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Municipality/Organization: City of Leominster, MA

EPA NPDES Permit Number: MA0100617

MaDEP Transmittal Number: W-041009

Annual Report Number & Reporting Period: Year 8: March 10-March 11

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: Patrick LaPointe Title: Public Works 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: 

Printed Name: Dean J. Mazarella

Title: Mayor

Date: July 21, 2011

## Part II. Self-Assessment

The Leominster Department of Public Works has taken the lead in the implementation of a Stormwater Management Plan for our community. Our Committee was formed at a meeting held Tuesday, November 25, 2003. The committee consists of the Planning Director, Health Director, Recreation Director, Public Works Director and the Building Inspector and the city Environmental Inspector, who is a member of the Conservation Commission. Attendees included the Mayor and members of the City Council.

The DPW Engineering Department has completed the mapping of 450 actual outfalls onto Autocad. We have just completed a flyover in preparation for the implementation of a GIS system. We are now in the implementation phase of putting them into our GIS system to include water, sewer, drain and outfalls. As of 4-1-06, we are 95% complete.

Very little input has been realized from other members of the Stormwater Management Committee and this program will be headed by the DPW. However, partnering with our Environmental Inspector, we were able to submit a Stormwater Ordinance that was adopted by our City Council on March 28, 2005. Copy Enclosed.

We will continue to work with the Recreation Department on a Pet Waste Policy and installation of pet waste bag dispensers. Funding is an issue that has been overcome and we have installed signs for 3 parks. In May 2006 we will install two Pet waste stations in Carter Park in downtown Leominster. In fall 2007 we installed one at Sholan Farms and at a trailhead on Granite Street.

We have had a catch basin cleaning program in place for the past 5 years and are now able to compute the amount of material collected from catch basins on an annual basis. Our sweeping program initially begins with some low-lying areas for sand removal and we now have a strategy for future years. The Public would prefer main streets be done first, so logistics are an issue. We have been able to accommodate both by using overtime and extra personnel qualified to run our sweepers.

We had one Eagle Scout candidate who completed one half of a catch basin stenciling program amounting to over 200 basins being stenciled by October 2004. The other candidate has not been heard from so the project was taken over by the Leominster Rotary Club which stenciled over 450 catch basins in September 2005.

In February 2006, we finished the installation of a new sewer line and new drain line in the DPW yard. We have separated our building floor drains, which now empty into the sewer line. A new gas/oil separator was included and we have installed Boston Hoods in all yard basins. As we repair catch basins in town, we are using BMP's on all as we proceed. We have even designed our own type of Boston Hood that has a threaded cap to provide for easy cleanout of clogged drain lines. In the last year, we have installed 39 such units in catch basins throughout the city. We have also partnered with our local Conservation Commission to produce a Storm Water Runoff Public Service Announcement that has run on Leominster Access Tele Vision since March 2, 2007 on two different cable channels. We are working with the Massachusetts Watershed Coalition on the Monoosnoc Brook Restoration Project. Project goals are to prevent pollution, reduce environmental risks, and restore the health of Leominster's central waterway. To achieve this goal we are installing bio-retention areas, rain garden and tree boxes in a watershed area that drains into Rockwell Pond. These efforts should improve water quality entering into the pond. We

have attached a list of the proposed locations of the various methods that we will be using. We have included a letter to USEPA Region 1 that outlines our efforts to separate combination manholes. Since that letter was written, we have done an additional 11 separations. We have partnered with MA Highway on a street widening project on Route 12 in Leominster. As part of the project, their contractor will separate an additional eight combination manholes in the project area.

