

6/14/11

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Municipality/Organization: Town of Dennis

EPA NPDES Permit Number: MAR041103

MADEP Transmittal Number: W-041145

Annual Report Number & Reporting Period: No. 8: March 10-March 2011

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: 5/31/11

Part II. Self-Assessment

The Town of Dennis has completed the required self-assessment and has determined that our municipality is currently in compliance with all permit conditions. During the past year various responsible Town Departments have continued to educate the public on protecting our waterways, monitored and enforced protection standards and installed various BMPs to improve water quality standards.

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 – next Permit Year
1.1 Revised	Provide literature & pamphlets	Director of Natural Resource, Karen Johnson,	Provide literature w/ off-road & shellfish permits	Brochures in information tree in office with the theme “Think Globally-Act Locally”. Purchased educational kiosks for Crowe’s Pasture Conservation Area and Chapin Beach educating public and conservation management	Continue to expand and update brochure selection. Display educational material in the kiosks at Crowe’s Pasture Conservation Area and Chapin Beach for educating public and conservation management. Educational information provided through the Town of Dennis web page under Natural Resources Department.
1.2 Revised	Provide Public awareness classes	Shellfish Officer Alan, Marcy	Provide Information to school children	CRABS, (Commercial Recreational Association for Better Shellfish) held educational events to promote shellfish, clean herring runs, quahog seeding, oyster farming, and other educational instruction with a web site www.denniscrabs.com Provided educational program at the Dennis Public Library.	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 literature & Information to public	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 website to include information and project related information. Continue to work with other Cape communities in public outreach under the Barnstable County “Project Storm” initiative

1a. Additions

1.4	Provide Literature and Information	Town Planner, Daniel Fortier	Provide information to the public through the Town of Dennis Planning Department Weblog	The Planning Department has made use of the Weblog to reach out to residents, property owners and builders to keep them aware of local issues. Stormwater Management and other site design issues are addressed regularly on the Weblog.	Continue to provide information on site design and stormwater issues through the Weblog.
1.5	Provide literature and information	DPW Supt. D. Johansen	Provide 'Project Storm' booklets and workbooks to children as well as pamphlets for adults.	DPW maintained a booth at April 3, 2010 Community Fair and August 4, 2010 National Night Out.	Continue to have educational booth at Community Fair and National Night Out.

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 – next Permit Year
2.1 Revised	Sponsor & Advertise Household Hazardous Waste Collection Days	Board of Health, Dennis Water District Terry Hayes, Health Director	Encourage proper disposal of hazardous materials	Two (2) Household Hazardous Waste Collection Days held: June 5, 2010 with 2993 gallons and 13,050 pounds collected; and Sept. 11, 2010 with 2745 gallons and 12,090 pounds collected.	Two (2) Household Hazardous Waste Collection Days to be held June and September 2010. Continue to do advertisements & mailings to residents and businesses that are small quantity generators
2.2 Revised	Volunteer Coast Sweep	Natural Resources - Karen Johnson	Annual Beach Cleaning	One day coastal sweep 2010 was cancelled due to inclement weather.	Repeat & expand Coastal Sweep in September 2011. Expand volunteer network to monitor and clean conservation areas periodically.
2.3 Revised	Pet waste management	Animal Control Officer-	Provide disposal mitts and waste receptacles at Town Beaches Create "Waste Disposal" By-law	Additional Dog Waste Mitt dispensers installed. Additional cases of mitts purchased.	Propose higher fines for dog waste violations and restrictions in public places. This will be discussed at STM in Fall 2011. Work on improvements to Dog Park and increase enforcement hours for enforcement of ordinances prohibiting animals on the beaches.
2.4 Revised	Proper Disposal of Boat Septic Storage Tanks	Harbor Master- Terrence Clen	Notify Boat Owners annually	Posted notices and flyers sent promoting pump-out facility installed at Sesuit Harbor. Complete waterways study for permitting and dredging needs.	Continue to promote use of Sesuit Harbor pump-out in several local magazines and direct notifications to boaters. Permitting underway for dredging projects in Sesuit Harbor that may increase tidal flushing.

