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**Municipality/Organization:** Town of Wenham, Massachusetts  
**EPA NPDES Permit Number:** MAR041230  
**MassDEP Transmittal Number:** W-  
**Annual Report Number & Reporting Period:** Year 7  
April 1, 2009 – March 31, 2010

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2010)

### Part I. General Information

Contact Person: Bill Tyack Title: Director of Public Works

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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: Jeffrey A. Chelgren

Title: Town Administrator

Date: April 29, 2010

## Part II. Self-Assessment

The Town of Wenham has completed the required self assessment and determined that our municipality is in compliance with the permit conditions. The town has finished all of the goals listed in Part III of this permit.

The town has continued the process of replacing older non-BMP style catch basins (CBs) with new deep sump CBs, and the Public Works had a budget of approximately \$17,000 for replacements for the past Permit Year. The Public Works Department replaced two non-BMP style catch basins (CBs) with new deep sump CBs (with another planned in the coming months). For the upcoming Permit Year the DPW plans on performing the replacements in-house to reduce costs. Additionally, the Public Works Department has budgeted approximately \$8,000 for further replacements during the upcoming Permit Year.

All of the catchbasins in town were inspected during Permit Year 7. The Public Works/Highway Department did not observe any additional dry weather flow (possible illicit connections) during any of these inspections that had not been sampled during Permit Year 5 (no contamination was discovered during the sampling/testing of the dry-weather flows in year 5.).

The Town holds an annual Pleasant Pond Cleanup Day on the 2<sup>nd</sup> weekend of every June where volunteers, along with DPW workers, perform a cleanup of the Pleasant Pond area. Members of Gordon College also completed an Earth Day (April 22, 2010) cleanup of the Grapevine Road area in Town. Both of these activities work to cleanup the wetland/pond areas throughout the Town to improve the general cleanliness and water quality in these areas.

The Town is holding their annual Hazardous Waste Collection Day on October 2, 2010 (the previous year's collection day was held on September 19, 2009). By providing residents a method to properly dispose of hazardous materials, it prevents the materials from potentially being disposed of improperly (i.e. into the drainage system/waterways).

The DPW is still currently using the proprietary product Ice Ban 50/50 instead of road salt (sodium chloride) for their road de-icing. Ice Ban 50/50 is a mixture of 50% magnesium chloride and a proprietary blend of brewer's condensed solubles – a by-product of the domestic brewing industry (began product use in Permit Year 5). This is an environmentally friendly product that the manufacturer claims will result in a greater than 50% reduction in chloride ions introduced into the environment as opposed to the use of traditional road salt. Since switching to the Ice Ban 50/50 product, the DPW has also noticed a significant decrease in the structural degradation to CBs when compared to previous years using road salts.

To date, all of the drainage structures have been located in the field, inventoried using Global Positioning System (GPS), and photographed. The Town maintains an online GIS system which can be accessed on the Town's website.



**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 7 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities</b>
1A Revised	Brochures/Fact Sheets	Public Works Department	Develop & distribute to all residents in water bill. Develop & Distribute to residents at Town Meetings	Informational fliers were distributed at the Fall 2009 Town Meeting.	The informational fliers will be distributed again at Town Meeting (May 1, 2010).
2A Revised	Storm Drain Stenciling	Public Works Department	Stencil storm drains at various locations around schools.	Stenciling of the storm drains was completed. To date 100% of the Town owned storm drains have been stenciled.	Storm drain stenciling has been completed for all Town owned storm drains.
3A Revised	Develop web site	Public Works Department	Develop a public informational website.	GIS system is up-to-date and is able to be accessed from the Town's Website. Digital pictures of CBs, DMHs and outfalls were linked to the online GIS system.	To date all of the Town identified drainage structures have been located in the GIS system. The Town will continue updating and maintaining the online GIS system as necessary.
4A Revised	Implement stormwater hotline	Public Works Department	Create a hotline that residents may use for information/reporting problems.	There were no calls from residents to the DPW about stormwater issues in the past year (other than flooding from the heavy rainfall in March 2010). If any calls about stormwater issues are received they are routed to the appropriate people at the Public Works/Highway Department.	Continue to inform residents of the proper town offices to contact if they need information or to report problems dealing with stormwater issues. Logs will be kept with information on the calls received and the actions/responses performed.
Revised					

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1B Revised	Storm drain stenciling	Public Works Department	Public information.	Stenciling of the storm drains was completed. To date 100% of the Town owned storm drains have been stenciled.	Storm drain stenciling has been completed for all Town owned storm drains.
2B Revised	Household hazardous waste collection	Public Works Department	Annual collections to promote a cleaner environment.	A household hazardous waste drop off day for residents was held on September 19, 2009 at the Wenham DPW.	A household hazardous waste drop off day for residents is currently scheduled for October 2, 2010 at the Wenham DPW.
3B Revised	Community cleanup	Public Works Department	Schedule community cleanup days to promote community awareness.	A community cleanup of Pleasant Pond took place the second weekend in June 2009.  The Town held a town-wide cleanup day for Earth Day, April 25, 2009.	Pleasant Pond community cleanup days are scheduled annually the second weekend of June.  Additional community cleanup days, for specifically the Miles River, are in discussion.  Members of Gordon College held a cleanup day along Grapevine Road for Earth Day (April 22, 2010).
4B	Adopt a storm drain	Public Works Department	Have individuals/groups cleanup storm drains to promote public awareness.	Advertisements on cable access television were run asking for volunteers. However, no community groups have shown interest in participating in the adopt-a-storm drain program.  Inquiries to the local Eagle Scouts were made to gauge their interest, but they were already busy with other projects that they were involved with.	Continue to run advertisement for volunteers on cable access television.

