

Municipality/Organization: Town of Hampden

EPA NPDES Permit Number: MAR041009

MassDEP Transmittal Number: W-035925

Annual Report Number Year 15
& Reporting Period: April 1, 2017 – March 31, 2018

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

Part I. General Information

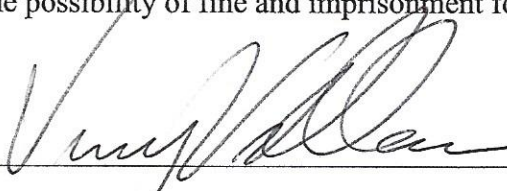
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Certification:

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: Vincent Villamaino

Title: Chair, Board of Selectmen

Date: April 30, 2018

Part II. Self-Assessment

In March of 2003, the Town of Hampden submitted a Notice of Intent describing the five year Stormwater Management Program as required by the U.S. Environmental Protection Agency (EPA). The Program consists of various tasks and timelines which address 6 Minimum Control Measures (MCMs) as outlined by the EPA. Since that time, the Town has addressed the 6 MCMs, with significant input from Stormwater Committee members.

The Committee forwarded the goals of EPA's 6 MCMs by implementing tasks delineated in the Notice of Intent/Stormwater Management Program. Many of the tasks started by the Committee continue to be implemented by others, including the Highway Department, Board of Health, Board of Selectmen and teachers at the Thornton Burgess Middle School. The required stormwater-related bylaws have been enacted and are being enforced by the Town.

As required by Part II.D.1 of the 2003 General Permit, regarding the development of this Annual Report, the Town evaluated compliance of the Stormwater Management Program with the conditions of EPA's 2003 NPDES General Permit for Stormwater Discharges from Small MS4s. The Town has made substantial progress implementing BMPs defined in the written Stormwater Management Plan and in meeting permit requirements.

The effort and dedication of the Committee and Community volunteers as well as Town staff make this program a success.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1A	Educational Displays	Board of Health (Stormwater Committee)	One display at municipal building per year. Years 1-5	Large poster on stormwater and the construction industry continued to be displayed in town hall in 2017-2018.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 1.
Revised				The same poster was also placed in the Planning Board Office to target construction industry professionals.	
1B	Educational Pamphlets	Board of Health (Stormwater Committee)	One town-wide mailing per year. Years 1-5	Stormwater Best Management Practices crossword puzzle previously distributed, currently (2017-2018) available in all Town Public Schools and Libraries.	
Revised					
1C	Classroom Education	School Department	One stormwater topic per year minimum (7 th and 8 th grade). Years 1-5	Incorporated water quality into curriculum for grades 6, 7 and 8. 6 th grade topics are included under Ecology unit. 7 th Grade topics include Erosion and under the Geology Unit. 8 th Grade topics include Environmental Action and Water Quality Monitoring under the Chemistry Unit.	
Revised					
1D	Community Website & Hotline	Board of Selectmen	Post information and link to DEP website	Maintained Stormwater Committee information on Town website along with a committee list, links to MassDEP and EPA websites, and household, construction, and commercial-related educational information.	
Revised					
1E	Hazardous Waste Collection Day	Board of Health	Publicize and support annual multi-town collection event	Published press release for Hazardous Waste Collection day, which was held on September 9, 2017. This event included East Longmeadow, Palmer, Longmeadow, Hampden, Ludlow, and Wilbraham. A total of 307 vehicles registered participation in the event, with 32 of those vehicles from Hampden.	
Revised					

1a. Additions

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2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2A	Adopt-a-Road	Board of Health/DPW	Support annual pickup of urban area roads. Years 1-5	Adopt-a-Road program held a successful cleanup event on May 13, 2017. Various civic groups participated, including Girl Scouts, Boy Scouts, the VFW, Cub Scouts, Fire Department, Lumberjack Club (high school club), the Lions Club, and Recreation volunteers, as well as resident volunteers. 1,056 gallons of debris were picked up and brought to the Transfer Station.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 2.
Revised					
2B	Storm Drain Stenciling	DPW	Form program, Target 10% of Town's catch basins annually. Years 1-5.	In Permit Year 12, DPW staff re-stenciled a few catch basins in the target area where stencils had worn off. Stencil says "No dumping, drains to waterway."	
Revised				In previous permit year, DPW identified 240 priority catch basins in the urbanized area. The Hampden DPW enlisted the help of the Boy Scouts to stencil 240 catch basins in Years 1 through 5. The catch basins were re-stenciled in 2010 as part of an Eagle Scout project.	
2C	Stormwater Committee	Planning Board	Initiate and set agenda Year 1. Administer SMP Years 2-5	The Hampden Stormwater Committee was formed in September 2003 by the Planning Board. The committee consisted of seven volunteers from the community, Planning Board, Conservation Commission, DPW, and School Department. The Committee did not formally meet in Permit Year 15, but various staff and volunteers coordinated and communicated on stormwater-related issues as needed.	
Revised					
2D	Attitude Survey	Planning Board	1 st survey to set baseline. Year 2 2 nd survey to measure progress and awareness, Year 5.	Survey was developed and results analyzed in Year 6. No surveys were planned for Permit Year 15.	
Revised					

