

Municipality/Organization: City of Quincy
EPA NPDES Permit Number: MAR041081
MassDEP Transmittal Number: W-041020
Annual Report Number & Reporting Period: Year 11
April 1, 2013 – March 31, 2014

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2014)

Part I. General Information

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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: _____



Printed Name: Thomas P. Koch

Title: Mayor

Date: _____

4-18-14

Part II. Self-Assessment

As required, the City of Quincy (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, 2013 – March 31, 2014, the City continued to make progress implementing BMPs to meet General Permit requirements. As required, the City also evaluated the appropriateness of all best management practices (BMPs) in efforts towards achieving the defined measurable 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 Notice of Intent (NOI) for the next reissued General Permit to more efficiently use the City's limited resources and staff time to leverage appropriate 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 illicit discharge detection and elimination (IDDE) component to these projects where it is considered necessary and practicable. 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 11 include:

Town Brook – Base Flow Recapture at Centre Street Project.

Completed October 2013, this project enables more stormwater flow to be captured into Town Brook from the Braintree Dam that diverts flow to Town Brook and the Deep Rock Tunnel. The project involved the installation of drainage structures including Stormceptors, the cleaning of drainage structures including a junction box at Centre Street, and the cleaning of Town Brook to increase flow capacity.

Flood mitigation in Miller Street/ Cross Street/ Furnace Brook Area.

Prior to April 2013, the City purchased a parcel of land for a future stormwater pump station to alleviate flooding issues in this area of the City. Construction funding for the pump station is not yet available, however, the City submitted a Hazard Mitigation Grant Program Sub-Application to FEMA for funds to build the pump station. Although this grant has not been approved, advancement meetings with FEMA have occurred.

The City has advanced Phase 1A of the overall flood mitigation project for the Furnace Avenue neighborhood. To alleviate localized flooding where Furnace Brook surcharges its closed conduit drainage infrastructure, the City is currently installing backflow prevention devices within existing drainage infrastructure. Additionally, new drainage pipe will be constructed to by-pass existing stormwater conveyance to reduce the magnitude, frequency, and duration of localized flooding impacts to the area.

Furnace Brook Closed Conduit Cleaning.

Prior to April 2013, the City conducted inspections and cleaned closed conduit sections of Furnace Brook. Assessment of the

inspections identified deficiencies within the system that were identified for repair as part of the Furnace Brook Repairs Project described below.

Furnace Brook Open Channel Inspections and Maintenance.

Prior to April 2013, the City conducted inspections of Furnace Brook to identify potential projects for the open channel. Inspections identified deficiencies in the channel flow path (due to constrained straightened channels, debris, and sediment buildup). For Phase 1, the City completed a maintenance contract in Summer and Fall 2013 that involved hiring a contractor to clear the Brook of downed trees, coarse woody debris, stones, and trash from the Brook channel to minimize potential obstructions to stream flow that have the potential to exacerbate flooding events. In addition, trees growing out of the stone embankment walls were cut down to the stumps to prevent further wall deterioration. Phase 2 (to be completed) will include sediment removal and wall repair. Phase 2 will require a more substantial permitting effort than Phase 1.

North Quincy and Furnace Brook Repairs and Upgrades to Drainage Pipe.

Prior to April 2013, the City conducted inspections and cleaned closed conduit sections of Furnace Brook and North Quincy tributary to Sagamore Creek. Assessment of the inspections identified deficiencies within the system that were identified for repair and system capacity upgrades to reduce the magnitude, frequency, and duration of localized flooding impacts to the areas.

The construction project began in Summer 2012 and is expected to be complete by Summer 2014. The project work includes drainage infrastructure spot repairs, realignment of pipe segments, replacement of drainage structures, open cut repairs, and installation of approximately 1,400 linear feet of drainage pipe.

Wollaston/ Greenwood Memorial Bridge along Quincy Shore Drive.

Due to existing operational problems with the tide gates, the City is in the process of designing replacement tide gates to control tidal flows to Black's Creek. The City is currently working to secure final permits to enable the City to complete final design and put the project out to bid for construction.

Spence Avenue Drainage Improvements Project.

