Municipality/Organization: City of Malden

EPA NPDES Permit Number: MA041046

MaDEP Transmittal Number: W- 041088

Annual Report Number & Reporting Period: **No. 1: March 06-March 07**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Richard C. Howard Title: Mayor

Telephone #: 781-397-7000 Email:

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: RICHARD C HOWARD

Title: MAYOR

Date: 7-27-07

Part II. Self-Assessment

During the reporting period of April 30 2006 through March 1 2007, the City of Malden expended extensive resources which were directed towards implementation of Section 308 program goals and objectives. Specific tasks undertaken have resulted in a completion of an inventory of all storm water outfalls. Completion of a second Sewer System I/I study, which will result in a contract bid package in the fall of 2007. Sampling of all inventoried drain system outfalls
To the Malden River, Spot Pond Brook, and Town Line Brook has been undertaken in both dry conditions and wet weather. Work towards the development of a storm water maintenance program involving inter departmental personnel and consultant services to meet the goals and objectives of the section 308 program is under way.

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 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1-1	Place Educational Information on City's Web Site	Malden Engineering Dept., Malden Mayor's Office	(1)post stormwater related information on web site (2) update site regularly	Malden's Stormwater Management Plan (SWMP) posted on the City's web site. Hazardous Waste Disposal Events and, Street Sweeping info. Also posted on the web site.	Continue posting pertinent info on city web site and as press releases
Revised					
1-2	Conduct Recycling Day Events & Household Hazardous Waste Education	Malden DPW, Malden Mayor's Office	(1) sponsor up to 6 annual recycling events (2) advertise the events on MATV "Talking" Bulletin Board (3) advertise events on city's web site and local papers (4) track amounts and types of waste collected (5) maintain and update City's web site.	DPW held four hazards waste days for residents at the DPW facility. They accepted a large amount of household waste.	DPW will continue these events.
Revised					
1-3	Intensify the Existing Pet waste Management Campaign	Malden Animal Control Dept., Malden City Clerk	(1) track number of annual fact sheets (2) track the number of annual violations (3) post pet wastes information on web site (4) track the number of signs posted (5) issue press release to local papers	In conjunction with storm water quality improvements for Fellsmere Pond, educational and pet waste guidelines were developed.	Program needs will be monitored by the Animal Control Officer.
Revised					

1-4	Place Educational Information on Malden Access Television	Malden Engineering Dept., Malden Access Television	(1) obtain "Oil Leak" & "Fertilizer" PSAs fro Washington St. Dept. of Ecology Water Quality Consortium (2) track the broadcast of PSAs on MATV (3) track the broadcast of Eagle Scout Catch Basin stenciling video on MATV (4) track frequency of stormwater quality message being shown on "Talking" Bulletin Board (5) track public meeting occurring on proposed Illicit Discharge & Connection Stormwater Ordinance and Sedimentation & Erosion Control Ordinances on MATV	Certain storm water related items from routine City events had information and schedules posted.	The city will continue to post schedule of storm water related programs. We will seek video programs to air on MATV.
Revised					

1-5	Promote Water Conservation Practices for Homeowners	Malden Waterworks Division	(1) track number of dye tablets given to Engineering Dept. (2) track number of water-efficiency kits issue by Engineering Dept. (3) post water conservation information of Water Dept. web page (4) post water conservation posters at Government Center and library (5) include water conservation inserts in water bill (6) issue annual press release to local newspapers	MWRA brochures made public to Malden's citizens. Malden and the MWRA create and distribute annual Consumer Confidence Report (CCR) dealing with water conservation among other issues. During the reporting period a comprehensive water meter replacement program moved towards completion to more accurately monitor water consumption and promote water conservation.	Educational material pertaining to water conservation will be sought and distributed accordingly.
Revised					
1-6	Develop a Press Release & Flyer Targeting Community Businesses	Malden Engineering Dept., Malden Mayor's Office	(1) Submit the press release to Malden Advocate and other newspapers, (2) submit copies of flyers to local Chamber of Commerce, (3) post flyer on City's website	No activity	Based on the results of the water meter program, water consumption information will be available.
Revised					

