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Municipality/Organization: Town of Walpole, MA

EPA NPDES Permit Number: MAR041167

MADEP Transmittal Number: W- 040969

Annual Report Number & Reporting Period: No. 7

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

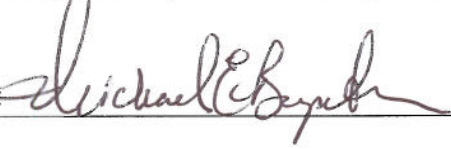
### Part I. General Information

Contact Person: Ms. Landis Hershey, Conservation Agent (508) 660-7253  
Maggie Walker, Town Engineer 508 660-7211

Telephone \_\_\_\_\_ Email: lhershey@walpole-ma.gov

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 

Printed Name: Michael Boynton

Title: Town Administrator

Date: April 28, 2010

## **Part II. Self-Assessment**

The Town of Walpole has completed the required self-assessment of the annual compliance review for the Phase II Stormwater Program. In accordance with the NPDES Phase II Stormwater requirements, the following topics were evaluated for the completion of the Annual Report:

1. Compliance with the Phase II Permit Conditions
2. Appropriateness of the Selected BMPs
3. Progress Towards Achieving the Program's Measurable Goals
4. Results of Any Information that has been Collected and Analyzed
5. Activities for the Next Reporting Cycle
6. Changes in Identified BMPs or Measurable Goals

The Town has determined that our municipality is in compliance with all permit conditions.

**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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
1A Revised	Develop Stormwater Section of Town Website	IT Department, and <u>Conservation</u>	Number of hits annually cannot be measured separately because software/IT is not set up for this action.	Continue to up-date website with current information.	Continue to up-date website with current information.
1B Revised	Distribute Brochures and Fact Sheets to Businesses and Residents	Conservation Commission, and Board of Health	Copies of <u>Materials</u> Goals met as <u>finances allowed for</u> copies.	Conservation Agent has created a Public Outreach Bulletin Board within Town hall for pertinent notices and information.	<b>Comply with new permit when issued</b> Continue to update residents and businesses as need be.
1C Revised	Publish Articles on Stormwater Protection in Local Newspaper	Conservation	Clippings of articles and advertisements printed from the local newspaper. Copy of video production	Stormwater related articles published in local newspaper	Continue outreach through media.

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7	Planned Activities – Permit year 8
2A Revised	Establish a Stormwater Telephone Hotline	Conservation Commission and Town Administration	Record number of telephone calls to hotline.	Hotline has been established. ConCom Department receives calls in their office.	Con Com Department takes calls. Availability of this number and service is published.
2B Revised	Conduct River, Stream, and Pond Cleanups	Pond Management Committee	Cleaner streams as documented by before and after photographs.	Members of the Conservation Commission and Pond Committee work with local volunteers on clean up days.  Tags purchased for catch basins to inform public regarding illicit discharges.	Continue to work with community groups.
2C Revised	Prepare Press Release	Board of Health, Sewer and Conservation Department,	Copies of press articles.	Continue educational articles in local paper.	Continue on-going educational articles

### 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 – Permit Year 8
3A	Develop Town Storm Drain Outfall Map	Engineering Department, Department of Public Works, Sewer and Water Department, and Consultant	All outfalls mapped by first year. Copy of storm drain map.	Town storm drain completed in a GIS format with the assistance of a consultant during Year 1.	Update and revise map as needed based on new development or differences observed in the field.  New developments and infrastructure added as they come in.
Revised					
3B	Develop Illicit Discharge Prohibition Bylaw	Conservation Commission, Planning Board, Board of Health, Sewer and Water Department, and Consultant	Obtain authorization to control inputs to the municipal drainage system. Bylaw at Town meeting by end of year 4. <u>Illicite Discharge Bylaw was approved at Town meeting Fall 2006</u>	Bylaw passed Town meeting and Approved by Attorney General Fall 2006.	Continue to enforce Bylaw.
Revised					
3C	Develop Illicit Discharge Detection and Elimination Plan and Implement Activities	Engineering Department, Board of Health, Sewer and Water Department, and Consultant <u>Town Administrator</u>	All outfalls examined by year 2. Sources traced and conclusion documented within one year of discovery.	Examination of 90% of the outfalls has been completed during year 1 with the assistance of a consultant. 5 of the remaining 10% were done in year 2. (22 out of 433) Samples of dry weather flows were collected and further investigation was done.	Engineering Department, Board of Health and water department work together to detect illicit discharges.
Revised					

