

Municipality/Organization: City of Medford

EPA NPDES Permit Number: MA041049

MaDEP Transmittal Number: W- 035578

Annual Report Number

& Reporting Period: No. 4: March 06-March 07

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Paul Gere

Title: Commissioner of Public Works

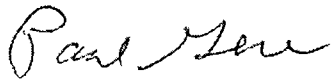
Telephone #: 781-393-2476

Email: pgere@medford.org

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: Paul Gere

Title: Commissioner of Public Works

Date: 4/30/07

Part II. Self-Assessment – City Of Medford NPDES Compliance

During the 2006-2007 permit year, the City of Medford made great strides in meeting the goals of the NPDES permit, including outfall mapping, tracking illicit discharges, conducting training seminars and enhancing public education and involvement. In addition, the City received and responded to EPA Section 308 Requests for Information (RFI) on December 5, 2005 and a follow-up on May 18, 2006. Many of the tasks required to respond the RFIs (such as outfall inspection, sampling, and reporting) fall within the purview of the City's Phase II Program. However, the additional level of effort focused on responding to these requests caused to some other areas of the program to receive less attention than had been originally planned for Year 4.

The BMPs that were modified or not completed during the 2006-2007 year are shown in the following Section (Part III) and Table II-A below. Some of the proposed BMPs continue to be delayed until Ordinances are adopted which will allow their enforcement. No BMPs were eliminated from the submitted plan. The extended time frames for those items not completed are due primarily to the lack of staff and to the continued Ordinance development process. The City does not have the staff time or monetary resources to fully implement the ordinances and can therefore not finalize them until they are able to do so.

City-wide catch basins cleaning did not take place this year, largely due to an expired contract with the service provider. During the outfall monitoring process, locations with large volumes of dog waste and debris were noted and will be targeted for better education of the residents and potential enforcement actions in Year 5.

Those BMPs that have revisions are presented in Table II-A (below) in addition to their identification in Part III, the Summary of BMPs.

The City's main focus for Year 4 was outfall mapping and inspections with a focus on areas suspected of illicit discharges to the stormwater system. Additional sampling in response to the Section 308 Noncompliance Letter from the EPA will be completed during 2007 (Permit Year 5). The text of the October 2006 submittal is included as an attachment at the end of this document.

The City of Medford is continuing to work on the process of electronic data collection (GIS & GPS) to complete mapping of the City's outfalls and storm drain system, a time-consuming and expensive task. Regrettably, the City did not have a GIS operator during much of Permit Year 4. The position has since been filled and it is expected that the mapping process will continue as funding allows in the future. Additional mapping efforts include digitizing numerous record plans of the City's storm drain system and performing field verification of their location and condition. During Permit Year 4, the City's consultants conducted a GPS survey of the City's outfalls. In total, 98 outfalls were located, entered into a GIS database, photographed, and sampled for dry weather flows. Information obtained from the Massachusetts Department of Conservation and Recreation identified 103 outfalls located in Medford for which they are responsible. Coordination of these two data sources is necessary to exclude the outfalls that are not the City's responsibility. A map of all the outfalls identified to date is included in the attachments.

The City also implemented an upgraded street sweeping program with weekly street sweeping on 12 specified heavily-traveled roads. This program included installation of street signs and enforcing a parking ban on sweeping nights (see street listing in Appendix 4).

