Municipality/Organization: **Town of Boylston**

EPA NPDES Permit Number: **MAR041095**

MassDEP Transmittal Number: **W-049574**

Annual Report Number & Reporting Period: **Year 6** **April 1, 2008 – March 31, 2009**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2009)

Part I. General Information

Contact Person: Ms. Nancy Colbert Title: Town Administrator

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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: Nancy Colbert

Printed Name: Nancy Colbert

Title: Town Administrator

Date: 4/27/09

Part II. Self-Assessment

The Town of Boylston has completed the required self-assessment and has determined that our municipality has achieved the majority of measurable goals planned for Permit Year 6.

Some Best Management Practices (BMPs) are still in progress due to budget constraints. The following BMPs will be completed as soon as possible, within the limitations of the Town budget:

- Drainage mapping (ID-1) – ongoing with GPS mapping and outfall inspections (ID-2) planned for Spring/Summer 2009;
- Illicit discharge by-law (ID-3) – to be presented for adoption at the Annual Town Meeting on May 4;
- Formal schedule of Municipal O&M activities (GH-5); and
- Comprehensive training for Highway Department (GH-1).

During development of the Notice of Intent for the next General Permit, Boylston will re-assess its stormwater management program to develop an effective program that meets requirements of the next General Permit and best leverages Boylston's limited staff and financial resources to achieve measurable results.

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
PE-1	Partner with Local Organization	Stormwater Committee/Town Admin.	Y3-5: Identify local group/organization with interest in stormwater to partner with	Continued relationship with DCR on all aspects of stormwater within the Wachusett Watershed.	Measurable goals for 2003 General Permit have been met. Plan to continue working with DCR within the watershed.
PE-2	Stormwater brochure	Town Admin.	Y2-5 – Distribute one brochure per year to residents and industries in Boylston	Planned to prepare brochure on Illicit Discharge Detection and Elimination, but stormwater budget was not available. The intent of this brochure was met through outreach associated with the illicit discharges bylaw. See BMP ID-4.	Measurable goals for 2003 General Permit have been met.
Revised					
PE-3	Provide stormwater information at Town buildings	Town Admin.	Y2-5: Brochures will be available in the Town Hall	Continued making brochures available to public.	Measurable goals for 2003 General Permit have been met.
Revised					
PE-4	Pet Waste	Town Admin.	Y1-5 – Post signs at public park lands for pet owners to properly dispose of waste	Continued maintenance on signs.	Measurable goals for 2003 General Permit have been met.
Revised					
PE-5	Feature SW info on town public access cable station	Town Admin.	Y2-5 – Feature SW info on cable station	Did not feature new stormwater information on cable TV this year.	Prior to the 2009 Annual Town Meeting on May 4, the "Town Meeting Article Review, which includes information on the proposed illicit discharges bylaw (BMP ID-3), will run frequently on the local cable station.
Revised					

PE-6	Stormwater presentations at schools	Stormwater Committee and DCR	Y2-5 – Include stormwater issues in yearly environmental presentations at High School	Due to requirements of MCAS and demands on teachers and students this was not continued this past year.	Measurable goals for 2003 General Permit have been met.
Revised					

2. Public Involvement and Participation

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 6** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Next Permit Term**
PP-1	Partner with local organization	Stormwater Committee/Town Administrator	Y3-5: Identify group to partner with (DCR)	Continued cooperation and partnership with DCR.	Measurable goals for 2003 General Permit have been met.
PP-2	Place Traveling Display at various locations	Town Admin.	No activities planned for Y2-5.	No activity planned for Y6.	Measurable goal for 2003 General Permit was met in Y1.
PP-3	Incorporate SW into public meetings	Town Admin.	Y3-5 – Present updates to the SWMP. Continue to invite stormwater discussion at one meeting per year.	Stormwater issues were discussed at periodic Stormwater Committee meetings, Conservation Commission meetings, and Special or Annual Town Meetings which are open to the public.	Measurable goals for 2003 General Permit have been met. The illicit discharges bylaw (BMP ID-3) will be discussed at the April 27, 2009 Selectmen's Meeting and will be presented for adoption at the Annual Town Meeting on May 4, 2009.
PP-4	Poster Contest	Town Admin.	Develop concept and approach local scouting troops.	Contacted local scout troop, however, no response to poster session idea. Continued relation with DCR and work with them on outreach to local school age children to meet intent of this BMP.	Identify a BMP during the next permit term that will reach the same audience but is easier to implement than the Poster Contest.

PP-5	Stormwater Committee	Town Admin.	Y1-5 – Review SWMP each year and coordinate efforts of all Town offices.	Stormwater Committee met as needed to implement planned stormwater management activities.	The Town's local stormwater bylaws are enforced by the Board of Health and the Conservation Commission. However, the Stormwater Committee will continue to work together to manage the overall stormwater program.

