

Municipality/Organization: Town of Reading

EPA NPDES Permit Number: MAR041056

MaDEP Transmittal Number: W-040966

**Annual Report Number
& Reporting Period:** No. 8: April 1, 2010 – March 31, 2011

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: George J. Zambouras

Title: Town Engineer

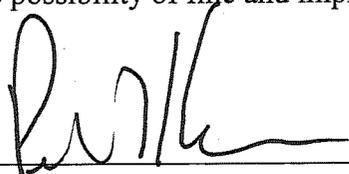
Telephone #: (781) 942-9082

Email: gzambouras@ci.reading.ma.us

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: Peter I. Hechenbleikner

Title: Town Manager

Date: April 27, 2011

Part II. Self-Assessment

The Town of Reading has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provision:

Part III 3-14 Behind schedule of illicit detection and removal program, as of the end of the reporting period only 90% of outfalls were field identified, inspected and documented of dry weather flow. The Town is requesting an RFP and intends to award a contract, during the spring 2011, to complete the screening, sampling and GIS mapping of the storm water system.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
1	Research available public educational materials	Community Services/Public Works	Compilation of educational materials	Continued to research and update collection of public education materials for use in future programs.	Ongoing BMP no additional planned activities
2	Develop a Public Education Plan	Community Services/Public Works	Development of plan	Public Education Plan developed and included in the Town’s Storm Water Handbook	BMP complete. Review and update existing plan for compliance with anticipated new MS4 permit.
3	Present Annual Report to Town Meeting	Public Works	Make presentation	Report provided at Spring Town Meeting	BMP ongoing, next planned report Town Meeting in Fall 2011
4	Implement Public Education Plan	Community Services/Public Works	Meet schedules identified in the plan	Continue Public Education Activities identified in the Public Education Plan. - Updated Community News Letter, Mailings with water billings, RCTV bulletin board, formed Stormwater Hot Line, maintained Stormwater page on Towns web site, distributed spring clean-up poster; and established storm water displays at Friends & Family Day Library Day and at Town offices.	Continue Public Education Activities identified in the Public Education Plan and expand outreach to include schools and applicable new Town wide events.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
5	Establish a Stormwater Management Advisory Committee	General Services/Board of Selectmen	Establish Committee	BMP completed in year 1. Committee accomplished all goals. Committee was dissolved and all duties now under direction of Board of Selectman. No activities were planned for year 6.	BMP Complete, no planned activities
6	Comply with Public Meeting Laws for Committee meetings	Public Works	Keep records of postings/advertising	The Water, Sewer and Storm Water Management Advisory Committee was dissolved on June 2007, All power and duties transferred to Board of Selectman which meet weekly. All meetings are duly posted and/or advertised in accordance with State Law	Continue meetings, develop and review new regulations and policies as necessary.
7	Develop a Public Involvement/Participation Plan	Community Services/Public Works	Development of plan	Completed development of the public participation plan.	Continue with public outreach. Review and modify existing plan for compliance with anticipated new MS4 permit.
8	Solicit volunteers for public participation plan	Community Services/Public Works	Keep records of organizations contacted	Volunteer group performed annual river way clean-up, clearing of trails adjacent to conservation areas; successfully solicited assistance from businesses for participation in catch basin stenciling program.	Expand contact of local organizations to identify potential candidates for public involvement.
9	If sufficient volunteers are identified, implement plan	Community Services/Public Works	Keep records of public involvement/participation activities	Businesses volunteered for clean up and stenciling program: Keurig and Ruox Industries.	Continue to solicit volunteers for participation in public participation.
Revised					

