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Municipality/Organization: Newburyport

EPA NPDES Permit Number: MAR041213

MassDEP Transmittal Number: W-040792

Annual Report Number Year 8
& Reporting Period: April 1, 2010 – March 31, 2011

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)

Part I. General Information

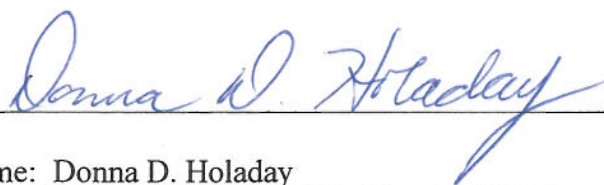
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Certification:

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: Donna D. Holaday

Title: Mayor, City of Newburyport

Date: 4/28/11

Part II. Self-Assessment

The last permit year was an exciting time for stormwater initiatives throughout the City of Newburyport. Mayor Holaday is a strong proponent of projects providing stormwater improvements (both quality and quantity). In Fall 2010, the City completed the replacement of a culvert on Plum Island Turnpike as part of the Hazard Mitigation Grant Program (HMGP), funded by the Federal Emergency Management Agency (FEMA) with a City match. This culvert replacement should alleviate flooding of the City's only access road out to Plum Island. In August and September of 2010, the City signed contracts with the Massachusetts Emergency Management Agency/Department of Conservation and Recreation and with Malcolm Pirnie to conduct a Flood Study and flood mitigation project along Malcolm Hoyt Road. This project was also part of the HMGP funded by FEMA. The Flood Study has been ongoing since September and mitigation strategies are currently being designed for the Industrial Park area.

On October 28, 2010 the City, along with Horsley Witten, Halvorson Design Partnership, and the Merrimack Valley Planning Commission (MVPC) held a free Low Impact Development (LID) Seminar for interested municipal employees, board members, contractors, and consulting firms. Newburyport's newest green initiative seeks to integrate LID in both public and private projects moving forward, for greater environmental and fiscal responsibility. Additionally, the City's Office of Planning & Development organized a tour of the University of New Hampshire Stormwater Center on November 19, 2010 and invited interested municipal staff, developers and contractors, and engineering consultants to join. Most recently, the City received a \$60,381 grant from the Office of Coastal Zone Management to design LID stormwater BMPs to retrofit selected streets that drain to the Merrimack River, providing a reduction in pathogens and other contaminants reaching the River.

The City's Stormwater Management Ordinance, Chapter 17 of the Code of Ordinances, has been adopted by the City Council, approved by the Mayor, and became effective on September 24, 2010. The City's Stormwater Advisory Committee continues to work on the draft Stormwater Rules and Regulations (Rules and Regulations). Promulgation of the Rules and Regulations is anticipated in the upcoming year.

Fiscal responsibility for the City's MS4 has been re-assigned to the City's Sewer Commission. The Commission is currently exploring funding options including the formation of a Stormwater Utility.

The Department of Public Services, Office of Planning and Development, and Sewer Commission staff also attended stormwater workshops to learn more about stormwater regulations and technologies in Massachusetts. City staff attended the November 17, 2010 workshop hosted by the MVPC which presented several topics including an update on MS4 permits by the EPA, the current and future status of stormwater rulemaking in Massachusetts by the DEP, and technology topics regarding TMDLs and pollutants of

concern (particularly phosphorus). Additionally, this winter, Malcolm Pirmie presented a workshop on the Draft Interstate, Merrimack, and South Coastal MS4 permit requirements as well as general funding and Stormwater Utility options to representatives of the Department of Public Services and Sewer Commission.

Finally, other annual maintenance and outreach activities were achieved. The City continues to maintain signs, stenciling, and brochures developed in previous years. City field crews continue to mark up stormwater system maps printed from the latest GIS layer. The GIS will be updated periodically as budget allows. Field efforts this year for the ongoing Flood Study have provided additional stormwater system information for inclusion into the City's GIS as funding allows. It is anticipated that the City will fund GIS updates under the new MS4 permit. The City continues to follow good housekeeping and pollution prevention procedures with street sweeping, catch basin cleaning, and other municipal operations.

