

Municipality/Organization: Lexington - #1426

EPA NPDES Permit Number: BRP-WM-08A

MaDEP Transmittal Number: W-137054

**Annual Report Number
& Reporting Period:** No. 4: March 06-March 07

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5-30-07

NPDES Phase II Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: William P. Hadley **Title:** DPW Director

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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: William P. Hadley

Printed Name: William P. Hadley

Title: Director of Public Works

Date: 5/30/07

Part II. Self-Assessment

The Town of Lexington is in compliance with its NPDES Phase II Stormwater General Permit.

The Town is working with the Metropolitan Area Planning Council (MAPC) in a workshop with other towns to draft a specific and relevant stormwater bylaw with regulations.

The stormwater bylaw will enable the town to respond to future permit provisions.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1C	Household hazardous waste collection days	Health Dept.	Schedule, publicize and execute collections of household hazardous waste	Completed 8 drop collection days.	Repeat in 07-08 year.
Revised		D. Fullerton			
1D	Educational Pamphlets	DPW	Handout leaflets and answer questions at DPW table at Town Business Street Sales	Completed	Repeat in 07-08 year.
Revised		D. Meehan			
1 A	Classroom Education	Engineering	Design and present elementary-school level session explaining stormwater system	No classroom presentations done in 2006-2007.	Expand to include other presenters and present 4 times
Revised 2006		M. Flamang			
1E	Article in local newspaper	Engineering and Conservation	Write and publish article of general interest on stormwater	Article has been researched and drafted.	Publish article in Lexington Minuteman in Summer 2007.
Revised 2006		M. Flamang and K. Mullins			

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2B	Water quality monitoring Old Res	Health Dept.	Sanitary survey of drain outlets in to Old Res Recreation Area	In progress	Continued water quality monitoring
Revised		D. Fullerton			
2B	Water Quality Monitoring Town wide	Engineering	Meet with watershed caretakers to support sampling programs	Carried out and reported stream sampling with intention of locating sources of bacterial contamination. Investigated problem areas with TV unit.	Contact watershed caretaker groups and share information.
Revised		M. Flamang			
2D	Septic Systems Tracking Management	Health Dept	Transfer data to electronic media, maintain and upgrade data	Transfer of data to electronic base is complete	Maintain database
Revised		D. Fullerton			
Revised					
Revised					

2a. Additions

2B	Water Quality Monitoring Town-wide	Engineering	Design and carry out stream sampling town-wide to aid in identification of pollution hot spots	Completed five sample rounds in dry and wet weather covering 48 site town-wide	Publish final report and proceed with program to address pollution discharges.
Revised 5/1/07		M. Flamang			

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3A	Locate and map outfalls	Engineering	Complete GIS mapping of 25% of town	Approximately 60% of drainage structures are on file with GPS coordinates. Paper versions of outfall maps are done.	Continue development of town GIS. Populate database with coordinates of unmapped structures.
Revised		M. Flamang			
3A	Locate outfalls	Engineering	Review existing plans, interpret and transfer data to digital form	Plans have been reviewed and there is a plan for putting the plans onto digital format.	
Revised		M. Flamang			
3C	Stormwater Bylaw	Conservation	Educate staff on framework for bylaw	In process.	Complete
		K. Mullins			
3C	Stormwater Bylaw	Conservation	Form working group and draft bylaw	Working group has met. Representatives of Selectmen are reviewing sample bylaws.	Deliver final bylaw for consideration by Town Meeting.
Revised		K. Mullins			

3a. Additions

3A	Locate outfalls	Engineering	Survey to locate coordinate of all drainage structures	Town is awaiting delivery of handheld GPS workstation, which will be used to locate all structures and populate database for drainage system.	Train personnel and place GPS workstation into use by Engineering and DPW staff.
Revised 5/1/07		M. Flamang			

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4C	Inspection and reporting	Building and Engineering	Train personnel to inspect for runoff issues	Training is in process. Complete training must await final bylaw.	Continue training.
Revised		S. Frederickson and M. Flamang			
4C	Inspection and reporting	Engineering and Conservation	Design and distribute handout for permits	Permitting process is pending. Engineering permits have been annotated to required as-builts of privately owned treatment facilities.	Implement for Building Permits
Revised		M. Flamang and K. Mullen			
Revised					
Revised					
Revised					

4a. Additions

Revised					
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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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5B	Develop BMP's list	Engineering	Develop list of BMP's that are appropriate for Lexington public and private projects	Data on BMP's has been studied.	Insure that BMP's are incorporated into town stormwater bylaw.
Revised		M. Flamang			
5D	Runoff Operation and Maintenance Plan	Conservation	Require in-house reviewers to screen permit applications for O&M plans	Review process is being refined.	Insure that review process is incorporated into town stormwater bylaw.
Revised		K. Mullen			
Revised					

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6A	Employee training	Public Works	Conduct toolbox session to refresh on BMP's	Toolbox sessions were conducted. Forty employees participated. The session raised consciousness of workers and enable exchange of ideas.	Discuss housekeeping procedures with crews. Do additionally tool box sessions.
Revised		W. Brooks			
6B	Municipal pollution prevention	Public Works	Schedule street cleaning	Continued program	Continue program
Revised		W. Brooks			
6C	Vehicle washing	Public Works	Wash indoors to keep solids from stream	Continued program	Continue program
Revised		D. Adams			
6D	Used oil recycling	Health Dept	Collect used oil at drop off facility and dispose of properly	Continued program	Continue program
Revised		D. Fullerton			
6B	Municipal pollution prevention	Public Works	Incorporate BMP's into design of new PW garage facility	Incorporated BMP's into design of new PW facility.	Continue program
		M. Flamang			

6a. Additions

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Part III Summary of Minimum Control Measures- (continued)

Additional comments regarding Item 6B.

The design of a new public works facility is approximately 75% complete. The designer has selected and utilized technology for the facility to minimize adverse environmental effects as far as possible.

Measures that are in the design include the following.

- Inside vehicle wash bays with wash water containment and treatment
- Dedicated chemical storage areas with spill containment
- Stormwater infiltration through bioretention swales and basins
- Riparian restoration, including selected removal of invasive plant species and supplemental planting
- Stream bank restoration, including stabilizing North Lexington Brook stream banks through regrading and revegetating
- Improved quality of open space by selectively removing unhealthy/invasive tree species and replacing with non-invasive specimen trees
- Reduction of glare, spillover, and atmospheric light pollution onto adjacent properties and natural areas
- Maximized lighting efficiency include compact fluorescent lamps, motion-sensitive systems

Part IV. Summary of Information Collected and Analyzed

Lexington Health Department samples Old Reservoir Town Beach twice weekly for enteric organisms primarily to insure suitability for recreation.

No beach closings were necessary in 2006.

In 2006, the town initiated a stream sampling program with input from DEP and EPA Region 1.

The goal of the program is to locate sources of elevated bacteria levels in Vine Brook and Mill Brook. The town retained Tutela Engineering Associates (TEA) to design and carry out the program. Five rounds of dry and wet weather samples were taken and analyzed. In addition, one round of sampling was done in cooperation with DEP Wall Experiment Station. Those samples were tested for different indicators of human pollution. The final report is planned for July 31, 2007.

The town received and reviewed reports of sampling from the Mystic River Watershed Association. The results vary. The town investigated one specific area of high bacteria counts. That sample point is a town drain that discharges from the Bow Street area into Mill Brook. The town inspected the storm sewers in the area with TV cameras and observed no illicit connections. Subsequent samples show acceptable bacteria levels. This spot will be monitored.