Municipality/Organization:	City of Malden
EPA NPDES Permit Number:	MA041046
MaDEP Transmittal Number:	**041088**
Annual Report Number & Reporting Period:	**No. 1: March 07-March 08**

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: April 28, 2008

Part II. Self-Assessment

During the reporting period of April 1, 2007 through March 31 2008, the City of Malden continued with the implementation of quantitive measures designed to improve both the awareness and improved quantity of storm water discharges from the City's infrastructure. Specific tasks performed during this last year have included additional wet and dry weather sampling of known outfalls, aggressive street and catch basin cleaning, a comprehensive surface water quality improvement project at Fellsmere Pond and the expansion of the monitoring network through the Town Line Brook at Oak Grove. Working with representatives of the Department of Conservation and Recreation (DCR), the City performed additional sampling of surface water quality and outfall discharges in this area. The City through its Department of Public Works also completed an extensive removal of brush, fallen trees and general debris from the areas of overhead flow in the vicinity of the outlet control structure for the surface water at Oak Grove.

During the 2007 – 2008 program year, a formal storm water compliance team comprised of the City personnel and outside technical services was developed. The immediate goals include the integration of storm water management controls into ongoing municipal processes and the targeted implementation of mitigation measures in areas of greatest need.

As described within this report, many of the goals established during the time of program development have been realized and are now incorporated into daily or routine work practices. In contrast, several of the early objectives no long reflect the focus or goals of the program that have been replaced by specific and after more quantifiable goals to be realized during the next phase of this permit. To assist in the review of progress that has been made, both internally and externally by the reviewing public, a brief description of "goal status" for those originally developed by year 1 has been included in this report. In addition, a revised scope of objectives to be met in the years ahead has been prepared. Consistent with the greater extent of knowledge and awareness of the City's infrastructure, as well as the nature of storm water quality itself, the plan for moving forward is results driven and flexible in its approach. The focus of this effort is reflected in the goals and objectives for the 2008 – 2013 permit period presented as Attachment 9 of this report.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
1-1	Place Educational Information on City's Web Site	Engineering Dept., 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.	Goal achieved. City maintains public web site.
1-2	Conduct Recycling Day Events & Household Hazardous Waste Education	DPW 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 hazardous waste days for residents at the DPW facility as well as continued to maintain its recycling center. Information pertaining to the success of this program is presented as Attachment 1	City program involves 4 hazardous waste days per year and 5 days per week a recycling center is operated. These programs are to retained as Phase II program components.
Revised					
1-3	Intensify the existing Per waste Management Campaign	Animal Control Dept., 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 the comprehensive storm water quality improvements for Fellsmere Pond, educational and pet waste guidelines have been implemented including the establishment of two pet stations. Photographic documentation may be referenced as Attachment 2.	Over the five-year period, a formal pet waste program was developed which is to be retained as a component of Phase II Storm water Plan.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
1-4	Place Educational Information on Malden Access Television (MATV)	Engineering Dept., MATV	(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	Educational awareness programs pertaining to the City's storm water management, including updates of local projects such as Fellsmere Pond and public participation events were posted on MATV.	The city has executed a formal agreement with MATV that will continue during Phase II of plan implementation.
Revised					
1-5	Promote Water Conservation Practices for Homeowners	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. During the 2007-2008 reporting period, a comprehensive water meter replacement program was substantially completed that will assist the Waterworks Division in addressing leaks and provide greater detail concerning the consumption practices within the City. Leak detection and conservation objectives are ongoing management practices over seen by the City Engineering Department and, as such, represents a goal that has been achieved.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
1-6	Develop a Press Release & Flyer Targeting Community Businesses	Engineering Dept., 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	This goal was incorporated into ongoing community outreach and management programs that are maintained by the City.	
Revised					

1a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
1-7	Establish a partnership with local schools to educate Malden's students about stormwater	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. DPW celebrates Earth Day with the students of the Beebe School demonstrating and educating them about the environment, storm water, and recycling. Documentation pertaining to year 5 activities is included as Attachment 3.	A strong partnership has been established between the storm water compliance team and the local school system. This relationship and attendant goals will be retained as a part of Phase II plan implementation

