

Municipality/Organization: Town of Chatham

EPA NPDES Permit Number: MAR041101

MADEP Transmittal Number: W-035745

Annual Report Number

& Reporting Period:

No. 8: April 10 - March 11

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Robert Duncanson, Ph.D.

Title: Dir. of Health & Environment

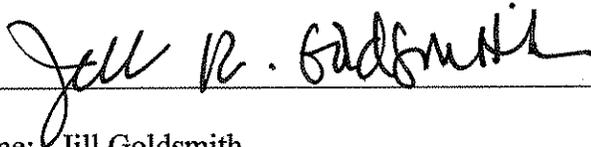
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Certification:

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: Jill Goldsmith

Title: Town Manager

Date: August 30, 2011

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 as submitted to EPA and approved as Chatham's NOI to the General Permit issued to Massachusetts under Phase II of the Regulations. This annual report demonstrates and documents our efforts toward full compliance.

The Town of Chatham has been working aggressively to address stormwater problems identified through past shoreline sanitary surveys and other water quality programs. Stormwater evaluation and BMP designs are now routinely incorporated into road projects to reduce or eliminate stormwater discharge(s) into sensitive resource areas. New municipal facilities are incorporating stormwater BMPs into facility design.

The Barn Hill Rd. and Landing stormwater project has been completed with binder paving placed in spring 2011 following completion of new wastewater collection infrastructure, final paving is expected in fall 2011. This project resulted in the elimination of direct stormwater discharge CHA-5.

Engineering design continues on 2 stormwater discharge locations, CHA-24, Old Queen Anne Rd. @ Muddy Creek, and CHA-16, Barcliff Ave. Ext. @Chatham Harbor. Progress has been complicated by wetland and land availability for location of BMPs.

The municipal parking lot re-construction project, utilizing rain gardens, began construction in spring 2011, this will mitigate some of the discharge at CHA-12. While not affecting a point source discharge to the waters of US the new Police Dept./Town Office Annex project has been completed utilizing rain gardens and a detention pond with subsurface infiltration to address paved surface runoff.

The Town continues dialogue with MassDOT-Highway to address stormwater runoff from state road Route 28 as part of planned upgrade of the roadway.

The Town believes that these actions, as well as others completed prior to the Phase II Permit, show Chatham's ongoing commitment to addressing stormwater issues.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
1.1 Revised	Educational Flyer	Department of Health & Environment (DHE)	Distributed Annually	Goal met. Continued distribution of educational materials at municipal office locations, during public events and during public information presentations. Continued cooperation in the development and distribution of materials with the Pleasant Bay Alliance and Project STORM, a regional Cape Cod effort.	New materials to be developed and distributed.
1.2 Revised	Web Page	DHE	Develop & Maintain	Goal met. 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. IT Dept. indicates 548 hits for calendar year 2010.	Maintain and update web page as needed.
1.3	Annual Program Review	DHE, DPW, Board of Selectmen	Meeting held per schedule	Goal met. Progress/update meeting held annually as part of yearly budget process.	Same as year 8.

Revised					
1.4	Pet Waste Control	DHE, Animal Control	Expand/document Mutt Mitt program	Goal met. Mutt Mitt program continues to be expanded, funded and maintained by the Town. The total number of Mutt Mitt dispenser locations in Chatham is 23. In excess of 40,000 Mutt Mitts distributed in calendar year 2010. Mutt Mitt program to be expanded along recently completed Chatham Rail Trail bicycle path.	Same as Year 8.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
2.1	Citizen Water Quality Monitoring	DHE	Program goals met/annual meeting held	Goal met. Summer water quality nutrient monitoring completed as per program goals.	Same as Year 8.
Revised					

