

**Municipality/Organization:** City of Quincy  

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**EPA NPDES Permit Number:** MAR041081  

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**MassDEP Transmittal Number:** W-041020  

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**Annual Report Number & Reporting Period:** Year 10  
April 1, 2012 – March 31, 2013  

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**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2013)**

**Part I. General Information**

**Contact Person:** Peter Hoyt **Title:** Superintendent of Water, Sewer and Drains  

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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:**   

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**Printed Name:** Thomas P. Koch  

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**Title:** Mayor  

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**Date:** 4/30/13  

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## Part II. Self-Assessment

As required, the City evaluated compliance of the stormwater management program with the conditions of the *NPDES General Permit for Stormwater Discharges from Small MS4s*, effective May 1, 2003. From April 1, 2012 – March 31, 2013, the City of Quincy continued to make progress implementing BMPs to meet General Permit requirements. As required, the City also evaluated the appropriateness of all BMPs in efforts towards achieving the defined measureable goals, and has determined BMPs and measurable goals are appropriate. Note that planned activities for the next permit term have not been designated unless a BMP under this permit term was not fully completed or is an ongoing effort. Quincy's Stormwater Management Program will be re-assessed during development of the next NOI to more efficiently use the City's limited resources and staff time to leverage better stormwater management.

The City's recent focus has been on drainage improvements to address pressing flood mitigation issues. To incorporate water quality concerns and MS4 General Permit requirements, the City has included an IDDE component to these projects to the extent possible. Additionally, the removal of sediment and organic debris from the drainage system and water bodies benefits inland and coastal water quality.

Notable stormwater management activities completed in Permit Year 10 include:

**Relocation of the Town Brook.** The City was awarded \$10.1 million from the 2011 MassWorks Infrastructure Grant to support the Town Brook Culvert Enhancement Project. This project involved transforming the 1,700 foot long culverted brook that formerly ran beneath Quincy Center into a 1,200 foot long exposed brook that runs along the Walter Hannon Parkway. Flow is now redirected to a new culvert at Parkingway, while the old culvert will continue to handle stormwater drainage for Quincy Center. The City will continue to perform stormwater infrastructure improvements in the vicinity. This project also included flow monitoring and augmentation, as needed, to promote smelt spawning in the brook, and removal of illicit connections to the culvert.

**Flood mitigation in Miller Street/ Cross Street/ Furnace Brook Area.** The City purchased a parcel of land that is going to be the site of a future stormwater pump station. Funding is not yet available. The City submitted a grant application to FEMA for funds to build this pump station. This pump station will alleviate flooding issues in this area of the City.

**Furnace Brook Closed Conduit Cleaning.** Last Fall a City contractor cleaned the Furnace Brook closed conduit, which included removal of sediment and organic debris from the Brook.

**Furnace Brook Open Channel Inspections and Maintenance.** The City conducted inspections of the Brook to identify potential projects for the open channel. Identified deficiencies in the channel flow path (due to constrained straightened channels, debris and sediment buildup). First project is a maintenance contract, cleaning downed trees, woody debris, and trash. Phase 2 will include work that includes substantial permitting, such as sediment removal and wall repair.

**Drainage repairs projects in North Quincy and Furnace Brook to follow up on previous inspections.** Design for drainage improvements for isolation of Furnace Brook from the nearby neighborhood, through use of tide gates is underway. This is part of the pump station project described above. Project includes creating a bypass pipe to redirect drainage from Southeast Expressways right to the Furnace Brook, to mitigate potential for flooding in the neighbored. Project also includes installation of physical constraints on existing infrastructure, so the Brook cannot

surcharge.

**North Quincy and Furnace Brook Repairs and Upgrades to Drainage Pipe.** This project includes repairing or upgrading drainage pipe to fix existing problems, or increase capacity. This project is a result of the drain line cleaning and inspections conducted in 2011-2012. In 2012, the City conducted additional cleanings and inspections in North Quincy, and included cleaning out catch basins and drain lines. All material removed was disposed of at an approved facility (landfills). No illicit connections were identified. As a result of the inspection and cleaning program, areas that experience flooding problems were identified. To address flooding, upgrades to pipes that were in need of repair will be replaced. This practice is also being done in the Furnace Brook neighborhood.