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
1-1	Newsletter/brochure about stormwater to be included in the sewer bill once annually	Department of Public Services and/or Conservation Commission	Newsletter/Brochure distributed to all households in Newburyport	An article on stormwater was distributed to the public in 2010.	Distribute article on stormwater management program annually by July.
1-2	Educate dog owners about picking up dog waste	Department of Public Services	Distribute Fact Sheet to Dog Owners	Fact sheet continues to be made available to all dog owners through various City departments including City Hall, the Health Department, and City schools.	Continue throughout permit term.
1-3	Stormwater education program for school children	Stormwater Advisory Committee	Inquire about presentation to Middle or Elementary School children	The Stormwater Advisory Committee has discussed public outreach activities and priorities. With limited resources, it has been decided that this form of public outreach is not of the highest priority. Other outreach efforts have been pursued during this permit year, including a free LID seminar on October 28, 2010 and a tour of the University of New Hampshire Stormwater Center. Both outreach campaigns target municipal staff, contractors/developers, consultants, and the public and support the City's new green/LID initiatives.	Implement additional programs next permit term.
1-4	Maintain pet waste clean-up signs at schools, parks, and beaches	Department of Public Services	Signs posted	Signs are posted and maintained.	Monitor throughout permit term.

1-5	Annual update of SWMP at a televised City Council Meeting	Dept. of Public Services and/or Conservation Commission	Update City Council on SWMP status.	The City Council will receive a copy of this annual report. City Council meetings regarding the Stormwater Management Ordinance were open to the public. The City also held a public meeting on September 28, 2010 to discuss the priorities and goals for an ongoing Flood Study in the Industrial Park area. Other stormwater issues are routinely discussed at regular Conservation Commission, Sewer Commission, and Planning Board meetings as part of the permitting process for projects throughout the City.	Continue throughout permit term.
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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
2-1	Form Stormwater Advisory Committee	Department of Public Services	Form Committee during fourth permit year.	Measure complete. The Stormwater Advisory Committee meets at least quarterly. They are currently working on finalizing the Stormwater Management Rules & Regulations. Meetings are open to the public.	Meet at least quarterly. Promulgate Rules & Regulations.
2-2	Comply with state public notification guidelines at MGL Ch. 39 s. 23B.	City Clerk	Notices posted in library and current locations.	City Council, Conservation Commission, Sewer Commission, and Planning Board meetings are open to the public. Stormwater issues are routinely discussed at these regular meetings. The special public meeting held for the City's Flood Study was advertised in the newspaper and abutters received letters in the mail.	Continue throughout permit term.
2-3	Stencil catch basins with don't dump message	Department of Public Services	Identify and prioritize catch basins to be stenciled with "Don't Dump" message.	Maintained catch basin stenciling in regulated area.	Continue throughout permit term.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
3-1	Conduct dry weather outfall screening	Department of Public Services	Locate Outfalls within regulated area during first year of permit term. All Outfalls screened during permit term.	All easily accessible outfalls have been screened.	Continue throughout permit term as budget allows.
3-2	Map stormwater outfalls	Department of Public Services	Locate outfalls on a map within regulated area.	Measure completed. Maps are continuously marked up in field. Additional stormwater system information recorded in the field Fall 2010-Spring 2011. GIS will be updated as funding allows.	Measure completed. Maps will be updated as new information becomes available.
3-3	Assess need for stormwater GIS layer	Department of Public Services	Decision on whether to go forward with a stormwater GIS within first two years of the permit.	February 2007 version of GIS layer serves as a significant enhanced tool for the City. Maps are continuously marked up in field. GIS will be updated as funding allows. DPS has updated in-house GIS capabilities.	Continue to improve stormwater GIS layer as funding allows.
3-4	Develop and implement plan to identify and remove non-stormwater discharges	Department of Public Services	Number of illicit connections found and removed.	No illicit discharges were identified in this permit year. The City is beginning to plan to further investigate/remove non-stormwater discharges now that the Ordinance is in place.	Further investigate for illicit discharges in the system.
3-5	Develop a bylaw to require inspection of construction sites.	Department of Public Services	Draft Ordinance	The City's Stormwater Management Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations.	Finalize Stormwater Management Rules and Regulations.

3a. Additions

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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
4-1	Construction site Erosion Sediment Control Ordinance for construction sites greater than 1 acre in area	Department of Public Services	Draft Ordinance by end of third permit year.	The City's Stormwater Management Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	Finalize Stormwater Management Rules and Regulations.
Revised	Construction site Erosion Sediment Control Ordinance for land disturbance of 10,000 square feet or greater.		Update Stormwater Management Rules and Regulations		
4-2	Require a waste management plan at construction sites larger than one acre.	Department of Public Services	Draft Ordinance by end of third permit year.	The City's Stormwater Management Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations, including procedures for construction site waste management.	Finalize Stormwater Management Rules and Regulations.
Revised	Require a waste management plan for land disturbance of 10,000 square feet or greater.		Update Stormwater Management Rules and Regulations		

