

**Municipality/Organization:** Town of Eastham

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**EPA NPDES Permit Number:** MAR041110

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**MassDEP Transmittal Number:** W-040891

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**Annual Report Number** Year 6  
**& Reporting Period:** April 1, 2008 – March 31, 2009

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2009)

### Part I. General Information

Contact Person: Sarah Raposa Title: Town Planner

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Telephone #: (508) 240-5900 Email: sraposa@eastham-ma.gov

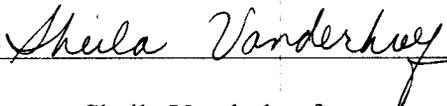
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Mailing Address: 2500 State Highway, Eastham, MA 02642

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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: 

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Printed Name: Sheila Vanderhoef

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Title: Town Administrator

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Date: May 1, 2009

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## **Part II. Self-Assessment**

The Town of Eastham has completed the required self-assessment and 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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
1.1 Revised	Educational Brochures	DPW, Health	Development of Brochures	Updated brochures; disseminated brochures concerning hazardous waste disposal days. Continued to coordinate with Cape Cod Commission on informational campaign.	Continue to update educational brochures as new information arises; provide information on hazardous waste disposal days.
1.2 Revised	Mailings to Homeowners <a href="http://www.eastham-ma.gov/Public_Documents/EasthamMA_Health/index_septic_pumping_brochure">http://www.eastham-ma.gov/Public_Documents/EasthamMA_Health/index_septic_pumping_brochure</a> Stormwater Video	Health	Distribution of Brochures	Homeowner mailings regarding importance of septic system maintenance.	Continue annually
1.3 Revised	Stormwater Video	Planning	Airing on Local Cable TV	Channel 18 available for local broadcast.	Air local stormwater educational video. Video and other environmental education DVDs.
1.4 Revised	Coastal/Pond Clean-up	ConCom, DPW	Conducting Clean-up	Private owners clean pond areas and test fresh water. DPW cleans as necessary. Mutt-mitt project for dog waste has been implemented and continued.	DPW continues to clean up as necessary. Possible expansion of mutt-mitt program to other areas of town. Review pond report from CCC.
1.5	Office Brochure	NR, DPW, Planning	Availability of Brochures	Brochures with local contact information corresponding with 1.1	Continue to update brochures and

Revised							
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**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	Stormwater Management Program	NR, DPW, ConCom, Planning, Health, WMC	Development of Program, including prioritization of sites	Program has been developed and sites have been identified. Catchbasins and discharge pipes have been mapped in GIS database, based on paper maps. <a href="http://www.eastham-ma.gov/Public_Documents/EasthamMA_Planning/NPDES/Storm_Water_Infrastructure_Map_05-01-09.pdf">http://www.eastham-ma.gov/Public_Documents/EasthamMA_Planning/NPDES/Storm_Water_Infrastructure_Map_05-01-09.pdf</a>	Use GPS to collect lat/long coordinates of stormwater infrastructure.
2.2 Revised	Pollution Reporting	NR, DPW, Pond Stewards	Visual Monitoring / Recording	Continue routine monitoring of marine areas conducted by NR staff 5 times per week, daily monitoring of drainage system/road network by DPW, and monitoring of fresh surface waters by Eastham Pond Stewards. Monitoring capabilities augmented for summer months in Rock Harbor (marina) by seasonal employee. NR monitoring of Town Cove bacteria levels with MA Division of Marine Fisheries.	Continue with monitoring as described; receive report from Cape Cod Commission's monitoring efforts for action. Pond Report implementation strategies reviewed. <a href="http://www.barnstablecountyhealth.org/bseastham.htm">http://www.barnstablecountyhealth.org/bseastham.htm</a>
Revised					

**2a. Additions**

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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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
3.1 Revised	Map Outfalls	NR, DPW	Comprehensive Map GIS/GPS	Program has been developed and sites have been identified.	Refine and enhance source point/waterways map. Identify areas of poor drainage.
3.2 Revised	Detection of Non-Stormwater Discharge	NR, Health	Correction of Discharges	Continue to identify no stormwater discharges and remedy situations as they arise, depending on the source of the discharge	Continue project indefinitely. Update map.
3.3 Revised	Dry Weather Flow Screening	NR, Health	Screening Testing; Correction of Discharges	Incorporate dry weather flow screening into the routine monitoring of marine areas conducted by NR staff 5x per week spring through fall.	Continue project indefinitely.
3.4 Revised	Reporting Line	NR, DPW, Fire	Establishment of Line	Line established and maintained for NR and DPW to report any inappropriate inputs to the MS4. Reports involving oil or hazardous waste is reported to the Fire Dept, and MA DEP.	Illicit Discharge and Detection Hotline established. <a href="http://www.eastham-ma.gov/Public_Documents/EasthamMA_BBBoard/022B6F80">http://www.eastham-ma.gov/Public_Documents/EasthamMA_BBBoard/022B6F80</a>  Continue project indefinitely.
3.5 Revised	Hazardous Product Collection	Health, DPW, Recycling	Conducting Collection Day	Hazardous waste collection days schedules for July 18, 2009 and September 19, 2009.	Continue project indefinitely. <a href="http://www.eastham-ma.gov/Public_Documents/EasthamMA_Planning/NPDES/haesign09.pdf">http://www.eastham-ma.gov/Public_Documents/EasthamMA_Planning/NPDES/haesign09.pdf</a>