2.2	Storm Drain Marking	DHE	Document number marked/year	Effort postponed to Year 9 due to staff time limitations.	Begin storm drain marking in cooperation with volunteers from Friends of Chatham Waterways and other local groups.
Revised					
2.3	Annual Program Review	DHE, DPW, Board of Selectmen	Meeting held per schedule	Goal met. Progress/update meeting held annually as part of yearly budget process.	Same as Year 8.
Revised					
2.4	Household Hazardous Waste Collections	DHE	Document participation	Goal met. Six household hazardous waste collections were held May through October 2010, jointly with 2 adjoining towns, in cooperation with Cape Cod Cooperative Extension. In 2010 185 households participated, compared to 277 in 2009, generating approximately 13,627 pounds of waste.	Same as Year 8.
Revised					
2.5	Web Page	DHE	Documents hits	Goal met. 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. IT Dept. indicates 548 hits for calendar year 2010.	Maintain and update web page as needed.
Revised					
Revised					

2a. Additions

2.6	Comprehensive Wastewater Management Plan Citizens Advisory Committee	DHE	Document Public Involvement	The issue of stormwater management is a regular topic in the discussions of the CWMP CAC as the Wastewater Management Plan is developed. Stormwater management is one of the issues to be addressed in the CWMP. CAC meetings are held on a regular basis (usually monthly) and are televised on local cable access. CAC minutes and other documents are posted on town website.	Continue program.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
3.1 Revised	Stormwater System Mapping	DHE, DPW, GIS	Complete mapping by year 4 of program	Integration into GIS system and QA/QC is ongoing as resources allow.	Continue integration into GIS system.
3.2 Revised	Identify and Document Illicit Connections	DPW, DHE	Document illicit connections	Progress limited to due staff time limitations. Past monitoring of discharges during DMF Sanitary Surveys have not documented the presence of illicit discharges.	Staff training in the detection of illicit discharges. Continued monitoring of discharges during DMF Sanitary Surveys.
3.3 Revised	Eliminate Illicit Connections	DPW, DHE	Quantify illicit connections corrected	Progress limited due to staff time limitations. Discharges are being corrected as part of overall efforts to mitigate stormwater discharges.	Continue monitoring.
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, due to staff time limitations.	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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
4.1	Conservation Bylaw/Regulation Review	Conservation Commission/DHE	Necessary regulatory changes implemented	Goal met.	Continue review and recommend additions/changes as new information becomes available.
Revised					
4.2	Subdivision Control review	Planning Board, Community Development Dept.(CDD), DHE	Necessary regulatory changes implemented	Goal met.	Continue review and recommend additions/changes as new information becomes available.
Revised					

Revised					
4.3	Site Plan Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	Planning Board and CDD undertaking a complete re-write of the town's zoning bylaw. Proposed changes include revisions to site plan review; expected completion date TBD. Goal is dependent on community consensus on proposed zoning changes; this has been illusive so far.	Re-program to year 9. Review as propose bylaw changes are promulgated for comment.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
5.1	Conservation Bylaw/Regulation Review	Conservation Commission/DHE	Necessary regulatory changes implemented	Goal met.	Continue review and recommend additions/changes as new information becomes available.

Revised					
5.2	Subdivision Control Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	Goal met.	Continue review and recommend additions/changes as new information becomes available.
Revised					
5.3	Site Plan Review	Planning Board, CDD, DHE	Necessary regulatory changes implemented	Planning Board and CDD undertaking a complete re-write of the town's zoning bylaw. Proposed changes include revisions to site plan review; expected completion date TBD. Goal is dependent on community consensus on proposed zoning changes; this has been illusive so far.	Re-program to year 9. Review as propose bylaw changes are promulgated for comment.
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
6.1	Catch Basin Cleaning	DPW	Clean/document 1/3 of town basins per year	Goal met.	Same as Year 8.
Revised					
6.2	Street Sweeping	DPW	Sweep/document roads once per year	Goal met.	Same as Year 8.
Revised					
6.3	Utilize Appropriate BMP's for All Municipal Projects	DHE, DPW, Building Maintenance	Document implementation	<p>Goal met, ongoing.</p> <p>Barn Hill Road and Landing utilizing multiple BMPs (CHA-5) stormwater construction completed, binder course of pavement placed in spring 2011 as part of ongoing sewer project, final paving expected in fall 2011. This eliminated stormwater discharge point CHA-5.</p> <p>Re-construction of town parking lot (CHA-12) and adjacent private parking lot utilizing rain gardens for stormwater management, and increased green space, begun in spring 2011, scheduled for completion in fall 2010.</p> <p>Construction of new Police/Town Office Annex facility completed incorporating rain gardens and detention pond with subsurface infiltration for paved areas.</p> <p>Engineering design underway to address stormwater discharges into Muddy Creek (CHA-24) and Chatham Harbor (CHA-16). MassDOT re-designing Mitchell River Bridge to</p>	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	Goal met. Mutt Mitt program continues to be expanded, funded and maintained by the Town. The total number of Mutt Mitt dispenser locations in Chatham is 23. In excess of 40,000 Mutt Mitts distributed in calendar year 2010. Mutt Mitt program to be expanded along recently completed Chatham Rail Trail bicycle path.	Same as Year 8.
Revised					
6.5	Annual Training	DPW, DHE	Held annually/participation documented.	No progress, due to staff time limitations. See 6a. below.	Program to be developed and implemented in Year 9.
Revised					
Revised					

