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Municipality/Organization: Medford

EPA NPDES Permit Number: MA041049

MassDEP Transmittal Number: W228064

Annual Report Number & Reporting Period: Year 7  
April 1, 2009 – March 31, 2010

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information


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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: John J. Buckley

Title: Commissioner of Public Works

Date: 5/4/2010

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

During the 2009-2010 permit year, the City of Medford continued implementation of the tasks outlined in the 5-Year Plan under the 2003 NPDES Small Municipal Separate Storm Sewer Systems (MS4) permit. Numerous BMPs were attained prior to this period and have been continued, including updating stormwater related information on the City's website and making it available in the DPW office, hazardous and yard waste collection activities, maintaining signs, and holding public meetings in which stormwater related activities are discussed. In addition, the City continues to follow good housekeeping and pollution prevention procedures with street sweeping, catch basin cleaning, and other municipal operations.

### **2009-2010 Accomplishments:**

The City's Stormwater System Ordinance was approved by City Council on March 16, 2010 and is in effect. A Stormwater Board was formed to facilitate public input and further implementation of construction and post-construction BMPs. Stormwater Rules and Regulations have been drafted and are expected to be promulgated in the coming year.

An Illicit Discharge Detection and Elimination (IDDE) Plan was developed and submitted to the Environmental Protection Agency for approval in January 2010. The IDDE work, which focuses on the detection and elimination of illicit discharges in priority areas, will continue, starting in summer 2010.

A public meeting that discussed stormwater related activities was held by the Conservation Commission on October 28, 2009, in which the Mystic River Watershed Association attended.

The City of Medford is continuing to work on electronic data collection (GIS and GPS) and has made substantial progress (>90%) on mapping the entire stormwater system into GIS. The completion date is expected to be June 2010.

Education and outreach activities will be continued through an annual DPW-wide training, which will also include additional municipal employees. The training meeting is scheduled for summer 2010.

**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>	<b>Planned Activities for Subsequent Years</b>
IA	Recycling/household hazardous waste information on website.	DPW	Update website throughout year.	Website was updated with new links and the collection dates for the 2009/2010 permit year.	Continue to update website with event dates.
IB	Recycling/household hazardous waste information on pamphlet in DPW Office.	DPW	Make pamphlet available daily in the DPW Office.	Pamphlet is available in the DPW Office.	Continue to display pamphlet in DPW Office.
IC	Recycling/household hazardous waste information on pamphlet to be mailed.	DPW	Mail pamphlet to 75% of residents.	Measure Complete. Information available on City website <a href="http://www.medford.org/Pages/Medford_dMA_Recycle/index">http://www.medford.org/Pages/Medford_dMA_Recycle/index</a>	Continue to update recycling and hazardous waste information on website.
ID	Bilingual Education Information	DPW, High School translator	Translate recycling pamphlet into Spanish and make available in DPW office	Recycling information is available on City of Medford website.	Continue to display pamphlet in DPW Office and on website.
IE	Arbor Day Celebration	DPW, Tree Warden	One talk will be given to one school per year.	Presentation by Tree Warden focused on trees.	Continue to include stormwater information in an event related to Arbor Day or Earth Day.
IF	"No Dumping Allowed" Signs	DPW, Parks Department	Existing signs in parks.	Existing signs were maintained.	Existing signs will be maintained.
IG	"No Dogs or Animals Allowed" Signs	DPW, Parks Department	Existing signs in parks.	Existing signs were maintained.	Existing signs will be maintained.
IH	"Do not feed the Geese" Signs	DPW, Board of Health	Design and install one sign at Wright's Pond.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. "Do not feed the Geese" signs will be established during the Rules and Regulations process.	Design and install "Do not feed the Geese" signs. Establish fines in upcoming year as Rules and Regulations are finalized.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 7	Planned Activities for Subsequent Years
II	"No Littering" signs	DPW, Parks	Design and Install "No Littering" signs in Permit	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. "No Littering" signs will be established during the Rules and Regulations process.	Design and install "No Littering" signs. Establish fines in upcoming year as Rules and Regulations are finalized.
IJ	"No Household Trash" signs	DPW, Parks	Install City owned barrels that read "No household Trash"	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. "No Household Trash" signs will be established during the Rules and Regulations process.	Design and install "No Household Trash" signs. Establish fines in upcoming year as Rules and Regulations are finalized.
IK	Geese Dropping Article in Newspaper	DPW, Environmental Agent	Place one article in the paper Years 1, 3, and 5.	None required.	Completed.
IL	Pet Waste Article in Newspaper	DPW, Environmental Agent	Place one article in the paper Years 1, 3 and 4	None required	Completed
IM	Stormwater Video on Local Cable Channel	DPW, Local Cable Access Staff	City will buy a stormwater educational video and play on a regular basis the third year.	None required.	Play stormwater video on Public Access channel once per year.
IO	Publicize fines for littering, illegal dumping and failure to pick up pet waste in newspaper	DPW, Stormwater Advisory Committee	Publish fines in paper when Ordinances are approved and established.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Fines will be established during the Rules and Regulations process.	Establish and publicize fines in upcoming year as Rules and Regulations are finalized.
Revised		DPW, Stormwater Board			