3. Illicit Discharge Detection and Elimination

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 6** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Next Permit Term**
ID-1	Drainage Mapping	Stormwater Committee	Y5: Update map with outfall locations in priority areas.	Obtained updated base map from DCR with outfalls and drainage structures within the Wachusett Reservoir Watershed. Funds were not available to complete drainage mapping in Y6.	A consultant has been retained to GPS-locate the outfalls and drainage structures in the urbanized area outside of the Wachusett Reservoir Watershed. Work is scheduled to begin in Spring/Summer 2009.
ID-2	Eliminate Illicit Discharges	DPW	Y3-Y5 – Implement Plan	Based on the memo dated March 2005 that outlines the IDDE Plan, the Town has identified priority areas and drafted an illicit discharge by-law.	While GPS locating outfalls, the Town's consultants will visually inspect each outfall during dry weather in Spring/Summer 2009.
Revised		*DPW and Board of Health*			
ID-3	Develop and implement an illicit discharge by-law	Stormwater Committee	Y4 – Present by-law at Town meeting and finalize Y5 – Implement and enforce by-law.	The Stormwater Committee worked with Board of Health to develop an Illicit Discharge By-law and to take responsibility for enforcement.	The By-law is scheduled to be presented for adoption at Annual Town Meeting on May 4, 2009. If approved, the Board of Health will implement and enforce the by-law.
Revised		*Board of Health and Stormwater Committee*			

ID-4	Educate citizens	Town Admin.	Y3 – Notify public of IDDE plan Y4 – Notify public of upcoming IDDE by-law Y5 – Notify public of new by-law in place	Because of the delay in drafting and adopting the illicit discharges by-law, the timeline has been modified. There have been advertised public meetings regarding the proposed bylaw. Additionally, the Warrant Article for the new by-law was sent to all residents of Boylston.	Once the by-law is adopted, the Board of Health should consider additional public education on illicit discharges if staff and financial resources are available.
Revised		*Board of Health*	*Y6: Notify public of upcoming IDDE by-law*		

4. Construction Site Stormwater Runoff Control

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 6** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Next Permit Term**
CS-1	Develop and implement Construction Site Runoff Control Program	Stormwater Committee	Y3-Y5: Implement Construction Site Runoff Control Program	The Stormwater regulations were adopted by the Conservation Commission on December 17, 2007. Implement construction site runoff control measures through the stormwater permitting process.	Measurable goals for 2003 General Permit have been met.
Revised		*Con. Com.*			
CS-2	Develop and implement Erosion and Sediment Control By-law	Con. Com	Y5: Implement by-law	The Stormwater regulations were adopted by the Conservation Commission on December 17, 2007. Implement construction site runoff control measures through the stormwater permitting process.	Measurable goals for 2003 General Permit have been met.
Revised					

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
PC-1	Develop and implement Post-Construction Runoff Control Program	Planning Board & Building Inspector	Y3-5: Implement Post-Construction Runoff Control Program	The Stormwater regulations were adopted by the Conservation Commission on December 17, 2007. Implement post-construction runoff control measures through the stormwater permitting process.	Measurable goals for 2003 General Permit have been met.
Revised		*Con. Com.*			
PC-2	Develop and implement post-construction runoff regulations	Planning Board & Con. Com.	Y4: Implement by-law. Y5: Review effectiveness of by-law and enhance if necessary.	The Stormwater regulations were adopted by the Conservation Commission on December 17, 2007. Implement post-construction runoff control measures through the stormwater permitting process.	Measurable goals for 2003 General Permit have been met. As the Conservation Commission continues to issue and enforce Stormwater Control Permits, the by-law and regulations will be enhanced as deemed necessary.
Revised					

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
GH-1	Employee training program	Highway Dept.	Y2-Y5 – Hold one good housekeeping workshop per year at Highway Department	During daily meetings with personnel, good housekeeping measures are discussed as they relate to stormwater practices.	Measurable goals for 2003 General Permit have been met.
Revised					