6a. Additions

6.6	Stormwater staff Education/Training	DPW, DHE	Document participation.	Staff participated in “Project STORM”, the consortium of Cape Cod Phase II communities that provides networking and training/education opportunities. DHE staff participated in workshop entitled “Beyond Pipe and Pond: Research Based Stormwater Treatment System Design Workshop”.	Continue to participate in Project STORM and take advantage of education /training opportunities.
6.7	DPW Permit Filing	DPW	File for applicable Conservation Permits	Goal Met. DPW routinely files for applicable permits.	Continue to file as applicable.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
7.1 Revised	No Discharge Area (NDA)	DHE	NDA enacted	Goal met. NDA enacted for Pleasant Bay.	Work with partners to establish NDA for outer Cape Cod Waters and Nantucket Sound.
7.2 Revised	Comprehensive Wastewater Management Plan (CWMP)	DHE, CAC, Water & Sewer	CWMP completed. Town Meeting action to begin implementation.	Final CWMP/Final EIR approved by MA Secretary of Energy & Environmental Affairs in July, approved by Cape Cod Commission in October. May Annual Town Meeting appropriated \$59.5M to begin Phase 1. Design fast-tracked to meet SRF & ARRA deadlines. Four (4) construction contracts (expanded wastewater treatment facility, pump stations, and 2 collection system expansions). Construction on all contracts continued toward completion in 2011/2012.	Oversee construction on four contracts for Phase 1A of the CWMP. Begin planning for Phase 1B.
Revised					
Revised					
Revised					

Revised					
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7a. Additions

7.3	No Discharge Area (NDA) for Pleasant Bay and Chatham Harbor.	DHE	NDA enacted	Goal met. Pleasant Bay NDA enacted.	Work with partners to establish NDA for outer Cape Cod Waters and Nantucket Sound.
7.4	Fertilizer Management	DHE	Implement fertilizer management BMPs	Fertilizer management study completed in later 2010. Work cooperatively with the Pleasant Bay Alliance to enact appropriate recommendations.	Review recommendations and develop implementation strategy.

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. Final CWMP/Final EIR completed and approved; Phase 1 implementation (construction) began in March 2010.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	1, collateral 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.)	
Household Hazardous Waste Collection Days		Yes
▪ days sponsored	(#)	Yes
▪ community participation	(%)	685 Households
▪ material collected	(tons or gal)	13,627 pounds
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				
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		
Accompanying Regulation Status (indicate with "X")		X		
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		

X

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100
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Estimated or actual number of outfalls	(#)	30
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	60
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	
		5
		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	(%)	
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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)	1/3 OF TOWN PER YEAR
Total number of structures cleaned	(#)	±
Storm drain cleaned	(LF or mi.)	400 600 L.F.
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	10 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		BUD application submitted for reuse of catch basin cleanings to expand yard waste compost area.
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	1 340 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)	
		1

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
Pre-wetting techniques utilized	(y/n)	50 available not used last No
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	Yes
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	Yes