's Web Site and on local cable.	
Revised		DPW Director			
203	Science Contest sponsored by Business Association	Town Administrator	Stormwater Science Contest	No action at this time	No action planned at this time. Other Town priorities with the Business Association.
Revised		DPW Director			
Revised					
Revised					
Revised					

2a. Additions

					319 grant under development will include public education component.
--	--	--	--	--	--

--	--	--	--	--	--

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
301	Map Stormwater Sewer Infrastructure	Town Administrator and Highway Operations Manager		Developed plan to begin mapping in April/May 2015. Norfolk County Mosquito Control provided GIS layers of ditches and streams. Pond St study area uploaded into OCPC GIS. Created stormwater asset layer to populate in the town's asset management program, Utility Cloud. Outfalls GPS complete April 28, 2015, with photos	Mapping begun with assistance of Old Colony Planning Council. Plan to continue through summer with BSU intern. Ultimately, ubdrianage areas to look at quantity and quality factors
Revised		DPW Director and Highway Foreman			
302	Education Flier on Basement Good Housekeeping Practices	Town Administrator and Board of Health		water issues and in addition to a possible flyer, place information on the Town's Web Site. To be included in May 13 Selectmen's mailings.	
Revised					
303					
Revised					
Revised					
Revised					
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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
Revised					
Revised					
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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
Revised					
Revised					
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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

6a. Additions

	Snow Fighting Modifications			See Self Assessment for details	Continue modification, use minimal sand, continue to utilize other agricultural/carbohydrate based treatment additives.
	Training and tracking systems			Modified EMS includes more detail on good housekeeping	Continue to implement and evaluate adding additional DPW operation areas

	Safety Program			Safety walkthrough by Workers' Comp group includes assessment of exposure to activities that may impact stormwater runoff	Organize facility P2, safety and other training in one coordinated calendar schedule
	sSewering Industrial Park Area`			Consultant delineated wetlands in town owned land that is possible site for onsite treatment system for Industrial Park	Soils test to see feasibility, amount and rate of discharge capacity

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Year 16
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
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

Estimated number of property owners 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.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

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

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	
Site inspections completed **	(# or %)	
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	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	
Qty of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vacuor **	(%)	

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

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

	(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	
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	
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)	(%)	
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)	

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
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	