2a. Additions

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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3A	Mapping stormwater outfalls	DPW	Compile map Year 1. Field inspect /verify 25% of outfalls annually Years 2-5.	The Town has met the 2003 General Permit requirements for MS4 mapping and has GIS data that includes all outfalls and receiving waterbodies in the Urbanized Area.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 3.
Revised				The Town also undertook an extensive effort to inventory outfalls with the help of local Eagle Scouts in Permit Year 2. Outfalls at bridges were inspected and photographed during fall 2012. These inventories resulted in development of a binder that includes photographs, condition, location, size, type, etc. for each outfall in the urbanized area. Outfalls are inspected annually, cleaned as necessary.	
3B	DPW Employee Education	DPW	Training under BMP #6C Year 1 to recognize Illicit discharges. Annual refresher Years 2-5.	Highway Department employees receive a refresher course each spring on illicit discharges, common signs of contamination in catch basins and actions to follow if such contaminants are found.	
Revised					
3C	Non-stormwater discharge ordinance	Board of Health/Planning Board	Evaluate existing procedures Year 1. Draft by-law Year 2. Propose for adoption Year 3. Enforce Years 4-5.	Chapter XIV – Stormwater Management By-law was approved at April 25, 2005 Town Meeting. This bylaw prohibits non-stormwater discharges to the MS4 and includes enforcement authority. At the April 2015 Town Meeting, an additional section was added to the zoning bylaw that regulates renewable energy generation sites, including site work.	
Revised					
3D	Develop Illicit Discharge Plan	Board of Selectmen/DPW		Town staff continues to look for illicit discharges and evidence of pollution in the MS4. In March 2014, used threat of enforcement action under the bylaw to require cleanup of substantial erosion impacting Town's MS4.	
Revised					

3a. Additions

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4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4A	Construction Runoff Ordinance	Planning Board	Evaluate Existing Regulations Year 1. Draft revisions Year 2. Propose for adoption Year 3. Enforce Years 3-5.	Developed an erosion control bylaw for construction and post construction activities. Erosion and Sediment Control for Stormwater Management Bylaw was approved at April 28, 2008 Town Meeting. Implemented and monitored erosion control bylaw.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 4.
4B	Construction Plan Review	Planning Board	Enforce under existing Town regulations Years 1 and 2. Enforce under adopted bylaw Years 3-5.	Planning Board reviews construction plans under the Erosion and Sediment Control for Stormwater Management bylaw.	
4C	Inspection / Reporting	Building Inspector	Enforce under existing Town regulations Years 1 and 2. Enforce under adopted bylaw Years 3-5.	Town Staff inspected construction sites as needed to verify erosion and sediment controls were properly utilized in accordance with the Erosion and Sediment Control for Stormwater Management bylaw.	
4D	Building Permit Application	Building Inspector	Include requirement for sites >1 acre to supply EPA permit number to trigger notice Year 1.	Require compliance with Erosion and Sediment Control for Stormwater Management bylaw.	
Revised					

4a. Additions

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5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5A	Post Construction Runoff Ordinance	Planning Board	Evaluate current regulations Year 1. Draft amendments Year 2. Propose adoption for Year 3. Enforce Years 3-5.	Developed an Erosion and Sediment Control for Stormwater Management bylaw for construction and post construction activities. Bylaw was approved at April 28, 2008 Town Meeting. Implemented and monitored Erosion and Sediment Control for Stormwater Management bylaw.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 5.
Revised					
5B	Site Plan Review	Planning Board	Enforce under existing Town regulations Years 1 and 2. Enforce under adopted bylaw Years 3-5.	Planning Board reviewing construction plans under new Erosion and Sediment Control for Stormwater Management bylaw.	
Revised					
5C	Stormwater System Management Plan	Planning Board	Enforce under existing Town regulations Years 1 and 2. Enforce under adopted bylaw Years 3-5.	Continuing inspection and reporting under new Erosion and Sediment Control for Stormwater Management bylaw.	
Revised					
5D	Training of Town Officials	Board of Selectmen	Initial Training on new bylaws Year 3.	No measurable goals were planned for Permit Year 15.	
Revised					