2a. Additions

2.5	Enforcement Agency	Police Chief Michael Whalen	Enforcement of State Illegal Disposal Law	Enforcement of illegal dumping laws-- 45 call in CY 2009 and 35 calls in CY 2010. 11 calls to date in 2011.	Add literature and information on illegal activities to Department web site.
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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 – next 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 outfalls into non-Federal waters. Division St pipeline mapped and screened. Base Mapping completed.	Continue GPS all outfalls and spillways and include on proposed GIS mapping system. Develop mitigation scenarios for Division St outfall pip system.
3.2 Revised	Notify Owners of Violation eliminate using BMP	Town Engineer Joseph Rodricks	Identify & eliminate all known discharges.	There was one illicit discharge pipe found during period. Investigation proved that the flow was from a foundation under drain. Screened and no contaminants found. Notified Health and Natural Resource Dept for corrective measures.	Continue to monitor and investigate any reported or uncovered illicit stormwater discharges.
3.3 Revised	Enforcement Agency	Police Chief Michael Whalen	Enforcement of Sate Illegal Disposal Law	Continue to enforce illegal dumping laws. Illegal dumping calls have reduced in CY 2010 over 2009.	Add literature and information on illegal activities to Department web site.
3.4 Revised	Illicit Discharge/hazardous Spill investigation	Terry Hayes, Health Director	Identify and investigate	Identified and investigated one (1) hazardous spill. Location involved long-term release of an unknown quantity of VOCs. Enforcement action taken by Mass DEP.	Continue to monitor for illicit discharge/hazardous spills.
Revised					
Revised					

3a. Additions

3.4	Identify and GIS Map Stormwater discharges	Town Engineer Joseph Rodricks	Identify & prioritize	Continue to update mapping	Continue to update mapping with new discharge points.
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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 – next Permit Year
4.1	Propose By-law	Dennis Board of Selectmen-	Storm water & erosion control Standards & Enforcement	Stormwater Management Rules and Regulations in effect. Stormwater Permit required for one site development.	Continue education and enforcement of Stormwater Management Rules and Regulations
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 Rob. Mezzadri, 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. Natural Resource Dept.	Evaluate Swan River, Swan Pond, Sesuit Creek and Chase Garden Creek and establish Total Maximum Daily Limit for nitrogen loading for nitroge loading	Conducted water sampling using DNR staff and volunteers under the direction of the Department of Natural Resources as part of the DEP/SMART study to establish the Total Maximum Daily Limit for Nitrogen Loading for estuaries.	Conducting water sampling using Department of Natural Resources staff and Water Quality Committee volunteers under the direction of the Department of Natural Resources until DEP/SMART study complete.
4.4	Zoning	Zoning Board of Appeals Ernie Oliveira, Chair & Planning Board, R. Mezzadri, Chair	Eliminate runoff and erosion during construction	Monitored all commercial development for possible storm water run-off. Makes recommendations on storm water design and construction.	Continue to monitor projects for and the elimination of storm water runoff.
4.5	Pond and Lake Stewards (PALS) Study	Water Quality Advisory Committee	Evaluate water quality in Dennis ponds.	Conducted water sampling using WQAC volunteers as part of monitoring water quality in Dennis ponds.	Continue SMART contract for sample testing and development of a lake management plan for Scargo Lake.

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 – next Permit Year
5.1	Propose By-Law	Board of Selectmen- Chair Paul McCormick	Storm water & Erosion Control Standards & enforcement	Assigned oversight of the Stormwater By-law to the Building Commissioner and Town Engineer.	Monitor Stormwater Management By-law and amend Rules and Regulations as necessary.
Revised					
Revised					
Revised					

Revised							
Revised							
Revised							

5a. Additions

5.2	Subdivision Rules & Regulations	Planning Board Rob. Mezzadri, Chair	Require conformity in all subdivisions with the Storm Water and Erosion Control Standards	Require all subdivisions to meet Town of Dennis Storm Water requirements.	Continue to require all subdivisions to meet Town of Dennis Storm Water requirements
5.3	Zoning	Zoning Board of Appeals Ernie Oliveira, Chair & Planning Board, R. Mezzadri, Chair	Require conformity in all commercial developments with the Storm Water and Erosion Control Standards	Require applicable commercial projects to meet Town of Dennis Storm Water requirements.	Continue to require all applicable commercial projects to meet Town of Dennis Storm Water requirements.

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 – next 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. Maintain Stormwater BMP for the Bass River/Kelly's Bay/Follin's Pond area	Update catch basin and street sweeping program prioritizing basins in areas of greatest potential impact on water bodies and estuaries. Seek funding to increase number of basins cleaned. Continue to maintain all Stormwater BMPs for the Bass River/Kelly's Bay/Follins Pond area
6.2 Revised	Existing enclosed salt storage.	DPW Superintendent D. Johansen	Exposure reduction	Maintain existing enclosed operations.	Continue to maintain existing enclosed operations.
6.3 Revised	Regular vehicle maintenance	DPW Superintendent- D. Johansen	Exposure reduction	Regular vehicle maintenance instituted	Continue to refine and update maintenance programs. Implement "Equipment Tracker" operations program.
6.4 Revised	Existing enclosed vehicle storage & wash bay. <i>Schedule weekly vehicle cleaning & assessment.</i>	DPW Superintendent- D. Johansen	Exposure reduction	Maintain existing enclosed operations.	Continue to maintain existing enclosed operations.
6.5 Revised	Invite NEIWPCC to speak <i>Employees education</i>	DPW Superintendent- D. Johansen	Provide information to employees Exposure reduction.	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.
6.6	Tidal stream cleanup.	Shellfish Officer A. Marcy	Pollutant removal	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.