**Broad Street Drainage Repairs.** The City rehabilitated an existing outfall structure and installed a new tide gate. Drainage repairs to catch basins and manholes were also completed, including a combination of replacement and spot repairs, as well as upgrades to pipe sizes in the tributary area.

**Wollaston/ Greenwood Memorial Bridge along Quincy Shore Drive.** Due to existing operational problems with tide gates, the City is in the process of designing replacement tide gates that control the flow to Black's Creek. Obtaining permits for this project is currently underway.

**Spricket Road/Spence Avenue drainage improvements project.** The City submitted a grant application to FEMA for the Spricket Road/Spence Avenue drainage improvements project, which includes upgrading pipe sizes to increase hydraulic capacity and replace old, misaligned pipes.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
1-1	Classroom education on stormwater	Department of Public Works (DPW)	Outreach to Ecology Clubs in Schools	The DPW continued to make water conservation pamphlets and “Dwayne the Storm Drain” coloring books available at the DPW. The City also participates in National Public Works Week, where high school students were invited to shadow water, sewer, & drain department staff. In Permit Year 10, the Town hosted a Public Works Day on May 22, 2012. “After the Storm” brochures were given out at this event.	Measurable goals for 2003 General Permit have been met.
Revised					
1-2	Flyer & Brochure distribution	Department of Public Works	Develop & distribute materials for public education	In Permit Year 10, DPW again handed out “Water Wise Kids” water conservation flyers provided by the MWRA. The City also distributes information about curbside waste and recycling, yard waste, household hazardous waste collection, and proper disposal of hazardous waste/mercury/needles to every resident.	Measurable goals for 2003 General Permit have been met.  DPW plans to continue with this practice.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
1-3 Revised	Using the Media and Internet	Department of Public Works	Issue One Local Cable Public Service Announcement (PSA)	<p>QATV regularly airs segments on beach closings, recycling programs, trash pickup schedules, and the City’s bi-annual Household Hazardous Waste Day, when residents can drop off items such as auto fluids, pesticides, thinners, and other eligible items.</p> <p>In previous permit years, the City regularly aired the series on local public access (QATV) titled “How Quincy Works”, which showed how the City conducts water, sewer, and drainage-related work. The sewer segment explains that the sewer and stormwater systems are not connected, not to put pet waste in catch basins, and that the stormwater system drains to Quincy Harbor.</p>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>As budget allows, the City plans to continue with this practice.</p>
1-3 Revised	Using the Media and Internet	Department of Public Works	Annual article by Sewer/Water/Drain Superintendent	<p>As needed, the DPW uses the City’s website to provide information on stormwater issues, pollution prevention, and related City services. This year, due to limits on staff time and budgets, no annual article was issued. Articles about stormwater pollution and flooding have been released in prior permit years.</p>	<p>Measurable goals for permits have been met. Continue articles as budget and staff time allows.</p>
1-3 Revised	Using the Media and Internet	Department of Public Works	Publish one storm water press release each year	<p>Press releases are provided on the City’s public website to educate the public about flooding and stormwater issues.</p>	<p>Continue to update City website as needed and as budget allows.</p>
1-3 Revised	Using the Media and Internet	Department of Public Works	Expand City Website to include Stormwater Topics and links	<p>The Inspectional Division website includes some information on water quality, including information from the public beach sampling.</p>	<p>Continue to expand city website to include additional information, as budget and staff time allows.</p>

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
1-4	Public Safety Fair	All City Departments	Annual Public Safety Fair	The Annual Public Safety Fair was not held in 2012 due to budget constraints. However, the City held National Public Works week in 2012 where information about Public Works was provided to attendees.	If the Public Safety Fair is held, distribute stormwater information.
Revised					
1-5	Neighborhood Forums of Flooding	Department of Public Works	PY7 – Perform outreach to residents in response to recent flooding PY8 – Perform outreach in response to projects identified to alleviate flooding PY9-PY10 – No goals planned.	No measurable goals planned for Permit Year 10.  To educate the public about the Capital Improvement Projects planned to address flooding, the City held meetings in 2010 and 2011. These meetings included presentations about stormwater and flooding issues, and projects planned to alleviate issues.  A number of news updates were posted to the City website on various flood-relief projects, including the Southern Artery drainage pipe replacement and drainage improvements in Russell Park. Project details are included in the Capital Improvement Projects plan.	BMP complete. Measurable goals for the 2003 General Permit have been met.

