Transportation
Land Development
Environmental
Services

1049 RV Received 5/1/06

VHB imagination | innovation | energy Creating results for our clients and benefits for our communities

April 28, 2006

Vanasse Hangen Brustlin, Inc.

Ref: 08775.04

Ms. Thelma Murphy
United States Environmental Protection Agency
11 Congress Street, Suite 1100
Boston, MA 02109

Re: NPDES Phase II Permit Year 3 - Annual Report 2005-2006
Permit No. MA 041049
MA DEP Transmittal Number W-035578
Medford, Massachusetts

Dear Ms. Murphy,

On behalf of the City of Medford, Vanasse Hangen Brustlin, Inc. (VHB) is pleased to submit the enclosed NPDES Small MS4 General Permit Annual Report to the Environmental Protection Agency (EPA) Region 1, with a copy to the Massachusetts Department of Environmental Protection.

Medford is an urban City, approximately five miles northwest of Boston, with a population of close to 55,000 residents. Various industrial and commercial uses occur within the City. The City's priorities for stormwater management include the elimination of geese droppings at Wright's Pond, the reduction of dog pet waste citywide, and the reduction of litter in high traffic areas, particularly around City Hall and the taxi stand in Medford Square. Medford's Five-Year Plan includes a focus on these priority areas.

During the 2005/2006 Permit Year, the City of Medford worked diligently on mapping the stormwater system and tracking down illicit discharges. Another major effort has been the finalization of Draft Ordinances to address the issues previously mentioned as well as Illicit Connections, Stormwater Management for Construction Activities as well as Post Construction/Long Term Stormwater Management as required. It is hoped that these Ordinances and their associated fines will be implemented and enforced starting in the 2006/2007 Permit Year.

The City continues to educate municipal employees and citizens relative to stormwater issues, specifically the awareness of proper animal waste control and illicit dumping. The City is pleased with the progress in the implementation of Year 3 Stormwater Management Practices and looks forward to greater progress in following years.

54 Tuttle Place
Middletown, Connecticut 06457-1847
860.632.1500 ▪ FAX 860.632.7879
email: info@vhb.com
www.vhb.com

Please feel free to contact me at 617-924-1770 or Patricia Barry, Medford's Environmental Agent, at 781-393-2137 if you have any questions regarding this submittal.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

for: Bethany E. Eisenberg
Project Manager

cc: Massachusetts Department of Environmental Protection
Paul Gere, Commissioner of Public Works
File

VHB

Municipality/Organization: City of Medford

EPA NPDES Permit Number: MA041049

MaDEP Transmittal Number: W- 035578

Annual Report Number & Reporting Period: No. 3: March 05-March 06

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: Paul Gere

Printed Name: Paul Gere

Title: Commissioner of Public Works

Date: 4/30/06

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

During the 2005-2006 permit year, the City of Medford has expended considerable time, money, and effort towards finalizing the three new Ordinances (Illicit Discharge, Construction Site Stormwater Management, and Post Construction Stormwater Management), mapping the stormwater system, and tracking down illicit discharges. Medford has exceeded its goals in terms of the level of detail included in these Ordinances as well as the level of money expended on private consultants to assist in their development and related follow-on activities. Coordination with most of the major City Departments including Fire and Police were required to come up with the comprehensive Ordinances and detailed corresponding regulations.

The BMPs that were modified or not completed during the 2005-2006 year are shown in the following Section (Part III) and Table II-A below. Certain BMPs proposed for Year 3 have been delayed until the Ordinances are passed in order to maximize their effectiveness. 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.

As revised in Year 2, catch basins were cleaned only once this year. Review of catch basin cleaning records was completed as planned and has resulted in the identifications of specific locations with larger volumes of dog waste and debris. These specific areas will be targeted for better education of the residents and potential enforcement actions in Year 4. This is not considered a revision for the current permit term as it was included in previous annual reports.

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

Table II – A – Revisions to Specific Measures for Permit Year 3

BMP ID #	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s) Permit Year 3	Planned Activity for Permit Year 4
1D	Bilingual Education Information	DPW, High School translator	Translate recycling pamphlet into Spanish and make available in DPW office	Translation complete.	Add note to English version indicating that Spanish version is also available.
	Revision			Printing delayed.	Pamphlet will be available in City Hall as of May 2006.
1E	Arbor Day Celebration	DPW, Tree Warden	One talk will be given to one elementary school per year.		
	Revision		One talk will be given at one elementary or middle school per year.	April 28th event at McGlynn Middle School included stormwater topics.	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 in permit.		Finalize and implement ordinances, fines, and signs.
	Revision			Signs delayed until Ordinances and fines are instituted.	
1I	"No Littering" signs	DPW, Parks	Design and Install "No Littering" signs in Permit		Finalize and implement ordinances, fines, and signs.
	Revision			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.
	Revision			Signs delayed until Ordinances and fines are instituted.	