The City was awarded a Hazard Mitigation Grant from FEMA for the Spence Avenue Drainage Improvements Project. This project will upgrade existing stormwater infrastructure to increase hydraulic capacity and reduce the magnitude, frequency, and duration of localized flooding impacts to the area. The project began construction in Fall 2013 and is anticipated to be completed by Summer 2014.

Wollaston Beach Outfall Rehabilitation Project.

Ten drainage outfalls on Wollaston Beach are currently being evaluated for rehabilitation. Rehabilitation of these outfalls is expected in 2014.

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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
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 are invited to shadow water, sewer, & drain department staff. In Permit Year 11, the City hosted a Public Works Day on May 22, 2013 for National Public Works Week.	Measurable goals for 2003 General Permit have been met.
Revised					As budget allows, DPW plans to continue this BMP.
1-2	Flyer & Brochure distribution	Department of Public Works	Develop & distribute materials for public education	The DPW continued to hand out “Water Wise Kids” and “Drink Local Tap” 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.
Revised					DPW plans to continue this BMP.
1-3	Using the Media and Internet	Department of Public Works	Issue One Local Cable Public Service Announcement (PSA)	Local public access (QATV) regularly airs segments on beach closings, recycling programs, trash pickup	Measurable goals for 2003 General Permit have been met.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised				<p>schedules, and the City’s annual Household Hazardous Waste Day, when residents can drop off items such as auto fluids, pesticides, thinners, and other eligible items. Announcements of DPW sponsored events such as National Public Works Week are also provided on QATV.</p> <p>In previous permit years, the City regularly aired a 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>	As budget allows, the City plans to continue this BMP.
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>The DPW provides an Annual Report for each fiscal year that includes information on stormwater management such as catch basin cleaning, street sweeping, litter cleanup, and waste management.</p>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>As budget and time allows, the DPW will provide annual articles.</p> <p>The DPW will continue to provide annual reports for each fiscal year.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-3 Revised	Using the Media and Internet	Department of Public Works	Publish one storm water press release each year	Press releases are provided on the City's public website to educate the public about flooding and stormwater issues.	Continue to update City website as needed and as budget allows.
1-3 Revised	Using the Media and Internet	Department of Public Works	Expand City Website to include Stormwater Topics and links	The Inspectional Division website includes some information on water quality, including information from the public beach sampling.	Continue to expand city website to include additional information, as budget and staff time allows.
1-4 Revised	Public Safety Fair	All City Departments	Annual Public Safety Fair	The DPW hosted National Public Works Week with an Open House (Public Works Day) on May 22, 2013 where information about Public Works activities that include drainage O&M was provided to attendees.	The Public Safety Fair has been incorporated into National Public Works Day. The DPW plans to continue hosting National Public Works Week.
1-5	Neighborhood Forums on 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.	The City held neighborhood meetings for Capital Improvement Projects implemented in 2013 and 2014 to address flooding issues. These neighborhood meetings are typical of large drainage projects to describe the intended projects planned to alleviate flooding issues, educate residents on why the projects are being implemented, and address resident concerns during construction. A number of news updates have been posted to the City website on flood-relief projects conducted this PY11, including the Town Brook Base Flow Recapture at Centre Street Project and the Spence Avenue Drainage Improvements Project.	Measurable goals for the 2003 General Permit have been met. The DPW will continue to hold neighborhood meetings as new Capital Improvement Projects are implemented.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (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 has not been established. However, stormwater issues and projects are discussed internally through interdepartmental coordination meetings .	Measurable goals for 2003 General Permit have been met. As needed, attend meetings to discuss progress and future goals for specific waters and watersheds of Quincy.
Revised	Interdepartmental Coordination and Assistance to Preservation Committees		Notify City departments of stormwater issues and assist Preservation Committees.	Also, there are several committees specific to receiving waters (e.g., Wollaston Beach Committee, Friends of Sailor’s Pond, and Friends of Butler’s Pond) that address environmental and water quality issues. As needed, the DPW supports these groups. Friends of Wollaston Beach and Friends of Sailor’s Pond post information on their Facebook page regarding beach cleanups and other events. The Friends of Butler’s Pond has a list of calendar events on their website: http://www.butlerspond.org . The group hosted a Cleaner Greener Day on May 4, 2013 and Stormwater and Sediment Briefing on October 9, 2013 that discussed stormwater sampling completed in June 2013 and stormwater BMPs for the watershed. Additional information is provided on the website.	
2-2	Storm Cleanup and Management	Department of Public Works	Track Clean-up activities per year. Track number of clean-up participants Track number of miles cleaned by volunteers	The 24 th annual <i>Cleaner, Greener Quincy</i> was held on Saturday May 4 th , 2013, from 9 a.m. to noon. Residents, volunteers and City departments cleaned the City’s parks, beaches, schools, marshes, and open space areas. Pond and beach cleanups were held in 2013 as part of COASTSWEEP, including: Wollaston Beach on October 6 and Black’s Creek on October 12. 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. DPW also supported the cleaning of Furnace Brook, which included debris,	The City plans to continue the <i>Cleaner, Greener, Quincy</i> event. The 25th annual <i>Cleaner Greener Quincy</i> will take place on Saturday, May 3 rd from 9 a.m. to 12 noon