## 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
2-1	Storm Water Committee	Department of Public Works	Establish the Committee and meet quarterly.	Due to staff budget and time, a formal stormwater committee was not established. However, there are several committees specific to receiving waters (e.g., Wollaston Beach Committee) or other environmental issues. As needed, the DPW supports these groups.	Measurable goals for 2003 General Permit have been met.
Revised				<p>Stormwater issues are also discussed internally as needed through interdepartmental coordination between numerous departments.</p> <p>Friends of Wollaston Beach post information on their Facebook page regarding beach cleanups and events, such as the Harpoon Helps Cupid Splash event sponsored by Save the Harbor/Save the Bay held on March 23, 2013. This event raised \$930 for Wollaston Beach. DPW supports trash removal at these events.</p>	As needed, attend meetings to discuss progress and future goals for watersheds.

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2-2	Storm Cleanup and Management	Department of Public Works	<p>Track Clean-up activities per year.</p> <p>Track number of clean-up participants</p> <p>Track number of miles cleaned by volunteers</p>	<p>The 23<sup>rd</sup> annual <i>Cleaner, Greener Quincy</i> was held on Saturday May 5<sup>th</sup>, 2012, from 9 a.m. to noon. Residents, volunteers and all City departments cleaned the City’s parks, beaches, schools, marshes, and open space areas.</p>	<p>Measurable goals for 2003 General Permit have been met.</p>
Revised				<p>Numerous pond and beach cleanups were held in 2012 as part of COASTSWEEP, including: Wollaston Beach on October 6, Nickerson Beach/Squantum Rock on October 13, and Squantum Point Park, Marsh Area off Quincy Shore Drive on October 20. The DPW performed tree pruning for some of these activities and regularly supports trash removal for the cleanup efforts. The DPW also regularly raked the beaches of debris, particularly during the <i>Cleaner, Greener Quincy</i> event.</p> <p>DPW also supported the cleaning of Furnace Brook, which included debris, trash, and sediment removal.</p>	<p>The City plans to continue holding <i>Cleaner, Greener, Quincy</i>. The 24th annual <i>Cleaner Greener Quincy</i> will take place on Saturday, May 4th from 9 a.m. to 12 noon at locations citywide.</p> <p>Post storm cleanup is a function of the DPW and Parks Departments.</p>



### 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
3-1 Revised	Drainage System Mapping	Department of Public Works	Locate all outfalls	The City has developed a drainage system map that shows the locations of all 190 outfalls in the City and the names of the waterbodies that receive discharges from the outfalls. This data is available on an internal ArcReader data viewer to several City Departments.	Measurable goals for 2003 General Permit have been met.
3-1 Revised	Drainage System Mapping	Department of Public Works Engineering	Complete drainage system mapping	<p>Drainage system mapping is approximately 90% complete. Map includes catch basins, drainage manholes, ditch inlets, tide gates, and connectivity, where known. As infrastructure projects and drainage system inspections are completed, map is updated as needed.</p> <p>The City also purchased a GPS unit to use for updates to drainage system map.</p> <p>The City's GIS property viewer is available to the public on the City's website and shows the locations of all drainage structures.</p>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>As budget allows, continue field verification of drainage system.</p>

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3-2 Revised	Outfall Testing Program	Department of Public Works	Inspect all City discharges	<p>The DPW regularly inspects outfalls and removes debris from both catch basins and outfalls with the vactor or clam truck in problem areas, to avoid flooding. Drain lines are also cleaned as needed to avoid obstructions.</p> <p>The City maintains a complaint log of residents' calls.</p> <p>As part of the Town Brook Enhancement Project in Quincy Center, the City identified numerous illegal sewer connections. The project included removal of these illegal connections.</p> <p>Ongoing drainage system improvements as part of the Capital Improvements Plan in Ward IV, including inspection/cleaning of Furnace Brook, Centre St. drain pipe realignment, and Alrick Rd. drainage modifications. Expected to be completed in the next three years</p>	<p>City will continue to clean structures in problem areas as needed and as budget allows and remove illicit connections/discharges once identified.</p> <p>Upon reissuance of the new General Permit, the City will develop an Outfall Monitoring Program that meets EPA's requirements.</p>