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
2-1	Public Access to SWMP & Receipt of Comments	Department, 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.	Through the development of a storm water compliance team that bridges local permitting processes and community outreach efforts, the public is encouraged to comment and participate in meeting the goals of the SWMP. This relationship is an integral component of successful plan implementation and will be retained as a key goal for Phase II of the City's storm water plan.
Revised					
2-2	Establish SWMP Review Committee & Receive Public Comment on SWMP Annual Report	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 available to the general public.	An interdisciplinary storm water team comprised of representatives from the Engineering Department, DPW, the Mayor's Office 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. 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	DPW, 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	See Item 1-2. During this plan year, extensive cleanup activities were performed at Fellsmere Pond and Town Line Brook at Oak Grove to improve the quality of surface runoff to these water bodies. Photographic documentation pertaining to these efforts may be referenced as Attachment 4.	This collaborative effort will be maintained as a goal for the Phase II period of plan implementation.
Revised					
BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 5** (Reliance on non-municipal partners indicated, if any)	**Goal Status**

2-4	Co-sponsor Storm Drain Stenciling Activities	DPW, 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 DPW continues to stencil, clean and rehabilitate catch basins. The stenciling program is also included in community participation. Reference Attachment 5.	This effort will be maintained as a goal for the Phase II period of plan implementation.
Revised					
Revised					
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
3-1	Field Verify Outfall Locations	Engineering Dept., DPW	(1) develop schedule for outfall verification & identification activities, (2) perform outfall activities as scheduled (3) continuously update storm drainage system map(s)	During the prior reporting period all known outfalls at Malden River, Spot Pond Brook, and Town Line Brook were located and inspected. During year 5, the outfall monitoring program was expanded to include storm water control appurtenances subject to the jurisdiction of DCR. In addition, a section of open channel flow that receives storm water contributions was identified in the area of Bowman Street	This goal has been achieved through the City's inventory inspection of the City's infrastructure and any additional outfalls that may be identified will be included in the City's storm water quality monitoring program.
Revised					
3-2	Adopt an Ordinance Governing Discharges to the Municipal Storm Drainage System	Engineering Dept., 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.	The achievement of this goal requires extensive interaction between local agencies and the general public. In addition, there have been several advances in regulatory controls for the discharges of storm water. Where possible, this regulatory guidance has been incorporated into local permitting processes, however, improved ordinances to address private connections, both existing and future, into the City's infrastructure are needed. Management controls designed to meet this and related objectives represent a priority to be addressed during the initial year for Phase II plan implementation
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
3-3	Implement an Illicit Discharge and Elimination Plan	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 informational requirements of Section 308 has continued with the sampling in dry and wet weather conditions and mass balance analyses of isolated segments in an effort to detect and track any potential illicit discharges.	This goal has been achieved through the development of a communication and mitigation plan (see Attachment 6). The Waterworks division also incorporates the inspection of all connections during daily maintenance; repair and utility upgrade activities that are performed.
Revised					
3-4	Conduct I/I Removal in the Sanitary Sewer System	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	The following Sewer System I/I work has taken place in year 5. An I/I study was completed on a substantial portion of the sewer system. This resulted in a sewer rehabilitation contract, 2007-S-1. This contract is currently underway and is anticipated to install 22,200 l/ft of cure in place pipe. The cost of the above work is 1.35 million. The forecast of I/I removed is 344,400 GPD.	During the first five year period of the MS4 permit program, the following Sewer System I/I work has taken place. Two I/I studies were completed on the majority of the sewer system. This resulted in a two sewer rehabilitation contracts, 2004-S-1 & 2007-S-1. Combined these contracts have installed 41,200 l/ft of cure in place pipe & 5,900 l/ft of test & seal. The combined cost of the above work is 2.5 million. The combined forecast of I/I removed is 1.1 MGPD. This activity will continue as a key component of the Phase II program.
Revised					
Revised					

3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
	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.	Wet and dry weather sampling has been continued to support the identification of storm water quality characteristics for the City's infrastructure. A summary of the most recent results from outfall sampling may be referenced from Attachment 7. The information that has been obtained over the past few years is being utilized to support the mass balance evaluation of isolated segments and sub-basins in an attempt to identify source area contributions to bacteria levels that have been identified during wet weather sampling events.	The progress that has been made on this goal will continue to support the implementation of mitigation strategies designed to improve quality of storm water discharges from the City's infrastructure. A key data gap to be resolved involves the isolation of waterfowl bacteria loading to the levels detected during wet weather sampling events.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
4-1	Adopt a Stormwater Management & Land Disturbance Ordinance	Engineering Dept., 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 have been maintained in accordance with the evolving regulatory guidance and the requirements of the NPDES program for construction activities.	Once anticipated to be a local control measure, this activity is now adequately regulated under state and federal programs.
Revised					
4-2	Develop a Site Inspection Form and Conduct Site Inspections	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	The intent or goal for this BMP has been achieved through development of storm water compliance framework and interaction between local agencies.	This task is to be monitored and further addressed by compliance team representatives.
Revised					
4-3	Develop and Implement a Citizen Complaint Hotline	DPW, 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	This goal was realized during the initial Phase of the compliance program and will be continued.
Revised					
Revised					
Revised					
Revised					