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised				trash, and sediment removal. This cleanup project was implemented in Summer/Fall 2013 as a DPW Capital Improvement Project.	at locations Citywide. Post storm cleanup is a function of the DPW and Parks Departments.
2-4	Pet Waste Collection	Department of Public Works	Track number of Dog Parks Track number of Signs Posted Track number of Educational Materials Distributed Track number of “Pooper - Scooper Stations”	The City currently does not have dog parks and encourages owners to clean up after their pets by advertising the City Ordinance when owners are required to annually license their pets and pick up dog tags. The Ordinance requires owners to clean up their pet's waste, control excessive barking, and ensure that their dog is properly vaccinated against rabies. Monetary penalties apply if the ordinance is not adhered to. Signs are posted throughout the City at the 38 fields/parks and 20 miles of beach referencing the City’s Ordinance. These signs are vandalized frequently and the Parks Department works to maintain and replace these signs. Information on pet waste disposal is maintained on the City website under “Tips to be a Good Neighbor” section.	Measurable goals for 2003 General Permit have been met. The City continues to enforce Ordinance.
Revised					
2-5	Flagship Beach Program	Department of Public Works and U.S. Environmental Protection Agency (EPA)	Coordinate with EPA as needed.	Wollaston Beach is an EPA “Flagship Beach,” which receives frequent water quality monitoring and pollution source assessments. Water quality monitoring results are published on the Massachusetts Department of Public Health – Bureau of Environmental Health website: http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/ .	As needed, the City plans to support EPA efforts at Wollaston Beach.
Revised				The City coordinated with EPA and MassDEP to respond to an organic odor at Wollaston Beach in PY10. A study conducted in 2013 that included sampling determined that human fecal matter was not present. Results were summarized in <i>A Report on Chemical Analysis of Wollaston Beach, Quincy, Massachusetts May 2013 Beach Samples</i> (July 2013).	

