Municipality/Organization: Town of Chatham

EPA NPDES Permit Number: MAR041101

MADEP Transmittal Number: W-035745

Annual Report Number
& Reporting Period: No. 2: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Robert Duncanson, Ph.D. Title: Dir. of Health & Environment

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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: William Hinchey

Title: Town Manager

Date: April 28, 2005

ORIGINAL

Part II. Self-Assessment

The Town of Chatham has completed the required self-assessment and has determined that our municipality is working toward full compliance within the five year schedule as submitted to EPA and approved as Chatham's NOI to the General Permit issued to Massachusetts under Phase II of the Regulations. This second annual report demonstrates and documents our efforts toward full compliance.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1.1	Educational Flyer	Department of Health & Environment (DHE)	Distributed Annually	A storm water education bookmark (attached) has been developed in cooperation with other Cape Cod towns and regional land use agency (Cape Cod Commission) (Project STORM, see attached). Bookmark has been distributed via town libraries and town offices. Working through Project STORM a series of 4 education posters on storm water impacts from fertilizer applications, car washing, pet waste and leaking oil were produced. Storm water education door hanger previosly developed has been distributed at variety of public functions (meetings, seminars, etc.) as well as at town offices. As part of CZM grant, received with neighboring towns, developed educational flyer on pet waste, water quality and storm water.	New materials to be developed and distributed.
Revised					
1.2	Web Page	DHE	Develop & Maintain	Storm water information/education web page maintained on Town's web site. Has information from and links to EPA, MADEP and regional storm water web sites.	Maintain and update web page.
Revised					
1.3	Annual Program Review	DHE, DPW, Board of Selectmen	Meeting held per schedule	Progress/update meeting held annually as part of yearly budget process.	Same as year 2.
Revised					

1.4	Pet Waste Control	DHE, Animal Control	Expand/document Mutt Mitt program	Existing Mutt Mitt program has been continued. Four additional Mutt Mitt dispensers were funded and installed by the Town, bringing the total number to 16 locations. In partnership with 2 other towns, through the Pleasant Bay Alliance, successfully received a grant from MA Coastal Zone Management to obtain and install Mutt Mitt dispensers at public access points to Pleasant Bay. Three of the locations are in Chatham. As part of CZM grant developed educational flyer on pet waste, water quality and storm water.	Same as Year 2.
Revised					
Revised					
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2.1	Citizen Water Quality Monitoring	DHE	Program goals met/annual meeting held	Summer 2004 water quality monitoring completed as per program goals. Meeting held in fall 2004 to present	Same as Year 2.

Revised					
2.2	Storm Drain Marking	DHE	Document number marked/year	Effort postponed to Year 3 due to staff time limitations. Marker developed and procured in cooperation with other Cape Cod towns and regional planning agency (Cape Cod Commission)	Begin storm drain marking in cooperation with volunteers from Friends of Chatham Waterways.
Revised					
2.3	Annual Program Review	DHE, DPW, Board of Selectmen	Meeting held per schedule	Progress/update meeting held annually as part of yearly budget process.	Same as Year 2.
Revised					
2.4	Household Hazardous Waste Collections	DHE	Document participation	Six household hazardous waste collections were held May through October 2004, jointly with 2 adjoining towns, in cooperation with Cape Cod Cooperative Extension. In 2004 323 households participated, compared to 231 in 2003.	Same as Year 2.
Revised					
2.5	Web Page	DHE	Documents hits	Storm water information/education web page maintained on Town's web site. Has information from and links to EPA, MADEP and regional storm water web sites. DHE working with information systems department to document hits with counter.	Same as Year 2.
Revised					
Revised					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3.1	Stormwater System Mapping	DHE, DPW, GIS	Complete mapping by year 4 of program	Contact initiated with AmeriCorps-Cape Cod to begin field data collection in Fall 2005.	Initiate field data collection in Fall 2005.
Revised					
3.2	Identify and Document Illict Connections	DPW, DHE	Document illict connections	Progress limited to due staff time limitations. Past monitoring of discharges during DMF Sanitary Surveys have not documented the presence of illict discharges.	Staff training in the detection of illict discharges. Continued monitoring of discharges during DMF Sanitary Surveys.
Revised					
3.3	Eliminate Illict Connections	DPW, DHE	Quantify illict connections corrected	Progress limited due to staff time limitations. Discharges are being corrected as part of overall efforts to mitigate stormwater discharges.	Continue monitoring.
Revised					
3.4	Review Existing Regulatory Mechanisms	DHE	Complete review by December 2004	No progress, due to staff time limitations.	Complete review and recommend necessary additions/changes.
Revised					
3.5	Educational Flyer	DHE, DPW	Distributed annually	No progress.	Develop and distribute flyer.
Revised					
Revised					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4.1	Conservation Bylaw/Regulation Review	Conservation Commission/DHE	Necessary regulatory changes implemented	Review in progress. The May 2004 Annual Town Meeting adopted an amendment to the Conservation Commission General Bylaw enacting a 50 foot "No Disturb Zone" thus enacting a natural buffer zone to all wetland resource areas.	Complete review and recommend necessary additions/changes.
Revised					
4.2	Subdivision Control review	Planning Board, Community Development Dept.(CDD), DHE	Necessary regulatory changes implemented	No progress. Planning Board and CDD currently committed to a complete re-write of the town's zoning bylaw.	Re-program to years 3 and 4. Initiate review as Planning Board and CDD time allows.
Revised					
4.3	Site Plan Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	No progress. Planning Board and CDD currently committed to a complete re-write of the town's zoning bylaw.	Re-program to years 3 and 4. Initiate review as Planning Board and CDD time allows.
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5.1	Conservation Bylaw/Regulation Review	Conservation Commission/DHE	Necessary regulatory changes implemented	Review in progress. The May 2004 Annual Town Meeting adopted an amendment to the Conservation Commission General Bylaw enacting a 50 foot "No Disturb Zone" thus enacting a natural buffer zone to all wetland resource areas.	Complete review and recommend necessary additions/changes.
Revised					
5.2	Subdivision Control Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	No progress. Planning Board and CDD currently committed to a complete re-write of the town's zoning bylaw.	Re-program to years 3 and 4. Initiate review as Planning Board and CDD time allows.
Revised					
5.3	Site Plan Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	No progress. Planning Board and CDD currently committed to a complete re-write of the town's zoning bylaw.	Re-program to years 3 and 4. Initiate review as Planning Board and CDD time allows.
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.1	Catch Basin Cleaning	DPW	Clean/document 1/3 of town basins per year	Goal met.	Same as Year 2.
Revised					
6.2	Street Sweeping	DPW	Sweep/document roads once per year	Goal met.	Same as Year 2.
Revised					
6.3	Utilize Appropriate BMP's for All Municipal Projects	DPW, Building Maintenance	Document implementation	New DPW building under construction utilizing appropriate BMP's to retain all stormwater on-site and to mitigate pollutant loads from activities. Re-construction of Ryder's Cove Road and Landing (Site CHA-19) completed with installation of infiltration BMP's. Town continued design of improvements to Stage Harbor Rd., Pond St., and Queen Anne Rd. (Site CHA-11-13) to mitigate runoff to Oyster Pond. Town initiated design of BMP's to Mill Creek Road (site CHA-1).	Continue implementation of BMP's and initiate design for new projects.
Revised					
6.4	Pet Waste Control	DHE, Animal Control	Expand/document Mutt Mitt program	Existing Mutt Mitt program has been continued. Four additional Mutt Mitt	Same as Year 2.

