

Municipality/Organization: Town of Mashpee

EPA NPDES Permit Number: MAR041129

MassDEP Transmittal Number: W-035197

Annual Report Number

& Reporting Period: April 1, 2006 – March 31, 2007

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Catherine Laurent

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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: Joyce M. Mason

Title: Town Manager

Date:

Part II. Self-Assessment

The Town of Mashpee has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

- | | |
|----------------|---|
| Part 1.B.2.(k) | The Town applied for a Coastal Zone Management grant during the FY07 funding round for a stormwater mitigation assessment of Popponesset Bay. The grant was not selected for funding. The Town has not made any other progress yet toward implementing a water monitoring program so any discharges have not been conclusively determined to be contributing to exceedance of water quality standards. Until such a program is developed and implemented, the Town will continue to eliminate direct discharge from roadways, with those roadways targeted where discharge is to a surface water. |
| Part 1.B.2.(l) | See above. |
| Part 1.C. | See above. |
| Part 1.D. | See above. |

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
PE1	Zone II Information	Public Works; Water District	Distribute information annually on protection of drinking water	Complete brochure for distribution to water users.	Distribute brochure either with water bill or through separate mailing..
Revised					
PE2	Storm Water Information	Public Works; County; Private Homeowners Associations	Develop and distribute information annually on impacts of storm water on water bodies and groundwater	Met with other Phase II coordinators on Cape Cod in regional group for public education. Worked with Mashpee Environmental Coalition (MEC) on distributing storm water information through their quarterly newsletter.	Continue to work with regional group and MEC. Work with Homeowner Associations adjacent to surface waters to include information in Association newsletters. Work with local media for broadcast of information on local cable access channel or publishing in local newspaper.
Revised					
PE3	Storm Drain Stenciling	Public Works	Stencil drains in target areas	None to date. No longer offered through County.	No action proposed.
PP4	Storm Water School Program	Public Works; School Dept; County	Develop program for presentation to Grades 3-5	None to date.	Work with School Department to schedule program for school-wide assembly. Use Cape Cod Water Guardian Team Water Festival as example.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
PP1	Community Cleanups	Public Works	Continue to organize annual cleanups of Town properties	Conducted clean ups of several Town properties (Noisy Hole Road, Mashpee Wildlife Refuge)	Continue conducting and working with others on clean ups.
Revised				Worked with Conservation Department and Cape Cod Jeep Club on clean up in northern portion of Mashpee Wildlife Refuge	
PP2	Reciprocal HHP Collections	Public Works	Continue to provide HHP collections	Held and funded with towns of Sandwich, Falmouth, and Bourne four collections of HHP from residents. Residents able to participate at no direct cost. Ten percent (10%) of Mashpee households participated.	Continue collections. Work to increase participation through increased publicity.
Revised					
PP3	Permanent HHP Collections	Public Works	Continue to provide permanent collection of certain products at Transfer Station	Collected used oil (2,420 gallons), spent antifreeze (110 gallons), CRTs (57 tons), car batteries (433 total), rechargeable batteries (5 boxes), and mercury products (including over 7,400 LF of bulbs and 2.9 pounds of recovered mercury) from residents.	Continue collection.
Revised					
PP4	Pooper Scoopers	Animal Control	Expand provision of “pooper scoopers” on Town properties beginning in '03	Maintained existing pooper scoopers.	Identify other areas for provision of pooper scoopers and install.
PP5	Fertilizer/Pesticide Use	Public Works; Health	Develop and distribute information on effects of fertilizer and pesticides use on water	Switched to use of organic fertilizers on certain Town properties. Applied for and received for DEP grant for “Healthy Lawns and Landscapes” workshop.	Hold “Healthy Lawns and Landscapes” workshop. Televisе and tape for future use. Work with Health Dept on brochure.
Revised					
PP6	Regulatory Board Education	Public Works; County	Develop educational program for regulatory boards/commissions	Reviewed examples of resource guide from other communities with regional stormwater group	Continue work with regional group. Develop guide and presentation.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
IDD1	Outfall Identification	Public Works; GIS	Map drainage and outfall locations	GIS layer created.	Update data layer as necessary.
Revised				NOTE: Town of Mashpee does not have a piped storm water system.	
IDD2	Prohibition of Illicit Discharge	Public Works	Amend General Bylaw to explicitly prohibit illicit discharge	None to date.	Develop amendment for Town Meeting to prohibit discharge of other substances as well as prohibition against dumping into road drainage systems.
Revised					
IDD3	Reduction of Direct Discharge	Public Works	Install drainage system to eliminate direct discharge	Installed drainage structures during road reconstruction to eliminate direct discharge of street storm water runoff	Continue to install drainage during planned road construction projects.
Revised					
IDD4	Water Monitoring Program	Public Works; Shellfish	Develop volunteer monitoring program to test and identify pollutants and determine potential sources in '06 and '07	None to date. The Shellfish Department continued limited testing of shellfish areas. NOTE: The Town does not have a laboratory facility.	Collect information on similar programs in other towns. Work with Mashpee Environmental Coalition and the Mashpee High School on developing a pilot program.
IDD5	Identification of Illicit Discharge	Public Works; Conservation	Identify illicit discharges, contact responsible party, and work to eliminate	Outfalls mapped (IDD1)	Monitor outfalls for illicit discharge.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
CSR1	Review and Amendment of Existing Regulations	Public Works; Planning; Conservation	Review regulations for existing controls and amend as necessary	Erosion and Sedimentation Control Bylaw in effect (approved at Fall 2005 STM).	Work with Conservation Agent and Planner to amend Subdivision regulations and Wetlands regulations.
Revised					
CSR2	Inspection Program	Public Works; Planning; Conservation; Building	Develop inspection program to ensure compliance with required controls	None to date.	Begin drafting inspection program for inclusion in applicable regulations as developed by CSR1.
Revised					