GH-2	Catch basin cleaning	Highway Dept.	Y1-Y5 – Highway Dept. will clean each catch basin in the urbanized area of Town once per year.	The Highway Dept. cleaned catch basins twice per year and as needed. Don Parker recorded streets names, # CBs, and recorded total amount of sediment and debris collected.	Continue to clean catch basins at least once per year in the urbanized area of Town. Continue to record location of CBs cleaned and total amount of sediment/debris removed
Revised					
GH-3	Street sweeping	Highway Dept.	Y1-Y5 – Highway Dept. will sweep every street in the urbanized area of Town once per year	Highway Dept. swept streets once in Spring and as needed. Don Parker recorded the amount of sweepings collected.	Continue to sweep streets in the urbanized area at least once per year. Continue to record volume of sweepings.
Revised					
GH-4	Recycling program	Highway Dept.	Y1-Y5 – Continue Town's waste oil collection	Continued to collect waste oil at the Town Barn to burn in the furnace.	Continue acceptance of waste oil at the Highway Barn
Revised					
GH-5	Municipal Operation and Maintenance Plan	Highway Dept.	Develop schedule for municipal maintenance activities	Because of budget constraints, a formal schedule for municipal activities was not developed.	Plan to formalize municipal operation and maintenance program and schedule in the next permit term.
Revised					
GH-6	Reporting	Highway Dept.	Record stormwater management activities	Don Parker prepares a weekly report of Highway Dept. activities for the Town Manager, which includes stormwater related activities.	Measurable goals for 2003 General Permit have been met. Continue Highway Department weekly reporting to the Town Manager.
Revised					

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
TMDL-1	Check current impairment lists	DPW	Y1 – There are no completed TMDL studies for receiving waters in Boylston's urbanized area. Y2-Y5 – Check current MA Integrated List of Waters each Winter for newly listed waters	Reviewed Proposed Massachusetts 2008 Integrated List of Waters and MassDEP TMDL website (http://www.mass.gov/dep/water/resources/tmdls.htm). Draft pathogen TMDL report available for the Nashua River Watershed, which includes Malagasco Brook. Once TMDL is finalized, Boylston plans to follow up report with DCR and develop specific BMPs for Malagasco Brook. TMDL of Phosphorus for Selected Northern Blackstone Lakes, including Newton Pond, is final.	Measurable goals for 2003 General Permit have been met.
Revised					
TMDL-2	Malagasco Brook Pathogens	Stormwater Committee	Y3 - Partner with DCR	Outfalls along the Brook have been located and mapped. Samples were collected from Malagasco Brook as part of a study by DCR, UMass, and WPI. However it is not apparent from this study if stormwater adversely affects surface water quality in the Brook. Other potential sources were identified during the study. Continue to work with DCR to monitor the Brook. Implement measures to mitigate pathogens from the Boylston MS4 as necessary.	Measurable goals for 2003 General Permit have been met.
Revised					

7b. WLA Assessment: N/A

Per Part I.D.3. of the General Permit, "if the MS4 is required to implement storm water waste load allocation provisions of the TMDL, the permittee must assess whether the WLA is being met through implementation of existing storm water 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 storm water controls (implementation and maintenance), not on the response of the receiving water."

There is a final TMDL of Phosphorus for Selected Northern Blackstone Lakes, including Newton Pond within Boylston and Shrewsbury. Because the TMDL is for a pollutant likely to be found in storm water discharges from Boylston's MS4, their Stormwater Management Program includes BMPs that address the load allocation. The TMDL includes a target in-lake total phosphorus concentration is 25 ppb and a load allocation of 257 kg/year, as shown below in Table 4k from the TMDL report.

Table 4k. Newton Pond MA51110 TMDL Load Allocation.

Source	*Current TP Loading (kg/yr)*	*Target TP Load Allocation (kg/yr)*
Forest	88	88
Agriculture	10	7
Open Land	30	21
Residential (Low den.)	33	23
Residential (High den.)	128	90
Comm. Indust.	33	23
Septic System	8	5
Other	0	0
Total Inputs	330	257

At this time, Boylston is making steady progress towards meeting the load allocation through implementation of existing BMPs. Boylston's Stormwater Management Program includes a number of existing stormwater control measures, as reported in the above Annual Report, that address pollutants of concern in water quality impaired waters and total phosphorus. The BMPs identified under Minimum Control Measures (MCMs) 1 through 6, including, but not limited to, those relating to public education, pet waste, illicit discharges, construction and post-construction inspections, employee training, and the good housekeeping measures such as street sweeping and catch basin cleaning, all help prevent phosphorus from entering water bodies in Town.

At this time, the Town does not plan to add any BMPs to address the load allocation, but will consider additional BMPs to address the TMDL during development of the next NOI.

Part IV. Summary of Information Collected and Analyzed

The Town of Boylston did not collect/analyze water quality data for the Stormwater Management Plan during Permit Year 6.

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, 2008 through March 31, 2009)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	($)	$5,000 to W&C/yr; staff and volunteer time: estimated $150K/yr
Total program expenditures since beginning of permit coverage	($)	>$800k over 5 years (includes EOEA grant and volunteer and staff hours)
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund, grant from EOEA

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	100% residential
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	N
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				X	
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination					N/A
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	50
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	(%)	0
% of population on septic systems	(%)	100

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)	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 **	(#)	

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	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vactor **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1
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	Y - DCR
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	