5/2/13

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Municipality/Organization:	**City of Newton, MA**
EPA NPDES Permit Number:	**MAR 041080**
MaDEP Transmittal Number:	**W- W-039247**
Annual Report Number & Reporting Period:	**No. 10 April 2012 –March 2013**

NPDES PII Small MS4 General Permit
Annual Report
April 2013

Part I. General Information

Contact Person: David Turocy Title: Public Works Commissioner

Telephone #: 617-796-1000 Email: dturocy@newtonma.gov

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: Setti D. Warren

Title: Mayor

Date: May 1, 2013

Part II. Self-Assessment

The City of Newton, Massachusetts has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for Minimum Control Measure #3 Illicit Discharge Detection and Elimination (IDDE). The City has found bacteria contamination in some of its storm drains and brooks, particularly in areas where sanitary sewer infrastructure is aging, underdrains are co-located, and underground pathways or conduits to our drainage systems exist. Newton is proactively finding and eliminating illicit connections to the storm drainage system. In addition, we feel that our Comprehensive Stormwater Plan is an effective program to address IDDE in more detail than this permit requires.

The following is provided to highlight key accomplishments made in Permit Year 10 with respect to MS4 General Permit goals and objectives.

Administrative

- Budgeted $725,000 in FY13 for stormwater management and capital projects.
- Drafted a new ordinance to update our stormwater rate structure, which once adopted will increase our revenue for stormwater management by approximately $300,000.

Programmatic & Drainage System

- Sections of storm drains are routinely inspected (video camera) for water quality issues (based upon bacteria sampling data) and flood conveyance checks. As needed these drain lines are cleaned (i.e., roots cut and sediment removed) by DPW.
- Re-testing of sanitary sewer work as part of the Area B Rehabilitation contract is on-going. This is done to check that joints were sealed and underdrain access ports were successfully sealed / separated from the sewer. Additional sewer and underdrain rehabilitation work is in the design phase.

Good Housekeeping & Illicit Discharge Detection and Elimination

- Our 2012 Household Hazardous Waste (HHW) collection program ran from May 12th through October 27th. Last year, we collected 203 Tons of HHW that may otherwise find its way into the trash or the storm drain system. Please see Attachment A for a detailed breakdown of HHW and visit: http://www.newtonma.gov/gov/dpw/recycling/default.asp
- The Parks and Recreation Department strives to use little pesticides. Last year with the mild winter and early spring, spot weed treatments were deemed necessary at many locations. A report from Parks & Recreation is included in Attachment A.
- Newton monitors 143 stormwater discharge points to the Charles River, including the many brooks that feed into the Charles, by conducting wet and dry weather sampling.

