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**Municipality/Organization:** City of Gloucester

**EPA NPDES Permit Number:** MA041192

**MaDEP Transmittal Number:** W-035854

**Annual Report Number  
& Reporting Period:** No. 4: May 06-May 07

**NPDES PII Small MS4 General Permit  
Annual Report**

**Part I. General Information**

Contact Person: Michael Hale, AICP

Title: Engineer

Telephone #: 978 281 9773

Email: mhale@ci.gloucester.ma.us

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: John Bell

Title: Mayor

Date: 1 June 2007

## Part II. Self-Assessment

### *Public Education and Outreach*

The fourth year of our NPDES Phase II permit saw an increased involvement from the general public, which served to assist with the greater public's education and outreach. The Gloucester High School Environmental Club along with the Compass Youth Program teamed to create Generation Conservation and held city-wide clean ups. All part of the *Step It Up* campaign. The Greenscape program was formally adopted by the City and green guides were mailed out to all single-family homes. This program also made presentations on water conservation and coordinated the sale of rain barrels. The Department of public works continued its bi-annual hazardous waste collection program.

### *Public Involvement and Participation*

Numerous groups assisted in clean-up programs through the City. As mentioned above, as part of a general public education component, the Generation Conservation group held city-wide clean ups. Eight Towns and the Bay, a grassroots environmental advocacy organization, worked to cleanup the Mill Pond and Mill River. These water bodies are heavily burdened with stormwater flow from the surrounding urban areas. The neighbors of Myrtle Square, along with nearby business owners organized a cleanup of the Emerald Forest, a degraded urban wetland. The Essex County Greenbelt held informational *Biodiversity Days*.

### *Illicit Discharge Detection and Elimination*

With the age of Gloucester's sanitary and storm sewer infrastructure, we recognize the city has numerous illicit connections and discharges. The construction of the collections infrastructure has been in various phases over the past 120 years. Over that time period, numerous sanitary connections have been made into the storm system. To identify these illicit connections the City entered into an engineering contract in 2006 to study the area ahead of a construction contract to eliminate these illicit connections and discharges. The City through its engineering consultant performed approximately 520 manhole inspections, over 1,140 residential and commercial building inspections. Over 60,000 linear feet of sanitary sewer, drain and combined drain/sewer pipe was television inspected and nearly 370 follow-up dye tests were performed. Approximately seventeen illicit connections were discovered during this phase of investigation, and the elimination of these connections is slated for fall 2006.

### *Construction Site Storm Water Runoff Control*

As noted in previous annual reports, the City closely regulates construction sites with regard to stormwater runoff. All building permit applications, which propose greater than 500 square feet of building footprint, are required to submit a stormwater mitigation plan. The regulation requires a professional engineer to submit a plan detailing the mitigation of the 25-year storm event. The Engineering Department has also joined in the peer review of Conservation Commission application. This joint review by staff assists the Conservation Commission in assuring that during construction the site is well managed and promotes awareness in stormwater management.

### *Post-Construction Runoff Control*

The development of a new city-wide stormwater ordinance morphed to a larger scale project during the last year. What was once proposed to replace the existing stormwater ordinance, grew to include

amending the existing Planning Board stormwater regulations and coming to a consensus on stormwater policy for the Board of Health and Conservation Commission's review of projects. The idea is to develop a city-wide stormwater manual that all boards and committees will look to for guidance. This would allow for a clear permitting and design procedure for the design professionals and applicants. A city-wide stormwater manual would provide uniform design and performance standards, as well as a uniform inspection process and enforcement action.

*Pollution Prevention/Good Housekeeping for Municipal Operations*

The Department of Public Works cleaned approximately 750 catch basins over the past year and has developed a formalized in-house reporting system. Spring street sweeping is well underway and this year a new tool has been added to the process. A *no parking* ordinance was adopted by the City Council to ensure that on scheduled dates, the street sweepers has a clear path to the curb line of all streets. The City also invested in two new sweepers to replace the aged and poorly operating existing sweepers.

