

**Municipality/Organization:** City of Melrose

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**EPA NPDES Permit Number:** MA041050

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**MassDEP Transmittal Number:** W-X233354

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

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## **NPDES PII Small MS4 General Permit Annual Report**

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

**Contact Person:** Robert E. Beshara, P.E. **Title:** Superintendent and City Engineer

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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: Robert J Dolan

Title: Mayor

Date: \_\_\_\_\_

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

The City of Melrose has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions upon submission of this permit report.

### 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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
1-1	Message with water sewer bills on stormwater topic	Department of Public Works	Message distributed with water and sewer bills twice in permit term	Message was distributed in Water/Sewer bills in Year 7. Illicit discharge flyer sent out in bills during Year 4.	Continue printed message as needed.
1-2	Select and stock brochures on stormwater topics at various locations in City	Department of Public Works	Brochures selected and stocked in Years 2 through 5	Maintained supply of brochures and restocked as needed. Brochures handed out at the Department of Public Works Day and at Victorian Fair. “Dwayne the Storm Drain” coloring book handed out to first through third graders at DPW Day.	Maintain supply of brochures and restock as needed.
1-3	Update City website to include information on stormwater management	Department of Public Works	City website updated to include information on stormwater management issues throughout first permit term	City developed a separate stormwater web page linked to DPW web page in Year 4.	Continue to update the City’s website and post informational links on stormwater management issues.
1-4	Staff a booth at the annual Victorian Fair	Department of Public Works	Booth staffed annually starting in Year 2	Staffed booth at annual Victorian Fair.	Continue to staff booth at Victorian Fair and discuss stormwater management and pollution prevention.
1-5	Install and maintain signs at athletic fields	Parks Department/School Department/Department of Public Works	Signs installed at athletic fields near Ell Pond by end of Year 1 and inspected annually	Installed signs at all City fields and parks.	Continue to maintain signs.
1-6	Annual update of the Stormwater Management Plan at a televised Aldermen’s meeting	Department of Public Works	Annual update of the SWMP at a televised Aldermen’s meeting, starting in Year 2	The Director presented an informational update on the Stormwater Management Plan at a televised Alderman’s meeting.	Present update of SWMP at a televised Alderman’s meeting.

1-7	Post information on stormwater management issues on local access TV	Department of Public Works	Stormwater information posted and updated on local access cable television channel during periods of non-programming	Aired informational video from the United States EPA titled, "Reining in the Storm – One Building at a Time."	Continue to post stormwater informational programs on local access cable channel.
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## 2. Public Involvement and Participation

<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>
2-1	Comply with state public notification laws at MGL Chapter 30A Section 18-25	City Clerk	Notices posted in designated locations	Posted notices announcing upcoming meetings.	Post notices announcing upcoming meetings. On going throughout the permit term.
2-2	Stencil catch basins with "don't dump" message	Department of Public Works	25 catch basins stenciled per year, in Years 2 through 5 of the permit	Stenciling begun Summer 2010.	Continue stenciling program.
2-3	Assist in clean-up events	Department of Public Works	Assist the Ell Pond Committee on its annual clean-up events	Assisted in Ell Pond annual clean-up and tree planting with the Ell Pond Restoration Committee and Swains Pond clean-up with the Cub Scouts and Girl Scouts.	Assist in at least one annual clean-up event.

