



Town of Dennis
Department of Public Works
Engineering Division

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OCT 28 2009

OCT - 9 2009

October 7, 2009

U.S. Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

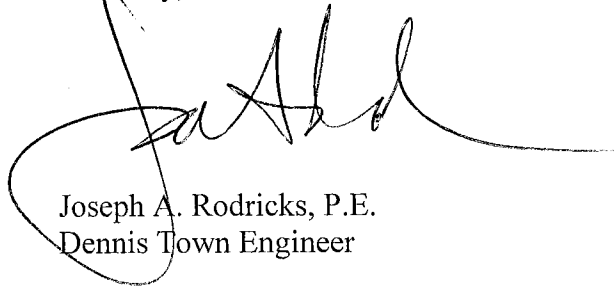
Massachusetts Dept of Environmental Protection
Division of Watershed management
627 Main Street
Worcester, MA 01608

To Whom It May Concern:

Enclosed please find a copy of the Town of Dennis Annual Report for the NPDES Phase II Small MS4 General Permit for the period of March 2008 to March 2009 signed by the appropriate signatory.

Should you have any question please call me at 508-760-6166.

Sincerely,



Joseph A. Rodricks, P.E.
Dennis Town Engineer



Municipality/Organization: Town of Dennis

EPA NPDES Permit Number: MAR041103

MADEP Transmittal Number: W- 041145

Annual Report Number

& Reporting Period:

No. 6: March 08-March 09

OCT - 9 2009

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Joseph A. Rodricks

Title: Town Engineer

Telephone #: 508-760-6145

Email: jrodricks@town.dennis.ma.us

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: Richard J. White

Title: Town Administrator

Date:

9/7/09

Part II. Self-Assessment

The Town of Dennis has completed the required self-assessment and has determined that our municipality is not currently in compliance with the 5 year permit period, a committee worked on a comprehensive stormwater management. The Town is placing an article on the October Special Town Meeting for approval of a proposed Stormwater Management Control By-law. This by-law, which will provide the Town with a comprehensive town-wide stormwater management plan, has been in development for 5 years. Originally scheduled for acceptance in 2008, negative public comments required the Board of Selectmen to refer the matter to a committee for further revisions.

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 (Reliance on non-municipal partners indicated, if any)	Planned Activities -- Permit Year
1.1 Revised	Provide literature & pamphlets	Natural Resource Officer- Brian Malone	Provide literature w/ off-road & shellfish permits	Brochures in information tree in office with the theme "Think Globally-Act Locally".	Continue to expand and update brochure selection. Purchase educational kiosks for Crowe's Pasture Conservation Area and Chapin Beach educating public and conservation management.
1.2 Revised	Provide Public awareness classes	Shellfish Officer A. Marcy	Provide Information to school children	CRABS. (Commercial Recreational Association for Better Shellfish) held 12 educational events to promote shellfish, clean herring runs, quahog seeding, oyster farming, and other educational instruction with a web site www.denniscrabs.com	Continue to expand CRAB volunteer programs and activities aimed at educating public on aqua culture and pollution of estuaries.
1.3 Revised	Provide Literature & Information	Town Engineer J. Rodricks	Provide Information booth at Chamber of Commerce Fair	Posters distributed by Cape Co Groundwater Guardian Project maintained at Dennis DPW building. Participated as active member in Barnstable County "PROJECT STORM" Department webpage has link to NPDES website and is periodically updated.	Continue to improve information on Department web page. Continue to work with other Cape communities in public outreach under the Barnstable County "Project Storm" initiative