Table II – A – Revisions to Specific Measures for Permit Year 4

BMP ID #	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activity for Permit Year 5
1E	Arbor Day Celebration	DPW, Tree Warden	One talk will be given to one elementary school per year.		
	<i>Revision</i>		One talk will be given at one school per year.	Delayed until April 2007.	Include stormwater information in an event related to Arbor Day or Earth Day.
1H	“Do not feed the Geese” Signs	DPW, Board of Health	Design and install one sign at Wright’s Pond.		Publicize ordinance, fines, and post signs.
	<i>Revision</i>			Signs delayed until Ordinances and fines are instituted.	
1I	“No Littering” signs	DPW, Parks	Design a “No Littering” sign and install a minimum of one sign.		Finalize and implement ordinances, fines, and signs.
	<i>Revision</i>			Signs delayed until Ordinances and fines are instituted.	
1J	“No Household Trash” signs	DPW, Parks	Install City owned barrels that read “No household Trash”		Finalize and implement ordinances, fines, and signs.
	<i>Revision</i>			Signs delayed until Ordinances and fines are instituted.	
1L	Educational Articles In Local Paper	DPW, Environmental Agent	One article describing the impact dog waste has on water quality.	Place one article in the first year, second year, and once in the fourth year.	None required.
	<i>Revision</i>			Informative pet waste postcards were mailed to homeowners in targeted neighborhoods and veterinary clinics (see attachment in Appendix 2)	

BMP ID #	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activity for Permit Year 5
6A	Regular Street Sweeping	DPW, Highway	Streets and municipal parking lots are swept twice a year. Main Streets are swept year round.		Continue to sweep streets on the same schedule.
	<i>Revision</i>			New street sweeper purchased, 12 heavily-traveled streets are swept weekly. See list included in Appendix 4s.	
6B	Regular Catch Basin Cleaning	DPW, Highway	Clean catch basins once per year as stated in the revisions for the 2003/2004 Annual Report.	Continue cleaning catch basins annually. Clean storm drain lines as needed.	Continued cleaning catch basins annually. Develop targeted informational mailing for the neighborhoods associated with problematic catch basins.
	<i>Revision</i>			Catch basin cleaning did not take place as scheduled during Year 4 because of an expired contract with the provider.	Contract was rebid in January 2007 and awarded. Catch basin cleaning scheduled to restart in April 2007.

The majority of stormwater discharges in the City are to the Mystic and Malden Rivers, which are both listed on the State 303(d) list as currently impacted in Category 5 (requiring a TMDL). The Mystic River recently received a "D" rating for water quality by the Massachusetts DEP. The City is working diligently to identify potential sources of pollutants, and specifically bacteria at four outfalls discharging to the Mystic River. The City issues a 3-year on-call stormwater services contract with the firm of Vanasse Hangen Brustlin, Inc. (VHB) to address all stormwater related issues, including the investigation of sources of bacteria to stormwater discharges. Preliminary investigations have narrowed the search area and have located at least one cross connection that could have allowed a sanitary sewage backup to be released to the Mystic River. That connection has been plugged to remove the possibility of future illicit discharges. As part of an effort to address consistently high bacterial loading at another outfall, a focused investigation of the Winter Brook watershed was begun in February 2007. This watershed is culverted over most of its length, so the investigation is seeking to isolate sub-watersheds within the drainage network and pinpoint possible sources of contamination leading to the Winter Brook Outfall. A copy of the focused Winter Brook investigation plan is included in Appendix 3 of this submittal.

As stated in the March 2003 Notice of Intent submittal, according to information found at the U.S. Fish and Wildlife website, no endangered or threatened species, or critical habitat are located within the City of Medford limits. When all outfall locations are confirmed, a follow up letter will be sent to the National Marine Fisheries Service for confirmation.

Additionally, according to the listing on the National Register of Historic Places website, there are numerous historic properties listed or eligible in Medford. Because all of the outfalls within the city have not been definitively located with the GPS equipment, the information is still listed as pending per the Notice of Intent for this permit. Once all the locations have been identified, a letter will be sent to the Massachusetts Historical Commission to verify that stormwater discharge related activities will not result in an adverse effect on any archeological resources or historic properties of National Significance.