In November 2007 we completed a DEP 2008 Clean Watershed Needs Survey, copy enclosed. In the winter of 2007-2008 we partnered with our Conservation Commission Chairperson, Kelley Freda to run a Pet Waste Public Service announcement on LATV, our local cable television station. This PSA ran for several weeks. Ms. Freda also provided us with a Pet Waster brochure developed by DCR which we will attempt to send to all licensed dog owners in Leominster. A list may be available through our City Clerk and her staff. The Conservation Commission staffed a table at the Leominster Schools Environmental Expo in April 2008 where storm water materials were distributed. In May 2007 ConCom put on a Theatre for Children where storm water and litter was discussed with 3<sup>rd</sup> & 4<sup>th</sup> graders. The Leominster Water Department sponsored the theatre. ConCom did a Public Presentation at the Leominster Library regarding water quality and storm water as it pertains to the Wachusett Reservoir, where Leominster maintains an emergency connection. We are currently running a PSA on LATV encouraging residents to not sweep sand on to the sides of roadways. The Conservation Commission is ensuring that sites with greater than 1 acre of disturbance file for the EPA Construction General Permit and each Commission member has received a copy of the Stormwater Pollution Protection Plan (SWPPP). In a time of limited budgets and staffing, we feel that we are doing the absolute best that we can do.

The Storm Water Advisory Committee has been enhanced as of Fall 2010. The committee now consists of the Public Works Director, the Assistant Director, DPW Senior Engineering Aide, the Water & Sewer Business Manager, the Health Inspector and the Environmental Inspector who is on the Conservation Commission. Meetings are held quarterly or as needed. We also feel that we are in complete compliance with all permit conditions to date other than submitting this report late this year, July 25, 2011.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 7</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 8</b>
1.1 Revised	Educational signage at high-use recreational areas	Recreation & Conservation	Install signage at watershed trail areas and dog park, spring '04  Signs installed 5-05	Total of 36 signs installed	Maintain all posted signs as needed.
1.2 Revised	General Education Brochure <i>Year 2 brochures.</i>	DPW Engineering	Develop & distribute mass mailing in water bills.	Have received 300 brochures from EPA and will plagiarize them for use in a City of Leominster brochure	Distributed to all residents by November 2005.
Revised	Lawn care and pet waste brochure and survey. <i>Healthy Lawn Workshop 3-30-05</i>	Engineering and Conservation Commission DPW & DEP	Continue Public Education Efforts Broadcast on local cable TV	Dispensed brochures through the Public Library in 2010. Hosted Healthy Landscaping & Lawn Care Workshop June 7, 2011.	Continue LATV PSAs. Host another Healthy Landscaping & Lawn Workshop 2011-2012.
1.3 Revised	Stormwater Curriculum for grades 5 & 6	Conservation & School Dept.	Revised curriculum already in place.	Storm Water is being addressed at Fall Brook School since 2009 and was brought to Southeast & St. Anna's.	Investigate expansion to Johnny Appleseed and St. Leo's elementary schools.
Revised	Storm Water Runoff Public Service Announcement <i>Pet Waste PSA and Brochure 2008</i>	Conservation & DPW Conservation & DPW	Reach as many households as possible. Mail to all licensed dog owners 2008.	ConCom and Mass Watershed Coalition did a Storm Water PSA on LATV in Spring 2011. Held Rain Garden meeting highlighting Fall Brook School, 1-13-11.	Develop Construction Site PSA on Storm Water Management practices. Now ongoing through Storm Water Committee
Revised	Pet Waste PSA	Conservation & DPW	Reach local residents	PSA run on local cable TV in winter 2007-2008, mail brochures and provide brochures at Public Spaces.	Continue Pet Waste PSAs and brochure distribution annually.

**1a. Additions**

1.8	Develop Stormwater web site	Engineering	Add Stormwater page to existing web site by Spring '05	In Process April 2006 and will use existing city website.	Maintain new City Web-Site Storm Water section.
	Use DEP Information	ConCom & DPW	In Process	In Process summer 2007	Use DEP public information whenever available.

