

Municipality/Organization: Town of Falmouth

EPA NPDES Permit Number: MAR 041114

MADEP Transmittal Number: W-035626

Annual Report Number
& Reporting Period: No. 7: May 2009-May 2010

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Peter M. McConarty

Title: Acting Town Engineer

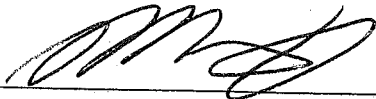
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Certification:

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 gathered and evaluated 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: Robert L. Whritenour, Jr.

Title: Town Administrator

Date:

April 29, 2010

Part II. Self-Assessment

The Engineering staff is responsible for implementing the Phase II requirements and has been moving forward with compliance.

Due to the present economy downturn, the Public Works Department (Department) has focused most of the available drainage infrastructure repair funding towards stormwater discharge quality to ensure NPDES compliance. In 2009, the Department purchased an Asset Management Software program that automates service calls, creates work orders, and has reporting capabilities. A Business Systems Analyst position has been created to manage and incorporate the software system throughout the Department. As we progress forward, a reporting system for street cleaning, and catch basin sediment removal will be developed.

The Public Works Facility was renovated in 2005-2006 and incorporated the following NPDES Phase II improvements:

- A salt shed.
- A covered storage area for sanders and snow removal equipment.
- A wash bay for all vehicles.
- Two “Elgin Pelican” 3-wheel street cleaners have been purchased. One in 2000, and another in 2004. Due to a reduction in the workforce, routine street cleaning schedule has been limited to one street sweeping crew. Street cleaning is performed in the Spring after snow removal operations, and in the Fall after the hurricane and nor’easter season.
- A catch basin cleaning truck was also purchased. A crew has been dedicated to full time basin cleaning from April – October.

The following programs have been developed and implemented in 2008-present for NPDES compliance:

1. A “*Catch Basin and Street Cleaning Program*” including:
 - A spreadsheet containing a GIS map, road lengths, number of catch basins, drop inlets, leach basins, piping, structure type, and condition.
 - Established drainage districts.
 - Overlay of drainage structures on town assessor maps.
 - Up-to-date maintenance, cleaning and sweeping schedule.
 - Amount of debris removed.

This spreadsheet monitoring will be continued until a reporting system is established within the asset management software program.

2. Full-time personnel dedicated to the catch basin cleaning truck.

Street cleaning is performed in the Spring after snow removal operations, maintenance during the summer months and in the Fall after the hurricane and nor'easter season. The Town currently owns two Elgin Pelican street cleaners.

3. The Town "Driveway Permit" forms have been modified to include NPDES stormwater requirements. The modified "Driveway Permit" includes the:
 - Submittal of a SWPPP Plan or erosion and sediment control plan for smaller sites (less than 1 acre).
 - Statement "No driveway shall be constructed directing stormwater onto roadways".
 - Bonding of permits ensuring all site work is constructed according to the driveway permit and attachments.
4. The Engineering Division currently has a list of drainage concerns. Each site is evaluated for repair (including best management practices (BMP's), water quality, and accessibility for maintenance. Work continues to correct the stormwater issues.
5. Evaluation review and update of the current "Public Outreach and Participation Program" is ongoing. A revised version is anticipated by the end of permit period #7.
6. The Mapping Program is complete. The paper maps have been incorporated into the Town wide GIS mapping and Asset Management Programs. During the Phase II permit period, the GIS personnel have located the Town maintained outlets with in-house GPS equipment. Drainage structures have been included on the Town's GIS website that can be accessed by the Public.

The Department of Public works implemented a new deicing program for the 2008-09 winter season. The Town has initiated the program to reduce the amount of sand and salt required to maintain the roads in a safe conditions. Highway personnel received training in the operation and maintenance of the equipment. The Department commissioned a study to identify potential areas where increased use of salt could create problems. The study recommended monitoring an area along Gifford Street. The Town has installed micro wells in this area and performs water sampling bi-annually.

The Town received a copy of "Massachusetts Estuaries Project –Nitrogen Loading thresholds for Great Pond, Green Pond, and Bourne Pond". This information will be used as base data for future stormwater design in those areas.

The Engineering Division has recently designed and permitted multiple projects incorporating low-impact design, such as, grass

swales, vegetated wetlands, water gardens and water quality structures. The Department has installed several water quality structures last year, with more installations planned for this construction season.

Recently, The Natural Resources Conservation Service (NRCS) initiated a grant program for Cape Cod Water Resources Restoration Projects (CCWRRP). The grant program provides technical and financial assistance for restoration of shellfish growing areas, tidally-restricted salt marshes and fish runs. The Engineering Division, working with The Falmouth Natural Resources Division, applied for four major stormwater and fish run restoration projects. These projects are currently being designed and planned for 2010-2011.

In 2009-2010, the Department performed permitted seaweed and debris removal for improved herring run spawning at Fresh River, Salt River Outlet and Trunk River Outlet.

Regulatory and housekeeping issues are under construction and review.

