

Municipality/Organization: Town of Walpole, MA

EPA NPDES Permit Number: MAR041167

MADEP Transmittal Number: W-

Annual Report Number  
& Reporting Period: No. 10

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

**Part I. General Information**

Contact Person: Landis Hershey, Conservation Agent  
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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: Michael Boynton

Title: Town Administrator

Date: 3/21/13

## **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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
1A  R	Develop Stormwater Section of Town Website	IT Department, Conservation	Number of hits annually cannot be measured separately because software/IT is not set up for this action.	Continued to up-date website with current information.	Updating town website with more information and better design
1B  Revised	Distribute Brochures and Fact Sheets to Businesses and Residents Endorsed Grant proposal with NRWA for workshops.	Conservation Commission, and NRWA	Goals met as finances allowed for copies.  Press Releases/workshops/Bylaw review	Conservation Agent has created a Public Outreach Bulletin Board within Town hall for pertinent notices and information. Waiting to hear if grant awarded.	Working with the Neponset River Watershed Association on educational materials for distribution.
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	No new articles	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 10	Planned Activities – Permit year 11
2A Revised	Establish a Stormwater Telephone Hotline	Conservation Commission and Town Administration	Record number of telephone calls to hotline.	Same as past year	Same as past year
2B Revised	Conduct River, Stream, and Pond Cleanups	Pond Management Committee	Cleaner streams as documented by before and after photographs.	Clean up of Clarks Pond water chestnuts	Clean up at Clarks Pond
2C Revised	Prepare Press Release	Board of Health, Sewer and Conservation Department,	Copies of press articles.	Articles regarding composting, hazardous waste days by Health department	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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3A Revised	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.	Same as last year. Outflow map updated as information comes to engineering dept.	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.
3B Revised	Develop Illicit Discharge Prohibition Bylaw	Conservation Commission, Planning Board, Board of Health, Sewer and Water Department, and Consultant	Illicite Discharge Bylaw was approved at Town meeting Fall 2006	Bylaw passed Town meeting and Approved by Attorney General Fall 2006.	Continue to enforce Bylaw.
3C Revised	Develop Illicit Discharge Detection and Elimination Plan and Implement Activities	Engineering Department, Board of Health, Town Administrator.	All outfalls examined by year 2. Sources traced and conclusion documented within one year of discovery.	Potential problems are investigated and addresses as needed.	Engineering Department, Board of Health and water department work together to detect illicit discharges.
3D	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	Board of Health, Conservation Commission, Town Administrator.	Copies of materials.	Revised	Continue to up-date bulletin board.
3E Revised	Identify Department to Take Stormwater Calls	Conservation Commission	Log of complaints and actions taken.	Same as last year	Same as last year

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
4A Revised	Develop Stormwater Management and Erosion Control Bylaws and Regulation.	Conservation Commission	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.	Same as last year	Same as last year

### 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
5A Revised	Develop Stormwater Management and Erosion Control Bylaw	Conservation Commission	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.	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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6A Revised	Clean Catch Basins	Highway Department	Clean all catch basins.	On-going program same as last years	On-going program same as last years
6B Revised	Sweep Streets in Town	Highway Department	Priority plan of sweeping based on water quality impact. Volume of sweepings collected.	On-going program same as last years	On-going same as last yaers
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 Revised	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.



6F	Revised	Ensure Water Quality Improvements are Considered for Flood Projects	Engineering Department	Records of Flood Control Projects.	<p>Continue to ensure that any proposed projects to alleviate flooding will also consider water quality improvements as part of the plan/design.</p> <p>Zoning Bylaw re-write includes review of project based on DEP Stormwater Management Standards as revised in Vol. 1 and Vol. 2.</p> <p>NOI specified to begin this BMP in Permit Year 2, however, due to reduction in staff and budgets, this goal was not completed.</p>	<p>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.</p>
6G	Revised	Conduct Town Employee Stormwater Training	Consultant (Town Administrator, Highway Department, and Police and Fire Departments)	Attendance sheet and copy of program.	<p>Working with Neponset River Watershed Association on training session for stormwater maps</p>	

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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					
7C	Evaluate Hydraulic Capacity in Areas of Concern	Engineering Department and Consultant	Report of system evaluation and modeling results.	Town storm drain systems experiencing hydraulic capacity issues were identified and modeled where necessary	Completed year 2.