5a. Additions

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6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Board	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6A	Municipal Maintenance Activity Program	Board of Health/DPW	Evaluate and draft additional policies as necessary Year 1. Comply Years 2-5.	In a previous permit year, town staff reviewed policies and procedures regarding Municipal Maintenance and developed policies for addressing waste oil, educating employees, and other applicable municipal maintenance and pollution prevention activities. Staff implemented policies as needed throughout Permit Year 15. In Permit Year 13, Hampden obtained a sander with a ground speed control unit that attach to the spreader and synchronizes the dispensing of the salt to the RPMs of the engine, which can be helpful in conserving salt. BMPs regarding salt shed and truck loading operations have been and will continue to be evaluated and implemented, such as clean-up of excess salt on the outside of truck bodies.	Compliance with the new requirements of the 2016 MA Small MS4 General Permit, including assessment of existing stormwater practices, policies, and Town-wide stormwater-related programs, preparation of the Notice of Intent, and implementation of Best Management Practices to address the permit requirements for MCM 6.
Revised					
6B	Training of Municipal Employees	Board of Health/DPW	Initial training year 2. Annual refresher Years 3-5.	Employees have been trained on stormwater management, pollution prevention, and good housekeeping. New employees are trained and informed of the requirements and items they should be able to identify and either correct or report to the Superintendent.	
Revised					
6C	Stormwater Pollution Prevention Plan	Board of Selectmen	Compliance with SWPPP Years 1-5.	Stormwater pollution prevention plan has been developed for the Transfer Station.	
Revised					
6D	Catch Basin Cleaning Program	DPW	Clean 15% in urbanized area Year 1. Clean 25% of remaining Years 2-5.	Approximately 80% of catch basins Town-wide were inspected and cleaned; 100% of the catch basins in the urbanized area were inspected and cleaned. Materials were properly disposed of within the guidelines of a DEP issued BUD. 100% of streets in the urbanized areas were swept in Spring 2017 and Spring 2018.	
Revised					

6a. Additions

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7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

Per Part I.D.3. of the General Permit, “if the MS4 is required to implement stormwater WLA provisions of the TMDL, the permittee must assess whether the WLA is being met through implementation of existing stormwater control measures or if additional control measures are necessary. The permittee’s assessment of whether the WLA is being met is expected to focus on the adequacy of the permittee’s stormwater controls (implementation and maintenance), not on the response of the receiving water.” Hampden’s MS4 discharges into waterbodies within the Long Island Sound watershed, which has a Final TMDL for Total Nitrogen. Because the TMDL is for a pollutant likely to be found in stormwater discharges from Hampden’s MS4, our Stormwater Management Program includes the following existing stormwater control measures, as reported in the above Annual Report, that address total Nitrogen:

- Community Website (BMP 1D)
- Adopt-a-Road Clean-Up Program (BMP 2A)
- Storm Drain Stencils (BMP 2B)
- DPW Employee IDDE Education (BMP 3B)
- Construction Reviews (BMP 4B, BMP 4C, BMP 5B)
- Municipal Maintenance Activity Program (BMP 6A)
- Catch Basin Cleaning Program (BMP 6D)
- Stormwater Pollution Prevention Plan (BMP 6C)
- Street sweeping (BMP 6D)

Part IV. Summary of Information Collected and Analyzed

The Town continues to inspect outfalls and catch basins, and issues notices and works with property owners to address any illegal discharges into Hampden’s MS4 system.

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)	No
Annual program budget/expenditures **	(\$)	~\$60,000
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc.)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	30%
Stormwater management committee established	(y/n)	Yes (disbanded in 2008)
Stream teams established or supported	(# or y/n)	Yes (Adopt-a-Road)
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 %)	32 vehicles from Hampden 282 vehicles total
▪ material collected **	(tons or gal)	630 gal from Hampden 5,000 gal total
School curricula implemented	(y/n)	Yes

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 (2005)
▪ Erosion & Sediment Control					X (2008)
▪ Post-Development Stormwater Management					X (2008)
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					NA
▪ Erosion & Sediment Control					NA
▪ Post-Development Stormwater Management					NA

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100% in UA
Estimated or actual number of outfalls	(#)	30 in UA
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100% in UA
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	
▪ GIS	(%)	100% outfalls in UA
Outfalls inspected/screened **	(# or %)	75%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
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	(%)	0%
% of population on septic systems	(%)	100%

Construction

(Preferred Units) Response

Number of construction starts (>1-acre) **	(#)	9
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	9
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	(%)	
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.)	Once every 3-4 years
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr.)	Once per year
Qty of structures cleaned **	(#)	Cleaned in UA: 435 (100%) Total cleaned: 625 of 781
Qty. of storm drain cleaned **	(%, LF or mi.)	As needed
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	BUD for landfill daily cover, grading or shaping

Operations and Maintenance

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$40,900
• Hourly or per basin contract rate **	(\$/hr. or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		Contracted out
• 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 vector **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr.)	Once per year
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr.)	Once per year
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	40-50 yards
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Shoulder grading
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$16,800
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		Contracted out
• 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 **	%	

Operations and Maintenance

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

	(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	1,500 tons salt 200-400 tons sand
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	Yes
Zero-velocity spreaders used **	(y/n or %)	Yes
Estimated net reduction or increase in typical year salt/chemical application rate	(lbs/mi. or %)	No change
Estimated net reduction or increase in typical year sand application rate **	(lbs/mi. or %)	10-20% reduction
% of salt/chemical pile(s) covered in storage shed(s)	(%)	N/A
Storage shed(s) in design or under construction	(y/n or #)	Yes
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes

Water Supply Protection

Storm-water outfalls to public water supplies eliminated or relocated	# or y/n	No
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	No
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	No