

**Municipality/Organization: City of Lawrence**

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**EPA NPDES Permit Number:** MA041201

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**MassDEP Transmittal Number:** W-036114

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**Annual Report Number**      **Year 9**  
**& Reporting Period:**                      **April 1, 2011 – March 31, 2012**

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## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)**

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

Contact Person: John R Isensee

Title: Acting 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: *John R Isensee*

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Printed Name: John R Isensee

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Title: Acting DPW Director

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Date: 4/24/12

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**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 9</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	Ground Works Lawrence has taken on the education role with various programs	Construct public garden lots
1-B Revised	Educational Displays	Recycling Coordinator	Maintain Awareness	Up dated material printed and available to public on line and at DPW office	Keep web site updated
1-C Revised	News Articles	DPW	Clean problem spots	Various groups organize cleanups	Continue to support these groups
1-D Revised	Local Cable <i>City web site</i>	IT Dept	Supply basic infor.	Improve on the existing information	Upgrade information more frequently
1-E Revised	Mailings <i>privetized</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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2-A Revised	Community Hotline <i>Inspectional Services</i>	Insp. Service	Public involvement	Hidden camera used when illegal activity is reported – 3 offenders caught Public watching and alerting city	Continue Same
2-B Revised	Neighborhood meetings	DPW	Interact with residents so they understand	Good communication between groups and the city	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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-A Revised	Mapping Outfalls			Mapping completed	No planned activity
3-B Revised	Illicit Discharge	Sewer Dept.		1 under investigation, two found and removed	I/I study in progress by AECOM
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4-A Revised	Site Plan Review	Engineering	Improve runoff quality	Designers automatically include pre-treatment and 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 9</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
5-A Revised	Design Standards	Engineering	Plans reflect pre – treatment and recharge	All designers incorporate where ever possible	Continue same
5-B Revised	Final Inspection	Building Insp.	Compliance with design plans	Measures are in place as per plan.	Continue Same
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 9</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
6-A Revised	Employee Training	DPW	Educate Employees	Materials stored and handled properly. Spills properly handled and cleaned up.	Review procedures as warranted
6-B Revised	Catch Basin Cleaning	DPW	Improve system functioning	Cleaning is on daily schedule except in winter	Continue same
6-C Revised	Street Sweeping	DPW	Reduce load on system	Three season sweeping on all roads.	Continue and revise as needed
Revised					
Revised					
Revised					

**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
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**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	No
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 %)	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 mile/yr
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	12
▪ community participation **	(# or %)	500
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	N
25 tires, 150 tv/crt's		

**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		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

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	106
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened **	(# or %)	1
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	1
Illicit discharges identified (Since beginning of permit coverage)	(#)	3
Illicit connections removed **	(# ); and (est. gpd)	3
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	3
% of population on sewer	(%)	100%
% of population on septic systems	(%)	0

## Construction

(Preferred Units) Response

Number of construction starts (>1-acre) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	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 **	(%)	97
• % Structures cleaned with vactor **	(%)	3

(Preferred Units) Response

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	Wkly/8 mo.
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	Daily/8 mo.
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
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(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 <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	95%      5%
Pre-wetting techniques utilized **	(y/n or %)	N
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/l <sub>n</sub> mi. or %)	-51%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l <sub>n</sub> mi. or %)	-82%
% 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
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