4a. Additions

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 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
5-1	Revise the Rules & Regulations Governing the Subdivision of Land	Planning Dept., 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	BMPs 5-1 and 5-2 will be incorporated into BMP 3-1 during Phase II plan implementation.
Revised					
5-2	Revise the Zoning Ordinance	Planning Dept., Planning Board, 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.	
Revised					
Revised					
Revised					
Revised					
Revised					

5a. Additions

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 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
6-1	Develop a Formal Training Program for DPW Staff	DPW, 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 VacTor 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.	This goal has been met and training will be continued as a major plan component.
Revised					
6-2	Develop a Formal Catch Basin Cleaning Program	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	Since the early days of plan implementation, substantial progress has been made in the development and implementation of this BMP. During the next phase of plan implementation, this goal will be advanced through the maintenance of a comprehensive catch basin inventory, inspection, maintenance and replacement program that will be supported through electronic file management. The information to be developed in the street will be a driving component for those efforts directed towards the improvement in the quality of storm water discharges within the City.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
6-3	Formalize the Existing Parking Lot and Street Sweeping Program	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.	Similar to BMP 6-2, the street sweeping schedule issued by the DPW will continue. DPW will review this BMP for additional items that need to be implemented. The DPW maintenance policy will continue. DPW will review this BMP for additional items that need to be implemented.
Revised					
6-4	Develop a Vehicle & Equipment Maintenance Policy	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.	This goal has been achieved and incorporated into the daily operations of MDPW.
Revised					
6-5	Develop a Vehicle & Equipment Cleaning Policy	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.	This goal has been achieved and incorporated into the daily operations of MDPW.
Revised					
6-6	Develop a Landscape and Lawn Care Policy	DPW, School Dept., 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 goal has been achieved and incorporated into the daily operations of MDPW.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
6-7	Develop a SPRP for the Commercial Street Facility	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	Permit year 5 DPW employees and supervisors have been trained and certified in FEMA ICS 100 Supervisors have also been trained & certified in FEMA NIMS 700.	This DPW SPRP policy will continue. DPW will review this BMP for additional items that need to be implanted during Phase II period.

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 5 (Reliance on non-municipal partners indicated, if any)	Goal Status
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

During the 2007-2008 reporting period, primary capital projects beyond those daily or ongoing practices included the following

1. Dry and wet weather water quality sampling at known outfalls (Attachment 7).
2. Comprehensive water meter replacement and leak detection program (Attachment 8 – insert summary documentation)
3. Catch Basin inspection and inventory program. (Insert details from DPW for program moving forward).
4. Comprehensive surface water quality and adjacent land clean up activities for Fellsmere Pond (Attachment 2).
5. Clean up activities in the area of Town Line Brook at Oak Grove (Attachment 4).

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	Yes **X**	Interdisplinary Team
Annual program budget/expenditures	($)	See Attachment 8

Education, Involvement, and Training

(ESTIMATE 250 STUDENTS AND X HOUSEHOLDS

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	YES
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	YES
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	4
▪ community participation	(%)	strong
▪ material collected	(tons or gal)	Attachment 3
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	X			
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management		X		
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

(*TOTAL PLUS SALEMWOOD? BROOK)

Outfall mapping complete		(%) 100	See Attachment B
Estimated or actual number of outfalls		(#) *	See Attachment
System-Wide mapping complete		(%) 100	See Attachment
Mapping method(s)			
▪ Paper/Mylar		(%)	See Attachment
▪ CADD		(%)	See Attachment
▪ GIS		(%)	See Attachment
Outfalls inspected/screened	**(CHECK)**	(# or %)	See Attachment
Illicit discharges identified		(#) 0	
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
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100 %
Site inspections completed	(# or %)	12
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	(%)	<10
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	<1%

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 Note 3- 60 Catch Basins Repair Tested ready for transport		
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