### 3a. Additions

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#### 4. Construction Site Stormwater Runoff Control

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
4.1 Revised	Draft Construction Site Runoff Control Bylaw	ConCom, Planning	Develop Bylaws	Continue to discuss the creation of a bylaw to be incorporated into local wetland control bylaw and local subdivision control rules and regulations.	Continue to work on the development and implementation of a bylaw. Review bylaw for adoption at town meeting for ConCom. Continue “Limit of Work” in Order of Conditions for project as well as use haybales &/or silt fence until area is stabilized.
4.2 Revised	Enact Construction Site Runoff Control Bylaw	ConCom, Planning, Town Meeting	Implement Bylaw	Continue to discuss the creation of a bylaw to be incorporated into local wetland control bylaw and local subdivision rules and regulations.	Continue to work on the development and implementation of bylaws. There is a policy, but not a bylaw.
4.3 Revised	Sand Nourishment	ConCom	Regulations	Continuation of goal	Homeowners required to do sand nourishment must do so with sand of comparable grain size to what is natural with no debris.
Revised					

#### 4a. Additions

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### 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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
5.1 Revised	Draft Construction Site Runoff Control Bylaw	ConCom, Planning	Develop Bylaws	Continue to discuss the creation of a bylaw to be incorporated into local wetland control bylaw and local subdivision control rules and regulations.	Continue to work on the development and implementation of a bylaw. Review bylaw for adoption at town meeting for ConCom. Continue “Limit of Work” in Order of Conditions for project as well as use haybales &/or silt fence until area is stabilized.
5.2 Revised	Amend Site Plan Review	Planning	Bylaw	Continue to discuss the creation of a bylaw to be incorporated into local zoning bylaw.	Continue to discuss the creation of a bylaw to be incorporated into local zoning bylaw.
5.3 Revised	Enact Construction Site Runoff Control Bylaw	ConCom, Planning, Town Meeting, Bd. Of Highway Surveyors	Implement Bylaw	Continue to discuss the creation of a bylaw to be incorporated into local wetland control bylaw and local subdivision rules and regulations.	Continue to work on the development and implementation of bylaws. There is a policy, but not a bylaw.

### 5a. Additions

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## 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
6.1 Revised	Annual Training	NR, DPW, Planning, Fire, Health	Training Session	Annual training on best practices for pollution prevention and mitigation	Annual training for worker safety, attend educational workshops for employees or public given by CCC or WBNERR etc.
6.2 Revised	Review of Town Properties	DPW, Building Maintenance	Monitor and Correct Problems	Determined monitoring areas	Continue indefinitely.
6.3 Revised	Review of Town Operations	DPW, Facilities Manager	Monitor and Correct Problems	Pollution Prevention Control	Ongoing project
6.4 Revised	Catchbasin Cleaning	DPW	Updated Log	Clean all town-owned catchbasins in spring and fall 2009	Clean all town-owned catchbasins in Spring and Fall 2010
6.5 Revised	Street Sweeping	DPW	Record areas swept	Sweep all town-owned roadways and parking lots in spring and fall 2009	Sweep all town-owned roadways and parking lots in Spring and Fall 2010

[http://www.eastham-ma.gov/Public\\_Documents/EasthamMA\\_Planning/NPDES/DPW%20Street%20Sweeping%20and%20Catchbasin%20Policy.pdf](http://www.eastham-ma.gov/Public_Documents/EasthamMA_Planning/NPDES/DPW%20Street%20Sweeping%20and%20Catchbasin%20Policy.pdf)

### 6a. Additions

6.6	Remediation of existing outfall	DPW	Elimination of stormwater discharge	One discharge site identified: Cole Road	Complete design and permitting
6.7	Drainage Alterations	DPW	Catchbasin Replacement	25 catchbasins identified for replacement or closure	Continue project indefinitely
6.8	Fuel Tanks	Fire	Fuel Tank Removal	Two fuel tanks removed	Removal of underground fuel storage tanks at Police Department scheduled
6.9	Flooding Remediation	DPW	Construction of Detention pond	Brackett Road stormwater design	Improvements commenced April 2009

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<not 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
Revised					