<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>	<b>Planned Activities for Subsequent Years</b>
IP	Educate Local Businesses	DPW, Environmental Agent	Distribute flyers to 75% of businesses in the third year.	None required.	Invite City Businesses to annual meetings.
IQ	Assess stormwater information at existing City Events.	DPW	Assess one existing City event for opportunities to include stormwater information.	Provided stormwater information at City Hall. A public meeting that discussed stormwater related activities was held by the Conservation Commission on October 28, 2009.	Continue to provide stormwater information at City Hall and for local events.

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 7	Planned Activities for Subsequent Years
2A	Oil-Based Paint Collection at DPW Yard	DPW, Recycling	DPW to accept Latex/oil-based paint from residents at DPW Yard once a month between May and October.	Residents were able to bring latex and oil-based paint to the DPW Yard (see Part V).	DPW will continue to collect these materials at the DPW Yard.
2B	Hazardous Waste Drop-off in Lexington	DPW, Recycling	Advertise the hazardous waste drop-off in Lexington in mailer and daily in DPW office as a pamphlet.	Advertised this service in the recycling/HHW pamphlet and on the City website. Medford relies on the Town of Lexington to collect these materials at the Minuteman Hazardous Household Products Facility.	Continue to advertise this service.
2C	Curbside recycling	DPW, Recycling	DPW to pick up recyclables once every two weeks year-round.	The DPW picked up recyclables every other week (see Part V).	Continue to provide this service.
2D	Mercury Exchange	DPW, Recycling, Board of Health	DPW to accept mercury at the DPW Yard once/month May-October.	Residents were allowed to drop off mercury products at the DPW Yard on specified days.	Continue to provide this service.
2E	Nickel-Cadmium Recycling	DPW, Recycling	DPW to accept rechargeable nickel-cadmium batteries in the DPW office.	Residents were allowed to drop off batteries at the DPW office daily during regular office hours.	Continue to provide this service.
2F	Leaf and yard waste collection	DPW, Recycling	DPW to collect leaf and yard waste every other week curbside from May to November.	DPW collected leaf and yard waste every other week April through October (see Part V). Schedule posted on website.	Continue to provide this service.
2G	Mystic River Cleanup	Friends of the Mystic River Watershed Association, DPW	DPW to collect trash volunteers pick up at the Mystic River Cleanup Day.	No action on this BMP this reporting period. DCR and MyWRA provided cleanup and disposal services at Mystic River Clean-up Day, which took place in Somerville.	Continue to provide cleanup and disposal services for Mystic River Watershed Events.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 7	Planned Activities for Subsequent Years
2H	Public Meetings/Notification	DPW	Hold one public meeting to present stormwater program progress. Establish a Stormwater Contact	Conservation Commission held a public meeting on October 28, 2009. The Mystic River Watershed Association attended this meeting. Stormwater contact established, (Carey Duques, Energy and Environment Dept., 781-293-2137) identified at public meetings, in newspaper, and on website.	Hold a public meeting in Year 8.
2I	Stormwater Contact to receive and address public complaints or concerns	DPW			Continue to expand publicity for this contact through newspaper, etc.
2J	Earth Day Activity	DPW – Energy and Environment Department	Include a stormwater activity in Earth Day Events	No stormwater activities included in Earth Day events. This year's focus was Clean Energy and the new Wind Turbine.	Continue to include stormwater activity/information at Earth Day and Clean Energy Events organized by the City. Evaluate new opportunities for including stormwater outreach at these events.