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
2.1 Revised	Stormwater Advisory Committee	Public Works & ConCom	Establish Committee by fall '03, etc.	Reconvene Committee 11-25-03, reviewed SWMP and solicited comments. Complete	Developing ordinances related to SWMP for adoption in 2004. Adopted Ordinance 3-28-05
2.2 Revised	Public Meetings on SWMP	SW Advisory Committee	Host annual public meetings each fall, beginning November 2005.	Met at the Doyle Conservation Center February 9, 2006 and attended a DEP Low Impact Development Conference. Planning Department hosted the same conference for local developers 3/06.	Host public meeting to discuss SWMP and solicit public comment for consideration yearly. Low Impact Development Conference March 2008.
2.3 Revised	Shoreline Clean-ups <i>Partnership with Mosquito Control</i>	Public Works & ConCom DPW P. LaPointe	Expand annual Monoosnoc Brook cleanup. Remove trees along north side of brook	Met with Monoosnoc Greenway Group after August 2 <sup>nd</sup> cleanup to possibly expand to upstream of starting point. Canceled winter 2005, waiting to reschedule. Spring 2007	Cleaned an additional ½ mile of brook cleanup in summer 2005. Scouts scheduled for 8-1-11 Done Yearly.
2.4 Revised	Catch basin stenciling <i>Completed fall 2005</i>	Public Works	Stencil priority basins by Fall 2004. Will inspect March 2007.	Only 1 Scout completed ½ project. Leominster Rotary re-stenciled all 450 basins in September 2005.	Stencils have shown wear and need to be done soon, starting in 2011.
2.5 Revised	HHW Collection Events <i>Electronics collection 4 events in 2006</i>	Public Works	Host annual HHW collection events 4 per year	Hosted Events on March 27, June 26, August 28 & November 20, 2010. 2011 schedule is March 26, June 25, August 27 and November 19 <sup>th</sup> .	Continue electronics collection in conjunction with HHW for 2011. Very successful with local company, All American Recycling..
Revised					

## 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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
3.1 Revised	Identify & map outfalls and receiving waters. <i>Complete by fall 2005</i>	Engineering	Map all outfalls in GIS by Spring '05	Outfall mapping 95 complete. Have completed flyover for GIS and will be complete June 2006.	Completed mapping and GIS integration June 2006. Updated 2010.
3.2 Revised	Screen outfalls for illicit connections	Public Works	Screen all outfalls by Spring '05	In process and 450 outfalls have been identified and mapped.	Continue screening and GIS. Began inspections after 1 inch rain events since February 2008.
3.3 Revised	Draft Illicit connection bylaw <i>Adopted 3-28-05</i>	Engineering & ConCom	Submit to City Council Spring '04 Adopted 3-28-05	Submitted to Council.	Complete and in ordinance form by fall 2004 Adopted by City Council 3-28-05
3.4 Revised	Revise Sewer and Drain Use Regulations <i>Complete</i>	Engineering	Revise and adopt with new Illicit bylaw	Submitted to Council.	Complete and in ordinance form by fall 2004 Adopted 3-28-05
Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
4.1 Revised	Construction Site ESC Bylaw and regulations for sites > 1-acre <i>Bylaw adopted 3/05</i>	ConCom, Public Works	Reviews existing mechanisms for adequacy and completeness by Spring '05, etc.	Research existing ordinances and regulations and determined that more comprehensive revisions are needed, especially in Sewer Ordinances	Drafting new ordinances to cover all phases of SWMP for fall 2004 or spring 2005. Adopted 3/05 Enforcement now in place Health and ConCom personnel.
4.2 Revised	Site Plan Review <i>In Place fall 2004</i>	Planning, Building & Engineering	Incorporated into Development Review Board process with appropriate ordinance changes In place fall 2004	Met with all appropriate parties and supplied same with copy of SWMP. Jurisdiction for enforcement determined to be shared by Health Inspector and Environmental Inspector.	Institute new policy and inspection protocol. Weekly inspections of construction sites began September, 2005. Health Inspector now involved with ConCom starting 12-10.
4.3 Revised	Site inspections <i>In Process</i>	Health Dept. & ConCom	Implement a new site inspection process for Spring '07	Started weekly inspections September 2005.	Research conceptual inspection process with associated ordinance. Follow up with ConCom 2008. Inspections are ongoing.
4.4 Revised	Establish system to report non-compliant activities <i>In place through Conservation Comm.</i>	Health Dept. & ConCom	Establish during 2004 construction season & use web site reporting. Web-site being developed spring '05	ConCom has taken the lead in doing on site inspections of construction sites during heavy rain events and every weekend during construction.	Post ConCom & Building reporting hotlines on city web site and include in monthly Neighborhoods section of local newspaper. Investigate web site reporting process. Ongoing
Revised					
Revised					