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3-2 Revised	Outfall Testing Program	Health Department	Sample discharges with flow present	<p>The Health Department collected weekly samples from thirteen beaches from June 13 to August 29, 2012. DCR collects daily samples at four locations on Wollaston Beach. EPA may conduct additional testing during the summer (see BMP 3-5).</p> <p>The Massachusetts Department of Public Health – Bureau of Environmental Health published beach water quality monitoring results on their website.</p> <p>The City posted a 2012 Bathing Beach Water Sampling Report Summary on the Health Department website.</p>	Continue bathing beach testing.
3-2 Revised	Outfall Testing Program	Health Department	Follow-up testing on discharges showing contamination	As part of ongoing drainage improvements throughout the City, follow up dye testing has periodically been conducted to determine if discharges are contaminated.	Continue practice.
3-3 Revised	Illegal Dumping Education	Department of Public Works	Stormwater committee to distribute flyers, posters & other educational material	<p>The topic of illegal dumping and the connection between the storm drain and the beaches was addressed in the public access services titled “How Quincy Works,” which played regularly on QATV during previous permit years.</p> <p>Friends of Wollaston Beach have previously sponsored stenciling of “no-dumping” on catch basins around Wollaston Beach.</p>	Measurable goals for 2003 General Permit have been met.

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3-3	Illegal Dumping Education	Department of Public Works	Document and investigate illegal dumps reported by citizens	DPW documents illegal dumping as part of daily complaint log. The DPW responds to calls as needed. Calls include reports about issues such as plastic in catch basins, and people dumping pet waste or chemicals into catch basins.	Continue current practice.
Revised					
3-3	Illegal Dumping Education	Department of Public Works	Enforce Penalties	DPW documents illegal dumping as part of daily complaint log and responded to calls as needed. Enforcement and penalties were not needed in Permit Year 10.	Continue current practice.
Revised					
3-4	Ordinance Review and Update	Department of Public Works	Review and revise ordinances	In 2005, the City enacted Ordinance Governing Discharges to the Municipal Storm Drain System (#2005-094). This ordinance prohibits non-stormwater discharges to the MS4 and illegal dumping, and includes enforcement procedures and actions.  The City is also rewriting the sewer ordinance to prohibit illicit connections to the drainage system.	Measurable goals for 2003 General Permit have been met.
3-5	Flagship Beach Program	D Department of Public Works & EPA		See BMP 2-5	See BMP 2-5

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3-6	Sewer Manhole Replacement Project	Department of Public Works	<p>PY7 – Perform sewer evaluation to prevent pollution of sensitive areas</p> <p>PY8 – Implement recommendations of sewer evaluation</p>	<p>The second phase (IIA) of the City’s on-going infiltration and inflow (I/I) removal project was completed in 2012. All work was completed to remove I/I from the sewer system resulting in extraneous flow, based on inspections completed in previous phases.</p> <p>Phase IIA included cement lining of manholes and cured-place-pipe (CIPP) lining of sewer pipe. Some of the CIPP Lining occurred in sewer segments where indirect flow from catch basins and the drainage system contributed to sewerage flow. This CIPP lining also removed the infiltration from the sewer and prevents potential exfiltration of the sewer into the drain network during periods when the sewer is surcharged.</p> <p>As part of the Downtown Redevelopment project, the contractor performed sewer metering program in Hospital Hill. The project requires removal of I/I at 4:1 ratio within a two mile radius of downtown. Project will include repairs and rehabilitation.</p>	City will continue with the sewer manhole and pipeline assessment and rehabilitation projects in conjunction with the MWRA.