Revised					
6.5	Annual Training	DPW, DHE	Held annually/participation documented.	No progress, due to staff time limitations.	Program to be developed and implemented in Year 3.
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 1** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 2**
Revised					
Revised					
Revised					
Revised					

Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

The Town of Chatham was the first Massachusetts community to have nitrogen-loading thresholds completed as part of the MADEP's Massachusetts Estuaries Project. The thresholds developed are in the process of being incorporated into the town-wide Comprehensive Wastewater and Nutrient Management Planning Program.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	1 collatoral duty
Annual program budget/expenditures	($)	$20,000*

*** In addition to DPW funding for routine drainage improvements.**

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes
Household Hazardous Waste Collection Days		Yes
▪ days sponsored	(#)	6
▪ community participation	(%)	29.3% of households
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

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	(%)	90
Estimated or actual number of outfalls	(#)	30
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	5
% of population on septic systems	(%)	95

Construction

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/3 OF TOWN PER YEAR
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	400±
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

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)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	COMPOST
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

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

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	50 50
Pre-wetting techniques utilized	(y/n)	No, available but not used last winter
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	Yes
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	

PROJECT STORM

STormwater Outreach for Regional Municipalities

What is Project STORM?

Project STORM (Stormwater Outreach for Regional Municipalities) is a collaborative effort among towns on Cape Cod to share resources, ideas and solutions to mitigate the impacts of stormwater. Project STORM provides assistance to towns across Cape Cod that must implement the new Phase II Stormwater regulations. Project STORM aims to educate all residents on Cape Cod on the importance of preventing stormwater pollution to make our water bodies cleaner and safer to use

Accomplishments to date:

- Printed and distributed 2,000 stormwater posters about impacts from fertilizer applications, car washing, pet waste, and leaking oil.
- Developed regional stormwater logo for use on educational materials
- Coordinated with Phase II communities to bulk purchase 5,700 storm-drain decals and 11,500 storm-water education door hangers (Barnstable, Sandwich, Chatham, Yarmouth and Orleans).
- Designed and coordinated order with multiple towns for 22,000 stormwater bookmarks (Barnstable, Dennis, Mashpee, Sandwich, Chatham and Yarmouth).
- Facilitated regular meetings with Phase II community coordinators to discuss implementation of the EPA stormwater regulations.
- Pursued state and federal grant funding to assist towns with stormwater education and outreach projects.
- Prepared long term work plan for education and outreach needs.
- Engaged AmeriCorp member to assist Project STORM outreach addressing local bylaws, and stormwater best management practices for Cape Cod.
- Held water festivals for students in Barnstable, Sandwich, Brewster, Wellfleet, Orleans, Eastham, Yarmouth, Dennis, Harwich and Chatham. Water festivals included several activities that were specific about stormwater pollution and multiple activities that taught about nonpoint source pollution. In the 2004-2005 school year over 1500 students participated in water festival activites.