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
2.1 Revised	Sponsor & Advertise Household Hazardous Waste Collection Days	Board of Health Terry Hayes, Health Director	Encourage proper disposal of hazardous materials	Two (2) Household Hazardous Waste Collection Days held: June 7, 2008 with 1,470 Gallons collected; Sept. 13, 2008 with 1,675 gallons collected.	Two (2) Household Hazardous Waste Collection Days to be held June 6, 2008 and September 12, 2008. Continue to do advertisements & mailings to residents and businesses that are small quantity generators
2.2 Revised	Volunteer Coast Sweep	Natural Resource Officer- Brian Malone	Annual Beach Cleaning	One day coastal sweep September, 2008 with 15 volunteers cleaned approx. 3 miles of shoreline along Cape Cod Bay in vicinity of Chapin Beach, Corporation Beach, and all of the Quivett Neck area which includes Cold Storage Beach and "Crowe's Pasture".	Repeat & expand Coastal Sweep in September 19, 2009
2.3 Revised	Pet waste management	Animal Control Officer- Cheryl Malone	Provide disposal mitts and waste receptacles at Town Beaches Create "Waste Disposal" By-law	Placed disposal mitt receptacles at Fresh Pond Dog Park, Flax Pond, Swan Pond overlook, and Chapin Beach. Install additional signs on Town Beaches relative to Dog Waste Disposal Bylaw and fine.	Propose higher fines for dog waste violations and restrictions in public places. Place additional mitt dispensers at Chapin Beach, Crowe's Pasture Conservation Area, Seaview Park and Johnny Kelly Park.
2.4 Revised	Proper Disposal of Boat Septic Storage Tanks	Harbor Master- Terrence Cien	Notify Boat Owners annually	Posted notices and flyers sent promoting pump-out facility installed at Sesuit Harbor.	Continue to promote use of Sesuit Harbor pump-out in several local magazines and direct notifications to boaters.
Revised					
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
3.1 Revised	Identify Discharge and Map Discharges	Town Engineer- Joseph Rodricks	Identify & prioritize	Continued to update Outfall map to include spillways and discharges to non-Federal waters. Placed article on May 2008 Annual Town Meeting to fund the hiring of consultant to survey and inspect the Division St. outfall pipe.	Complete GPS all outfalls and spillways and include on proposed GIS mapping system. Acquire funding at May ATM and hire consultant to survey and test Division Street outfall system.
3.2 Revised	Notify Owners of Violation eliminate using BMP	Town Engineer Joseph Rodricks	Identify & eliminate all known discharges.	The Board of Selectmen held several public meetings on the proposed by-law and determined it required reevaluation by committee and scheduled approval for Fall 2009 Fall town meeting.	Board of Selectmen review final draft and place By-law on 2009 Fall Special Town Meeting.
3.3 Revised	Enforcement Agency	Police Chief Michael Whalen	Enforcement of State Illegal Disposal Law	No action taken during this period.	Add literature and information on illegal activities to Department web site.
Revised	Illicit Discharge/hazardous Spill investigation	Terry Hayes, Health Director	Identify and investigate	Identified and investigated four (4) hazardous spills and illegal discharges. None involved spillage into federal waters.	Continue to monitor for illicit discharge/hazardous spills.
Revised					
Revised					
Revised					

3a. Additions

4. Construction Site Storm Water Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
4.1	Propose By-law	Dennis Board of Selectmen-	Storm water & erosion control Standards & Enforcement	The Board of Selectmen held several public meetings on the proposed by-law and determined it required reevaluation by committee and scheduled approval for Fall 2009 Fall town meeting	Board of Selectmen review final draft and place By-law on 2009 Fall Special Town Meeting.
Revised	<i>Storm water management By-Law</i>	Chair Paul McCormick			
4.2	Order of Conditions	Conservation Commission-Donald Waldo Chairman	Eliminate Runoff & erosion during construction.	Issued Orders of Conditions for construction projects with no discharge allowed.	Continue to monitor projects for and the elimination of storm water runoff.
Revised					
4.3	Subdivision Rules & Regulations	Planning Board W. Murray, Chair	Eliminate runoff & erosion during construction.	Monitored all subdivision plans for possible storm water runoff.	Continue to monitor projects for and the elimination of storm water runoff
Revised					
Revised					
Revised					
Revised					