#### 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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
5.1	Stormwater Mgmt. Ordinance and regulations for sites > 1-acre <i>Completed 12/04</i>	Engineering & ConCom, ConCom	Research and/or revise existing ordinances to comply with SWMP plan Complete 12/04	Research complete and completion of ordinances in process Petition passed 1-10-05 and Ordinance adopted March 28, 2005.	Enforce ordinances and regulations.
Revised	Comprehensive Stormwater Management Bylaw & Revised Sewer Use Regulations	Stormwater Advisory Committee	Pass bylaw and revise Sewer use regulations By Spring 06.		
Revised					
Revised					
Revised					
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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
6.1 Revised	Employee Training	Public Works	Conduct stormwater training each winter	Provide all day off site training to 2 full time engineering employees winter '03-'04 Ongoing.	Conduct ½ day follow up training each winter, ongoing.
6.2 Revised	Street Sweeping	Public Works	Sweep all city streets annually by 6-30 and downtown areas once a week Sweep outfalls while doing main roads	Completed annual sweeping program by 6-1-1 and collected 2,128 tons of material.	Twice yearly sweeping since 2004. Purchased 1 replacement sweeper 9/2007. Currently sweeping streets twice per year and twice a week in downtown area yearly.
6.3 Revised	Predictive catch basin cleaning program.	Public Works	Clean all basins once per year (3600) Total costs per year.	Continue to collect volume data from existing program. Only cleaned 855 basins in last year. Approximate cost \$43,800/yr.	Revise cleaning schedule to reach outfall areas early in program. Now using Vactor to clean some basins with BMPs.
6.4 Revised	O & M Schedule for town owned structural BMPs <i>Separated garage drains.</i>	Engineering	Implement program by Spring '05 Tie garage drains into sanitary sewer	Inventoried DPW garage and designed new particle separator system. Continue to inventory town owned BMPs. Installed oil/gas separator and separated DPW floor drains.	Complete construction of DPW separator system fall '05 and implement O & M Procedures. Tie floor drains into sanitary sewer, Completed 2-14-06 new lines.
6.9 Revised	Vehicle Washing <i>Separated floor drains in February '06</i>	Public Works Public Works	Establish a new washing policy Tie into sanitary sewer	Design new drainage system with new separation technology. Installed new sewer and drain lines with Boston Hoods in catch basins.	Funding provided July 2005. Installed new drain line completed February 06. Tie floor drains into sewer. Install Boston Hoods in outfall catch basins 2006 as repairs are made 29 to date, 72 as of 4-08. Ongoing
Revised					

**6a. Additions**

1.	Separate Combination Sewer/Drain manholes Repair leaking sewer trunk line.	Public Works	Separate when encountered Relined leaking sewer trunk line-Granite St.	Finish remaining separations, DPW, Private Contract and bid project. Replaced leaking sewer line near Rockwell Pond in Leominster	470 of 500 done, remaining to be completed by September 2011. Relining sections of Whitney, Water and Pleasant Terrace planned for 2011.
2.		Public Works			

**Identified 500 CSO's and separated 470 CSO's as of spring 2011. Plans are to separate the rest using DPW staff, a private services contract and a bid project. All will be completed by September 2011.**

**Completed 100% replacement of sewer trunk line along Rockwell Pond that was under moratorium with DEP as of November 18, 2005. Work resumed April 24, 2006 to install a final manhole and reline approximately 600 feet of sewer line. Second Phase, pipe-bursting, started on or about May 16, 2006. Pre-Construction meeting May 3, 2006 with contractor J. Cougler Inc. Construction to begin May 2006 and finish 3-4 weeks after start up. Pipe-bursting eliminated as an option due to discovery of ledge, open trench continued all summer and project finished, September 2006. Moratorium lifted by DEP, March 2007. Completed 90% replacement of the Industrial Road sewer trunk line from North Leominster to the WWTP. Final 10% is currently being designed and we hope to be completed by Fall 2011. Major sewer lining projects scheduled for summer 2011.**