Infiltration and groundwater recharge are generally not feasible in highly urbanized areas such as Medford. Small lots, underground utilities, and potential impacts to basements and neighboring properties often prohibit this practice. Additionally, the City is not dependent on groundwater for its drinking water supply or to support extensive wetland systems. The City is at the end of the Mystic and Malden River watersheds, is close to their outlet into Boston Harbor, and base flow to these rivers is not dependent on recharge in this area. However, the proposed Post Construction Ordinance to be adopted by the City will address recharge potential and promote good practices where feasible. The City will also follow the upcoming changes to the Massachusetts Stormwater Management Policy (where applicable) that focus on groundwater recharge.

The City has been successful in educating municipal employees and engaging every department in the implementation of the Stormwater Management Plan as submitted. The level of understanding regarding stormwater pollution prevention amongst all departments, from Police to the City Tree Warden, is outstanding.

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 4	Planned Activities Permit Year 5
1A	Recycling/household hazardous waste information on website.	DPW	Update website throughout year.	Website was updated with new links and the collection dates for the 2006/2007 permit year.	Continue to update website with event dates.
1B	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.
1C	Recycling/household hazardous waste information on pamphlet to be mailed.	DPW	Mail pamphlet to 75% of residents.	Pamphlet was mailed to 16,000 residents.	Mail pamphlet for the 2006/2007 permit year.
1D	Bilingual Education Information	DPW, High School translator	Translate recycling pamphlet into Spanish and make available in DPW office	Translation completed.	Add note to English version indicating that Spanish version is also available.
	<i>Revision</i>			Pamphlet available in City Hall as of March 2007.	Continue to display pamphlet in DPW Office.
1E	Arbor Day Celebration	DPW, Tree Warden	One talk will be given to one school per year.	Include stormwater information in an event related to Arbor Day or Earth Day.	Continue to include stormwater information in an event related to Arbor Day or Earth Day.
	<i>Revision</i>		One talk will be given at one per year.	Delayed until April 2007.	
1F	"No Dumping Allowed" Signs	DPW, Parks Department	Existing signs in parks.	Existing signs were maintained.	Existing signs will be maintained.
1G	"No Dogs or Animals Allowed" Signs	DPW, Parks Department	Existing signs in parks.	Existing signs were maintained.	Existing signs will be maintained.
1H	"Do not feed the Geese" Signs	DPW, Board of Health	Design and install one sign at Wright's Pond.	Signs delayed until Ordinances and fines are instituted.	Publicize ordinance, fines, and post signs.
	<i>Revision</i>			Ordinance was enacted January 2007.	
1I	"No Littering" signs	DPW, Parks	Design and Install "No Littering" signs in Permit		Finalize and implement ordinances, fines, and signs.
	<i>Revision</i>			Signs delayed until Ordinances and fines are instituted.	