4-3 Revised	Review site plans for stormwater impacts.	Department of Public Services Planning Department	Policies for Site Plan Review developed	The City's Stormwater Management Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations, including site plan review policies.	Finalize Stormwater Management Rules and Regulations.
4-4	Consider public input.	Department of Public Services	Number of Public Hearings held.	All City Council meetings regarding the Stormwater Management Ordinance were open to the public. The first reading was held on August 30, 2010. The City Council adopted the Ordinance on September 13, 2010. The Mayor approved the Ordinance on September 24, 2010.	Finalize Stormwater Management Rules and Regulations. Continue to make Stormwater Advisory Committee meetings open to the public.
4-5	Inspect erosion and sediment controls	Department of Public Services	Develop procedure, including inspection checklist, and commence reviews by end of third permit year.	The City's Stormwater Management Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations, including procedures for inspecting erosion and sediment controls, including an inspection checklist.	Finalize Stormwater Management Rules and Regulations.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
5-1	Develop a draft ordinance to apply Standards 2, 3, 4, 7, and 9 of the Massachusetts Stormwater Policy to the entire municipality. Present to City Council.	Department of Public Services	Draft ordinance by end of third permit year.	Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations.	Finalize Stormwater Management Rules and Regulations.
Revised			Update Stormwater Management Rules and Regulations		
5-2	Specify a stormwater BMP manual to be used for consistent design and performance standards	Department of Public Services	Select BMP Manual by end of third permit year.	Draft Stormwater Management Rules and Regulations lists Massachusetts DEP Stormwater Management Manual and BMP resource materials for use in design. It is expected that finalized Rules and Regulations will require the DEP manual as well.	Finalize Stormwater Management Rules and Regulations.
5-3	Develop draft ordinance that ensures long-term maintenance of private Structural BMPs. Present to City Council.	Department of Public Services	Compliance with regulations, present to City Council by end of third permit year.	Ordinance has been adopted by City Council and approved by the Mayor and is effective as of September 24, 2010. The Stormwater Advisory Committee is working to finalize and promulgate the Stormwater Management Rules & Regulations.	Finalize Stormwater Management Rules and Regulations.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
6-1	Identify sensitive receptors within the City	Conservation Commission	List of sensitive receptors developed, staff notified by the end of first permit year.	Measure completed.	Measure completed.
6-2	Street Sweeping	Department of Public Services	Continue street sweeping procedures.	Street sweeping operations are continuous. 100% of streets are swept at least annually and high traffic areas are swept twice. The City has implemented better street sweeping routes and schedules.	Continue throughout permit term.
6-3	Sidewalk Sweeping	Department of Public Services	Continue sidewalk sweeping procedures.	Sidewalk sweeping operations are continuous. Sidewalks in downtown area are swept at least annually.	Continue throughout permit term.
6-4	Roadway deicing	Department of Public Services	Amounts of deicing compounds used.	Quantity of deicing compounds documented. The City used 2,300 tons of salt and 30 tons of sand in the winter of 2010/2011.	Continue throughout permit term.
6-5	Minimize impacts from vehicle washing	Department of Public Services	Minimize impacts from vehicle washing	Continued use of vehicle washing containment area and proper procedures for minimizing impacts from vehicle washing.	Continue throughout permit term.
6-6	Minimize impacts from vehicle maintenance	Department of Public Services	Amount of hazardous materials used.	Continued use of proper procedures for minimizing impacts from vehicle maintenance.	Continue throughout permit term.
6-7	Maintain storm drain system	Department of Public Services	Number of catch basins cleaned annually	100% of catch basins are cleaned annually (2787) catch basins. The City has implemented better catch basin cleaning routes and schedules.	Continue throughout permit term.

6-8	Minimize pesticide and fertilizer use for parks and other landscaped areas	Department of Public Services	Training conducted; amount of herbicides/fertilizers	Continued use of green landscaping procedures during permit year. DPS does not use herbicides or fertilizers.	Continue throughout permit term.
6-9	Control of illegal dumping	Department of Public Services	Number of signs posted; number of sites cleaned up.	Continued monitoring, cleaning-up dump sites, and posting signs.	Continue throughout permit term.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised					
Revised					
Revised					
Revised					
Revised					
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, 2010 through March 31, 2011)

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 **	(#)	

▪ 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	(%)	
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	(%)	
% of population on septic systems	(%)	

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)	
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)	
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Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	
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	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vacuor **	(%)	

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