Public Education and Involvement

- Numerous activities and events listed in the following table.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
1.1	Develop Stormwater Press Release	DPW Utilities, M. Rose	Submit annual press release to newspaper / CATV.	M. Rose wrote an article on algae blooms for the Newton Conservators which was published in the Autumn 2012 Newsletter. Aldermen Deborah Crossley and Ruthanne Fuller wrote an article on Stormwater Management, which was published in the Newton Conservators Winter 2012 Issue. Newton was featured in the NEWEA Spring 2012 Journal magazine. Copies provided in Attachment B.	Re-run press release "Guidelines for draining pools and spas" in the NewtonTAB. Waiting for new permit requirements.
Revised					
1.2	Develop Stormwater Web Site	DPW Utilities, M. Rose	Prepare web site on stormwater issues.	Complete. http://www.ci.newton.ma.us/stormwater/	None, BMP complete. Continuance under BMP 1.4
Revised					
1.3	Develop Stormwater Brochures	DPW Utilities, M. Rose	Distribute brochures to target groups	Newton purchases material from the SuAsCo's Stormwater Community Assistance Program. We also distributed door hangers in neighborhoods were pet waste was found in our storm drains. Examples provided in Attachment B.	BMP Complete. However, new brochures and literature will be continually added to our stock, as needed.
Revised					
1.4	Provide Stormwater News on City's web site	DPW Utilities, M. Rose	Post stormwater and/or project news once per year	Stormwater information and news is posted on the main page of the City of Newton's website and our Stormwater web page.	Maintain and update stormwater web page as needed.
Revised					
1.5	Establish Volunteer Database	DPW Utilities, M. Rose	Solicit volunteer educators to promote awareness of water quality	Database established and is used mostly to encourage participation in Annual Charles River Clean-up & storm drain stenciling.	None, BMP complete.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
1.6 Revised	Partner with Schools	DPW Utilities, M. Rose	Obtain and distribute educational resources to schools.	We continued to offer specialized School Education Programs; see website for info: http://www.newtonma.gov/gov/dpw/water/stormwater.asp During this permit period, "*The Water Cycle with Build Your Own Watershed*" was taught to 3 classes at the Jackson School. We also sponsored a team from Northeastern University with their capstone Engineering Design Project. The focus of the project was Phosphorus Reduction in our waterways. We provided data and a survey for them to design a project for Crystal Lake.	Continue with implementation of various school education and partnering programs.
1.7 Revised	Develop Education Program	Environmental, E. Gentile and M. Rose	Implement stormwater pollution prevention program	April is "**GreenUp Newton**" where DPW promotes and hosts various educational programs at locations throughout the City including: the river clean-up, a rain barrel sale, composting demonstrations, and more. *See Attachment B* for additional information.	Continue promoting water conservation, organic and environmentally-friendly lawn care methods and no phosphorus fertilizers.
1.8 Revised	Partnering with Watershed Associations	Engineering, L. Taverna DPW Utilities, M. Rose	Promote meetings with Charles River Watershed Association (CRWA). Attend meetings and partner with the Crystal Lake Working Group	Newton actively supports CRWA programs and initiatives including workshops and the Annual Charles River Clean-up. Last fall a new group "Crystal Lake Working Group" was formed under the direction of the Parks & Recreation Dept. The group is comprised of members from Crystal Lake Conservancy, Friends of Crystal Lake, swimming advocates and City Staff. The mission of the group is to investigate and make recommendations to protect and preserve the Lake.	Maintain collaboration with the CRWA and/or the Crystal Lake Working Group.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
2.1	Establish Stormwater Advisory Committee	DPW Utilities, F. Russell	Committee to meet once per year	BMP Completed in prior years.	None.
Revised					
2.2	Implement Public Meetings for Citizen Input	DPW, D. Turocy M. Rose	Hold meetings once per year, publish results.	Opportunities for public input include Public Facilities and other Board of Alderman sub-committee meetings, as well as the newly formed Crystal Lake Working Group.	None, coverage under new Permit.
Revised					
2.3	Encourage Citizen Communication and Reporting	Engineering, L. Taverna	Establish stormwater hotline for illicit discharges.	Customer service center and phone number established at City Hall. All stormwater questions and comments directed to Engineering or Utilities.	BMP Complete. Continue with current protocols.
Revised					
2.4	Network with Local Community Groups	Engineering, M. Rose D. Turocy	Observe outfalls, report illicit discharges & stream clean-up.	Staff attends at least one meeting per year of the Friends of Hemlock Gorge (FHG) and the Crystal Lake Conservancy. DPW supports these groups' efforts and addresses any concerns as the need arises. DPW gave a presentation at the Crystal Lake Conservancy Annual Meeting held at the Newton Highlands Community Center on October 25, 2012.	Continue to provide support to these groups and foster a partnership approach with the City.
Revised					
2.5	Implement Storm Drain Marking Program	Utilities, T. Jerdee M. Rose	Volunteers mark catch basins with decals.	Permanent storm drain markers were installed along side of catch basins in the City. Storm drain stenciling was completed by volunteers at various locations in the City.	BMP Complete. Continue with storm drain marking program as need arises.
Revised					
2.6	Promote Community Clean-Up day	Parks & Recreation; & M. Rose	Promote annual community clean-up day	M. Rose is a Regional Volunteer Coordinator and has served on the Charles River Clean-up Steering Committee for the past 7 years. Newton Serves was held on April 29, 2012. Volunteer groups target specific areas of the City for clean-up. For more info, visit: http://newtoncommunitypride.org/NewtonSERVES.html	Continue with annual community clean-up day. See also BMP 1.8
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3.1	Establish Stormwater System Map	DPW Utilities, F. Russell	Update GIS information, locate all outfalls.	BMP previously completed.	BMP Complete.
Revised					
3.2	Establish Stormwater Database Management System	Utilities, T. Jerdee	Add stormwater information to Hansen database.	BMP previously completed.	BMP Complete.
Revised					
3.3	Locate and Inspect all Outfalls	Utilities, T. Jerdee & M. Rose	Collect outfall data for Hansen database.	BMP previously completed.	Continue with monitoring and sampling program.
Revised					
3.4	Review existing Ordinances & determine whether they adequately prevent Illicit Discharges	Engineering, L. Taverna DPW Utilities, F. Russell	Propose to BOA revisions to stormwater ordinance/ policies, as appropriate	A Draft IDDE Ordinance has been prepared and included in annual reports No. 5 and 6. It was unable to be approved at that time, but we have since revised and will try again with new Administration.	Present draft ordinance to the Board of Alderman in the Spring 2013.
Revised					