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
1-1 Revised	Televised Program for Falmouth Specific.	Engineering D.N.R.	Program to be aired on local station.	Program was initiated.	Program recording and showing anticipated for 2010.
1-2 Revised	Posting Of Maps	Engineering and GIS	Map prepared and displayed	Update map.	Finalize map and display revised version.
1-3 Revised	Annual Public Hearing	Admin.	Meetings held per schedule	Meeting not scheduled and held.	Annual meeting to be scheduled and held.
1-4 Revised	Educational Flyer	Admin. and DPW	Flyer prepared and distributed	Posters developed.	Flyers Distributed 2003-2005.
Revised					
Revised					

1a. Additions

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2. Public Involvement and Participation						
BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7	
2-1 Revised	Encourage participation	Admin./DPW	Maintain complaint file	Maintain a complaint report file.	Complaint report file created and maintained.	
2-2 Revised	Stormwater Committee	Selectmen/DPW	Update management program	Committee established and meetings held.	Hold meetings and update management program.	
2-3 Revised	Selectmen's Meeting Review	Selectmen Administrator	Meetings held per schedule	Meeting held and review of comments pending.	Hold meetings per schedule and review comments of meeting.	
2-4 Revised	Storm Drain Stenciling	DPW/Engineering	Documentation of catch basins stenciled	Implement installation program.	Purchase Stenciling. Implement installation program if Funding is available.	
2-5 Revised	Hazardous Waste Collection	Board Of Health	Documentation of Collection	Hazardous waste collection was conducted 4 times in conjunction with 3 bordering towns. May thru Oct	Conduct hazardous waste collection days 4 days between May and Oct In conjunction with 3 bordering towns	

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
3-1 Revised	Discharge Identification	DPW DPW/ Engineering	Production of maps	Field inventory and locate with GPS to update GIS data.	Field inventory and locate with GPS to update GIS data. Incorporate all discharges in Asset Management Software program.
3-2 Revised	Drainage Network Mapping	DPW/GIS DPW/GIS Engineering	Production of maps	Field verify and update GIS database.	Field upkeep and GIS database update.
3-3 Revised	Illicit Discharge Identification	DPW/Board Of Health	Quantify Identification	Identified illicit discharges with BMP 3-1 & 3-2.	Identified illicit discharges with BMP 3-1 & 3-2.
3-4 Revised	Illicit Discharge Enforcement	DPW/Board of Health/Planning	Quantify Identification	Finalize review of existing enforcement measures.	Review and upkeep of existing enforcement measures. Modify if necessary.
3-5 Revised	DPW Training	DPW	Meetings held	Not implemented.	Implement training and revise schedule to coincide with BMP 6-2. Trucks outfitted with spill containment and prevention equip.
3-6 Revised	Public Information on Illicit Connections	DPW/Admin.	Maintain report file	Not implemented.	Implement in conjunction with BMP 1-1.

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
4-1 Revised	Con. Com. Bylaw Review	Con. Com.	Review and/or revise bylaws	Review of bylaws and regulations.	A stormwater by-law is currently being discussed between Engineering Con. Com. And Planning for 2010-2011 implementation. See BMP 4-1.
4-2 Revised	Planning Board Regulations Review	Planning Board	Review and/or revise regulations	Review of regulations.	
4-3 Revised	Zoning Bylaw Review	Planning Board	Review and/or revise regulations.	Review of Zoning Bylaws.	See BMP 4-1.
Revised					
Revised					
Revised					
Revised					

4a. Additions

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
5-1 Revised	Con. Com Bylaw Review	Con. Com.	Review and/or revise bylaws	Initiated review of bylaws and regulations.	See BMP 4-1.
5-2 Revised	Planning Board Regulations Review	Planning Board	Review and/or revise regulations	Initiated review of regulations.	See BMP 4-1.
5-3 Revised	Zoning Bylaw Review	Planning Board	Review and/or revise regulations.	Initiated review of Zoning Bylaws.	See BMP 4-1.
Revised					
Revised					
Revised					
Revised					

5a. Additions

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
6-1 Revised	DPW Policy Guide	DPW	Preparation of Policy Guide	Not initiated.	Initiate the development of the DPW Policy Guide.
6-2 Revised	DPW Annual Training	DPW	Complete annual training	Not implemented.	Implement and revise schedule to coincide with BMP 3-5.
6-3 Revised	DPW Permit Filing	DPW	Copies of permits on file	Implemented and on-going..	Continue filing permits and adhere to DEP, and local design standards.
Revised					
Revised					
Revised					
Revised					

6a. Additions

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures	(\$)	25,000.00

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Televised 100%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y 65+- Miles.
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	4
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented – Elementary & Middle School Grades	(y/n)	Y

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Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	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

Outfall mapping complete	(%)		100
Estimated or actual number of outfalls	(#)		129
System-Wide mapping complete	(%)		90
Mapping method(s)			
▪ Paper/Mylar	(%)		100
▪ CADD	(%)		
▪ GIS	(%)		100
▪ Asset Management Software program	(%)		100
Outfalls inspected/screened	(# or %)		20
Illicit discharges identified	(#)		
Illicit connections removed	(#)		
	(est. gpd)		
% of population on sewer	(%)		3
% of population on septic systems	(%)		97

Construction

Number of construction starts (>1-acre)	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	4 ea. project
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100% By design
Site inspections completed	(# or %)	4 ea. project
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Continuous
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Continuous
Total number of structures cleaned (3,200 +/- Total), Clean approx. 60-75 month)	(#)	On-going
Storm drain cleaned (See above)	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	4 C. Y. Each
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Town Owned Gravel Pit
Cost of screenings disposal	(\$)	No Cost

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2 or as needed
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2 or as needed
Qty. of sand/debris collected by sweeping	(lbs. or tons)	20 C.Y./Day
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Gravel Pit
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	N/A
Vacuum street sweepers specified in contracts	(y/n)	N/A

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	2 lbs per Acre
▪ Herbicides	(lbs. or %)	None Used
▪ Pesticides	(lbs. or %)	Minimal Used

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	Started 2008
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y (7)
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Y Complete