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activities Permit Year 5
1J	"No Household Trash" signs	DPW, Parks	Install City owned barrels that read "No household Trash"		Finalize and implement ordinances, fines, and signs.
	<i>Revision</i>			Barrels with signs delayed until Ordinances and fines are instituted.	
1K	Geese Dropping Article in Newspaper	DPW, Environmental Agent	Place one article in the paper Years 1, 3, and 5.	None required.	Place article in the paper about geese droppings with information on fines
1L	Pet Waste Article in Newspaper	DPW, Environmental Agent	Place one article in the paper Years 1, 3 and 4	Permit Year 3 article was published in March 2006.	Publish another article when fines and ordinances take effect.
	<i>Revision</i>			Pet waste postcards were mailed to homeowners in targeted neighborhoods and veterinary clinics.	
1M	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.	None required.
1O	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.	Determine what the final fines will be and structure for enforcement. When finalized, fines will be published in the paper.	Determine what the final fines will be and structure for enforcement. When finalized, fines will be published in the paper.
	<i>Revision</i>			Publication of fines delayed until Ordinances and fines are instituted.	
1P	Educate Local Businesses	DPW, Environmental Agent	Distribute flyers to 75% of businesses in the third year.	Stormwater meeting regarding fleet businesses held on April 11, 2006. Materials mailed to fleet businesses.	Prepare educational materials for restaurants and hold some type of educational forum.
	<i>Revision</i>			Stormwater meeting regarding restaurants and fleet businesses held on January 31, 2007. Materials on BMPs for these businesses was mailed to 130 businesses and local Chamber of Commerce.	
1Q	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 and for local events.	Provide materials at Arbor Day, Earth Day, and/or other City events to be determined for 2006/2007 permit year.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activities Permit Year 5
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. 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 for Year 4.	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 (see Part V).	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 Clean up Day.	Lower Mystic River Clean-Up Day is planned for the fall of 2006. Medford has joined the Mystic River Watershed Association.	Continue to provide cleanup and disposal services for Mystic River Watershed Events.
	<i>Revision</i>			No volunteer cleanup was held in 2006; litter cleanup at City playgrounds was performed by inmates on loan from Middlesex County corrections department. Additional notifications of litter enforcement actions were sent to 73 residents of Dell Avenue neighborhood. See attachments in Appendix 4.	
2H	Public Meetings/Notification	DPW	Hold one public meeting to present stormwater program progress.	DPW held one public meeting on January 31, 2007.	Hold a public meeting in Year 5.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activities Permit Year 5
2I	Stormwater Contact to receive and address public complaints or concerns	DPW	Establish a Stormwater Contact	Stormwater contact established, (Patricia Barry, Energy and Environment Dept., 781-293-2137) identified at public meetings, in newspaper, and on website.	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		Continue to include stormwater activity/information at Earth Day and Clean Energy Events organized by the City
	<i>Revision</i>			No Earth Day event held in 2006. Earth Day newspaper article includes stormwater tips. Earth Day events in 2007 included a presentation to a Brooks School 2 nd grade class, using Robyn Squire's "Earth Care Educational Activity Book." The Energy & Environment Agent also gave a presentation at the Earth Day Festival which was held on April 25 th . That presentation included discussion of stormwater topics.	

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 4	Planned Activities Permit Year 5
3A	Fines for Illegal Dumping	DPW	Establish fines for illegal dumping.	Proposed fines for illegal dumping have been reviewed. They are awaiting approval as part of the entire Ordinance development process.	Finalize fines for illegal dumping. Publicize with general ordinance information as revisions to existing ordinances.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
3B	Enforcement of Fines for Littering and Pet Waste	Police	More stringent enforcement of Fines for Littering and Pet Waste	Fines are proposed but aggressive enforcement is delayed until Ordinances are finalized.	Finalize and publicize fees and then implement stringent enforcement program with Police.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
3C	Expand storm sewer map to include all outfalls.	DPW, Engineering	Finish mapping by Year 5.	Mapping is nearing completion, 98 outfalls mapped in 2006.	Continue with outfall mapping.
3D	Illicit Discharge Ordinance	DPW, Engineering, Building, Law	Float new Ordinance, one year of comment period, continue education.	Draft circulated for review and comment.	Attempt to pass Ordinance, continue comment period and educate more if necessary.
3E	Detection and Elimination Plan	DPW, Engineering	Trace the Source of the Illicit Discharges.	Areas of concern have been identified, preliminary investigation completed during Permit Year 4.	
	<i>Revision</i>			VHB is engaged in a 3 year on-call contract to locate and eliminate illicit discharges. One connection has been removed to date, additional investigations are underway.	Continue identifying and tracing problems and begin removing sources of illicit discharges.
3F	Illicit Discharge Education for Public	DPW, Engineering	Included in Measure 1	Included In Measure 1	
3G	Illicit Discharge Education for Municipal Employees	DPW	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 4	Planned Activities Permit Year 5
4A	Erosion and Sediment Control Ordinance "Construction Ordinance"	DPW, Engineering, Building, Legal	Float new Ordinance, one year of comment period, continue education.	Comments on Draft Ordinance reviewed; entering second round of drafts.	Attempt to pass ordinance, continue comment period and educate more if necessary.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
4B	Erosion and Sediment Control BMPs/ Requirements	DPW, Engineering, Building, Legal	Prepare Draft requirements to be referenced or incorporated into the Construction Ordinance.	Draft BMP criteria are defined and/or referenced in the Construction Ordinance; comments reviewed.	Prepare Final Requirements as part of ordinance.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
4C	Construction Site Plan Review Procedures	DPW, Engineering, Building, Legal	Prepare draft Construction Site Plan Review Procedure to be included or referenced Ordinance.	Draft Construction Site Plan Review Procedures are included or referenced in the completed Draft Construction Ordinance; comments reviewed.	Prepare Final Requirements as part of ordinance.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
4D	Construction Site Inspection and Enforcement Procedures	DPW, Engineering, Building, Legal	Prepare draft Site Inspection and Enforcement Procedure to be included or referenced in Ordinance.	Draft Site Inspection and Enforcement Procedures are included or referenced in Draft Construction Ordinance; comments reviewed.	Prepare Final Requirements as part of ordinance.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
4E	Stormwater Contact to receive and address public complaints or concerns	DPW	Expand publicity regarding stormwater contact (paper, etc.)	Stormwater contact established, (Patricia Barry, 781-293-2137) identified at public meetings, on website, and in articles that were published in the Medford newspaper.	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.	Erosion and Sediment Controls and Post-Development requirements, are included in the Draft Ordinance; comments reviewed.	Prepare Final Requirements as part of ordinance.
	<i>Revision</i>			Delayed until Ordinances are adopted.	

