

Municipality/Organization: Newburyport
EPA NPDES Permit Number: MAR041213
MassDEP Transmittal Number: W-040792
Annual Report Number & Reporting Period: Year 10
April 1, 2012 – March 31, 2013

NPDES Phase II Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

Contact Person: Mr. Anthony Furnari Title: Director, Department of Public Services

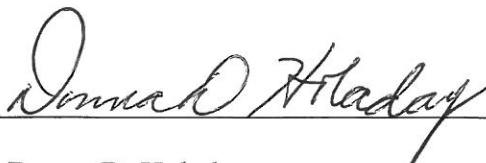
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Certification:

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:

4/23/13

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 has been working with the Newburyport Business Park Association and converted a large shed into an educational center at the new Yard Waste Facility.

Since the completion of the Flood Study, the City and the Newburyport Business Park Association (NBPA) have been working together to mitigate stormwater and flooding issues. The first goal is to restore swales and culverts of the stormwater conveyance system in the Business Park back to its original purpose and elevation. NBPA utilized the Flood Study and identified three critical swales to be cleaned and seven critical culverts in need of repair for Phase I of swale maintenance. The Department of Public Services (DPS) agreed to provide labor and disposal for the swale maintenance. In addition, DPS has obtained beaver trapping licenses to remove beaver dams in critical conveyance areas. The NBPA and DPS sought and received approval for Phase I by the Conservation Commission last summer. Phase I is ongoing and NBPA and DPS anticipate Phase II soon.

The New Yard Waste Facility opened during the fall of 2012. As part of expanding the facility for public needs and safety reasons, DPS and the Health Department included converting a large, unused shed into an educational center for the public. Since the site falls within the Parker River watershed, the educational shed will include information on the watershed, trails, and stormwater impacts. In addition, during the summer the City runs a program called EcoTours, where participants explore the City on bicycles, and the educational center has been added as a new stop.

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. This project is ongoing.

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 City made significant changes to the Stormwater Rules & Regulations draft this permit year, including, adding a City Stormwater Permit and a retention standard. 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 MVP C routinely to discuss updating the GIS system as the budget allows. GIS funding needs and options are also being discussed. Redesigning and reconstructing roadways have decreased imperviousness throughout the City by adding grass strips to sidewalks and including tree where possible. 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

Note on format for this annual report:

1. 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 distributed once annually	Department of Public Services	Newsletter/Brochure distributed to all households in Newburyport	DPS distributed a brochure on lawn care with sewer bills to all households in Newburyport beginning in July 2012.	Distribute information on stormwater management program annually. Explore distributing stormwater information using green options (i.e. website, email).
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	A new educational center has been constructed as part of the new Yard Waste Facility completed during the fall of 2012. The center is maintained by DPS and the Health Department and includes information on the Parker River watershed and stormwater impacts. The educational center has also been added as a new stop for the EcoTours program, where participants explore the City on bicycles. In addition, DPS is working with Newbury and Rowley stormwater coordinators to develop a "Stormwater Faire" for elementary school children for the next permit year.	DPS and Health Department continue to plan and finalize children's summer program to include stormwater education. Explore options to regionalize or collaborate with other municipalities. DPS has been working with surrounding municipalities on a regional Stormwater Faire for next permit year.
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.	At last permit year's City Council annual update, it was stated that DPS would wait for the new permit to be released. DPS will review the new permit and present a proposal describing DPS needs to stay in compliance. No annual update given to City Council this permit year. Waiting for new permit.	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.	Stenciling was not performed this year due to funding.	DPS will review budget to consider stenciling 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 and red marked survey data was collected by DPS crews. Discussed next steps with MVPC to update drainage GIS layer.	Continue to improve stormwater GIS layer. Continue discussions with MVPC to update GIS layer with FEMA flood maps, red marked field book, and Malcolm Hoyt Drainage Improvements Flood Study. Continue to red mark field book through permit year.
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.
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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 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	Review site plans for stormwater impacts.	Department of Public Services	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.	Finalize Stormwater Management Rules and Regulations. Revise Site Plan review once Rules and Regulations are finalized.
Revised for Year 10		Planning Department		The Stormwater Advisory Committee is reviewing the final draft of the Stormwater Management Rules & Regulations, including procedures for construction site erosion and sediment control.	
4-4	Consider public input.	Department of Public Services	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.
Revised for Year 10		Stormwater Advisory Committee			
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 & Regulations lists Massachusetts DEP Stormwater Handbook and BMP resource materials for use in design. It is expected that finalized Rules & 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 and curbed 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 2012/2013, the City used 2,764 tons of salt and 10,000 gallons of pretreatment (CaCl).	Document deicing compounds used by the City for the winter of 2013/2014.
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. 526 catch basins were cleaned in August/September 2012 by clam shell and visually inspected for necessary repairs. Other catch basins were visually inspected and cleaned as necessary throughout the year. 42 catch basins were newly installed or repaired during the last permit year.	Continue identifying and cleaning critical catch basins throughout permit year. DPS plans on cleaning and inspecting approximately 500 catch basins next 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 uses herbicides. DPS does not use pesticides or fertilizers for landscaping parks and other areas in the City. DPS coordinate with Eastern Mosquito Control when pesticide application occurs.	Continue use of green landscaping procedures and communicating with pesticide control when necessary 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					
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

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
▪ 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 vacator **	(%)		

(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 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	
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	