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1C	Mapping	Public Works Department	Mapping catchbasins & outfalls with GIS/GPS.	All drainage structures have been field located, inventoried and mapped using GIS. A total of 199 outfalls, 615 catchbasins and 114 drainage manholes have been mapped on GIS. To date all of the Town identified drainage structures have been located in the GIS system.	To date all of the Town identified drainage structures have been located in the GIS system. The Town will continue updating and maintaining the online GIS system as necessary.
2C	Identify problem areas	Public Works Department	Inspection of outfalls in dry/wet conditions to determine illicit connections.	Continued inspections of CBs during annual CB cleanings.  No additional dry-weather flows were observed that had not been previously inspected and sampled during Permit Year 5 Sampling Program. Please note, there was no contamination discovered during the sampling/testing of the dry-weather flows in year 5.	Continue to inspect the catchbasins and outfalls during cleanings for signs of illicit connections. Where signs of illicit connection are observed, samples will be taken of the outfall discharge and will be analyzed for typical illicit connection contaminants.
3C	Develop regulations/fines	Public Works Department	Submit a town ordinance to be voted on to establish regulation/fines for illicit discharges.	The ordinance was presented and passed during the May 3, 2008 Town Meeting (Permit Year 5).	The DPW will continue to enforce the regulations for illicit discharges.
4C	Elimination of illicit discharge	Public Works Department	Perform smoke testing on drainage systems to determine/eliminate illicit discharges.	No smoke testing occurred during the past year because no illicit discharges were observed during the inspections of the stormdrains.	Any suspected illicit discharges noted during the CB/outfall inspections by the Public Works/Highway Department will be sampled and analyzed for typical illicit connection contaminants. If contaminants are found, smoke testing will occur to locate and eliminate the source of the discharges.



#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1D Revised	Ordinance/regulatory mechanism for development	Public Works Department & Planning Board	Limiting stormwater run-off.	The town has reviewed and amended their existing regulations to include provisions for construction site stormwater runoff controls.	The appropriate Town committee(s) will use and enforce their recent regulation revisions covering construction site stormwater runoff control.
2D Revised	Site plan review	Public Works Department, Conservation & Planning Board	Limiting storm water run-off.	All proposed construction projects will have to be reviewed and signed off on by the Public Works Department and by the Project Review Committee (PRC), which includes among others the Planning Board and the Conservation Commission.	The Public Works Department and PRC will continue to review all proposed plans for new/re-development in the town.
3D Revised	Site inspection	Public Works Department Public Works Department/Town Boards.	Compliance with newly adopted ordinance.	Site inspections performed by the Public Works Department and by the PRC.	The Public Works Department and the PRC will continue to perform site inspections for new/re-development in the town.

### 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1E	Develop structural / non structural BMP's	Public Works Department	Reduce pollutants.	<p>Two non-BMP style CBs were replaced with new deep sump CBs, and another is planned for the coming months.</p> <p>The DPW changed their de-icing product from road salt (sodium chloride) and sand to a proprietary product "Ice Ban 50/50" and sand during Permit Year 5. Ice Ban 50/50 is a mixture of 50% of magnesium chloride and a proprietary blend of brewer's condensed solubles – a by-product of the domestic brewing industry.</p>	<p>The Town is in the process of constructing rain barrels for residents to use. The hope is to provide the rain barrels at no (or minimal) cost to residents.</p> <p>The Public Works Department will continue to promote the use of infiltration BMPs for new/re-development, and require that all new/replaced CBs have deep sumps. The Conservation Commission mandates that all roof runoff be infiltrated for new projects.</p> <p>Continue the use of Ice Ban as the primary road de-icer.</p> <p>The Public Works/Highway Department has \$8,000 in their upcoming budget dedicated to replacing older non-BMP style CBs with new deep sump CBs. The work is now planned to be performed in-house, by the DPW, to reduce costs.</p>
Revised					