### 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
3-1	Conduct dry weather outfall screening	Department of Public Works	Percent of outfalls screened in Years 1 and 5	Performed dry weather screening at Tremont St. drain outfall and Melrose St. drain outfall, with additional upstream sampling. Also provided assistance to MADEP in sampling within the City.	Sampling in these drainage areas to continue.
3-2	Map stormwater outfalls	Department of Public Works	Map showing all known stormwater outfalls in Year 1	BMP completed. Information updated as necessary.	Update information as necessary.
3-3	Map stormwater collection system in GIS	Department of Public Works	GIS of stormwater system by end of Year 2	BMP completed. GIS mapping is currently being reviewed and edited/updated.	Update information as necessary.
3-4	Develop and implement a plan to identify and remove non-stormwater discharges to the MS4	Department of Public Works	Number of illicit connections investigated, found and removed	The City has been performing sampling and home inspections in the Tremont St. drainage area. TV inspection of drainage and sewer lines has been completed in this area to identify illicit discharges. Two septic systems in close proximity to the drain line were identified and new house connections to the sewer system were made in 2011	Conduct additional investigations in this area to remove illicit connections. Connect existing septic systems to the City's sanitary sewer system.
3-5	Strengthen ordinance for access to buildings and requiring redirection of illicit connections	City Attorney Department of Public Works	Draft ordinance developed and presented to Aldermen	Ordinance approved by Alderman 4/7/08.	
3-6	Develop bylaw requiring inspection of new construction for correct connection to sanitary sewer	City Attorney Department of Public Works	Draft bylaw developed and presented to Aldermen	Ordinance approved by Alderman 4/7/08.	

#### 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
4-1	Develop a Construction Site Erosion and Sediment Control ordinance for construction sites greater than 1 acre in area	Planning Board Zoning Board of Appeals Department of Public Works Inspection Services	Draft ordinance developed and presented to Aldermen	Ordinance approved by Alderman 4/7/08.	
4-2	Require construction site operators to submit monthly erosion and sediment control inspection reports to the City for sites greater than 1 acre	Department of Public Works Zoning Board of Appeals Inspection Services	Inspection reports submitted to the City	BMP began in Year 3. Construction site operators required to submit monthly erosion control inspection reports to the City.	BMP to continue.
4-3	Review site plans for stormwater impacts	Planning Board Department of Public Works Inspection Services	Site plans for construction impacts greater than 1 acre reviewed for erosion and sediment control	Implemented internal protocol for reviewing plans-including identification/training of appropriate City department to conduct review. Site plan reviews for stormwater impacts.	Continue site plan reviews for stormwater impacts.
4-4	Consideration of public input	Department of Public Works Inspection Services	Public review and comment periods held; signs posted at each construction site	Conducted public outreach meeting for various Public Works projects. Any project larger than one acre requires NPDES Permit. City maintains communication with residents throughout duration of projects at hearings and neighborhood meetings.	Continue placing notices in the newspaper announcing a review and comment period for construction projects disturbing more than 1 acre.

## 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
5-1	Develop a bylaw to apply standards 2,3,4,7 and 9 for the Massachusetts Stormwater Policy (MSP) to the developments disturbing more than 1 acre throughout entire City	Planning Board Zoning Board of Appeals Department of Public Works Inspection Services	Draft bylaw developed and presented to Board of Aldermen	Ordinance approved by Alderman 4/7/08.	
5-2	Specify a stormwater BMP manual to be used for consistent design and performance standards	Planning Board Department of Public Works Inspection Services Conservation Commission	BMP manual selected by end of Year 1	BMP completed. Specified Massachusetts DEP and CZM, “Stormwater Management, Volume Two: Stormwater Technical Handbook”, March 1997. Also, specified this in the City Ordinances	BMP completed
5-3	Develop draft bylaw to ensure long-term maintenance of structural BMPs	Department of Public Works Inspection Services	Draft bylaw developed and presented to Board of Aldermen	Ordinance approved by Alderman 4/7/08.	

