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Municipality/Organization: Newburyport
EPA NPDES Permit Number: MAR041213
MassDEP Transmittal Number: W-040792
Annual Report Number & Reporting Period: Year 9
April 1, 2011 – March 31, 2012

NPDES Phase II Small MS4 General Permit Annual Report (Due: May 1, 2012)

Part I. General Information

Contact Person: Ms. Debbie Cheng **Title:** Assistant Engineer, Department of Public Services

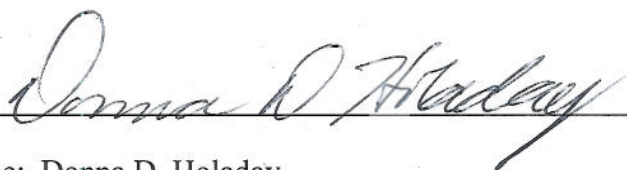
Telephone #: 978-465-4464 **Email:** dcheng@CityofNewburyport.com

Mailing Address: 16A Perry Way, Newburyport, MA 01950

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: April 27, 2012

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). The City continued to work with the Massachusetts Emergency Management Agency/Department of Conservation and Recreation and with our stormwater consultants, Malcolm Pirnie to conduct a flood study and flood mitigation project for the Industrial Park. This project was part of the Hazard Mitigation Grant Program funded by Federal Emergency Management Agency (FEMA). In the final report, submitted to FEMA in December 2011, the Parker Street culvert was identified as undersized and was recommended to be replaced. In February 2012, FEMA notified the City that the Parker Street Culvert project would not be funded because the FEMA Cost Benefit Analysis did not yield enough of a financial benefit.

Despite FEMA's rejection on this capital improvement project, several other City wide stormwater improvements came from the work of this report, including a greater understanding of the impact of impervious areas in the City, a need for planning regulations to consider impervious reductions for future development as well as redevelopment, and other items that match with the City's Green Community theme. Mayor Holaday continued to update and work diligently with the business owners on mitigating stormwater and flooding issues. Thus, a new group, named the Newburyport Business Park Association, was formed as a Public-Private partnership with stormwater goals as one of their objectives.

As a Green Community, Mayor Holaday and City staff are planning a tree nursery for the City, homeowners, and businesses to plant trees in the public right-of-ways and private properties to encourage best management practices and help mitigate stormwater and flooding. The tree nursery will be located at the existing composting facility once the proposed Yard Waste Facility project is completed early next permit year.

Followed by the City's Stormwater Management Ordinance, Chapter 17 of the Code of Ordinances, adoption by the City Council, approval by the Mayor, and set effective on September 24, 2010, the City's Stormwater Advisory Committee is in the last phase of finalizing the Stormwater Rules and Regulations. Finalizing the Rules and Regulations draft is anticipated in the upcoming year. The Stormwater Advisory Committee is currently exploring funding options including the formation of a Stormwater Utility.

Finally, other annual maintenance and outreach activities were achieved. The City continues to maintain signs and brochures developed in previous years. City field crews continue to mark up stormwater system maps printed from the latest GIS layer and the City has received flood maps from FEMA from the flood mitigation project. The City has been meeting with MVPC routinely to discuss updating the GIS system as the budget allows. GIS funding needs and options are also being discussed. Redesigning and

Part III. Summary of Minimum Control Measures

Note on format for this annual report:

1. Items that were noted as “revised” in the Year 8 Annual Report now are no longer noted as “revised” and are the stand alone item in this report.
2. Newly revised items for Year 10 work are noted as such.

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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	DPS projects and the lack of staff did not allow time to distribute a newsletter/brochure to all households in Newburyport. The City recognized this and hired a new staff member to assist on stormwater matters.	Distribute information on stormwater management program annually. Explore distributing stormwater information using green options (i.e. website, email).
Revised for Year 10	Newsletter/brochure about stormwater once annually	Department of Public Services			
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, Health Department, and City schools.	Continue to distribute fact sheets to dog owners.
Revised for Year 10		Health Department			

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. Business Park owners outreach was the priority this permit year with the Flood Study. Discussions were targeted to business owners that supported the City's green/LID initiatives.	DPS plans to meet with the Recycling and Energy Coordinator in the Health Department to include stormwater in outreach programs targeted to children.
Revised for Year 10	Stormwater education program for children	Department Of Public Services and/or Health Department	Meet and outline stormwater programs; Number of programs.		
1-4	Maintain pet waste clean-up signs at schools, parks, and beaches	Department of Public Services	Signs posted.	Measure completed. Signs posted and inspected.	Inspect quality of existing signs and maintain as required.
Revised for Year 10		Health Department			
1-5	Annual update of SWMP at a televised City Council Meeting	Department of Public Services and/or Conservation Commission	Update City Council on SWMP status.	The City Council will receive a copy of this annual report. At the March 27th, 2012 City Council meeting, DPS updated City Council on the status of the 2003 Phase II MS4 permit and the anticipated 2012 permit. Next steps by DPS will include reviewing the permit and presenting a proposal describing DPS needs to stay in compliance.	Provide an annual update of the SWMP to the City Council at a televised meeting. Review new Phase II MS4 Permit and present needs to City Council.
Revised for Year 10		Department of Public Services			

