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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. 9 March 2011-March 2012**

NPDES PII Small MS4 General Permit Annual Report

Due May 1, 2012

Part I. General Information

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

Telephone (508) 660-7253

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 3, 2012

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
1A	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.	On-going updates as necessary	Continue to up-date website with current information.
Revised					
1B	Distribute Brochures and Fact Sheets to Businesses and Residents	Conservation Commission, and Board of Health	Copies of MaterialsGoals met as <u>finances allowed for copies.</u>	Conservation Agent has created a Public outreach board maintained	Develop additional educational materials to be distributed to Businesses and residents.
Revised	Endorsed Grant proposal with NRWA for workshops.	Health NRWA	Press Releases/workshops/Bylaw review	Participated in NRWA workshop	
1C	Publish Articles on Stormwater Protection in Local Newspaper	Conservation	Clippings of articles and advertisements printed from the <u>local newspaper.</u> Copy of video production	No further action taken.	Continue to work with local media on stormwater issues.
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9	Planned Activities – Permit year 10
2A Revised	Establish a Stormwater Telephone Hotline	Conservation Commission and Town Administration	Record number of telephone calls to hotline.	Continue to post hotline and take calls	Continue to post hotline and take calls
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 for Spring Brook..	Continue to work with community groups and Town employees.
2C Revised	Prepare Press Release	Board of Health, Sewer and Conservation Department,	Copies of press articles.	Articles regarding composting, water conservation and hazardous waste days are available from Health department	Continue to work with the Health Department.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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.	Town storm drain completed in a GIS format with the assistance of a consultant during Year 1. New out flow systems added as developed in 2011	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. Develop plan to do additional mapping as required by permit.
3B Revised	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.
3C Revised	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.	Illicit discharges are investigated by Water and Sewer and Engineering Department when suspected.	Illicit Discharge detection will continue with various departments.

3D	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	Board of Health, Conservation Commission, Sewer and Water Department, and Consultant Town Administrator.	Copies of materials.	Continued public outreach with bulletin Board, website and information at various departments.	Continue to up-date bulletin board, website and departments.
Revised					
3E	Identify Department to Take Stormwater Calls	Conservation Commission	Log of complaints and actions taken.	Hotline has been established. ConCom Secretary receives calls in their office..	ConCom Secretary takes calls. Availability of this number and service is published.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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	Review applications for Building permits for compliance with Bylaw	Continue to review building permits for compliance with Bylaw and NPDES construction permit requirements.
4B Revised	Develop Guidance for Erosion Controls	Conservation Commission, Town Engineer.	Inspection checklist and documented inspections.	Continued same activities as past year.	Continued same activities as past year. Continue monitoring new methods.
4C Revised	Identify Department to Take Stormwater Calls	Conservation Commission	Record number of phone calls to hotline, copies of advertisement	Continued same as past year	Continue same as past 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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
6A Revised	Clean Catch Basins	Highway Department	Clean all catch basins.	Same catch basin cleaning as past years.	Continue catch basin cleaning program
6B Revised	Sweep Streets in Town	Highway Department	Priority plan of sweeping based on water quality impact. Volume of sweepings collected.	Continued street cleaning town program	Street sweeping operations will Continue street sweeping program. Require street sweeping through local permits.
6C Revised	Develop and Implement an Inspection and Maintenance Plan	Engineering Department, Conservation Commission, and Highway Department and Consultant	Written schedule. Records of inspections.	Started data base of existing basins and stormwater structures, location, owners and Operation and Maintenance plans.	Develop method to enforce requirements through Order of Conditions and subdivision decisions for private owners to clean existing stormwater structures and implement O and M's
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.	No further activities since year 5.	
6E Revised	Identify Other Phase II Institutional Entities	Engineering Department and Consultant	List of State and Federal facilities with information on Phase II plans.	No further activities since year 2	Completed. Year 2.

6F	Revised	Ensure Water Quality Improvements are Considered for Flood Projects	Engineering Department	Records of Flood Control Projects.		
6G	Revised	Conduct Town Employee Stormwater Training	Consultant (Town Administrator, Highway Department, and Police and Fire Departments)	Attendance sheet and copy of program.	Members of Engineering and Conservation have attended workshops.	Develop expanded employee training program.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
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.	No further activities this year	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	No further activities this year	
Revised					
7C	Evaluate Hydraulic Capacity in Areas of Concern	Engineering Department and Consultant	Report of system evaluation and modeling results.	No further activities this year	
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 and is part of Stormwater Management Master Plan, Appendix D.	Adjust BMP's as necessary
Revised					
7E	Implement Stormwater BMPs	Engineering Department and Consultant	As-built design plans.	No further activities this year	Continue to implement BMPs as allowable.
Revised					

7F	Construct Structural BMPs at Stormwater Discharges to Memorial Pond	Engineering Department and Consultant	Final design plans.	Installed aeration fountain	
	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	Installed aeration fountain in Clarks Pond.	

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 2012.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	Existing staff manages program	Capital Budget Funds requested for FY12
Stormwater management position created/staffed		60,000
Annual program budget/expenditures		

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		
<ul style="list-style-type: none"> ▪ days sponsored 	#	2 (** See note)
<ul style="list-style-type: none"> ▪ community participation 	(%)	6%

<ul style="list-style-type: none"> ▪ material collected 	(tons or gal)	See note
School curricula implemented	No	
<p><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></p> <p><i>*The Health Department conducts Household Hazardous Waste days two times a year in May and October</i></p>		

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Under Review	Drafted	Adopted
<ul style="list-style-type: none"> ▪ Illicit Discharge Detection & Elimination 				Fall 2006
<ul style="list-style-type: none"> ▪ Erosion & Sediment Control 				Spr 07
<ul style="list-style-type: none"> ▪ Post-Development Stormwater Management 				Spr. 07
Accompanying Regulation Status (indicate with "X")				
<ul style="list-style-type: none"> ▪ Illicit Discharge Detection & Elimination 				
<ul style="list-style-type: none"> ▪ Erosion & Sediment Control 			X	Nov 07
<ul style="list-style-type: none"> ▪ 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)		
<ul style="list-style-type: none"> ▪ Paper/Mylar 	(%)	
<ul style="list-style-type: none"> ▪ CADD 	(%)	
<ul style="list-style-type: none"> ▪ GIS 	(%)	100%

Outfalls inspected/screened	(%)	95%
Illicit discharges identified	(#)	2
Illicit connections removed	(#)	0
<i>Town is working with a consultant to identify and eliminate illicit connections.</i>	(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 <i>2-3 per week</i>	(# 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 <i>Inspections ongoing as sites progress.</i>	(# 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)	1/2 CBs/yr
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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)		
<ul style="list-style-type: none"> ▪ Fertilizers ▪ Herbicides ▪ Pesticides 	(lbs. or %)	
	(lbs. or %)	
	(lbs. or %)	
<p><i>Pesticides are applied only when necessary. Six Town employees are licensed to apply pesticides (one commercial licensed) and two arborists.</i></p> <p><i>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.</i></p>		

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