## 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
6-1	Employee Training Program	Department of Public Works	Number/percent of Department of Public Works employees who receive stormwater training each year	Training scheduled for the General Foreman of Water, Sewer and Drains and the Drain Foreman. These personnel represent 100% of the Drainage Department.	Provide training once per permit term to DPW employees whose day-to-day activities include maintenance of the stormwater system, street cleaning, snow removal operations, or similar activities.
6-2	Continue street sweeping program	Department of Public Works	During non-winter months, commercial streets swept twice per week, all streets swept twice annually in the spring and fall	Continued street sweeping program, maintained records of schedule and daily volume of residuals collected. Insured proper disposal of residuals.	Continue street sweeping program; maintain records of schedule and daily volume of residuals collected. Insure proper disposal of residuals.
6-3	Storm drain maintenance	Department of Public Works	Percent of catch basins cleaned annually	1/3 <sup>rd</sup> of catch basins were cleaned. Cleaning was performed in house and with private vendor. Cleaned drain pipes as necessary. Kept records of residual volumes on a daily basis and prioritized those with the largest for frequent cleaning. Insured proper disposal of residuals.	Clean at least 1/3 of the City's catch basins. Clean prioritized catch basins and clean drain pipes as necessary. Insure proper disposal of residuals.
6-4	Evaluate street sweeping and catch basin cleaning equipment	Department of Public Works	Evaluation of existing equipment	Evaluated equipment to determine if replacement or upgrades would improve efficiency via weekly maintenance reports – recondition street sweeper purchased in 2011	Evaluate equipment to determine if replacement or upgrades would improve efficiency.

6-5	Roadway deicing	Department of Public Works	Amount and type of deicers used	Continued existing roadway deicing procedures: <ul style="list-style-type: none"> <li>• Used appropriate sand/salt mixture</li> <li>• Calibrated spreaders at beginning of each winter (at least once a year)</li> <li>• Maintained calibration and deicer volume records after each storm</li> <li>• Kept salt stored in enclosed shed. It is never stored outside.</li> <li>• Minimized time salt/sand uncovered</li> </ul>	Continue existing roadway deicing procedures. <ul style="list-style-type: none"> <li>• Use appropriate sand/salt mixture</li> <li>• Calibrate spreaders at beginning of each winter</li> <li>• Maintain calibration and deicer volume records</li> <li>• Keep salt stored</li> <li>• Minimize time salt/sand uncovered</li> </ul>
6-6	Minimize impacts from vehicle maintenance	Department of Public Works	Training of Department of Public Works employees once per permit term; hazardous material usage tracked	<ul style="list-style-type: none"> <li>• Mechanics are scheduled for training in use and disposal of motor vehicle gasoline and oil, solvents, diesel, etc.</li> <li>• Hazardous materials were properly managed</li> <li>• Hazardous material usage was tracked</li> <li>• All vehicle maintenance was done inside the garage</li> </ul>	Before the end of the permit term: Conduct employee training, proper hazardous materials management and use reduction, track material usage, and limit vehicle maintenance activities to the DPW garage or other contained areas.
6-7	Minimize impacts from vehicle washing	Department of Public Works	Small vehicles washed at commercial car wash, use of biodegradable phosphate free soap, implemented new outdoor vehicle washing procedures.	Instituted the use of biodegradable phosphate free soap; installed a gas/oil and silt separator at City Yard to catch washing runoff from all vehicles per MA DEP requirements.	Continue to use biodegradable phosphate free soap, wash small vehicles at commercial car washes and conduct feasibility study for washing large vehicles by end of the year.
6-8	Park and landscape maintenance	Parks Department (by contract) /Cemetery Department	Amount of herbicides/fertilizers used	<ul style="list-style-type: none"> <li>• No herbicides or pesticides were used</li> <li>• Fertilizers used sparingly by contractors</li> </ul>	Conduct staff training once per permit term (if staff is involved in the use of herbicides, pesticides, or fertilizers).
6-9	Continue tree planting and maintenance program	Department of Public Works	Number of trees planted per year	Planted about 130 trees and maintained all City trees.	Plant a minimum of 20 trees and maintain all City trees.

6-10	Illegal dumping control	Department of Public Works	Signs posted at dead end streets and other possible illegal dumping locations; sites where illegal dumping is identified are cleaned up	Inventoried illegal dumping locations. Signs are posted. Sites monitored regularly.	If needed, post additional signs at dead end streets and other possible illegal dumping locations.
6-11	Household Hazardous Waste Day	Department of Public Works	Household Hazardous Waste Collection Day held annually	Held Household Hazardous Waste Collection Day—third Saturday of October.	Hold Hazardous Waste Collection Day.

**Addition:**

6-12	City Yard Drainage	Department of Public Works		Installed in-line stormwater oil/water separator at City Yard.	Maintain separator.
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