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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
PCR1	Review of Existing Regulations	Public Works; Planning; Conservation	Review regulations for existing controls and amend as necessary	See CSR1 above.	See CSR1 above.
Revised					Work with Conservation Agent and Planner to amend Subdivision regulations and Wetlands regulations.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
MGH 1	Street Sweeping	Public Works	Continue to sweep Town roads annually	Swept 70± miles of road (all Town roads) in Spring 2007 after winter sanding.	Continue sweeping program.
Revised					
MGH 2	Catch Basin Cleaning	Public Works	Continue to clean catch basins annually	Cleaned approximately 1,200 catch basins in Fall 2006 and Spring 2007 (some catch basins cleaned each time).	Continue semi-annual catch basin cleaning program.
Revised					
MGH 3	Spill Training	Public Works	Provide annual training to employees	Provided annual training to DPW employees on spill prevention and spill clean up	Continue training.
Revised					
MGH 4	Minimization of Road Salt Use	Public Works	Continue to minimize application of salt on roads and parking lots	Used 3:1 ratio of sand to salt during winter ice and snow operations.	Continue with low salt use.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
IDD3	Water Monitoring Program	Public Works; Shellfish		See #3 above	
Revised					
IDD2	Reduction of Direct Discharge	Public Works		See #3 above	
Revised					

TMDL 1	Development and Implementation of BMPs	Public Works; Shellfish	Develop BMPs to address the other sources of pollutants exceeding the TMDLs for a water body in '07	None to date.	None directly proposed. Activities for IDD4 and IDD5 will provide base of information for this BMP in future years.
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7b. WLA Assessment

A WLA has not yet been conducted.

Part IV. Summary of Information Collected and Analyzed

No information collected.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	nn
Annual program budget/expenditures **	(\$)	\$50,000
Total program expenditures since beginning of permit coverage	(\$)	\$200,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	25%
Stormwater management committee established	(y/n)	n
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	y
Shoreline cleaned since beginning of permit coverage	(mi.)	unknown

Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	20
▪ community participation **	(# or %)	10
▪ material collected **	(tons or gal)	3.6 tons (est)
School curricula implemented	(y/n)	n

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination		X			
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management		X			
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination		X			
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management		X			

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	90
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	90
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	90
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	0

Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	
Site inspections completed **	(# or %)	
Tickets/Stop work orders issued **	(# or %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2
Qty of structures cleaned **	(#)	1,200

Qty. of storm drain cleaned **	(%, LF or mi.)	na
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$12,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$8.20/basin
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	3 (contracted)
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	100
• % Structures cleaned with vector **	(%)	

	(Preferred Units)	Response
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)	1
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	BUD
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$8500
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	\$102/hr
• Disposal cost**	(\$)	na
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1 (owned) 2 (contracted)
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N

• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	50
▪ Herbicides	(lbs. or %)	50
▪ Pesticides	(lbs. or %)	na
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	25 75
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l _n mi. or %)	No change
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l _n mi. or %)	No change
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	100

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	