1a. Additions

1-7	Establish a partnership with local schools to educate Malden's students about stormwater	Malden School Department, Stormwater II Committee	(1) enter into discussion with faculty members (2) plan appropriate curriculum (3) plan appropriate field trips/activities (4) plan for various speakers to address the class/classes about stormwater	The city continues to support local schools curriculum and activities to promote an understanding of storm water issues.	Plan for this partnership to be an ongoing effort in the coming years.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2-1	Public Access to SWMP & Receipt of Comments	Malden Engineering Department, Malden Mayor's Office	(1) make the Draft SWMP access to public, (2) Draft press release advertising public comment period, (3) make final SWMP accessible to public	Information contained within the SWMP has been updated to reflect the results of programs implemented.	A Interdisciplinary team has been developed to meet the needs of the section 308 program as well as, Storm Water. They will continue to make their activities open to the public.
Revised					
2-2	Establish SWMP Review Committee & Receive Public Comment on SWMP Annual Report	Malden Mayor's Office	(1) establish SWMP Review Committee (2) conduct quarterly meetings of committee (3) prepare annual report for permitting authorities (4) send press release advertising comment period (5) advertise public comment period at City Clerk's office (6) receive public comment on report (7) submit annual report to EPA and MA DEP	A focused effort to develop a team to meet the needs of storm water. The annual report is available to the general public.	A Interdisciplinary team has been developed to meet the needs of the section 308 program as well as, Storm Water. They will continue to make their activities open to the public.
Revised					

2-3	Provide Support to Local Cleanup Activities	Malden DPW, Malden Conservation Commission	(1) distribute annual letter offering help with local cleanup activities (2) place letter on City's web site (3) track the number of annual activities DPW helps with (4) track number of participants at cleanup activity (5) track which areas are cleaned by each activity (6) track the quantity of waste collected in cleanup activity	Nothing to report.	The city will support local initives towards this goal.
Revised					
2-4	Co-sponsor Storm Drain Stenciling Activities	Malden DPW, Malden Conservation	(1) distribute annual letter offering to cosponsor storm drain stenciling activity (2) identify areas for stenciling and develop a schedule (3) track number of drains stenciled (4) track number of volunteers in stenciling activities (5) summarize condition of inlets surveyed	The Malden DPW has made continuing progress in stenciling as well as catch basin cleaning and rehabilitation.	This program will continue as an ongoing effort.+
Revised					
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3-1	Field Verify Outfall Locations	Malden Engineering Dept., Malden DPW	(1) develop schedule for outfall verification & identification activities, (2) perform outfall activities as scheduled (3) continuously update storm drainage system map(s)	During this reporting period all known outfalls at Malden River, Spot Pond Brook, and Town Line Brook were located and inspected.	Wet and dry weather sampling of outfalls to conform with section 308 efforts.
Revised					
3-2	Adopt an Ordinance Governing Discharges to the Municipal Storm Drainage System	Malden Engineering Dept., Malden City Clerk	Draft ordinance for discharges to municipal storm drainage system (2) present ordinance to City Council for acceptance (track number of enforcement actions	Nothing to report.	This goal will be reported on in year 5.
Revised					

3-3	Implement an Illicit Discharge and Elimination Plan	Malden DPW	(1) Develop an Illicit Discharge Detection and Elimination Plan (2) conduct dry-weather field screening of outfalls & track number of surveys (3) trace source of potential illicit discharges (4) trace number of illicit connection (5) trace number of illicit connection repaired/replaced (6) report on success of obtaining alternative funding in illicit connection removal	The Interdisciplinary team organized to meet the needs of Section 308 have been compiling an inventory and inspection reports of outfalls. This has included dry and wet weather testing of outfalls as well as upstream locations to detect and track any potential illict discharges. This along with other related items is being implemented by the Storm Water Management Team.	Efforts on this item will continue.
Revised					
3-4	Conduct I/I Removal in the Sanitary Sewer System	Malden Engineering Dept., Roseland Property Company	(1) complete Infiltration & Inflow Identification Program Overlook Ridge Study, (2) Evaluate recommendations made in the I/I program and develop a plan to perform the recommendations (3) track City's sanitary capital improvement projects	In the fall of 2006 a second I/I study was completed this included extensive sewer main cleaning, flow monitoring, and television work. These results are being reviewed, contract documents for a sewer rehabilitation project will be but out to bid in the fall of 2007.	Work towards meeting goals of the BMP.
Revised					
Revised					