3.5	Identify Illicit Discharge Sources	Utilities, T. Jerdee F. Russell	Identify bacteria sources via visual and CCTV inspections, dye and/or pressure tests.	DPW continually monitors and investigates potential indirect and direct illicit discharges to our storm drainage infrastructure. During this permit period: 6,241 catch basins were cleaned and approx. 3,000 linear feet of drains were cleaned.	Continue with efforts to find and remove indirect (underdrains) and direct illicit discharges.
Revised					
3.6	Establish Illicit Discharge Hotline	DPW Utilities, M Rose	Receive and track citizen reports of illicit discharges.	Hotline established (customer service center). No calls received regarding illicit discharges during this period.	BMP Complete. Continue to encourage citizen reporting of illicit discharges.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3.7	Train Employees	DPW Utilities, T. Jerdee	Employees to help identify illicit discharges.	Training on this topic was conducted in prior years. BMP Complete.	BMP Complete.
Revised					
3.8	Monitor City's infrastructure for illicit discharges and non-point source pollution	DPW Utilities, T. Jerdee M. Rose	Observe major outfall discharges.	A comprehensive outfall monitoring program has been in place since 2006. During this reporting period 127 outfalls were inspected during wet and dry weather events with sampling occurring whenever flow is detected. A summary of our stormwater outfalls and which were inspected / sampled in 2012 is provided in Attachment C.	Continue with implementation of IDDE program.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
4.1	Review existing Ordinances and determine whether they adequately regulate construction site stormwater runoff	Engineering, L. Taverna	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating construction site stormwater runoff.	Currently, there are numerous mechanisms through which new construction site runoff is prevented and controlled. These mechanisms include: an existing Ordinance (Sec 30-5c and 5d), DPW / Eng. Division Policy and the Special Permit approval process. Most construction projects regardless of size are required to provide soil erosion control measures. DPW has two inspectors who ensure the measures shown on Approved Site Plans are implemented.	BMP Complete.
Revised					
4.2	Implement Review of Construction Documents	Engineering, J. Daghlian	Establish policy for submittal of erosion control plans.	BMP Complete.	BMP Complete. Continue with plan reviews for building permits.
Revised					
4.3	Implement Construction Inspection Program	Engineering, J. Daghlian	Develop guidelines, training, inspection of construction sites > 1 acre.	All construction sites inspected by Engineering. BMP guidelines followed.	Continue with inspection of all construction sites. Develop training for construction inspectors.
Revised					
4.4	Educate Developers on Proper Erosion Control Techniques	Engineering, J. Daghlian / M. Rose	Distribute erosion control procedures to all applicants.	Engineering requires erosion control BMPs for all construction.	BMP Complete. Continue with implementation.
Revised					
4.5	Provide opportunity for citizen review and input on construction projects	Engineering, J. Daghlian	Ensure citizen review procedures for construction projects > 1 acre.	Citizen input of construction projects occurs during Conservation Commission, Land Use, and Board of Survey public hearings. Citizen review also occurs when Environmental Impact Reports are required.	BMP Complete. Continue with implementation.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
4.6	Establish Information Management System	Engineering, J. Daghlian	Track construction reviews and construction inspections.	An inspector is assigned to all construction projects over 1 acre (as well as many <1 ac). This person maintains a personal field log book of key events.	BMP complete. Continue with implementation.
Revised					
4.7	Establish Standards for Erosion and Sedimentation Controls	Engineering, J. Daghlian	Establish adaptation of MADEP SWM Standard 8	Engineering requires implementation of MADEP SWMP Standard 8 for all construction projects > 1 acre.	BMP Complete. Continue with implementation.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
5.1	Review existing Ordinances and determine whether they adequately regulate post construction stormwater runoff	Engineering, L. Taverna	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating post construction stormwater runoff	BMP Completed in prior year.	BMP Complete.
Revised					
5.2	Develop Stormwater Management Policy	Engineering, L. Taverna	Establish policy to establish minimum BMPs for developers.	BMP Complete. Continue with implementation.	BMP Complete. Continue with implementation.
Revised					
5.3	Develop Stormwater Operations and Maintenance Policy	Engineering, J. Daghlian	Establish policy to establish minimum operations and maintenance plans.	Engineering requires the submittal of stormwater operations and maintenance plans for all construction > 1 acre.	BMP Complete. Continue with implementation.
Revised					
5.4	Implement Controls to Minimize Impacts to Water Quality	Engineering, J. Daghlian / M. Rose	Implement use of structural and non-structural BMPs.	DPW/Eng. requires developers to implement MADEP Stormwater Standards (1- 8) for applicable projects. Separate and supplemental requirements are outlined for smaller construction projects in the City's Stormwater Management Policy.	BMP Complete. Continue with implementation and stormwater recharge requirements.
Revised		Change division for M. Rose to DPW Utilities			
5.5	Encourage Reducing Directly Connected Impervious Surfaces	Engineering, J. Daghlian	Encourage the use of grass swales and filter strips.	Recommended to developers during development review team meetings.	Continue to recommend for all construction projects > 1 acre. Continue to be a resource for developers and homeowners on alternatives to asphalt pavement.
Revised		Add M. Rose			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
5.6	Determine Capacity of Stormwater System Elements	Engineering, J. Daghlian	Perform capacity analysis for wet weather events.	A segment of Hammond Brook where it moves from open channel to pipe flow was studied and determined to be under-capacity. A FEMA grant application was submitted to increase capacity of the culvert at this location. Main Drain infrastructure repairs and /or improvements were made on Webster Street, Hillside Ave and Lindbergh Ave.	BMP Complete.
Revised		Add F. Russell			
5.7	Review existing Ordinances and determine whether they adequately regulate recharges to groundwater	Engineering, J. Daghlian	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating recharges to groundwater	Current practices include on-site stormwater recharge requirements for new construction.	BMP Complete.
Revised					
5.8	Implement Use of Groundwater Recharge Rates	Engineering, J. Daghlian	Explore adaptation of MADEP SWMP Standard 3	Engineering requires implementation of MADEP SWMP Standard 3 for all construction projects > 1 acre.	BMP Complete.
Revised					
5.9	Implement Post Development Peak Discharge Rates	Engineering, J. Daghlian	Implement adaptation of MADEP SWMP Standard 2	Engineering requires implementation of MADEP SWMP Standard 2 for all construction projects > 1 acre.	BMP Complete.
Revised					
5.10	Implement Requirements for Removal of 80% TSS	Engineering, J. Daghlian	Implement adaptation of MADEP SWMP Standards 4 & 7	Engineering requires implementation of MADEP SWMP Standard 4 & 7 for all construction projects > 1 acre.	BMP Complete.
Revised					