2E Revised	Ordinance governing post construction	Public Works Department / Town Boards	Reduce pollutants.	The town has reviewed and amended their existing regulations to include provisions for post-construction stormwater management in new and redevelopment projects.	The appropriate Town committee will use and enforce their regulation revisions covering post-construction stormwater management in new and redevelopment projects.
3E Revised	Ensure long-term maintenance	Public Works Department / Private	Assure long-term maintenance.	Continued aggressive maintenance plan for the town owned BMPs with annual inspections by the Public Works/Highway Department.  Issued 5 permits to trap beavers that were restricting flow of rivers/streams and disrupting stormwater flows.	Continued aggressive maintenance plan for the town owned BMPs with annual inspections  4 (with a possible 6) beaver trapping permits will be issued for the upcoming Permit Year to prevent damming of rivers/streams, restricting their paths and disrupting stormwater flows.
4E Revised	Determine appropriate BMP	Public Works Department / Public Works Department/Town Boards.	Improve clarity/reduce sediment.	All proposed new/re-development project plans will have to be reviewed by Public Works Department and by the PRC for appropriate BMPs.  The Conservation Commission mandates that all roof runoff be infiltrated for new projects.  All new/replaced CBs are required to be installed with deep sumps.	Public Works Department and the PRC will continue to review all plans for new/re-development to ensure appropriate BMPs are being implemented.
				Appropriate BMPs are recommended for use whenever feasible.	



## 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1F Revised	Operation / maintenance program	Public Works Department	Sweep all streets and clean all catch basins.	Swept 100% of town's roads (approx. 33 miles) and cleaned and inspected approximately 615 CBs.	The Town has already performed their yearly street sweeping and cleaned and inspected all of their CBs.
2F Revised	Employee training	Public Works Department	Conduct catch basin survey for integrity/dry weather flows.	Continued training employees on all outfall locations, proper inspection techniques of outfalls and CBs, and proper actions needed for chemical spills into the stormdrain system.	Continue the training of all public works employees on outfall and CB inspections, and on proper chemical spill actions.
3F Revised	Determine appropriate BMP	Public Works Department  Public Works Department/Town Boards.	Installed deep sump catch basins w/ infiltration trenches for new cemetery and Pleasant St. sidewalk & roadwork.	Two non-BMP style CBs were replaced with new deep sump CBs, and another is planned for the coming months.  All proposed new/re-development plans have to be reviewed the Public Works Department and the PRC.  All new/replaced CBs are required to be installed with deep sumps.  Appropriate BMPs are recommended for use, whenever feasible.	The Public Works Department and the PRC will continue to review all plans for new/re-development to ensure appropriate BMPs are being implemented.  Grass swales are planned for installation along the West Wenham Playgrounds.  A proposed private development (7 s/f homes) which will include a Town accepted roadway will have two infiltrators connected into the drainage system for the street.  The Public Works/Highway Department has \$8,000 in their upcoming budget dedicated to replacing older non-BMP style CBs with new deep sump CBs. The work is now planned to be performed in-house, by the DPW, to reduce costs.

4F	Public involvement	Public Works Department / Health Department	Household hazardous waste collection / public participation.	A community cleanup of Pleasant Pond took place in June 2009.	Pleasant Pond community cleanup days are scheduled annually the second weekend of June.  A household hazardous waste drop off day for residents is currently scheduled for October 2, 2010.  Additional community cleanup days for the Miles River are being discussed.
Revised					

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) << if applicable >>**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1G	Vegetation swales	Public Works Department	Reduce pollutants.	Continued to monitor opportunities to use vegetation swales on new/re-development projects and use on existing drainage facilities.	The Public Works Department along with the PRC will continue to monitor opportunities for use of vegetation swales.  Grass swales are planned for installation along the West Wenham Playgrounds.  A proposed private development (2 s/f homes) off Grapevine Road will include a detention pond with a vegetated water quality swale.
Revised					

2G Revised	Infiltration drain fields	Public Works Department	Reduce runoff.	Continued to monitor opportunities to use infiltration drain fields on new/re-development projects and use on existing drainage facilities.  Continued to and require all new development in Town to infiltrate roof runoff on-site.	The Public Works Department along with the PRC will continue to monitor opportunities for use of infiltration drain fields.  The Conservation Commission mandates that all roof runoff be infiltrated for new projects.  A proposed private development (7 s/f homes) which will include a Town accepted roadway will have two infiltrators connected into the drainage system for the street.
3G Revised	Dry wells	Public Works Department / Planning Board	Reduce runoff.	Continued to and require all new development in Town to infiltrate roof runoff on-site.	The Conservation Commission mandates that all roof runoff be infiltrated for new projects.  The Public Works Department and the PRC will continue to monitor opportunities for drywell use.
4G Revised	Deep sumps / hooded catch basins	Public Works Department / Planning Board	Reduce sediment / pollutants.	Two non-BMP style CBs were replaced with new deep sump CBs, and another is planned for the coming months.	The Public Works/Highway Department has \$8,000 in their upcoming budget dedicated to replacing older non-BMP style CBs with new deep sump CBs. The work is now planned to be performed in-house, by the DPW, to reduce costs  Continue to monitor and enforce that all new/re-installed CBs have deep sumps.

**7b. WLA Assessment**

Not applicable – Draft Pathogen TMDLs have been prepared for the Ipswich River Watershed and North Coastal Watershed but have not yet been approved by the EPA.