

Municipality/Organization: Town of Stow, Highway Dept.

EPA NPDES Permit Number: MA041223

MassDEP Transmittal Number: W-21004712

**Annual Report Number
& Reporting Period:**

Year 15
April 1, 2017 – March 31, 2018

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2018)

Part I. General Information

Contact Person: Michael Clayton

Title: Superintendent of Streets

Telephone #: 978-897-8071

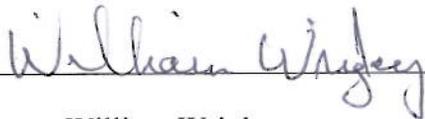
Email: highway@stow-ma.gov

Mailing Address: 88 South Acton Road, Stow, MA 01775

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 Wrigley

Title: Town Administrator

Date: _____

4/30/18

Part II. Self-Assessment

This year's planned activities for our SWMP have not all been met. With the State's DCR Office of Dam Safety giving us an order to have a Phase II Dam Inspection and Investigation performed on our Town owned, dam on Lake Boon. This depleted our funding for any of our mailings this year as well as many of our smaller projects and repairs needing to be put on hold so we could pay for this inspection. We hope to have our budget replenished at the Spring annual Town Meeting in May 2018.

Section 3, Illicit Discharge Detection and Elimination. Visual screenings were performed on every outfall on our inspection list. This was done 48 hours after a rainfall and no issues or problems were noticed at any of the outfalls. Our catch basin cleaning contractors are notified to be aware of any illicit connections they may find while cleaning our catch basins around town. There were no illicit connections noted.

Section 6, Pollution Prevention and Good Housekeeping. Training for Pollution Prevention and Maintenance to the Highway Department employees is done annually, to teach new employees and refresh older employees on the importance pollution prevention maintenance both at the garage and on the road where the majority of our work is done.

Sections 4 and 5 are performed every year. These are so called, "business as usual" items and are implemented when new construction or reconstruction is performed in Town.

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
1-1 Revised	Stormwater flyer to residents	SUASCO/BOS	Flyer distributed to 75% of residents		Distribute to all residents '19
2-1 Revised	5 th grade lesson plan	Same	Develop, distribute, teach		
3-1 Revised	Flyer to business'	Same	Distirbute to at least 50% of business'		Distribute to all business' '19
4-1 Revised	Media Campaign	Same	Info packet to media with press releases		Press release in Spring '19
5-1 Revised	Stormwater video	Same	Shown on public television	Shown Spring '18	Plan on showing on StowTV Spring '19
6-1 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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-2	Travelling Display	SUASCO/BOS	Circulate for 3 months and display in 3 public places	Shown at Town Building, Library and Highway Dept. Spring 2017	Planned showings Fall '17, Spring '18 Town Building, Spring Festival and library, new community center.
Revised					
2-2	Poster contest for grade 5 students	Same	Poster contest held, receipts judged and displayed	No progress	
Revised					
3-2	Photo contest for HS	Same	Photo contest held, receipts judged and displayed	No progress	
Revised					
4-2	Stormwater summit special	Same	Advertise and hold a multi town stormwater summit	Same	
Revised					
5-2	Participate in super summit; assess public awareness		Self test distributed to 75% of residents	Same	
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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-3 Revised	Provide written instructions to cb cleaning contractors	Highway Dept	Plan written and issued annually	Done annually	
2-3 Revised	Develop map of drainage system outfalls	Same	Map completed	Done	
3-3 Revised	Bylaw making non stormwater discharges and dumping illegal	Planning Board	Pass bylaw at town meeting	Existing bylaw found	
4-3 Revised	Outfall screening and plan for public reporting	Highway Dept or BOH	Publish where to report; test outfall waters	Visual screenings performed on all outfalls. No testing needed	Perform more screenings. Test as needed
5-3 Revised	Hold hazardous waste collection day	BOH	Cost included in annual budget	Hazardous waste collection has been outsourced to Devens and Town will no longer do locally	
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
1-4	Bylaw covering runoff and waste on 1-5 acre construction sites	Planning Board and Cons Comm	Subcommittee established to review existing laws and regs	Done	
Revised					
2-4	Ensure site plan reviews, consider water quality	Same	Site plan review procedure in place	Done	
Revised					
3-4	Develop means to consider reports received from public	Same	Written procedures in place	Done	
Revised					
4-4	Same as 1-4 above	Same	Subcommittee drafts bylaws	Done	
Revised					
5-4	Same as 1-4 above	Same	Bylaw presented to town meeting for approval	Done	
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
1-5 Revised	Develop program to address runoff from developments	Planning Board and Cons Comm	Appoint committee	Done	
2-5 Revised	Same	Same	Preliminary report to joint boards	No need. Bylaws and Regs in place already require permit, and conditions on permits will prevent post construction issues	
3-5 Revised	Develop BMP strategies appropriate for Stow	Same	Stow appropriate structural BMP list presented and distributed	Planning Board has adopted a list of preferable BMPs	
4-5 Revised	Regulatory changes to address runoff	Same	Proposed bylaw and rule changes proposed by committee	No need. Current bylaws and rules already cover this	
5-5 Revised	Long term maintenance of BMPs	BOS	Town Departments adopt a plan	Plan written and adopted by Highway Dept.	
Revised					

5a. Additions

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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
1-6	Pollution prevention plan for maintenance operations	Highway Dept.	Official adoption of posting and training	Done annually	
Revised					
2-6	Develop inspection procedures for structural BMPs	Same	Plan written and implemented	Done	
Revised					
3-6	Formalize pollution control for streets yards and lots	Same	Plan written and implemented, annual CB cleaning and streets sweeping	Done annually	
Revised					
4-6	Year round sweeping program	Same	Plan written and documented	Done	
Revised					
5-6	Pollution prevention from ball field runoff	Recreation Commission	Include requirement in RFP to contractors to meet DEP standards	Done	
Revised					
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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-7	Install structural BMPS at the outfalls to Lake Boon	Highway Dept	Survey, ID outfalls around lake	Done	
Revised					
2-7	Same	Same	Propose schedule of funding for structural BMPs	Done	
Revised					
3-7	Same	Same	Install 1/3 BMPs	Done	
Revised					
4-7	Same	Same	Install 1/3 of BMPs	Done	
Revised					
5-7	Same	Same	Complete installation of required BMPs	Done	
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, 2017 through March 31, 2018)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	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)	n
Stream teams established or supported	(# or y/n)	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 **	(#)	outsourced
▪ 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					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	(#)	20
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	In progress
Outfalls inspected/screened **	(# or %)	100%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	0
% of population on septic systems	(%)	100%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	30
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	3

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)	1 time/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1 time/year
Qty of structures cleaned **	(#)	300/year+/-
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	100 tons +/-
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	DPW

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$5,618.75
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	89.90/ hour
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	N
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vector **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1/year or as needed
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	Same
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	100 tons+/-
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	DPW
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	(#)	1/ owned
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	100%

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 %)	Y 15%
Manual control spreaders used **	(y/n or %)	Y 20%
Zero-velocity spreaders used **	(y/n or %)	Y 80%
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)	(%)	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)	100%

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	