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6.1	Develop Staff Training Program	Environmental, E. Gentile M. Rose	Train staff on spill prevention control, vehicle maintenance and lawn care.	Completed in prior years.	BMP Complete.
Revised					
6.2	Develop Stormwater Pollution Prevention Plan	Environmental, E. Gentile M. Rose	Develop spill prevention control procedures.	Good housekeeping practices are in place based upon a self-audit of DPW Yards conducted previously; however, improvements can be made.	Develop a Stormwater Pollution Prevention Plan for DPW Yards.
Revised					
6.3	Develop Flood Mitigation Plan	Utilities, T. Jerdee	Develop plan, perform exercises.	BMP Complete.	Continue field exercises and update the flood mitigation plan, as needed.
Revised					
6.4	Establish Inspection Procedures	Utilities, T. Jerdee	Inspect storm drain system using visual inspection and CCTV.	Storm drains are inspected with our CCTV truck on an on-going and as needed basis: to troubleshoot infrastructure problems, prior to paving / pavement restoration and as part of the IDDE program.	Continue to inspect storm drain system.
Revised					
6.5	Incorporate BMPs into Standard Procedures	Utilities, T. Jerdee Highway, B. Zaniboni	Establish BMPs for municipal operations and maintenance.	Stormwater BMPs are designed into new or redevelopment projects for City-owned property, most recently would be stormwater management BMPs for the Crystal Lake Bath house parking lot. Private redevelopment projects are required to implement stormwater BMPs.	BMP Complete. Review needs for other stormwater retrofit / improvement projects.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6.6	Establish Maintenance Procedures	Utilities, T. Jerdee	Vactor/flush storm drains to remove sedimentation	Cleaned approximately 3000 LF of the City's storm drainage system. More than 6000 catch basins were cleaned out and 185 catch basins were repaired during this reporting period.	BMP Complete. Continue with implementation.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6.7	Establish Maintenance Procedures	Utilities, T. Jerdee	Clean drainage brooks to remove sedimentation.	A pond dredging project in front of City Hall commenced in January 2013. The scope of work includes the removal of 3,800 CY of sediment from the pond. Brook walls were repaired and sediment removed for the section of Cheesecake Brook closest to the Charles River. Brook wall repair and limited sediment removal also occurred for South Meadow Brook.	Completion of pond dredging project.
Revised					
6.8	Establish Maintenance Procedures	Utilities, T. Jerdee	Clean catch basins every 2 years.	We cleaned 6,241 catch basins during this reporting period.	Continue with catch basin cleaning program.
Revised					
6.9	Establish Maintenance Procedures	Highway, Brian Zaniboni	Sweep streets 2 times per year.	Streets were swept 5 times in 2012 and in some locations as many as 8 times.	Continue with street sweeping program.
Revised		Delete Zaniboni Add E. Gentile			
6.10	Establish Maintenance Procedures	B. Zaniboni	Calibrate salt spreaders annually.	Salt spreaders calibrated fall 2012.	Calibrate salt spreaders every year.
6.11	Implement Household Hazardous Waste Program	Environmental, E. Gentile	Collect waste oil, antifreeze, paint, pesticides.	Household Hazardous Waste (HHW) is collected one to two days per week from May through October. See memo from Env. Affairs in Attachment A.	BMP Complete. City will continue to operate HHW collection facility.
Revised					