Table II – A – continued

BMP ID #	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s) Permit Year 3	Planned Activity for Permit Year 4
3E	Detection and Elimination Plan	DPW, Engineering	Trace the Source of the Illicit Discharge (Year 3).	Areas of concern have been identified (see attached 308 report); however, inspections have not yet located the illicit source.	
	Revision			RFP for 3-year on-call contract put out to bid (see attached), VHB retained to help locate and eliminate illicit discharges.	Continue identifying and tracing problems and begin removing sources.

The City's main focus for Year 3 was outfall mapping and inspections with a focus on areas suspected of illicit discharges to the stormwater system. The City of Medford is continuing to work on the process of electronic data collection (GIS, GPS). The system is approximately 90 percent mapped and inspected by City staff at this time. In total, 52 outfalls were located. The Department of Conservation and Recreation also identified 103 outfalls that it maintains. A map of the outfalls is included in the attachments. The next steps include excluding the outfalls that are not the City's responsibility and tracking down the sources of bacteria identified at City outfalls.

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 City is working diligently to identify potential sources of bacteria at four outfalls discharging to the Mystic River and has engaged the Firm of Vanasse Hangen Brustlin, Inc. (VHB) to investigate potential sources of bacteria at these four outfalls. Investigations have helped narrow the search area but have not yet located the sources of any illicit discharges. VHB is currently working with the City to form a plan for eliminating identified sources.

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 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.

In terms of recharge, in highly urbanized areas such as Medford, recharge is generally not feasible. 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 River watershed and is close to the Rivers that it discharges to 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 3	Planned Activities Permit Year 4
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 2005/2006 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 residents.	Mail pamphlet for the 2005/2006 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.
	Revision			Printing delayed.	Pamphlet will be available in City Hall as of May 2006.
1E	Arbor Day Celebration	DPW, Tree Warden	One talk will be given to one elementary school per year.	Delayed until April 2006.	
	Revision		One talk will be given at one elementary or middle school per year.	April 28th event at McGlynn Middle School included stormwater topics.	Include stormwater information in an event related to Arbor Day or Earth Day.
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 in permit.		Finalize and implement ordinances, fines, and signs.
	Revision			Signs delayed until Ordinances and fines are instituted.	
1I	"No Littering" signs	DPW, Parks	Design and Install "No Littering" signs in Permit		Finalize and implement ordinances, fines, and signs.
	Revision			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 3	Planned Activities Permit Year 4
1J	"No Household Trash" signs	DPW, Parks	Install City owned barrels that read "No household Trash"		Finalize and implement ordinances, fines, and signs.
	Revision			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.	Article was placed in paper in February (article text attached).	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	Article published on March 2, 2006 (attached).	Publish another article when fines and ordinances take effect.
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.	EPA video entitled *After the Storm* was provided to television station for broadcast throughout the year.	None required.
1N	Stormwater Display	DPW, Library	Stormwater display on effects of everyday life on stormwater in library	Display provided by Mystic River Watershed Association and set up in April (see attached photos).	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.	Discussed how to structure fines and who will enforce (see attached e-mails). Proposals are included in the draft Ordinances currently under review.	Determine what the final fines will be and structure for enforcement. When finalized, fines will be published in the paper.
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.
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 3	Planned Activities Permit Year 4
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 3.	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.
2H	Public Meetings/Notification	DPW	Hold one public meeting to present stormwater program progress.	DPW held one public meeting on April 11, 2006.	Hold a public meeting in Year 4.
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	No Earth Day Events held in 2006. However, Earth Day newspaper article includes stormwater tips.	Continue to include stormwater activity/information at Earth Day and Clean Energy Events organized by the City

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 3	Planned Activities Permit Year 4
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.
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.
3C	Expand storm sewer map to include all outfalls.	DPW, Engineering	Finish mapping by Year 5.	Mapping is underway. 52 outfalls mapped in 2005/2006.	Continue with outfall mapping.
3D	Illicit Discharge Ordinance	DPW, Engineering, Building, Law	Float new Ordinance, one year of comment period, continue education (Year 3).	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 Discharge (Year 3).	Areas of concern have been identified (see attached 308 report).	
	Revision			RFP for 3-year on-call contract put out to bid (see attached), VHB retained to help locate and eliminate illicit discharges.	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 3	Planned Activities Permit Year 4
4A	Erosion and Sediment Control Ordinance "Construction Ordinance"	DPW, Engineering, Building, Legal	Float new Ordinance, one year of comment period, continue education (Year 3).	Comments on Draft Ordinance reviewed; entering second round of drafts.	Attempt to pass ordinance, continue comment period and educate more if necessary.
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.
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.
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.
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 and on website.	Contact name and information should be on website and informational 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.