#### 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
4-1	Ordinance Review and Updates	Department of Public Works	Review and Revise current erosion and sediment control ordinance	In 2008, the city enacted the Land Disturbance Ordinance (#2008-125). Ordinance requires erosion and sediment control at construction sites disturbing one or more acres or less if part of common plan of development.	Measurable goals for 2003 General Permit have been met.  Continue to implement and enforce ordinance.
Revised					
4-2	Construction Reviews	Department of Public Works	Develop and implement standard project review procedures	City's Engineering Dept. continued to implement the construction review process on sites regardless of lot size to ensure that all stormwater runoff from construction sites has adequate erosion and sediment controls. In addition, the Conservation Commission inspects construction sites in their jurisdiction for proper implementation of erosion and sediment control BMPs.	Measurable goals for 2003 General Permit have been met.
Revised					
4-2	Construction Reviews	Department of Public Works & Building Inspection Services	Develop and implement standard construction details	City continues to add construction details to files as needed.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					
4-2	Construction Reviews	Engineering	Develop and implement standard inspection review procedures, document inadequate sites/plans reported and non-complaint permits	Engineering Department and Conservation Commission implements standard inspection review procedures. Engineering Department rejects inadequate plans. Permits are not issued until appropriate corrections are made to plans.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
4-3 Revised	Public Information	Department of Public Works	Continue “Hot Line”	DPW continues to make 24 hour hot line available, and responds to emergencies as needed.	Measurable goals for 2003 General Permit have been met.  Continue use of hot line for public complaints.
4-3 Revised	Public Information	Department of Public Works	Document & investigate complaints	DPW maintains daily log and enters all complaints received. Complaints are investigated as needed.	Measurable goals for 2003 General Permit have been met.  Continue to maintain log and investigate complaints, as needed and as budget allows.

## 5. Post-Construction Stormwater Management in New Development and Redevelopment

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
5-1	Ordinance Review and Update	Department of Public Works	Review and Revise Current Stormwater Ordinances	In 2008, the City enacted the Post Construction Ordinance (#2008-126). Ordinance regulates post-construction stormwater runoff from new development and redevelopment projects disturbing one or more acres (or less if part of common plan of development).	Measurable goals for 2003 General Permit have been met.  Continue implementation and enforcement of ordinance.
Revised					
5-1	Ordinance Review and Update	Engineering Dept.	Develop and implement standard construction details and policies	City's Engineering Department continues to implement standard construction details and policies and conducts detailed review.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					
5-2	Project Reviews	Department of Public Works	Develop and implement standard Project Review Procedures	Engineering and the Sewer, Water, & Drain Division continues to implement standard project review procedures.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					
5-2	Project Reviews	Department of Public Works & Building Inspection Services	Develop and implement standard construction details	As needed, existing files are updated with construction details. As-builts are provided to City following construction.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					
5-2	Project Reviews	Engineering	Develop and implement Standard Inspection Review Procedures	Engineering, Sewer, Water, & Drain and Building Inspectors have standard project review and inspection procedures in place.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
5-3	Project Reviews	Building Inspectors	Document inadequate site plans reported by inspectors	Ordinance enforced jointly by DPW & Inspectional Services.	Measurable goals for 2003 General Permit have been met.  Continue current practices.
5-4	Project Reviews	Department of Public Works	Report non-compliant permits	Departments coordinate to resolve issues of non-compliance or the potential thereof.	Measurable goals for 2003 General Permit have been met.  Continue current practices.

## 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
6-1 Revised	Predictive Catch Basin Program	Department of Public Works	Continue with current program	<p>City continued the current catch basin, storm drain, outfall, and tide gate inspection program.</p> <p>Structures (catch basins, drainage pipes, and outfalls) are cleaned as needed to address flooding issues.</p>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>Continue current practices.</p>
6-2 Revised	Street Cleaning Program	Department of Public Works	Continue with current program, review the effectiveness of the program	<p>During 2012, all streets were swept once during the spring and once in the fall. Weather permitting; the City sweeps the business district and high traffic areas throughout the year.</p>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>Continue to sweep streets as budget allows.</p>
6-3 Revised	Inspect City owned BMPs for Retrofit Opportunities	Department of Public Works	Inspect three structural BMPs per year and implement two retrofit projects	<p>As needed, the City inspects Stormceptors, sand filtration systems, and other areas based on complaints.</p> <p>The Town Brook project in the downtown redevelopment work included construction of a stormceptor to further treat stormwater runoff. DPW maintains stormceptor.</p> <p>Based on inspections, City is also building a truck wash station for the DPW yard that includes an oil/water separator, and is building a new salt storage shed, to further prevent pollution of stormwater due to municipal operations.</p>	<p>Continue to look for advantageous locations for the implementation of stormwater retrofits.</p>