Revised					

3a. Additions

	Storm Water system outfall inspection, evaluation, and testing	Storm Water Management Team.	In the summer – fall of 2006 all known outfalls for the Malden River, Spot Pond Brook, and Town Line Brook were sampled for water quality.	Perform Mass Balance evaluation to identify potential adverse storm water quality.	This program will continue.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4-1	Adopt a Stormwater Management & Land Disturbance Ordinance	Malden Engineering Dept., Malden City Clerk	(1) draft Stormwater Management & Land Disturbance Ordinance (2) present ordinance to City Council for acceptance (3) track number of enforcement actions taken	Construction protocols to be maintained in accordance with requirements of the NPDES program for construction activity.	Protocols to be continued and reviewed in year 5.
Revised					
4-2	Develop a Site Inspection Form and Conduct Site Inspections	Malden Engineering Dept.	(1) develop a Site Inspection Form reflecting ESCP requirements, (2) track the frequency of inspections conducted for each site, (3) track completion of inspection forms (4) track number of failed ESC BMPs at each site	Construction protocols to be maintained in accordance with requirements of the NPDES program for construction activity.	Protocols to be continued and reviewed in year 5.
Revised					
4-3	Develop and Implement a Citizen Complaint Hotline	Malden DPW, Malden Mayor's Office	(1) establish Citizen Complaint Hotline (2) Advertise Citizen Complaint Hotline, (3) track number of complaints, (4) track problem/incidents remedied	The Malden City Council has established a Citizen's Complaint/Hotline for such activities	Hotline to continue in year 5.
Revised					

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 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5-1	Revise the Rules & Regulations Governing the Subdivision of Land	Malden Planning Dept., Malden Planning Board	(1) draft amendment to Section V of the Rules & Regulation governing subdivision of land and submit amendment to Planning Board (2) adopt proposed amendment at a Planning Board meeting	Nothing to report	Review need for other regulation changes in year 5.
Revised					
5-2	Revise the Zoning Ordinance	Malden Planning Dept., Malden Planning Board, Malden City Council	(1) draft amendment to Sections 700 and 800 of Zoning Ordinance and submit to Planning Board (2) hold a public meeting jointly conducted by Planning Board and City Council (3) adopt proposed amendment at a meeting of City Council	Zoning Ordinance passed for management of storm water on projects with grade change beyond established criteria.	Review need for other ordinance changes in year 5.
Revised					
Revised					
Revised					

(NO PAGE 14)

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 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6-1	Develop a Formal Training Program for DPW Staff	Malden DPW, Malden Human Resources Dept.	(1) develop a DPW employee-training manual (2) conduct training session for current employees (3) train all new DPW employees according to manual (4) track employees trained according to manual (5) conduct employee refresher courses every two years	The DPW trains employees whom receive their tankers license for use of the Vac Tor catch basin cleaning truck. This training consists of complete knowledge of use of this vehicle, reading city drainage plans and repair of catch basins and manholes within the drainage system.	Activity to continue in year 5.
Revised					
6-2	Develop a Formal Catch Basin Cleaning Program	Malden DPW	(1) request funding for catch basin cleaning contract (2) request funding for vactor truck (3) document annual cleaning activities (4) document annual stenciling activities	Since the city purchased the Vac Tor truck an aggressive cleaning schedule has resulted in Catch Basins being cleaned annually with the efforts of a 2 to 3 man crew of DPW personnel. We document the date the basins are cleaned, and any active inverts. We remove all material to the bottom of the sump and store it at the city yard, once tested we truck it to an accepted facility in Haverhill MA	Activity to continue in year 5.
Revised					

(No Page 16)

6-3	Formalize the Existing Parking Lot and Street Sweeping Program	Malden DPW	(1) conduct inventory of publicly owned parking lots (2)develop a schedule for parking lot cleaning activities (3) track which streets swept monthly (4) track number of inventoried municipal parking lots clean annually (5) maintain accurate log of disposed materials (^) re-evaluate storage make improvement complying with MADEP BWP Reuse & Disposal of Street Sweepings Policy	Our existing street sweeping program is done with DPW personnel and equipment. This program has been ongoing with a plan and schedule that has been in effect for 7 years. Starting in March of each year we sweep six days a week including commercial and non-commercial streets. All material that is swept up is stored at the city yard, tested and disposed of by trucking to a compliance site. The street sweeping schedule issued by the DPW includes all the times that specific streets will be cleaned. The schedule has been printed and extensively distributed; it is also available at the DPW facility on Commercial Street.	The street sweeping schedule issued by the DPW will continue. DPW will review this BMP for additional items that need to be implemented.
Revised					
6-4	Develop a Vehicle & Equipment Maintenance Policy	Malden DPW	(1) develop & implement a vehicle & equipment maintenance policy to be incorporated into DPW training manual	The DPW presently has four equipment maintenance repairmen and one maintenance supervisor to maintain approximately fifty pieces of equipment. Our policy at present is every 4,000 miles a vehicle will be have all fluids changed along with any other necessary repairs at the DPW yard.	The DPW maintenance policy will continue. DPW will review this BMP for additional items that need to be implemented.
Revised					
6-5	Develop a Vehicle & Equipment Cleaning Policy	Malden DPW	(1) develop & implement a vehicle & equipment cleaning policy (2) place policy in DPW training manual and supply City Police Dept, Fire Dept and Parks Dept. with policy	Presently the DPW policy for cleaning vehicles and equipment is as needed using a hose or steam cleaner.	The DPW cleaning policy will continue. DPW will review this BMP for additional items that need to be implemented.
Revised					