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 3	Planned Activities Permit Year 4
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 Policty 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 (Year 3).	Distributed Draft Ordinance for one year review and comment period.	Attempt to pass ordinance, continue comment period and educate more if necessary.
5C	Choose Structural and Non-Structural BMPs	DPW, Engineering	Prepare final procedures.	Proposed requirements are completed and included in Draft Ordinance.	None.
5D	Procedures for Long-Term Operation and Maintenance (O&M) Plans	DPW, Engineering	Prepare final procedures.	Procedures for Long term O&M Plans are defined in the Draft Ordinance; comments received.	None.
5E	Procedures for Implementation of Structural BMPs	DPW, Engineering	Prepare final procedures.	Proposed procedures for implementation are included in the completed Ordinance; comments received.	None.

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 3	Planned Activities Permit Year 4
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 in Year 3 and swept main streets throughout the year (see Part V).	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.	Cleaning performed. Identified specific trouble areas with excessive litter, dog waste, etc.	Continuing cleaning catch basins annually. Developing targeted informational mailing for the neighborhoods associated with problematic catch basins.
6C	SPCC Plan	DPW, Highway	Implement SPCC Plan at DPW Yard	SPCC Plan implemented at DPW yard.	Continue to follow procedures in SPCC Plan.
6D	Employee Training	DPW, Engineering	Continue existing training; determine necessary personnel and topics; schedule training	Training conducted on April 4, 2006.	Perform 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.
6F	SWPPP for Municipal Yard	DPW, Highway	Implement SWPPP at DPW yard.	SWPPP implemented at DPW yard.	Continue to follow procedures in SWPPP.
6G	SWPPP for Oak Grove Cemetery	DPW, Cemetery Division	Implement SWPPP at Oak Grove Cemetery.	SWPPP implemented at Oak Grove Cemetery.	Continue to follow procedures in SWPPP.
6H	Geese Maintenance Contract	DPW, Engineering	Reduce permanent geese populations near water bodies.	John Pettee contracted to discourage geese using dogs on a monthly basis at Oak Grove Cemetery and Playstead Park and on a seasonal basis at Wrights Pond and Hormel Stadium for $200 per week.	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.

8. BMPs General

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2	Planned Activities – Permit Year 3
	Monitoring	DPW	Evaluation of program compliance	Records were kept of activities conducted for program compliance. Submission of Annual Report	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.	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 are attached. Public education materials distributed or displayed within Year 1 are also attached.

The City collected over 722 tons of street sweepings between March and April 2006, which included a mix of debris, leaves and litter (pending from Mark Shea).

The City collected 3172 cubic yards of leaves in the fall of 2005. The City mulched approximately 2512 cubic yards of leaves and had 660 cubic yards hauled out by A. Vanaria and Sons.

The City cleaned 2,435 catch basins for a total cost of $48,603 ($19.96 dollars per basin)

Only 300 cubic yards of solids were removed from the 2,448 basins.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	($)	Not known at this time.

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 yet this year
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	7
▪ community participation	(%)	430
▪ material collected	(tons or gal)	24 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	(#)	~52*
System-Wide mapping complete	(%)	90%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	90%
▪ GIS	(%)	90%
Outfalls inspected/screened	(# or %)	90%
Illicit discharges identified	(#)	4
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	>99%
% of population on septic systems	(%)	<1%

* May be reduced as more outfalls out of Medford's jurisdiction are identified.

Construction

Number of construction starts (>1-acre)	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	75%
Site inspections completed	(# or %)	~1400
Tickets/Stop work orders issued	(# or %)	~25
Fines collected	(# and $)	~$10,000
Complaints/concerns received from public	(#)	>100

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	(#)	2448
Storm drain cleaned	(LF or mi.)	----
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	294 c.y catch basins
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	$48,603

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)	~30
Qty. of sand/debris collected by sweeping	(lbs. or tons)	722 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost, beneficial use
Cost of sweepings disposal	($)	Sweepings to be disposed of in 2006 fiscal year
Vacuum street sweepers purchased/leased	(#)	N/A
Vacuum street sweepers specified in contracts	(y/n)	N/A

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	
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	No
Salt pile(s) covered in storage shed(s)	(y/n)	No
Storage shed(s) in design or under construction	(y/n)	Yes

Attachments

- Outfall Map
- Library Stormwater Display Photographs
- Ordinance Coordination
- Training and Education Information
- Medford Response to EPA 308 Request for Information (text only)
- Medford Request for Qualifications — On Call Engineering and Consulting Services for Stormwater Management