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-1	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 water bodies 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.
Revised					
3-1	Drainage System Mapping	Department of Public Works Engineering	Complete drainage system mapping	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. The City's GIS property viewer is available to the public on the City's website and shows the locations of all drainage structures. In PY10, the City purchased a GPS unit to use in the field to update drainage system mapping. In PY11, the City purchased an iPad for use in the field as part of their catch basin cleaning program to record/verify catch basin locations and cleaning efforts. The City plans to categorize catch basins based on the amount of debris collected in the sumps and identify those that require more frequent cleaning.	Measurable goals for 2003 General Permit have been met. As budget allows, continue field verification of drainage system.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-2	Outfall Testing Program	Department of Public Works	Inspect all City discharges	<p>The DPW regularly inspects outfalls in flood prone areas and removes debris from both catch basins and outfalls with the vactor or clam truck. As needed, drain lines are also cleaned to avoid obstructions.</p> <p>The City maintains a complaint log of resident calls that voice drainage infrastructure operation and maintenance issues.</p> <p>Ongoing drainage system improvements as part of the Capital Improvements Plan include inspections of drainage infrastructure such as outfalls to assess cleaning and repair projects.</p>	<p>The City will continue to clean drainage structures in flood prone areas and remove illicit connections.</p> <p>The City will also continue to clean and repair drainage infrastructure as part of the City’s Capital Improvements Plan.</p> <p>Upon reissuance of the new General Permit, the City will develop an Outfall Monitoring Program that meets EPA’s requirements.</p>
Revised					
3-2	Outfall Testing Program	Health Department	Sample discharges with flow present	<p>The Health Department collected weekly samples for 13 City beaches from June 12, 2013 through August 28, 2013. DCR collected daily samples (when feasible) at four DCR beaches at Wollaston from approximately May 23, 2013 to August 30, 2013. EPA may conduct additional testing during the Summer (refer to BMP 2-5).</p> <p>The Massachusetts Department of Public Health – Bureau of Environmental Health published beach water quality monitoring results on their website: http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/. EPA New England also published DCR beach data and referenced the Massachusetts Department of Public Health site on their own website under the New England Beach Monitoring and Notification Program webpage: http://www.epa.gov/region1/eco/beaches/.</p> <p>The City prepared a 2013 Bathing Beach Water Sampling Report for City beaches. Efforts to assess potential contamination sources at beaches are ongoing, including a continued assessment of storm drains and sewers by the DPW in the areas affecting Delano and Nickerson beaches with five and three beach closure postings, respectively, in 2013 for enterococcus counts greater than 104 and/or a five sample geomean value greater than 35.</p>	Continue beach sampling and contamination source assessment.
Revised		Health Department and Department of Public Works			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-2	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 by the DPW to determine if discharges are contaminated.	Continue dye testing efforts as part of drainage improvement projects.
Revised		Department of Public Works		The DPW also conducts dye testing if there is a potential sewer/drain crossover as part of ongoing drainage improvement projects. For example, dye testing was conducted as part of the Spence Avenue Drainage Improvements Project.	
3-3	Illegal Dumping Education	Department of Public Works	Stormwater committee to distribute flyers, posters & other educational material	The topic of illegal dumping and the connection between the storm drain and the beaches was addressed on public access QATV titled “How Quincy Works,” which played regularly during previous permit years. The DPW keeps the educational coloring book for children, “Dwayne the Storm Drain” that includes topics on illegal dumping on display at the DPW.	Measurable goals for 2003 General Permit have been met.
Revised				Friends of Wollaston Beach have previously sponsored stenciling of “no-dumping” on catch basins around Wollaston Beach.	
3-3	Illegal Dumping Education	Department of Public Works	Document and investigate illegal dumps reported by citizens	DPW documents illegal dumping in daily complaint logs. As needed, the DPW responds to calls and enforces the City Ordinance (refer to BMP 3-4). Typical calls include plastic, pet waste, and chemicals dumped in catch basins	Continue to implement BMP.
Revised					
3-3	Illegal Dumping Education	Department of Public Works	Enforce Penalties	DPW documents illegal dumping in daily complaint logs and responds to calls. One enforcement and penalty action was implemented in PY11 against a resident due to a temporary illegal discharge to a catch basin tributary to Furnace Brook.	Continue to implement BMP.
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.	Measurable goals for 2003 General Permit have been met.
3-5	Flagship Beach Program	Department of Public Works & EPA		Refer to BMP 2-5.	Refer to BMP 2-5.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3-6	Sewer Manhole Replacement Project	Department of Public Works	PY7 – Perform sewer evaluation to prevent pollution of sensitive areas PY8 – Implement recommendations of sewer evaluation	<p>Warranty inspections were completed in Summer 2013 on the second phase (IIA) of the City’s on-going infiltration and inflow (I/I) removal project. Minor patch repairs were made to previously completed manhole and pipe repairs in the Hough’s Neck and Adams Shore regions.</p> <p>The next phase of construction (IIB) is currently out to bid with an estimate contract start date of May 2014. This work will involve four open cut spot repairs of partially collapsed sewers and the CIPP lining of 2,500 feet of sewers, most of which is in the salt marsh resource area adjacent to East Squantum Street. This open cut and lining work will help remove potential extraneous sewer flow and will remove infiltration from the sewer system, helping to prevent future overflows.</p> <p>The Downtown Redevelopment project has been tentatively put on hold due to financial reasons and is expected to restart in 2014. As part of the Redevelopment Project, I/I removal efforts in the Block 4 and Hospital Hill regions are expected to lead to repair and rehabilitation construction projects.</p> <p>A new fee structure effective July 1, 2013 outlines more stringent penalties for illegal connections and discharges to the sanitary sewer system; refer to website: http://www.quincyma.gov/Government/PWD/WaterSewerFees.cfm.</p>	City will continue sewer manhole and pipeline assessment and rehabilitation projects in conjunction with the MWRA.
Revised	Sewer Manhole Replacement and Infiltration/Inflow (I/I) Removal Projects				