**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) – (Reliance on non-municipal partners indicated, if any)	Planned Activities –
	Classroom education on Storm Water	School Committee - Outreach by Engineering/ ConCom	Teachers instruct classes and present material gathered in year one.	Generation Conservation (Compass Youth Program and the GHS Environmental Club) held city-wide cleanups in April as part of the Step It Up campaign.	Building on this year's success, the City will continue its outreach into the schools.
	Using the Media	Engineering/ DPW: Volunteers throughout the community.	Air one local cable public service announcement  Issue one storm water related press release per year.  Publish one storm water related article per year.	The Greenscape program was adopted by the City with guides sent out to every single-family homeowner in Gloucester.  The program also made presentations on water conservation.  Rain barrels are made available for sale.	The media has proven to be a valuable tool and we will continue to build of the success of 2006.
	Hazardous waste management	DPW	Bi-annual hazardous waste collection	A bi-annual, well advertised hazardous waste collection at the Public Works garage.	A bi-annual, well advertised hazardous waste collection at the Public Works garage.

**2. Public Involvement and Participation BMP ID # BMP Description Responsible Dept./Person Name Measurable**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress (s) – (Reliance on non-municipal partners indicated, if any)	Planned Activities –
	Adopt-A- Stream Program	ConCom / Community Development	Clean and maintain adopted local water bodies	Little River Fish ladder restoration and adopt a stream program.	The projects will continue into the up coming years and the public/ private partnerships will continue to grow.
	Pond and Stream Cleanup and Monitoring	Community Development Engineering	Hold stream cleanup events	Myrtle Square/ Emerald Forest neighborhood cleanup coordinated with the nearby commercial development.  Mill Pond/River cleanup arranged by Eight Towns and the Bay and Gloucester residents.	Volunteer's efforts for this task are truly the key to success. The volunteer base is growing and the trend is anticipated to continue.
	Stencil Storm Drains	DPW	Stencil 30 storm drains per year Maintain records of stenciled areas in Gloucester.	Areas of priority have been established, but lack of funding for stencils and appropriate paint has prevented this from happening.	This task will likely not happen this year or in the near future. With limited funding available in public work's budget, this task does not meet the priory level needed to complete the work.
	Storm Water Steering Committee	Engineering	Quarterly meetings and during most TAG meetings.	An ad hoc committee has been established and is currently developing new policies and meeting regularly	Continue the work started in year two.

	Attitude Surveys	Engineering	Two attitude surveys completed with complied results	No attitude surveys have been conducted.	The Engineering Dept. is in the process of developing a survey for both municipal workers and all licensed drainlayers.
	Volunteer Monitoring/ Outreach	varies	Utilize volunteers for other BMP's  Expand on the numbers of volunteers for various projects related to stormwater.	Essex County Greenbelt held informational Biodiversity Days – lead by Kelley Sullivan of ECGB.  Earth Day saw a large volunteer base assist in the cleanup of streets, parks, beaches and other public places.	Events for the upcoming year have not been posted, but we anticipate an increase in volunteers as municipal resources are slowed.
	Pet Waste Collection	Health Dept.  Animal Control	Continued enforcement of ordinances	Waste bags are provided at parks and known areas of dog walking. Budgetary restraints have lead to an unfunded program.	Volunteer efforts have stocked the bag receptacles with plastic grocery bags. This effort is volunteer based and will hopefully continue into the next year..

**3. Illicit Discharge Detection and Elimination BMP ID # BMP Description Responsible Dept./Person Name Measurable**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
	Non-storm water discharge Education	Engineering	Distribute flyers, posters and other materials for non-storm water discharge)	A series of informational posters have been placed where the public and construction professionals can see them	Continue to display the informational signs and make updates as needed.
	Non-storm water discharge Education	Engineering/ Plumbing Inspector/ ConCom	Enforce penalties for illegal dumping	Although fines have not been established, enforcement continues with education and mitigation.	By providing household appliance pickups and hazardous waste days, the City has reduced illegal dumping. As the public becomes more aware of the hazards of illegal dumping as well as city employees, we will continue to see a decline in illegal dumping.
	Septic systems controls	Health Department	Continue septic system monitoring inspection.  Continue noncompliance enforcement activities Continue to educate residents about septic systems maintenance	A full-time staff person monitors all the septic systems within the City. Inspection reports and pump out records are kept in a database and continuously updated with information. System operators not in compliance with the local and state regulations are held responsible for their actions and enforcement is sought.	The same level of monitoring will continue.