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
7.1	Targeted education to septic system owners	Health Dept & Engineering	Develop & distribute phosphorus reduction brochure	Begin research and development of brochure to septic system owners in sensitive areas	Distribute brochures to residents with septic system in watershed areas
Revised	<i>Bring Sanitary sewer to 2 streets in 2007</i>	New England Development	Finish in 2007	Install sanitary sewer as part of Wal-Mart/ Lowes project. Complete fall 2007. Completed September 2007.	Bring sanitary sewer as part of Brooks Pond housing project. Debbie Drive completed fall 2010.
7.3	Street Sweeping	Public Works	Increase sweeping to 3-4 times/yr. in watershed areas	Develop plan	Continue present schedule and develop long- range plan to increase sweeping frequency in watershed areas. Began spring 2008, ongoing.
Revised	<i>Summer/Fall 2007</i>		In Process 2007	Sweep outfall areas early in sweeping program while doing main roads.	
Revised					
Revised					
Revised					
Revised					

7a. Additions

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**7b. WLA Assessment**

1 2 3 4 5 6 7 8 9 10

**Part IV. Summary of Information Collected and Analyzed**

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic**

Stormwater management position created/staffed	Yes	Summer 2007
Annual program budget/expenditures	\$41,000	Hired.

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	80-90%	
Stormwater management committee established	Yes	11-25-03
Stream teams established or supported	Yes	Spring '04
Shoreline clean-up participation or quantity of shoreline miles cleaned	M-Brook	2.5 miles
Household Hazardous Waste Collection Days		
▪ days sponsored	4	Annually
▪ community participation	452	
▪ material collected	See attached	• See below
School curricula implemented	Yes	Ongoing

- Materials collected at HHHW Days, Paint, aerosols, pesticides, pest solid, consolidated flammables, oxidizers, acids, bases, mercury, lithium batteries,
- Ni-cad batteries, fluorescent bulbs. Two separate electronic collection days held in 2010.

**Legal/Regulatory**

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

**Mapping and Illicit Discharges**

Outfall mapping complete	100%	Copy Enclosed
Estimated or actual number of outfalls	500	
System-Wide mapping complete	100%	Enclosed
Mapping method(s)		
▪ Paper/Mylar		
▪ CADD	100%	
▪ GIS	100%	
Outfalls inspected/screened	In Process	395
Illicit discharges identified	None	Ongoing
Illicit connections removed	None	Ongoing
% of population on sewer	87% est.	88% est.
% of population on septic systems	13% est/	12% est.
Added sewer main on Debbie Drive, fall 2010.		

**Construction**

Number of construction starts (> 1-acre)	2	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100%	
Site inspections completed	34	
Tickets/Stop work orders issued	7	List attached.
Fines collected	\$0	
Complaints/concerns received from public	11	

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	100%	
Site inspections completed	34	
Estimated volume of stormwater recharged	Unknown	

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	Once per yr.	Annually
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	Once per yr.	Twice Yearly
Total number of structures cleaned	855	Yearly
Storm drain cleaned	3-4 miles	Yearly
Qty. of screenings/debris removed from storm sewer infrastructure	1625 c.y.	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	compost	
Cost of screenings disposal	-0-	

Average frequency of street sweeping (commercial/arterial or other critical streets)	2-3 per yr.	Ongoing
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Qty. of sand/debris collected by sweeping	1702 c.y.	Ongoing
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	compost	DPW Staff
Cost of sweepings disposal	-0-	Delivered 9/07
Vacuum street sweepers purchased/leased	one	
Vacuum street sweepers specified in contracts	yes	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)	
▪ Fertilizers (Using organic fertilizer on 20 acres of Cemetery land)	100%
▪ Herbicides	75%
▪ Pesticides	N/A

Anti-/De-Icing products and ratios	% NaCl	30%
	% CaCl <sub>2</sub>	
	% MgCl <sub>2</sub>	
	% CMA	
	% Kac	
	% KCl	
	% Sand	70%
Pre-wetting techniques utilized	yes	
Manual control spreaders used	yes	
Automatic or Zero-velocity spreaders used	no	
Estimated net reduction in typical year salt application	20%	
Salt pile(s) covered in storage shed(s)	yes	
Storage shed(s) in design or under construction	Yes - sand	In use