6-6	Develop a Landscape and Lawn Care Policy	Malden DPW, Malden School Dept., Malden Cemetery Dept.	(1) develop & implement landscape/lawn care policy (2) place policy in DPW training manual and provide to City's Cemetery Dept. and School Dept.	The DPW maintains City parks, all lawns are mowed weekly. All parks are watered daily through irrigation systems. All irrigation systems are inspected monthly, and repairs are made when necessary to ensure proper operation.	This objective will be targeted for action during year 5.
Revised					

6-7	Develop a SPRP for the Commercial Street Facility	Malden DPW	(1) complete & implement use of Spill Prevention & Response Plan for DPW facility (2) identify and train key individuals in the areas of spill response, prevention and cleanup (3) develop an emergency spill containment and cleanup kit (4) post a summary of the Spill Prevention & Response Plan throughout facility (5) conduct annual review of Spill Prevention & Response Plan (6) track number of spill & leak incidents at facility and actions taken to alleviate them	The DPW's Commercial St facility has an inside maintenance area that has an enclosed oil seperator that gets cleaned annually the liquids and solids are pumped and disposed of properly.	The DPW SPRP policy will continue. DPW will review this BMP for additional items that need to be implemented.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

During the 2006-2007 reporting period, a comprehensive survey consisting of 3 submittals of documentation pertaining to the City of Malden's storm water sewer infrastructure was provided to US EPA under cover of correspondence dated May 31, 2006, June 30, 2006 and, September 29, 2006, to Mr. Todd Borci. See Attachment B.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	Yes	Interdisplinary Team
Annual program budget/expenditures	($)	See Attachment B

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	

Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	4
▪ community participation	(%)	strong
▪ material collected	(tons or gal)	On file
School curricula implemented	(y/n)	Yes

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	See Attachment B
Estimated or actual number of outfalls	(#)	" "
System-Wide mapping complete	(%)	" "
Mapping method(s)		" "
▪ Paper/Mylar	(%)	" "
▪ CADD	(%)	" "
▪ GIS	(%)	" "
Outfalls inspected/screened	(# or %)	" "

Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	99.9 %
% of population on septic systems	(%)	>.1 %

Construction

Number of construction starts (>1-acre)	(#) ONE	ONE
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100 %
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
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)	Annually
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Annually
Total number of structures cleaned	(#) approx.	1000
Storm drain cleaned	(LF or mi.)	0
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	500 tons tested ready for trucking
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	To go to	Landfill note 1

Note 1- Disposal @ Haverhill Landfill Old Groveland Road Note 2- 900+ cu/yd in yard Tested ready for transport Note 3- 60 Catch Basins Repair		
Cost of screenings disposal	($) 18 / ton	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	Annually
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Annually
Qty. of sand/debris collected by sweeping	(lbs. or tons)	913 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	To go to	Landfill note3
Cost of sweepings disposal	($)	$16,435.
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	N / A
▪ Herbicides	(lbs. or %)	N / A
▪ Pesticides	(lbs. or %)	N / A

Anti-/De-Icing products and ratios Salt 100 % - Sand 2 % - CaCl2 100 gals/ 30 tons	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	100 % 5000 gal tank 2 %
Pre-wetting techniques utilized	(y/n)	Yes
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	Yes

Estimated net reduction in typical year salt application	(lbs. or %)	-----
Salt pile(s) covered in storage shed(s)	(y/n)	No - Note 1
Storage shed(s) in design or under construction	(y/n)	No

Note (1) Salt Pile covered, not in shed