

APR 28 2014

Municipality/Organization: DOVER

EPA NPDES Permit Number: MAR041107

MassDEP Transmittal Number: X260642

Annual Report Number & Reporting Period: Year 11
April 1, 2013 – March 31, 2014

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

Part I. General Information

Contact Person: Craig S. Hughes **Title:** Superintendent of Streets

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Mailing Address: 2 Dedham Street, PO Box 250, Dover, MA 02030

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: David W. Ramsay

Printed Name: David W. Ramsay

Title: Town Administrator

Date: April 23, 2014

Part II. Self-Assessment

During this Permit year, the Town of Dover continued the good housekeeping and operational procedures that were implemented during (or prior to) previous Permit years, such as street sweeping, sidewalk sweeping, catch basin cleaning, and storm drain jetting.

The Town continues to minimize the tonnage of salt (sodium chloride) used on roadways by blending it with sand.

The Town continues to approach stormwater management and protection from new developments by using a Comprehensive Permit process. As part of this, the Town inspects constructed stormwater structures (such as detention basins) as well as stormwater management from areas currently under construction.

The Town will continue to look for available public education and outreach materials, as well as additional training opportunities in the next Permit year.

The Town will continue to await a new final Massachusetts MS4 Permit to determine the level of compliance that will be required in the next Permit year.

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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1.1 Revised	BMP Description	Engineering	None	None	None
1.2 Revised	Press Releases	Engineering	None	None	None
1.3 Revised	Groundwater	Engineering	Locating wells and septic systems	None	None
1.4 Revised	Hazardous Waste Collection	Volunteers	Places, dates, & time of pickups	The Town hosted a Household Hazardous Waste Collection event on April 6, 2013.	The Town will continue annual Household Hazardous Waste Collection event in Year 12.
1.5 Revised	Watershed Management	Engineering	Part of Planning Board R&R	A groundwater protection agent was appointed prior to this Permit year.	The Town will continue to fund and support the groundwater protection agent position and will continue to search for a second groundwater protection agent.
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2.1 Revised	Storm Committee	None	None	None	None planned.
2.2 Revised	Adopt-A-Stream	None	None	None	None planned.
2.3 Revised	Adopt-A-Street	None	None	None	None planned.
2.4 Revised	Stormwater Management Plan	Engineering	Completed	Components of the Stormwater Management Plan have been incorporated into the Town's Comprehensive Permit.	Continue to require Comprehensive Permit for developments and construction in Town.
Revised					
Revised					

2a. Additions

2.5	Dover Cleanup	Dover Recycling Committee	Yearly Event	Annual Dover cleanup was scheduled for March 29, 2014 it has been postponed until May because of snow cover.	Annual Dover cleanup on May 5, 2014, yearly cleanup scheduled for last Saturday in March.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3.1 Revised	Map Drain Systems	Engineering	Show on street maps	Outfalls and drainage structures were mapped prior to Year 11 by a Highway Department intern.	Expand mapping program based on requirements of new Massachusetts MS4 Permit.
3.2 Revised	Capital Budget and Planning	Superintendent of Streets	Inspect Outfalls and other components of drainage system.	Three existing detention basins within the Town are inspected during and after each storm event. Approximately 2,000 feet of 12-inch storm drain pipe was jetted in Year 11 by Araco Sewer & Drain Service, Inc., of South Easton, MA. The Town requests contractors to report observed signs of illicit discharges during catch basin cleaning.	The Town will continue to inspect detention basins and has a goal to clean 2,000+ feet of storm drain pipe each year. Catch basin cleaning will continue to be used for locating illicit discharges.
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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4.1 Revised	Town Regulations	Superintendent of Streets	Control Runoff	<p>The Town has several Chapters of Code in place which address water resources and/or stormwater. These include:</p> <ul style="list-style-type: none"> o Chapter 116 (Groundwater Protection Districts): Requires that road salt, pesticides, and fertilizers be stored inside to prevent a release, and also requires that new lots that propose more than 10% impervious surface provide on-site recharge. o Chapter 181 (Dover Wetlands Protection): Protection of wetlands and surface water bodies o Chapter 248 (Subdivision of Land), Article V: Establishes standards for new storm drain construction, including pre-and post-development flow calculations; requires Stormwater Management Plan for new development; establishes erosion and sedimentation control standards; o Chapter 263: Rules and Regulations supporting Chapter 181, the Wetland Bylaw. <p>No changes were made to any of these Chapters during this Permit year.</p>	<p>Continue to review building permit plans against established checklist and enforce existing Code with Town's Comprehensive Permit.</p> <p>Review all bylaws and Codes for compliance with IDDE, construction site stormwater runoff control, post-construction stormwater management, and other requirements in the new Massachusetts MS4 Permit. Revise bylaws as needed.</p>
4.2 Revised	Site Plan Review	Engineering	Send checklist comments to designers	<p>Require designers to use the checklist before submitting permit plans. Twelve site plans were reviewed during this Permit year by Town Engineer and/or Superintendent of Streets.</p>	Continue Process
4.3	Site Inspections	Engineering &	Foundation inspection	Contractors will continue to be required	Continue Process