**4. Construction Site Storm Water Runoff Control BMP ID # BMP Description Responsible Dept./Person**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – (Reliance on non-municipal partners indicated, if any)	Planned Activities –
	Ordinances Review and Update	Steering committee/ Engineering	Develop storm drain connection ordinance.	The City-wide stormwater manual is nearing completion. The project has grown in scope to include most permitting authorities within the city. The manual will replace current rules and regulations in place with the Planning Board, Board of Health, Conservation Commission, City Council, and Board of Appeals.	Finalize storm water manual.
	Construction Review	Engineering	Weekly reviews of construction activities	Not only are construction sites reviewed, but also the Engineering Department reviews nearly 100 individual building sites annually for compliance with ordinances.	Continue the review of all ongoing and anticipated construction sites.
	Construction site storm water runoff control	Engineering	Develop/ Implement standard construction details and policies	Provide all contractors with educational and regulatory information to assists them in better management practices	Continue the outreach to contractors.

**5. Post-Construction Storm Water 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) (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities –</b>
	BMP Inspection and Maintenance	Planning Dept./ ConCom/ Health Dept/ DPW	Inspect all city BMPs once per year	Many of the structures have been inspected and a full-time mason is on the DPW payroll to make the needed repairs	As long as funding holds out, repairs will be made as soon as problems are recognized and as the drain systems map is developed a schedule of repair or replacement will be implemented.
	BMP Inspection and Maintenance	DPW/ Engineering/ Plumbing Inspector/ ConCom	Implement changes to BMPs based on inspection results	Similar to the above goal, as the BMPs are inspected, all necessary actions will be taken to implement change	Follow up the inspection with the necessary action
	Ordinance for Post Construction Runoff	Engineering	Develop storm drain connection regulations	Engineering has been successful in controlling the connections to storm drains. Only allowed in certain situations and in controlled environments	This will continue to evolve in the following years

## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – (Reliance on non-municipal partners indicated, if any)	Planned Activities –
	Catch Basin Cleaning Program	DPW	Develop catch basin cleaning program Collect data	The DPW cleaned 750 catch basin and formalized an in-house reporting system.	The GIS stormwater structure base maps are being field verified by GPS, and corrections are being made.  With an accurate GIS base map and database, the DPW's reporting system can be incorporated into the main database.
	Street Cleaning	DPW	Sweep streets once per year	Spring street sweeping is currently underway after a temporary delay in the contract.  A new street sweeper was procured through Mass Highway Chapter 90 funds and a second sweeper is currently before the City Council for approval.	A new <i>no parking</i> ordinance, which enforces no on-street parking during the sweeping schedule, and the purchase to two new sweepers will allow for a more effective sweeping program.
	Pipe Cleaning	DPW/ Engineering	Clean drainage systems	Cleaning of problem drain areas has continued by DPW. Extreme rainfall events have identified areas of high priority, which have been addressed by DPW.	Much of the city center is under design for improvements to the stormwater and sewer collection systems. Many areas have been video inspected and deter

	<b>New Pipe and Structure Installation</b>	<b>DPW/ Engineering</b>	<p>Replace 475 feet of drainage pipe per year</p> <p>Replace 10 catch basins each year</p>	<p>The general upgrade of the drainage system has been slowed by staffing and budget issues. But as part of the major CSO work, the City is currently engaged in a major engineering and construction program that will greatly improve the collection systems for stormwater and sewer.</p>	<p>The stormwater element is the City's CSO mitigation program will continue to identify illicit connections to both stormwater and sewer collection systems.</p> <p>In September 2007 the City will begin a major construction effort to eliminate illicit connections into the stormwater collection system.</p>
	<b>Investigate Municipal BMP's</b>	<b>DPW/ Engineering</b>	<p>Inspect three structural BMPs per year</p>	<p>All BMP's are under investigation for integrity and functionality.</p>	<p>BMP's and the collection system will be modeled in the upcoming fall for areas of known stormwater issues. This effort is part of a larger investigation into the infrastructure for sanitary sewer and stormwater.</p>