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 7	Planned Activities for Subsequent Years
3A	Fines for Illegal Dumping	DPW	Establish fines for illegal dumping.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Fines will be established during the Rules and Regulations process.	Establish and publicize fines in upcoming year as Rules and Regulations are finalized.
3B	Enforcement of Fines for Littering and Pet Waste	Police	More stringent enforcement of Fines for Littering and Pet Waste	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Fines will be established during the Rules and Regulations process.	Establish and publicize fines in upcoming year as Rules and Regulations are finalized. Implement stringent enforcement program with Police.
3C	Expand storm sewer map to include all outfalls.	DPW, Engineering	Finish mapping by Year 5.	Substantial progress (>90%) has been made on mapping the entire stormwater system in GIS. Completion date expected to be June 2010.	Complete mapping of entire stormwater system in GIS.
3D	Illicit Discharge Ordinance	DPW, Engineering, Building, Law	Float new Ordinance, one year of comment period, continue education.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010 and is in effect.	Measure completed.
3E	Detection and Elimination Plan	DPW, Engineering	Trace the Source of the Illicit Discharges.	Illicit Discharge Detection and Elimination (IDDE) Plan was developed and submitted to the Environmental Protection Agency for approval in January 2010. Once approved, IDDE work will commence according to the plan's implementation schedule.	Complete work according to IDDE Plan implementation schedule.
3F	Illicit Discharge Education for Public	DPW, Engineering	Included in Measure 1	Included In Measure 1	Included In Measure 1
3G	Illicit Discharge Education for Municipal Employees	DPW	Included in Measure 6	Included In Measure 6	Included In Measure 6



#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 7	Planned Activities for Subsequent Years
4A	Erosion and Sediment Control Ordinance "Construction Ordinance"	DPW, Engineering, Building, Legal	Float new Ordinance, one year of comment period, continue education. Prepare Draft requirements to be referenced or incorporated into the Construction Ordinance.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010 and is in effect. The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Erosion and sediment control BMPs and requirements will be established during the Rules and Regulations process.	Measure completed. Finalize Erosion and Sediment Control BMPs/Requirements in upcoming year as Rules and Regulations are finalized.
4B	Erosion and Sediment Control BMPs/Requirements	DPW, Engineering, Building, Legal	Prepare draft Construction Site Plan Review Procedure to be included or referenced Ordinance.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Review procedure for construction site plans will be established during the Rules and Regulations process.	Finalize Construction Site Plan Review Procedures in upcoming year as Rules and Regulations are finalized.
4C	Construction Site Plan Review Procedures	DPW, Engineering, Building, Legal	Prepare draft Site Inspection and Enforcement Procedure to be included or referenced in Ordinance.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Inspection and enforcement procedures for construction sites will be established during the Rules and Regulations process.	Finalize Site Inspection and Enforcement Procedures in upcoming year as Rules and Regulations are finalized.
4D	Construction Site Inspection and Enforcement Procedures	DPW, Engineering, Building, Legal	Expand publicity regarding stormwater contact (paper, etc.)	Stormwater contact established, (Carey Duques, 781-293-2137) identified at public meetings, on website, and in newspaper articles that were published in the Medford newspaper.	Update and maintain contact information on website and distributed pamphlets.