4a. Additions

4.3	Estuary study	Dennis Comprehensive Wastewater Management Task Force.	Evaluate Swan River, Swan Pond, Sesuit Creek and Chase Garden Creek and establish Total Maximum Daily Limit for nitrogen loading	Conducted water sampling using Water Quality Committee volunteers under the direction of the Board of Health Agent until DEP/SMASST study complete.
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5. Post-Construction Storm Water Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
5.1	Propose By-Law	Board of Selectmen-	Storm water & Erosion Control Standards & enforcement	The Board of Selectmen held several public meetings on the proposed by-law and determined it required reevaluation by committee and scheduled approval for Fall 2009 Fall town meeting	Board of Selectmen review final draft and place By-law on 2009 Fall Special Town Meeting.
Revised		Chair Paul McCormick			
Revised					
Revised					
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 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
6.1 Revised	Street sweeping/ basin cleaning/ roadside mowing	DDPW Superintendent- D. Johansen	Maintenance of Drainage	Continued to evaluate and prioritize basins to be cleaned targeting areas of greatest potential impact of estuaries.	Continue to evaluate and prioritize basins to be cleaned targeting areas of greatest potential impact of estuaries. Seek funding to increase number of basins cleaned.
6.2 Revised	Existing enclosed salt storage.	DPW Superintendent D. Johansen	Exposure reduction	Maintain Stormwater BMP for the Bass River/Kelly's Bay/Follin's Pond area	Continue to maintain all Stormwater BMPs for the Bass River/Kelly's Bay/Follins Pond area
6.3 Revised	Regular vehicle maintenance	DPW Superintendent- D. Johansen	Exposure reduction	Maintain existing enclosed operations.	Continue to maintain existing enclosed operations.
6.4 Revised	Existing enclosed vehicle storage & wash bay. <i>Schedule weekly vehicle cleaning & assessment.</i>	DPW Superintendent- D. Johansen	Exposure reduction	Regular vehicle maintenance instituted	Continue to refine and update maintenance programs. Implement "Equipment Tracker" operations program.
6.5 Revised	Invite NEIWPCC to speak <i>Employees education</i>	DPW Superintendent- D. Johansen	Exposure reduction	Maintain existing enclosed operations.	Continue to maintain existing enclosed operations.
	Tidal stream cleanup.	Shellfish Officer A. Marcy	Pollutant removal	Enroll employees into seminars and demonstrations promoted by Bay State Roads and other organizations as they are scheduled.	Continue to enroll employees into seminars and demonstrations promoted by Bay State Roads and other organizations as they are scheduled.
				Worked with the "Cape Cod Salties" volunteers to clean up the Bound Brook herring run. Worked with CRABS	Repeat and expand cleanup to other locations.

[illegible]

6a. Additions

0a. 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 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
7.1 Revised	Installation of leaching drainage systems	DDPW Superintendent D. Johansen	Exposure reduction	Completed installation of several BMPs on Division and Hall Streets. Awarded contract for Highbank Rd bridge repair and stormwater mitigation. Design & Permitting for installation of BMP on Lower County Rd at Seaview Park.	Install remediation measures on, Highbank Rd Bridge, Lower County Rd at Seaview Park, Peter Oliver Road & Trotting Park Road..
7.2 Revised	Water quality sampling	Natural Resources- Brian Malone- Dept Head	Ensure water quality	Samples taken in Scargo Lake, Hiram Pond, Coles Pond and Fresh Pond.	Continue and refine sampling program.
7.3 Revised	Use compost material to stabilize shoulders	DPW Superintendent- D. Johansen	Erosion control	Area along Old Wharf Road in vicinity of Glendon Beach regraded and vegetated with beach grass.	Continue and improve slope stabilization where necessary including Seaview Park/Lower County Road area.
7.4 Revised	Coastal Pollutant Remediation Program	Town Engineer J. Rodricks	Exposure Reduction and/or elimination	Town applied for a Non-Point Source Pollution mitigation grant for the remediation of the Route 28 outfall pipe into Bass River. No award made.	Develop pollution mitigation measures for Country Circle drainage system and Division Street drainage system.
7.5 Revised	Weekly Water Sampling of Beaches <i>Water sampling o beaches during summer weeks.</i>	Town Health Director Terry Hayes	Ensure water quality	Weekly sampling of 20 beaches June thru August weekly Additional tests taken on days of 1" or greater rainfall. During summer of 2007 there were 7 beaches closed for one day each.	Repeat testing program.
7.6 Revised	Salt Marsh Restoration program	Natural resource Dept. Brian Malone, Dept. Head.	Increase tidal flushing and improve fish and wildlife habitat.	Assessed possible salt marsh areas that require restoration.	Develop priority list of restorable areas and pursue funding for same.