3D	<p>Incorporate Information on Illicit Discharges into Public Education and Outreach Topics</p>	<p>Board of Health, Conservation Commission, Sewer and Water Department, and Consultant/Town Administrator.</p>	<p>Copies of materials.</p>	<p>Conservation Agent has created a Public Outreach Bulletin Board within Town hall for pertinent notices and information.</p> <p>Information on Illicit Discharge was included in Stormwater Brochure mailed with tax bill 2007.</p>	<p>Continue to up-date bulletin board.</p>
Revised					
3E	<p>Identify Department to Take Stormwater Calls</p>	<p>Conservation Commission</p>	<p>Log of complaints and actions taken.</p>	<p>Hotline has been established. ConCom Secretary receives calls in their office..</p>	<p>ConCom Secretary takes calls. Availability of this number and service is published.</p>
Revised					

#### 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 – Permit Year 8
4A Revised	Develop Stormwater Management and Erosion Control Bylaws and Regulation	Conservation Commission	Bylaw at Town meeting by end of year 4, which is Fall 2006. Adopted Bylaw	Stormwater Management and Erosion Control Bylaw was passed at Spring Town meeting 2007.	Conservation Commission will review projects for compliance with Stormwater and Erosion Control Bylaw.
4B Revised	Develop Guidance for Erosion Controls	Conservation Commission, Town Engineer.	Inspection checklist and documented inspections.	Sites are routinely inspected for compliance with Stormwater Management and Erosion control Bylaw.  Fast track permit requirements catch projects through building permits and provides guidelines for erosion control practices.	Conservation Agent will continue to review building permit applications, stormwater management and erosion control permits and wetland applications for erosion control practices.
4C Revised	Identify Department to Take Stormwater Calls	Conservation Commission	Record number of phone calls to hotline, copies of advertisement.	Calls taken and calls addresses by appropriate dept.	ConCom Secretary continues to take calls.  Availability of this number and service is published.

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### 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 – Permit Year 8
5A Revised	Develop Stormwater Management and Erosion Control Bylaw	Conservation Commission	Bylaw at Town meeting by end of year 4, which is Fall 2006. Adopted Bylaw	Completed	On-going review and monitoring for compliance with Stormwater Management Bylaw.
5B Revised	Develop BMP Design Standards	Engineering Department, and Conservation Commission	Copy of design standards.	The Conservation Commission reviews and applies the standards available through the Stormwater Management Vol. 1 and Vol 2 of DEPs Stormwater Management Standards.	Conservation Commission and the Planning Board will continue to review BMP as per DEP Stormwater Management Standards and other applicable Engineering practices.
5C Revised	Develop and Implement Inspection Program	Conservation Commission, Engineering Department, and Highway Department, and Consultant	Retain copies of maintenance reports received annually, plus records of inspections completed and results.	Zoning Bylaw revised Inspections are routinely conducted by the Conservation Agent and the Town Engineer for projects that are subject to the Walpole Wetland Protection Bylaw, Stormwater Management Bylaw, Site Plan Review and subdivision control.	Encourage green design Inspections are on-going. Need additional funds to implement complete inspection program.



## 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 – Permit Year 8
6A Revised	Clean Catch Basins	Highway Department	Clean all catch basins.	Catch basin cleaning is an ongoing operation of the Highway Department. Town owned catch basins are cleaned annually, during the Spring season.  Typically, 1/2 of basins per year are cleaned.	Catch basin cleaning operations will continue on an annual basis.
6B Revised	Sweep Streets in Town	Highway Department	Priority plan of sweeping based on water quality impact. Volume of sweepings collected	Street sweeping is an ongoing operation of the Highway Department. Town owned streets are swept annually, during the Spring season.  Quantities of sweepings collected throughout the Town have been recorded to help develop a prioritization plan.	Street sweeping operations will continue on an annual basis.  Work on prioritizing areas and refining sweeping schedule.
6C Revised	Develop and Implement an Inspection and Maintenance Plan	Engineering Department, Conservation Commission, and Highway Department and Consultant	Written schedule. Records of inspections.	Structural BMPs were identified and inspected during outfall mapping activities. Locations of structures have been noted on the storm drain map.	Additional funding required to complete this task.
6D Revised	Evaluate Municipal Facilities Throughout Town for Potential Stormwater Impacts and Implement BMPs	Highway Department and Consultant	List of Improvements. Improvements completed by end of year 5.	Evaluations of municipal facilities have been completed. A draft report identifying potential stormwater impacts and BMPs has been completed.	On-going upgrades as budget allows