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 4	Planned Activities Permit Year 5
5A	Encouragement of "Better Site Design"	DPW, Engineering, Building, Law	Formal document on better site design by the end of Year 5	Continued discussions on current better site design practices and evaluated more material for expanding practices through conservation commission, building dept. and Stormwater Ordinance.	Expand material City offers relative to better site design. Discuss incorporating information to be provided in updated Massachusetts Stormwater Management Policy into site plan review process and Stormwater Manual.
5B	Post-Construction Runoff Ordinance	DPW, Engineering, Building, Law	Float new ordinance, one year of comment period, continue education.	Distributed Draft Ordinance for one year review and comment period.	Attempt to pass ordinance, continue comment period and educate more if necessary.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
5C	Choose Structural and Non-Structural BMPs	DPW, Engineering	Prepare final procedures.	Proposed requirements are to be included in the construction guidelines material to be developed after ordinances are approved.	None.
	<i>Revision</i>			Delayed until Ordinances are adopted.	
5E	Procedures for Implementation of Structural BMPs	DPW, Engineering	Prepare final procedures.	Proposed procedures for implementation are to be included in the completed Ordinance.	None.
	<i>Revision</i>			Delayed until Ordinances are adopted.	

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 4	Planned Activities Permit Year 5
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).	Continue existing sweeping schedule.
	<i>Revision</i>			During Permit Year 4, the City purchased a new Elgin Pelican Sweeper (\$125,000) and posted No Parking / Street Sweeping signs (\$28,000) on the 12 main streets which are swept weekly.	
6B	Regular Catch Basin Cleaning	DPW, Highway	Cleaned catch basins once per year as stated in the revisions for the 2003/2004 Annual Report.	Continue cleaning catch basins annually. Clean storm drain lines as needed.	Continuing cleaning catch basins annually. Developing targeted informational mailing for the neighborhoods associated with problematic catch basins.
	<i>Revision</i>			Catch basin cleaning did not take place as scheduled due to expired contract with the provider. DPW cleaned basins as needed to remove blockages.	Contract was rebid in January 2007 and awarded. Catch basin cleaning scheduled to restart in April 2007.
6D	Employee Training	DPW, Engineering	Continue existing training; determine necessary personnel and topics; schedule training.	Supervisor training held on November 1, 2006, DPW-wide employee training held on December 13, 2006.	Continue performing stormwater training in conjunction with implementation of new ordinances.
6E	Municipal O&M	DPW, Highway, Parks, Engineering	Develop Draft BMPs for Pollution Source Reduction/Elimination from Municipal Activities including waste disposal procedures.	Funding obtained to cover salt pile; salt pile contract out to bid.	Cover salt pile.
	<i>Revision</i>			Investigation of roof system to cover existing salt storage required additional engineering; design of alternative facility is underway.	
6H	Geese Maintenance Contract	DPW, Engineering	Reduce permanent geese populations near water bodies.	Parks Department continues geese management contract, federal permit sought to euthanize 20 geese and addle 70 nests.	Continue discouraging geese; evaluate effectiveness of program.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) – Not Applicable