7a. Additions

7.7	Installation of Porous Pavement	Town Engineer J. Rodricks	Exposure Reduction	Installed porous pavement on Trotting Park Rd and eliminated potential for runoff into salt marsh.	

7b. WLA Assessment

For several years the Town has identified the Bass River and Kelley's Bay area as the highest priority for immediate implementation of BMPs. The Town is currently attempting to add mitigation measures into the design of park improvements at the newly acquired Bass River Park in order to mitigate flows into Bass River. The Town has also identified the Pound Pond watercourse in the vicinity of Lower County Road as another priority in developing BMPs. Design of a BMP on Lower County Road was included in plans for Seaview Park and construction was scheduled for 2009. Annual Town Meeting is also scheduled to approve an article funding a study of the Division Street drainage system which outfalls into this pond for the purpose of identifying potential sources of pollution and developing mitigation measures.

Part IV. Summary of Information Collected and Analyzed

A total of 23 Town beaches were tested on a weekly basis during the months of June, July and August 2008 and resulted in 11 (12 days) beach closures.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Storm water management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	\$144,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	5 %
Storm water management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(yes)	3 mi
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	2
▪ community participation	(%)	603 households
▪ material collected	(tons or gal)	3,145 gal

School curricula implemented	(y/n)	No

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		(%)	99 %
Estimated or actual number of outfalls		(#)	58
System-Wide mapping complete		(%)	66%
Mapping method(s)			
▪ Paper/Mylar		(%)	95 %
▪ CADD		(%)	66 %
▪ GIS		(%)	66 %
Outfalls inspected/screened		(# or %)	0
Illicit discharges identified		(#)	0
Illicit connections removed		(#)	0
		(est. gpd)	
% of population on sewer		(%)	0 %
% of population on septic systems		(%)	100 %

Construction

Number of construction starts (>1-acre)		7
Estimated percentage of construction starts adequately regulated for erosion and sediment control		100
Site inspections completed		51
Tickets/Stop work orders issued		0
Fines collected		0
Complaints/concerns received from public		0

Post-Development Storm Water Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction storm water control	(%)	0
Site inspections completed	(# or %)	0
Estimated volume of storm water recharged	(gpy)	0

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1 every 3 yrs
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1 every yr
Total number of structures cleaned	(#)	1270
Storm drain cleaned	(LF or mi.)	0 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(tons)	7620
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	0

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1 yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3 x /yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	650 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	0
Vacuum street sweepers purchased/leased	(#)	1
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	5%
▪ Herbicides	(lbs. or %)	5%
▪ Pesticides	(lbs. or %)	5%

Anti-/De-Icing products and ratios	% NaCl	50%
	% CaCl ₂	32%
	% MgCl ₂	0%
	% CMA	0%
	% Kac	0%
	% KCl	0%
	% Sand	50%
	(y/n)	y
Pre-wetting techniques utilized		
Manual control spreaders used	(y/n)	y
Automatic or Zero-velocity spreaders used	(y/n)	y
Estimated net reduction in typical year salt application	(lbs. or %)	0%
Salt pile(s) covered in storage shed(s)	(y/n)	y
Storage shed(s) in design or under construction	(y/n)	n