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
7.1	Check Criteria for Meeting TMDL	DPW Utilities, M. Rose	EPA criteria for TMDLs checked.	Participated in MaDEP Advisory Group Sub-committee on the phosphorus TMDL for the Charles River.	Work towards reducing phosphorus load from Newton's brooks and conduits to the Charles River.
Revised					
Revised					
Revised					
Revised					

7a. Additions –N/A

7b. WLA Assessment – N/A

Part IV. Summary of Information Collected and Analyzed

Please refer to Part IIA – Self Assessment for the City summary of information collected and analyzed.

We are hopeful that the information provided is adequate to demonstrate our commitment to improving our SWMP and ultimately ensuring the quality of our stormwater discharges meets or exceeds standards.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic: Stormwater User Fee created, effective July 1, 2006.

Stormwater management position created/staffed – Environmental Engineer	(y/n)	Yes
Annual program budget/expenditures (catch basin cleaning, materials, one Stormwater Program Manager, and four DPW Utilities labor positions, public educations and maintenance) for FY11	($)	$725,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	1,000
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y (Charles river)
Shoreline clean-up participation or quantity of shoreline miles cleaned (during 13th Annual Earth Day Charles River Cleanup; 13 community groups participated in Newton)	(y/n or mi.)	8+ miles
Household Hazardous Waste Collection Days (*May 2011 to Oct. 2011*)		
▪ days sponsored	(#)	20
▪ community participation	(%)	40%
▪ Material collected: CRTs, auto & button batteries, fluorescent bulbs, paint, waste oil, thermostats, thermometers, and elemental mercury. (*some of which are collected year round*)	(tons or gal)	See Attach-ment A
School curricula implemented	(y/n)	Y

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			X	
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management	X			

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	143
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	100%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified (mostly underdrains) total # since issuance of NPDES MS4 permit	(#)	12
Illicit connections removed	(#) (est. gpd)	9 2,000+
% of population on sewer	(%)	98.5
% of population on septic systems	(%)	1.5

Construction

Number of construction starts (>1-acre) [Chestnut Hill Square, Chestnut Hill Shopping Center, Boston College Stokes Hall and City Hall Ponds]	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed (work is on-going)	(# or %)	60%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	2
**Dust complaints for the Chestnut Hill Square Project, the Board of Health handled complaints*		

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Unknown**
This value would take significant time to quantify, but most likely would be **> 100,000 gallons/yr		

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once every other year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once per year
Total number of structures (CBs) cleaned	(#)	6,241
Storm drains cleaned	(LF or mi.)	3,000 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	3,000 tons†
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill cover
Cost of screenings disposal	($)	$ 90,000 †
†Estimated. Catch basin material is currently stockpiled and awaiting disposal.		

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	5
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	8
Qty. of sand/debris collected by sweeping	(lbs. or tons)	Unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Beneficial use
Cost of sweepings disposal	($)	0
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	30 %
▪ Herbicides	(lbs. or %)	75 %
▪ Pesticides	(lbs. or %)	75 %
* Newton's Integrated Pest Management Policy was provided in the Year 5 report. See also Parks & Recreation Info on Pesticides usage for this past year.		

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	96% 0 2% 0 0 0 2%
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s) [with the exception of 2 months after Hurricane Sandy. One of our salt sheds was damaged during this storm]	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Y