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.	Partnered with Neponset River Watershed Alliance on Three Town BMP Development Project 2009-12	Continue to work with Neponset Watershed on BMP grant.	
Revised						
7F	Construct Structural BMPs at Stormwater Discharges to Memorial Pond	Engineering Department and Consultant	Final design plans.	Construction of stormwater BMP for Memorial Pond has been completed. Final design plans are available through the Town's Engineering Department upon request.		
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**

No new information has been collected this year.

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

**Programmatic**

Stormwater management position created/staffed		Existing staff manages program
Annual program budget/expenditures		Capital Budget Funds requested for FY12

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	?	
Stormwater management committee established	No	
Stream teams established or supported	supported	
Shoreline clean-up participation or quantity of shoreline miles cleaned	supported	
Household Hazardous Waste Collection Days		
▪ days sponsored	#	2 (**See note)
▪ community participation	(%)	6%
▪ material collected	(tons or gal)	See note
School curricula implemented	No	
<i>A six town consortium is used to provide residents with additional hazardous waste days. Residents can participate during hazardous waste days at any participating town.</i>		
<i>*The Health Department conducts Household Hazardous waste days two times a year in May and October</i>		

**Legal/Regulatory**

	In Place Prior to Phase II	Under Review	Drafted	Adopted
<b>Regulatory Mechanism Status (indicate with "X")</b>				
▪ Illicit Discharge Detection & Elimination				Fall 2006
▪ Erosion & Sediment Control				Spr 07
▪ Post-Development Stormwater Management				Spr. 07
<b>Accompanying Regulation Status (indicate with "X")</b>				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control			X	Nov 07
▪ Post-Development Stormwater Management			X	Nov 07

**Mapping and Illicit Discharges**

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	433
System-Wide mapping complete	(%)	100%
Mapping method(s)		

▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(%)	95%
Illicit discharges identified	(#)	2
Illicit connections removed	(#)	0
<b>Town is working with a consultant to identify and eliminate illicit connections.</b>	(est. gpd)	
% of population on sewer	(%)	70%
% of population on septic systems	(%)	30%

**Construction**

Number of construction starts (>1-acre)	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed <b>2-3 per week</b>	(# or %)	2-3 per week
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	10

**Post-Development Stormwater Management**

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed <b>Inspections ongoing as sites progress.</b>	(# or %)	0
Estimated volume of stormwater recharged Sites comply with DEP Stormwater guidelines	(gpy)	

**Operations and Maintenance**

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	½ CBs/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	2
Total number of structures cleaned	(#)	2400/yr
Storm drain cleaned	(LF or mi.)	1,200 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	60 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		<i>Off site disposal at an approved facility</i>
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2-3/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	60-70 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	See note
<i>Street sweepings were disposed at the landfill up to last year. Starting in Permit Year 2, street sweepings will be disposed off site at an approved facility.</i>		
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	1
Vacuum street sweepers specified in contracts	(y/n)	Yes

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	



*Pesticides are applied only when necessary. Six Town employees are licensed to apply pesticides (one commercial licensed) and two arborists. Town continually tries alternatives to reduce the use of chemicals. A written pesticide application policy is in place for the DPW Department throughout the Town. Schools use an IPM plan to reduce the use of pesticide.*

Anti-/De-Icing products and ratios	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	CaCl <sub>2</sub> applied by spray or sand/salt conveyor.
80:20 sand/salt mixture typically used. Straight salt used as needed.		
Pre-wetting techniques utilized	(y/n)	no
Manual control spreaders used	(y/n)	yes
Automatic or Zero-velocity spreaders used <i>Adjusts to track speed and roadway characteristics.</i>	(y/n)	
Estimated net reduction in typical year salt application <i>DPW Department conforms to the existing salt reduced routes.</i>	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	yes
Storage shed(s) in design or under construction	(y/n)	N/A