Revised	Superintendent of Streets	for foundation drain and outlet	by the Town to call for an inspection prior to backfilling. Two developments under construction were inspected during this Permit year. No fines or stop work orders were issued.	
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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5.1 Revised	By-laws and Planning Board R&R	Engineer & Planner	Adopt By-Laws and Regulations	As noted, all Code related to stormwater was adopted prior to this Permit year.	Continue to enforce existing Code. Review all bylaws and Codes for compliance with IDDE, construction site stormwater runoff control, post-construction stormwater management, and other requirements in the new Massachusetts MS4 Permit. Revise bylaws as needed.
5.2 Revised	Design Standards	Planning Board ZBA	Check Infrastructure Construction	Twelve new building foundations were inspected by the Town Engineer or Superintendent of Streets in Year 11 to observe the nature of the foundation drain and outlet. Twelve final inspections were completed in Year 11.	Continue to administer existing inspection program. Continue to inspect developments upon construction completion.
5.3 Revised	Final Inspection	Engineer	Inspection of Infrastructure		
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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6.1 Revised	Coordination of Town Departments	Selectmen	Compliance with Phase II	Interdepartmental communication was practiced. There have been no events of non-compliance.	Town will review final new Massachusetts MS4 Permit and develop a new Stormwater Management Plan.
6.2 Revised	Questionnaire on Department Activities	Engineering	Review of Answered Questionnaire	Volumes of deicing materials used were monitored. A mix of sand and salt was used for deicing. During this permit year, the Town used 1,500 tons of salt and 1,000 tons of sand. Ice pellets of calcium chloride were used on sidewalks around public buildings. No liquid calcium was used. All lawns are treated with organic fertilizers.	Continue monitoring storage and use of products or materials that can potentially cause stormwater pollution.
6.3 Revised	Street Cleaning	Superintendent of Streets	Schedule Operations	Each street in town was swept twice using Town equipment and personnel. Street sweeping occurred in the spring and fall. High-traffic areas such as main roads were swept more frequently as needed. Sidewalks were swept once during the year by the Town's power broom. The street and sidewalk sweepings are composted after being tested.	Continue annual cleaning efforts.
6.4 Revised	Catch Basin Cleaning	Superintendent of Streets	Street Schedule	Each of the Town's 1,029 catch basins was cleaned twice by B.M.C. of Pinehurst, MA. The removed materials remained at the Highway Department where they were composted after being tested.	The Town plans to continue cleaning all catch basins twice a year.
6.5	Employee Training	Superintendent of Streets; Director of	Training for Equipment Operation	Two Highway Department personnel attended a hazardous waste seminar.	In Year 12, the Town will continue to look for additional training options, such as equipment manufacturers,

Revised		Parks & Recreation				insurance companies, and consulting firms.
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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
7.1 Revised	Check Outfalls	Superintendent of Streets	Schedule Dates	The Town of Dover previously located, mapped and inspected three outfalls located within the MS4 urbanized area. Each outfall was visually monitored during storm events in Year 11.	Town will continue monitoring all three outfall locations.
7.2 Revised	Identify Illicit Discharges	Engineer	Gather Samples for Lab Tests	No illicit discharges were located during this Permit year.	Continue IDDE program.
7.3 Revised	Establish TMDL's	Engineer	Identify Pollutant Source, if any	None.	Contingent on requirements in the final new Massachusetts MS4 Permit.
7.4 Revised	Pollutant Removal	Engineer	Treatment Units at Key Locations	Infiltration-based stormwater units were installed in previous Permit years to prevent runoff into a pond, units inspected and maintained by Town.	Town will continue to require infiltration and treatment based on % impervious surface proposed.
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

No analytical samples were collected during this Permit year.

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, 2013 through March 31, 2014)

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 **	(#)	1
▪ 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	(%)	100
Estimated or actual number of outfalls	(#)	3
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100
Outfalls inspected/screened **	(# or %)	3
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	0
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) **	(#)	12
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	12
Tickets/Stop work orders issued **	(# or %)	0
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)	2
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2
Qty of structures cleaned **	(#)	2,058
Qty. of storm drain cleaned **	(%, LF or mi.)	2,000 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost

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 vacor **	(%)	

	(Preferred Units)	Response
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)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Compost
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 **	% NaCl	60%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl ₂	
	% MgCl ₂	
	% CMA	
	% Kac	
	% KCl	40%
	% Sand	
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/in mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/in 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
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