2a. Additions

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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
10	Develop outfall map using existing information	Public Works	Map developed	ACAD and GIS mapping of identified outfall map completed.	Verify mapping of all outfalls during complete system mapping program.
11	Review exiting by-laws to determine if a new by-law is necessary	Community Services/Public Works	Report on adequacy of existing by-laws	Review completed no change of laws planned.	Review existing laws for compliance with anticipated new MS4 permit.
12	If necessary, develop non-storm water by-law	Community Services/Public Works	Write by-law and bring to Town Meeting	Review of sewer use regulation completed	BMP complete. No planned activities
13	Develop three year plan to identify and eliminate illicit discharges	Public Works	Plan developed	Plan completed - Continued funding of Stormwater Enterprise fund through fees	Revise and develop new plan based on compliance with anticipated new MS4 permit.
14	Implement 3-year illicit discharge detection program	Public Works	Complete each phase of the program by dates outlined in plan	New Town wide 40 scale aerial digital mapping completed to assist in illicit detection and drainage system mapping (Phase I). - In house scanning of storm water system records 100% complete. - Field identified and inspected 90% of outfalls	Review and award illicit detection, sampling and Town wide GIS mapping of storm water system contract, late spring 2011. Complete inspection and screening of outfalls for illicit discharge detection under mapping and detection contract.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
15	Review existing by-laws and regulations	Community Services/Public Works	Summary report of regulatory review prepared	Review completed	Review existing laws and regulations for compliance with anticipated new MS4 permit.
16	If necessary, develop new erosion control by-law	Community Services/Public Works	New by-law brought to Town Meeting	Existing regulations previously amended, no new activities were planned.	BMP complete. No planned activities
17	If necessary, amend existing erosion control regulations	Community Services/Public Works	Regulations amended	Subdivision Regulations were previously amended to expand application of Stormwater Management control.	BMP complete. Review regulations to determine need for amendments to meet new stormwater regulations or standards.
18	Revise/resubmit by-law if not approved by Town Meeting	Community Services/Public Works	By-law revised and resubmitted to Town Meeting	No planned activities	No planned activities
19	Enforce new by-laws or regulations	Community Services	Keep records of enforcement	Stormwater management (SWMP) and record keeping were required on all conservation, site plan, special permit and subdivision submittals. - Inspected and monitored private construction activities for compliance with SWMP. - Received record drawings of private stormwater devices to update database.	Continue enforcement of erosion control program through existing regulations. Continue to monitor private stormwater management devices for compliance with approved SWMP. Continue to update database of all privately owned regulated stormwater management devices and annual compliance.
Revised					