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
6-4 Revised	Municipal Employee Training	Department of Public Works	Continue with current program	City staff continued to be aware of proper maintenance procedures for parks and open space, city-owned vehicles and equipment, buildings, street sweeping, and the drainage system. City staff is familiar with proper practices to prevent pollution in stormwater due to municipal operations and new employees go through an orientation program covering these topics. Additionally, DPW staff attended conferences such as those sponsored by AWWA and NEWEA where technical seminars regarding stormwater are presented.	Measurable goals for 2003 General Permit have been met.  Continue current practices and look for training opportunities/programs more specific to Quincy's stormwater challenges.
6-5	Woodbine Street Stormwater Improvements Project	Engineering Department	PY7 and 8 – Proceed with Woodbine Street area drainage improvements	Measurable goal met. No work planned in Permit Year 10.	BMP complete.

### 7a. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

The Final Pathogens TMDL for the Neponset River was developed on May 31, 2002 and addresses the following water body:

- Neponset River, Milton Lower Falls Dam, Milton/Boston to mouth at Dorchester Bay, Boston/Quincy (MA73-04).

The TMDLS is being met by BMP ID # 1-3, 2-2, 2-4, 2-5, 3-2, 3-3, 3-4, 3-5, and 3-6.

### 7b. WLA Assessment

The following table summarizes the WLA for the Neponset River:

**Fecal Coliform Waste Load Allocations (WLAs) and Load Allocations (LAs) for the Neponset River and Identified Tributary Streams**

Surface Water Classification	Bacteria Source Category	WLA (organisms per 100 ml)	LA
B	Illicit Discharges to Storm Drains	0	N/A
B	Leaking Sanitary Sewers	0	0
B	Failing Septic Systems	N/A	0
B	Storm Water Runoff	GM $\leq$ 200 90% $\leq$ 400	GM $\leq$ 200 90% $\leq$ 400
B	Sanitary Sewer Overflows	0	0
SB	Illicit Discharges to Storm Drains	0	N/A
SB	Failing Septic Systems	N/A	0
SB	Storm Water Runoff (Boston, Milton and Quincy)	GM $\leq$ 88 90% $\leq$ 260	GM $\leq$ 88 90% $\leq$ 260
SB	Sanitary Sewer Overflows	0	0
SB	Combined Sewer Overflows	0	N/A

GM means geometric mean  
N/A means not applicable

The City is making steady progress towards meeting the WLA through implementation of existing BMPs, in particular, the outfall testing program and the illicit discharge detection and elimination program. At this time the City does not plan to add additional BMPs to address the WLA.

**Part IV. Summary of Information Collected and Analyzed**

- Sampling was conducted at Quincy’s public beaches. Results are available at: [http://mass.digitalhealthdepartment.com/public\\_21/beaches.cfm](http://mass.digitalhealthdepartment.com/public_21/beaches.cfm)
- The City’s Health Department website presents the Bathing Beach Water Sampling Report Summary. The 2012 report is available on the City’s website at [http://www.quincyma.gov/CityOfQuincy\\_Content/documents/beachsummary2012.pdf](http://www.quincyma.gov/CityOfQuincy_Content/documents/beachsummary2012.pdf)
- The results of the Wollaston Beach Drainage Water Quality Study are available upon request through the Engineering Department at 55 Sea Street.

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2012 through March 31, 2013)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc.)		

**Education, Involvement, and Training**

Estimated number of property owners 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.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

## Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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					N/A (included in ordinances)
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

## Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	190
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	90%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	
▪ GIS	(%)	90%
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	~100%

## Construction

(Preferred Units) Response

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

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr.)	~0.25%
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr.)	~0.25%
Qty. of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment) **	(\$)	
• Hourly or per basin contract rate **	(\$/hr. or \$ per basin)	
• Disposal cost **	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	30
• % Structures cleaned with vector **	(%)	70

	(Preferred Units)	Response
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.)	2+
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment) **	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or Ln. mi.)	
• Disposal cost **	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **  (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	Brine, no sand
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs./ln. mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs./ln. mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	1
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	