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
2-1	Form Stormwater Advisory Committee	Department of Public Services	Form Committee during fourth permit year.	Measure completed.	Measure completed.
2-2	Comply with state public notification guidelines at MGL Ch. 39 s. 23B.	City Clerk	Notices posted in library and current locations.	Conservation Commission, Sewer Commission, Planning Board, and Stormwater Advisory Committee meetings are filed with the City Clerk, posted, and open to the public. Stormwater issues are routinely discussed at these regular meetings.	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.	Due to lack of staff, stenciling was not performed this year. The City recognized this and hired a new staff member to assist with stormwater matters.	Stencil along all reconstructed sidewalks and on at least 30 new catch basins.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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.
3-2	Map stormwater outfalls	Department of Public Services	Locate outfalls on a map within regulated area.	Measure completed. Maps are continuously marked up while in the field to show corrections or fix errors. Additional stormwater system information is recorded in a field book.	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.	Updates to the stormwater GIS layer continued throughout the permit year. A significant amount of new survey data was collected within the City's Industrial Park area.	Continue to improve stormwater GIS layer. Update GIS layer with FEMA flood maps, red marked field book, and Malcolm Hoyt Drainage Improvements Flood Study.
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 during this permit year.	Continue to identify and further investigate illicit discharges in the system.
3-5	Develop a bylaw to require inspection of construction sites.	Department of Public Services	Draft Ordinance	Measure completed. 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.	Measure completed. The City's Stormwater Management Ordinance will be updated as necessary.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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.	Measure completed. 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.	Finalize Stormwater Management Rules and Regulations.
Revised for Year 10	Construction site Erosion Sediment Control Ordinance for land disturbance of 10,000 square feet or greater.		Draft Stormwater Management Rules and Regulations	The Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	
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.	Measure completed. 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.	Finalize Stormwater Management Rules and Regulations.
Revised for Year 10	Require a waste management plan for land disturbance of 10,000 square feet or greater.		Draft Stormwater Management Rules and Regulations	The Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	

4-3	Revised for Year 10	Review site plans for stormwater impacts.	Department of Public Services Planning Department	Policies for Site Plan Review developed.	Planning Department's Policies for Site Plan Review is being revised to reference the Stormwater Rules & Regulations once finalized. The Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	Finalize Stormwater Management Rules and Regulations. Revise Site Plan review once Rules and Regulations are finalized.
4-4	Revised for Year 10	Consider public input.	Department of Public Services Stormwater Advisory Committee	Number of Public Hearings held.	Stormwater issues were discussed at Stormwater Advisory Committee meeting, including permit compliance and funding options. Stormwater Rules and Regulations are currently being reviewed.	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 Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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.	Measure completed. 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.	Finalize Stormwater Management Rules and Regulations.
Revised for Year 10		Stormwater Advisory Committee	Draft Stormwater Management Rules and Regulations	The Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	
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 Handbook 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.	Measure completed. 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.	Finalize Stormwater Management Rules and Regulations.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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 multiple times. The City has implemented better street sweeping routes and schedules.	Continue sweeping 100% of streets at least annually and high priority areas as needed throughout permit year.
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 sweeping all sidewalks in downtown at least annually throughout permit year.
6-4	Roadway deicing	Department of Public Services	Amounts of deicing compounds used.	For the winter of 2011/2012, the City used 1,126 tons of salt and 2 tons of sand.	Document deicing compounds used by the City for the winter of 2012/2013.
6-5	Minimize impacts from vehicle washing	Department of Public Services	Minimize impacts from vehicle washing	On-site oil/water separator and primary washing containment area for vehicle washing.	Continue use of vehicle washing containment area and proper procedures for minimizing impacts from vehicle washing.
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	DPS has implemented a storm drain cleaning system. However, due to lack of funding, approximately 100 catch basins all located in low lying areas throughout the City were monitored and cleaned with a Vactor through permit year. Other higher lying catch basins were visually inspected and cleaned as necessary.	Continue identifying and cleaning critical catch basins throughout permit year. Assess storm drain cleaning system.
6-8	Minimize pesticide and fertilizer use for parks and other landscaped areas	Department of Public Services	Training conducted; amount of herbicides/fertilizers	DPS does not use herbicides or fertilizers for landscaping parks and other areas in the City.	Continue use of green landscaping procedures during permit year.
6-9	Control of illegal dumping	Department of Public Services	Number of signs posted; number of sites cleaned up.	Continued identifying, monitoring, and cleaning-up dump sites and posting signs.	Continue monitoring and cleaning-up dump sites and posting signs.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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, 2011 through March 31, 2012)

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)	
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 vacor **		(%)	

	(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
Pre-wetting techniques utilized **	% KCl
	% Sand
	(y/n or %)
	(y/n or %)
	(y/n or %)
Manual control spreaders used **	(y/n or %)
Zero-velocity spreaders used **	(y/n or %)