4a. Additions

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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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
20	Review existing by-laws and regulations	Community Services/Public Works	Summary report of regulatory review prepared	Review completed	Review existing laws and regulations for compliance with anticipated new MS4 permit.
21	If necessary, develop post-construction runoff by-law	Community Services/Public Works	New by-law brought to Town meeting	The Town has incorporated compliance with the DEP Stormwater Management Policy into its Subdivision Rules and Regulations, Site Plan Rules and Conservation Commission Rules and Regulations. A new by-law is not necessary.	BMP complete. No planned activities
22	Inventory existing BMPs that are under Town jurisdiction	Public Works	All BMPs inventoried	Inventory of BMP's previously completed via ACAD mapping. Conversion to GIS database ongoing. Updated inventory for new BMP's installed.	Ongoing updating and field verification of BMP inventory as necessary. Continue to update GIS mapping and database for new BMP installed.
23	Develop five-year O&M plan for Town-owned BMPs	Community Services/Public Works	O&M Plan written	Completed, O&M plan developed for identified BMP's. Updated plan for newly installed BMP's.	Continue to monitor and update five-year O&M plan based on field verification\changes of inventory as necessary.
24	Begin implementation of five-year O&M Plan	Public Works	Records of O&M activities maintained in accordance with O&M schedule	Implemented O&M plan and recorded maintenance and repair activities. Repaired damaged drainage structures, cleaned conduits and dredged swales as permitted by available funding. Purchased new combination vac/jet vehicle under Capitol Plan. Installed 2 pre-treatment units under Memorial Park Project.	Purchase of additional maintenance equipment proposed in FY 2012 Capitol Plan. Additional drainage repair, waterway cleanup and storm water treatment devices proposed in FY 2012 Capitol Plan.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
25	Evaluate Town's current good housekeeping practices	Public Works	Report prepared on good housekeeping practices	Evaluation completed, continue implementation and monitoring Town's practices	BMP completed. Continue to monitor Town's practices. Review practices and recommend improvements as necessary to meet new MS4 permit.
26	Develop written O&M plan to formalize Town's practices	Public Works	O&M Plan developed	Written O&M plan previously developed no updates determined.	Update O&M plan as needed.
27	Implement O&M Plan	Public Works	Records of O&M activities maintained	Continued activities of final O&M plan.	Continue activities of O&M plan
28	Sweep all Town owned streets and parking lots once per year	Public Works	All streets and parking lots swept, records maintained	All Town owned parking lots and streets were swept in the eight year of the permit and records were kept	Continue street sweeping a minimum of once per year
29	Clean all Town owned catch basins once per year	Public Works	All catch basins cleaned, records maintained	All accessible Town owned catch basins were cleaned and records were kept. Repaired 8 damaged and/or inaccessible catch basins during year.	Continue catch basin cleaning once per year. Identify damaged catch basins for repair. Continue to verify list of catch basins and stormwater devices through field inspection and GIS mapping.
30	Provide one household hazardous waste drop off per year	Community Services/Public Works	Household hazardous waste drop-off conducted	Household hazardous waste drop-offs were conducted on May 22, 2010 and September 25, 2010	Two household hazardous waste drop-offs are planned - May 21, 2010 and September 24, 2010
31	Provide used oil drop-off at the Public Works Garage at least 10 hours per week	Public Works	Used oil drop-off maintained, records of used oil maintained	Used oil drop-off at the Public Works garage is held Monday-Friday 7:30 AM-2:30 PM and Saturdays 9:00 AM-12:00 PM	Used oil drop-off expected to continue during the same hours as last year
32	Recycle Town generated tires, batteries, scrap metal, used oil	Public Works	Identified materials recycled, records kept	The Town recycled all its used tires, vehicle batteries, scrap metal, electronics and used oil in accordance with various contracts with recyclers. Town revised recycling program to weekly pick-up and curbside pickup of electronics and white goods	The Town intends to continue its recycling programs

Revised					
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6a. Additions

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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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised					

7a. Additions

7b. WLA Assessment

No TMDLs have been established for any of the receiving waters.

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

** Reflects Annual Totals or Amounts

Programmatic

Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures**	(\$)	\$450,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	100%
Stormwater management committee established (Committee Dissolved – Now under authority of Board of Selectman)	(y/n)	Y
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days **		
▪ days sponsored	(#)	2
▪ community participation	(%)	
▪ material collected	(tons or gal)	425 (vehicles)
School curricula implemented – Recycling Program	(y/n)	Y

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with “X”)				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				X
▪ Post-Development Stormwater Management				X

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

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	325
System-Wide mapping complete	(%)	15%
Mapping method(s)		
▪ Paper/Mylar	(%)	0 %
▪ CADD	(%)	100 %
▪ GIS	(%)	15 %
Outfalls inspected/screened	(# or %)	80 %
Illicit discharges identified	(#)	4
Illicit connections removed	(#) (est. gpd)	4
% of population on sewer	(%)	97%
% of population on septic systems	(%)	3%

Construction

Number of construction starts (>1-acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
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	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1 time/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	2 time/yr
Total number of structures cleaned **	(#)	2746
Storm drain cleaned **	(LF or mi.)	2500 LF
Qty. of screenings/debris removed from storm sewer infrastructure**	(lbs. or tons)	1000 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal**	(\$)	
Drainage ditch/swale cleaned		0 ft

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1 time/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2 times/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	300 Tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	32% CaCl ₂
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N