7a. Additions

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7b. WLA Assessment

#### **Part IV. Summary of Information Collected and Analyzed**

**Freshwater Sampling** – The Cape Cod Pond and Lake Stewardship (PALS) are continually sampling the Eastham ponds in an effort to identify possible pollutant and recommend best management practices for containing and eliminating possible pollutants. Eastham has a total of 11 ponds currently being sampled. ([http://www.capecodcommission.org/water/PALS\\_home.htm](http://www.capecodcommission.org/water/PALS_home.htm))

**Beach Sampling** – Sixteen Eastham beaches (11 saltwater and 5 freshwater) were sampled during the summer months of 2007 and 2008 by the Barnstable County's Department of Health and Environment. One beach had samples above the sampling limit. However, those samples exceeding the limits only resulted in the posting of swimming advisory notices. A definitive cause was not determined for the need to post the swimming advisory. A repeat sample taken the following day was within acceptable limits and the beach was reopened to the public. (<http://www.barnstablecountyhealth.org/bseastham.htm>)

**Groundwater Sampling** – The town continued its voluntary sampling project to evaluate levels of nitrate in residential wells. Each year one-third of the town is sampled allowing for a three-year sampling rotation schedule. We are experiencing a return of approximately 65% of the vials mailed.

Year	# Samples Returned
2007	1,259
2008	903

**Shellfish Sampling** – The Natural Resources Office continued to test for Red Tide and participate in shellfish sampling in coordination with Massachusetts Division of Marine Fisheries on a weekly basis through the Spring, Summer and Fall.

**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)	N
Annual program budget/expenditures **	(\$)	\$0
Total program expenditures since beginning of permit coverage	(\$)	unknown
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	unknown
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Y - >10 miles
Shoreline cleaned since beginning of permit coverage	(mi.)	>10 miles
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	2 per year
▪ community participation **	(# or %)	unknown
▪ material collected **	(tons or gal)	1,675 gal (2008)
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	(#)	10
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	
▪ GIS	(%)	95%
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	0
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	0

%	of population on septic systems	(%)	100%
<b>Construction</b>			
	(Preferred Units)	Response	
Number of construction starts (>1-acre) **	(#)	7	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	0	
Site inspections completed **	(# or %)	0	
Tickets/Stop work orders issued **	(# or %)	0	
Fines collected **	(# and \$)	0	
Complaints/concerns received from public **	(#)	0	
<b>Post-Development Stormwater Management</b>			
Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	0	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	0	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	N	
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y	
<b>Operations and Maintenance</b>			
Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	2	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2	
Qty of structures cleaned **	(#)	475	
Qty. of storm drain cleaned **	(% , LF or mi.)	475	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	unknown	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	unknown	

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

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	unknown
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	unknown
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	unknown
• Disposal cost**	(\$)	unknown
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	unknown
• Vacuum street sweepers owned/leased	(#)	unknown
• Vacuum street sweepers specified in contracts	(y/n)	unknown
• % Roads swept with rotary brush sweepers **	%	unknown
• % Roads swept with vacuum sweepers **	%	unknown

Reduction (since beginning of permit coverage) in application on public land of:  
 ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(lbs. or %)	N/A
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n)	N

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	unknown
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)		
Pre-wetting techniques utilized **	(y/n or %)	unknown
Manual control spreaders used **	(y/n or %)	unknown
Zero-velocity spreaders used **	(y/n or %)	unknown
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/in mi. or %)	unknown
Estimated net reduction or increase in typical year sand application rate **	(±lbs/in mi. or %)	unknown
% of salt/chemical pile(s) covered in storage shed(s)	(%)	unknown
Storage shed(s) in design or under construction	(y/n or #)	unknown
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	unknown

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	0

REMINDER ANNUAL REPORTS DUE

This is a reminder that the year 6 annual report for the 2003 Small Municipal Separate Storm Sewer System (MS4) General permit is due by **May 1, 2009**.

A suggested reporting format and applicable guidance are available on EPA's website at [www.epa.gov/NE/npdes/stormwater/ms4-annual-rpt.html](http://www.epa.gov/NE/npdes/stormwater/ms4-annual-rpt.html)

Reports can be submitted electronically, preferably in pdf format, or you can mail a copy to EPA and Massachusetts Department of Environmental Protection (MADEP).

Electronic submissions should go to: [stormwater.reports@epa.gov](mailto:stormwater.reports@epa.gov)

Mailings should go to:

Glenda Velez  
US EPA – CIP

Fred Civian  
DEP

One Congress Street – Suite 1100  
Boston, MA 02114

One Winter Street  
Boston, MA 02108

If you have any questions, please contact Jessica Hing at 617-918-1560 or Glenda Velez at 617-918-1677.

Other information available at: <http://www.epa.gov/region1/npdes/stormwater/index.html>