Revised							
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6a. Additions

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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 – next Permit Year
7.1 Revised	Installation of leaching drainage systems	Town Engineer J. Rodricks	Exposure reduction	Completed installation of several BMPs on New Boston Rd (Chase Garden Ck), Indian Pond Rd (Weir Ck estuary), Chase Ave. (Nantucket Sound) and Trotting Park Road.(Swan Pond River)	Install remediation measures on Greenland Cir (Cedar Pond); West Dennis Beach (Weir Ck), Aunt Julia Ann Landing (Bass River)
7.2 Revised	Water quality sampling	Natural Resources Dept. Alan Marcy, Shellfish Constable	Ensure water quality	Samples taken in Scargo Lake, Hiram Pond, Coles Pond and Fresh Pond. Contract with SMAST to obtain additional data on Scargo Lake water quality.	Continue and refine sampling program. Conduct monitoring in 2011. Finalize SMAST contract to develop lake management plan for Scargo Lake.
7.3 Revised	Use compost material to stabilize shoulders	DPW Superintendent- D. Johansen	Erosion control	Stabilized slopes and minimized runoff at Sea View Park, and Bass River Park.	Continue and improve slope stabilization where necessary
7.4 Revised	Coastal Pollutant Remediation Program	Town Engineer J. Rodricks	Exposure Reduction and/or elimination	Town installed pollution mitigation measures at 4 locations on Country Circle.	Apply for Federal funding for Rte 28 at Bass River design and mitigation measures on Division St outfall pipe into Pound Pond (tidal, Nantucket Sound). Repeat testing program.
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 22 beaches June thru August weekly. Additional tests taken on days of 1" or greater rainfall. During summer of 2010 there were three (3) beach closures resulting in 3 days closed.	
7.6	Salt Marsh Restoration program	Director of Natural Resource	Increase tidal flushing and improve fish and wildlife habitat.	Monitored and maintained herring runs. Conducted vegetation removal with volunteers.	Coordinate with state agencies, COE and Town of Yarmouth for Bass River Railroad Bridge re-design.

Revised	K. Johnson	
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7a. Additions

	Installation of Porous Pavement	Town Engineer J. Rodricks	Exposure Reduction	No porous pavement installed in period.	Propose installation of porous pavement at West Dennis Beach entrance.
7.7					

7b. WLA Assessment

In 2002 the Town identified the Bass River and Kelley's Bay area as the highest priority for immediate implementation of BMP solutions. Working with the Town of Yarmouth, most outfall locations along this water body have been identified and BMP solutions installed. The Town continues to seek funds to address mitigation measures for the MassDOT Route 28 outfall which flows into Bass River. The Town has also identified the MassDOT Route 28 outfall into Swan Pond River as a stormwater pollutant source.

The evaluation of the Division Street drainage system that drains a significant portion of Dennisport Center into Pound Pond, a tidal creek continued during the last year. All connections to the system have been identified, screened and mapped. No illicit connections into the system were found. A final report with recommended BMPs for stormwater management is due in September 2011.

Part IV. Summary of Information Collected and Analyzed

A total of 22 Town beaches were tested on a weekly basis during the months of June, July and August 2011 and resulted in three (3) days of beach closures.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Storm water management position created/staffed	(y/n)	yes
Annual program budget/expenditures	(\$)	\$80,000

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	(no)	0
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	2
▪ community participation	(%)	613 households
▪ material collected	(tons or gal)	5201 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	(%)	100%
Estimated or actual number of outfalls	(#)	90
System-Wide mapping complete	(%)	80%
Mapping method(s)		
▪ Paper/Mylar	(%)	100 %
▪ CADD	(%)	70 %
▪ GIS	(%)	70 %
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	1
Illicit connections removed	(#)	0
	(est. gpd)	
% of population on sewer	(%)	0 %
% of population on septic systems	(%)	100 %

Construction

Number of construction starts (>1-acre)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100
Site inspections completed	4
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	(%)	100
Site inspections completed	(# or %)	1
Estimated volume of storm water recharged	(gpy)	132K

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	(#)	148
Storm drain cleaned	(LF or mi.)	95 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(tons)	888
Disposal or use of screenings (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)	720 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%	
Pre-wetting techniques utilized	(y/n)	y	
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	