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (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 DPW 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.	Measurable goals for 2003 General Permit have been met. Continue to implement BMP.
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 to implement BMP.
Revised					
4-3	Public Information	Department of Public Works	Continue "Hot Line"	DPW continues to make 24 hour hot line available, and responds to	Measurable goals for 2003 General Permit have been met.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised				emergencies.	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. As needed, complaints are investigated.	Measurable goals for 2003 General Permit have been met. Continue to maintain log and investigate complaints.

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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5-1 Revised	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.
5-1 Revised	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 to implement BMP.
5-2 Revised	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 to implement BMP.
5-2 Revised	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 to implement BMP.
5-2 Revised	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 to implement BMP.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
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 to implement BMP.
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 to implement BMP.

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 11 (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 to inspect catch basins, storm drains, outfalls, and tide gates as part of drainage improvement projects, public complaints, and flooding issues.</p> <p>In September 2013, the City began a comprehensive catch basin cleaning program. Phase I included an outside contractor cleaning approximately 1,628 out of 9,329 City catch basins within the Squantum and areas east of Hancock Street, north of Coddington and Sea Streets, and a portion of Adams Shore. Approximately 650 tons of debris was removed from the catch basins and properly disposed. Phase I cost approximately \$150,000. Phase II is expected to occur in 2014.</p> <p>Structures (catch basins, drainage storm drains, and outfalls) are also cleaned, repaired, and replaced by the DPW on an as needed basis to address flooding issues. Approximately 306 catch basins were cleaned, repaired, or replaced in 2013.</p>	Continue to implement BMP.
6-2 Revised	Street Cleaning Program	Department of Public Works	Continue with current program, review the effectiveness of the program	<p>During 2013, all streets were swept once during the spring from approximately March 31 to April 18 and once in the fall. Weather permitting, the City sweeps the business district and high traffic areas throughout the year.</p>	Continue to implement BMP.
6-3	Inspect City owned BMPs for Retrofit Opportunities	Department of Public Works	Inspect three structural BMPs per year and implement two retrofit projects	As needed, the City inspects Stormceptors, sand filtration systems, and other drainage structures based on complaints.	Continue to inspect BMPs and identify retrofit opportunities to improve water quality and reduce flooding.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised				<p>The Town Brook project as part of the Downtown Redevelopment Project included construction of Stormceptors to further treat stormwater runoff. DPW maintains Stormceptors and other Town Brook drainage structures. The City also maintains Town Brook; using a mechanical excavator and vactor truck, the DPW removed approximately 80 cyds of sediment that has greatly improved brook flow and reduced potential for migration of sediment to downstream receiving waters.</p> <p>A truck wash station that includes an oil/water separator and a new salt storage shed for the DPW yard were installed to further prevent pollution of stormwater due to municipal operations.</p>	
6-4 Revised	Municipal Employee Training	Department of Public Works	Continue with current program	<p>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.</p>	Continue current practices and look for training opportunities/programs more specific to Quincy’s stormwater challenges.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities
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 11.	Measurable goals for 2003 General Permit have been met. The City continues to implement their Capital Improvements Plan that includes drainage improvement projects.

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
- The City’s Health Department prepared the 2013 Bathing Beach Water Sampling Report Summary, as referenced in BMP 3.2.

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, 2013 through March 31, 2014)

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 **	(#)	1 (May 18, 2013)
▪ 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	(%)	~100%
% of population on septic systems	(%)	

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.)	~21%
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr.)	
Qty. of structures cleaned **	(#)	1,934
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	(#)	2
• 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 ₂ % MgCl ₂ % 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	