6E	Identify Other Phase II Institutional Entities	Engineering Department and Consultant	List of State and Federal facilities with information on Phase II plans.	Phase II institutional entities have been identified in the Town of Walpole.  The report of Phase II institutional entities' plans was completed.	Completed. Year 2.
Revised					
6F	Ensure Water Quality Improvements are Considered for Flood Projects	Engineering Department	Records of Flood Control Projects.	Continue to ensure that any proposed projects to alleviate flooding will also consider water quality improvements as part of the plan/design.  Zoning Bylaw re-write includes review of project based on DEP Stormwater Management Standards as revised in Vol. 1 and Vol. 2.	Continue to implement requirements of the Stormwater Management and Erosion Control Bylaw, Wetlands Protection Bylaw and Act, and Zoning Bylaw that requires review of projects for water quality and flood controls.
Revised					
6G	Conduct Town Employee Stormwater Training	Consultant (Town Administrator, Highway Department, and Police and Fire Departments)	Attendance sheet and copy of program.	NOI specified to begin this BMP in Permit Year 2, however, due to reduction in staff and budgets, this goal was not completed.	Add to budget when possible.
Revised					

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

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 – Permit Year 8
7A	Estimate Pollutant Loadings to Town Waters	Engineering Department and Consultant	Add subwatershed layer to drainage base map. Complete modeling and produce a table of priority water resources.	Pollutant loadings to water bodies throughout the Town have been modeled using PCSWMM. A sub watershed data layer was created and added to the Town's GIS base map. This work was completed with the assistance of a consultant.  A table of resources was done. It is Appendix A of the Walpole Stormwater Management Master Plan.	Additional testing anticipated under new permit. Additional funds needed to fully implement program.
Revised					
7B	Categorize Drainage System	Engineering Department and Consultant	Table and map of system categorization	Town storm drain systems were categorized, with the assistance of a consultant, based on results of field investigations, existing drainage maps, and subdivision plan reviews.  Completed, and in Stormwater Management Master Plan, Appendix B	Completed year 2. Add new storm drains are needed.
Revised				Town storm drain systems experiencing hydraulic capacity issues were identified and modeled where necessary	Completed year 2.
7C	Evaluate Hydraulic Capacity in Areas of Concern	Engineering Department and Consultant	Report of system evaluation and modeling results.		

Revised							
7D	Develop Conceptual Stormwater BMPs	Engineering Department and Consultant	Report of drainage system deficiencies.	Deficiencies have been identified and are currently being ranked in order of importance.	Completed year 2.		
Revised				Completed and is part of Stormwater Management Master Plan, Appendix D.			
7E	Implement Stormwater BMPs	Engineering Department and Consultant	As-built design plans.	Clark's and Cobb's Pond projects completed 2007	Review possible utility option		
Revised				Construction of stormwater BMP for Memorial Pond has been completed. Final design plans are available through the Town's Engineering Department upon request.			
7F	Construct Structural BMPs at Stormwater Discharges to Memorial Pond	Engineering Department and Consultant	Final design plans.				
Revised							
7G	Apply for Grant Funds to Design and Install BMPs at Clarks and Cobbs Ponds	Engineering Department, Pond Management Committee, Town Administration, and Consultant	Copy of grant application and conceptual designs	Projects completed in 2007	Projects complete		

**7a. Additions**

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#### **7b. WLA Assessment**

A TMDL report has been completed for fecal coliform bacteria in the Neponset River, which included a WLA for bacteria in Stormwater runoff for all communities within the river's watershed, including Walpole. The TMDL identified several sources of bacteria including illicit discharges to storm drains, leaking sanitary sewers, failing septic systems and Stormwater runoff.

The Town of Walpole's Phase II plan includes structural and non-structural BMPs to identify and address bacteria sources in stormwater. The Town has included public education BMPs, which will provide information to residents to address numerous sources of fecal coliform bacteria. Field investigations and dry weather sampling have also been conducted to identify and eliminate bacteria and other pollutant sources at storm drain outfalls as part of the Town's Illicit Discharge Detection and Elimination program. Field investigation efforts have effectively identified elevated bacteria levels at a storm drain system discharging to the Neponset River. Details for identifying the bacteria source are discussed below.

A Sewer System Evaluation Survey was also completed for Walpole's sewer system to report on any deficiencies. The analysis included inspection of sewer pipes and manholes to identify the worst parts of the system. The goal of the study was to develop a program that the Town could follow to make necessary repairs.

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

High bacteria counts were discovered in a stormwater sample collected from a storm drain system in US Route 1, which discharges to the Neponset River in July 2003. This storm drain system is under the jurisdiction of Massachusetts Highway Department, but partially located within Walpole. The site has tied into the municipal sewer system.

Several other stormwater samples have been collected throughout the Town at storm drain outfalls experiencing dry weather flows. Lab results from these locations have been evaluated for potential indications of illicit connections. Locations where stormwater samples do indicate a potential illicit connection will receive further attention during the upcoming reporting year.

Gabions were installed at the Agriculture School to mitigate stormwater flow from animal pastures discharging to municipal waters.