The Mystic River and Malden River are in Category 5, requiring TMDLs but with none approved to date. The River, as discussed previously, was recently classified as a “D” in terms of water quality. Concerns relative to water quality include stormwater runoff and illicit discharges. Medford has identified key problem areas and are actively investigating, removing any illicit found, and will be installing specific catch basin inserts in three specifically selected areas of concern.

8. General BMPs

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4	Planned Activities – Permit Year 5
	Monitoring	DPW	Evaluation of program compliance.	Records were kept of activities conducted for program compliance. Updated tracking sheets for municipal activities such as street sweeping, catch basin cleaning, and flusher truck activities were developed. These updated sheets are attached.	Continue monitoring.
	Annual Report	DPW	Submit Annual Report to EPA.	Submitted Annual Report	Submit Annual Report.
	Annual Public Meeting	DPW	Hold one Public Meeting.	DPW held a public meeting on January 31, 2007.	Hold one public meeting.
	Recordkeeping	DPW	Keep records of activities conducted for program compliance for 5 years.	Records were kept of activities conducted for program compliance.	Continue recordkeeping.

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.

- The City collected 2992 cubic yards of leaves in the fall of 2006. The City mulched approximately 2452 cubic yards of leaves and had 540 cubic yards hauled out by A. Vanaria and Sons.
- In January 2007, the City put on-line a newly purchased street sweeper, bringing the number of sweepers to three.
- Waste Management collected 686 tons of yard waste between April and November 2006.
- Due to the expiration of the previous catch basin cleaning contract and the time required to rebid the contract, no catch basins were cleaned by the outside vendor during Permit Year 4. The contract was renewed in February 2007 and cleaning activities are slated to resume in April 2007.
- City forces repaired or replaced 18 catch basins and 8 drain manholes during Year 4.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	697,000 (est.)

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Not Known
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	None — no event this year
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	7
▪ community participation	(#)	464 residents
▪ material collected	(tons or gal)	26 cubic yards (boxes)
School curricula implemented	(y/n)	No

Legal/Regulatory

	In Place before 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	(%)	90%
Estimated or actual number of outfalls	(#)	98*
System-Wide mapping complete	(%)	90%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	20% (estimate)
▪ GIS	(%)	20% (estimate)
Outfalls inspected/screened	(# or %)	98%
Illicit discharges identified	(#)	1
Illicit connections removed	(#) (est. gpd)	1

% of population on sewer	(%)	>99%
% of population on septic systems	(%)	<1%

* This number will be reduced through the ongoing identification of State DOT and Department of Conservation & Recreation (DCR) outfalls.

Construction

Number of construction starts (>1-acre)	(#)	Not available at this time.
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	Most building permits are for renovation or redevelopment of existing structures.
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and \$)	
Complaints/concerns received from public	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	----
Site inspections completed	(# or %)	----
Estimated volume of stormwater recharged	(gpy)	----

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	0
Storm drain cleaned	(LF or mi.)	----
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	~52
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost, beneficial use
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(lbs. or %)	90%
▪ Herbicides	(lbs. or %)	100%
▪ Pesticides	(lbs. or %)	90%

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	Varies by storm requirements
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	In process
Storage shed(s) in design or under construction	(y/n)	Yes