

**Municipality/Organization:** City of Lawrence

---

**EPA NPDES Permit Number:** MA 041201

---

**MassDEP Transmittal Number:** W-036114

---

**Annual Report Number & Reporting Period:** Year 11  
April 1, 2013 – March 31, 2014

---

## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)**

### **Part I. General Information**

Contact Person: John R Isensee

Title: DPW Director

---

Telephone #: 978-620-3091

Email: Jisensee@cityoflawrence.com

---

Mailing Address: 200 Common Street, Lawrence Ma. 01844

---

#### 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: *John R Isensee*

---

Printed Name: John R Isensee

---

Title: DPW Director

---

Date: 4/17/2014

---

## **Part II. Self-Assessment**

**The City has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.**

**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 8</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
1-A Revised	Classroom Education	Recycling Coordinator	Raise awareness starting with children	Involvement by nonprofit groups has increased	Increase community clean up days
1-B Revised	Educational Displays	Recycling Coordinator	Maintain awareness	Information on line and printed material available at DPW office	Continue to improve web site
1-C Revised	News Articles	DPW	Clean problem locations	Public input has increased Enforcement has been improved with hidden cameras	Continue this path
1-D Revised	Local Cable <i>City Web Site</i>	IT Dept.	Supply information	Data updated and increased as needed	Keep up with changes and improve the quality of information
1-E Revised	Mailings <i>Privatized</i>			Non profit agencies addressing quality of life issues.	
Revised					

**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
2-A Revised	Community Hot Line <i>Inspectional Services</i>	Insp. Services	Public participation	Hidden cameras and increased help from the public have resulted in an increase in fines handed out	Continue same
2-B Revised	Neighborhood meetings	DPW	Inform and interact	Well organized groups assisting DPW with information	Continue same
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-A Revised	Mapping Outfalls			Mapping done by CDM	Woodard & Curran retained as consultant
3-B Revised	Illicit Discharge	Sewer Dept.		Several cross connections discovered and removed	I/I study in progress
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4-A	Site Plan Review	Engineering	Improve runoff quality	Designer provide for pre-treatment and/or recharge	Continue same
Revised					

#### 4a. Additions


**5. Post-Construction Stormwater Management in New Development and Redevelopment**

<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 8</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
5-A	Design Standards	Engineering	Plans include treatment or recharge	Done wherever possible	Continue
Revised					
5-B	Final Inspection	Building Inspector	Compliance with plans	Measures are in place as per plan	Continue
Revised					

**5a. Additions**


**6. Pollution Prevention and Good Housekeeping in Municipal Operations**

<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 8</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
6-A Revised	Employee Training	DPW	Educate employees	New employees are trained in proper care and disposal of Hazardous waste.	Send employees to seminars
6-B Revised	Catch Basin Cleaning	DPW	Improve system functioning	Cleaning done daily except in winter	continue
6-B Revised	Street sweeping	DPW	Reduce load to system	Contractor sweeps whole city in Spring. City crews sweep daily until winter.	Continue
Revised					
Revised					
Revised					

**6a. Additions**


**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

<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 8</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
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**

		Response
Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures **	(Preferred \$) Units	
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 %)	63%
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	1
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	12
▪ community participation **	(# or %)	500
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	N

## Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft Review	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

	Response
Outfall mapping complete	(%) 100
Estimated or actual number of outfalls	(Preferred Units) (#) 106
System-Wide mapping complete (complete storm sewer infrastructure)	(%) 100
Mapping method(s)	
▪ Paper/Mylar	(%) 100
▪ CADD	(%)
▪ GIS	(%)
Outfalls inspected/screened **	(# or %) 2
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %) 100
Illicit discharges identified **	(#) 0
Illicit discharges identified (Since beginning of permit coverage)	(#) 5
Illicit connections removed **	(#); and (est. gpd)
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd) 5
% of population on sewer	(%) 100
% of population on septic systems	(%)

## Construction

		Response
Number of construction starts (>1-acre) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control (Preferred Units)	(%)	100
Site inspections completed **	(# or %)	100%
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	0

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	N
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2/yr
Qty of structures cleaned **	(#)	1600
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	500
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	50,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1 owned
• Vacuum truck(s) owned/leased	(#)	1 owned
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	90
• % Structures cleaned with vactor **	(%)	10

		Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	Wkly/8mo.
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(Preferred Units) (times/yr)	Daily/8mo.
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	1000 Ton
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	
• Disposal cost**	(\$)	50,000
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	3 owned
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	100
• % 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 %)	3000 lb

▪ Herbicides	(lbs. or %)	n/a
▪ Pesticides	(lbs. or %)	n/a
Integrated Pest Management (IPM) Practices Implemented	(y/n)	y

		Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	(Preferred Units) % NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	86      14
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	Y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	+18%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	+11%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	n/a
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	n/a