4F	Minimum BMPs to Consider and thresholds	Stormwater Advisory Committee	Finalize City's decision on thresholds and minimum BMP requirements and include information in Draft Ordinances.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Thresholds and minimum BMP requirements will be established during the Rules and Regulations process.	Finalize thresholds and minimum BMP requirements in upcoming year as Rules and Regulations are finalized.
Revised		DPW, Engineering, Stormwater Board			

## 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 7	Planned Activities for Subsequent Years
5A	Encouragement of "Better Site Design"	DPW, Engineering, Building, Law	Formal document on better site design by the end of Year 5	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Better site design practices will be established during the Rules and Regulations process.	Finalize better site design practices in upcoming year as Rules and Regulations are finalized.
5B	Post-Construction Runoff Ordinance	DPW, Engineering, Building, Law	Float new ordinance, one year of comment period, continue education. Prepare final procedures.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010 and is in effect.	Measure completed.
5C	Choose Structural and Non-Structural BMPs	DPW, Engineering	Prepare final procedures.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Procedures for choosing structural and non-structural BMPs will be established during the Rules and Regulations process.	Finalize procedures for choosing structural and non-structural BMPs in upcoming year as Rules and Regulations are finalized.
5E	Procedures for Implementation of Structural BMPs	DPW, Engineering	Prepare final procedures.	The City's Stormwater System Ordinance was approved by City Council on March 16, 2010. Stormwater Rules and Regulations have been drafted. Procedures for implementation of structural BMPs will be established during the Rules and Regulations process.	Finalize structural BMPs implementation procedures in upcoming year as Rules and Regulations are finalized.

## 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 7	Planned Activities for Subsequent Years
6A	Regular Street Sweeping	DPW, Highway	Sweep main Streets year-round; Sweep all streets and municipal lots twice per year.	DPW swept all streets twice (spring and fall) and swept main streets weekly throughout the year (see Part V and Appendix A).	Continue existing sweeping schedule.
6B	Regular Catch Basin Cleaning	DPW, Highway	Cleaned catch basins once per year as stated in the revisions for the 2003/2004 Annual Report.	Catch basin cleaning continued. 2725 catch basins cleaned in 2009/2010 cleaning season. Cleaned storm drain lines as needed.	Continuing cleaning catch basins annually. Developing targeted informational mailing for the neighborhoods associated with problematic catch basins.
6D	Employee Training	DPW, Engineering	Continue existing training; determine necessary personnel and topics; schedule training.	DPW-wide training along with additional municipal employees is scheduled for summer 2010.	Additional training on stormwater topics, especially new Ordinance, anticipated in upcoming year.
6E	Municipal O&M	DPW, Highway, Parks, Engineering	Develop Draft BMPs for Pollution Source Reduction/Elimination from Municipal Activities including waste disposal procedures.	Funding not available to continue salt shed design.	City will include salt shed in redesigned DPW yard if funding is available.
6H	Geese Maintenance Contract	DPW, Engineering	Reduce permanent geese populations near water bodies.	Geese maintenance contract was not continued.	Continue discouraging geese; evaluate effectiveness of geese maintenance program.

**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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – for Subsequent Years
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

**7a. Additions**


**7b. WLA Assessment**

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

The City of Medford keeps records of operation and maintenance activities, such as catch basin cleaning and street sweeping. A summary of these records is below. See Appendix A for street sweeping log and list of sewer and drain repairs.

- The City collected 608.4 tons of street sweepings during the spring 2010 street sweeping.
- The City collected 1,575 cubic yards of leaves in the fall of 2009, which were hauled out by contractor A. Vanaria and Sons. The cost of the collection and disposal was \$15,750.
- Waste Management collected 1,451 tons of residential yard waste between April and December 2009. The cost of disposal was \$31.00/ton.
- The City cleaned 2,725 catch basins during Permit Year 7. The cleanup cost, including disposal costs, was \$28.72 per catch basin.
- The City repaired or replaced 27 catch basins, 4 drain manholes and 1 sewer manhole during Permit Year 7.
- 11,507 feet of sewer and 4,088 feet of drain were inspected and cleaned, and 60 feet of drain were replaced.