

Municipality/Organization: Town of Chatham

EPA NPDES Permit Number: MAR041101

MADEP Transmittal Number: W-035745

Annual Report Number

& Reporting Period:

No. 10: April 12 - March 13

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Robert Duncanson, Ph.D.

Title: Dir. of Health & Environment

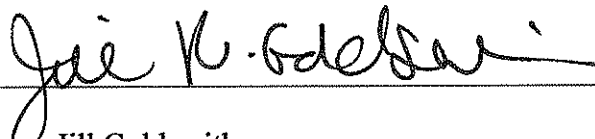
Telephone #: (508) 945-5165

Email: rduncanson@Chatham-ma.gov

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: April 24, 2013

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.

Since the beginning of the Phase II Program in Chatham 9 stormwater discharges have been mitigated through the installation of stormwater BMPs. In most cases the direct discharge of stormwater has been eliminated through the installation of infiltration BMPs, in several cases the stormwater has been directed to treatment BMPs prior to discharge.

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 wetlands and land availability for location of BMPs.

Landscaping of the rain gardens for stormwater collection/treatment as part of the municipal parking lot re-construction project was completed in spring 2012. This project improves water quality for a portion of the stormwater discharged at CHA-12.

The Town continues dialogue with MassDOT - Highway to address stormwater runoff from state road Route 28 as part of planned upgrades of the roadway. State funding limitations continue to stymie actual progress.

The towns of Chatham and Harwich signed a Memorandum of Agreement in the fall of 2012 on the Muddy Creek Restoration Bridge Project that will address stormwater runoff at that location.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
1.1	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.	New materials to be developed and distributed.
Revised					
1.2	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 305 hits for calendar year 2012.	Maintain and update web page as needed.
Revised					
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 10.

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 2012.	Same as Year 10.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11

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 10.
Revised					
2.2	Storm Drain Marking	DHE	Document number marked/year	Effort postponed to Year 11 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 10.
Revised					
2.4	Household Hazardous Waste Collections	DHE	Document participation	Goal met. Six household hazardous waste collections were held May through October 2012, jointly with 2 adjoining towns, in cooperation with Cape Cod Cooperative Extension. In 2012 177 households participated, compared to 204 in 2011, generating approximately 17,800 pounds of waste.	Same as Year 10.
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 305 hits for calendar year 2012.	Maintain and update web page as needed.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
3.1	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.	Consultant to be hired to complete integration into GIS system.
Revised					
3.2	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.
Revised					
3.3	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.
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, 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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					
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.	Re-program to year 11. Planning Board initiated review of needed changes late in Year 10 will continue into Year 11. 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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 11. Planning Board initiated review of needed changes late in Year 10 will continue into Year 11. Review as propose bylaw changes are promulgated for comment.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
6.1	Catch Basin Cleaning	DPW	Clean/document 1/3 of town basins per year	Goal met.	Same as Year 10.
Revised					
6.2	Street Sweeping	DPW	Sweep/document roads once per year	Goal met.	Same as Year 10.
Revised					

6.3	Utilize Appropriate BMP's for All Municipal Projects	DHE, DPW, Building Maintenance	Document implementation	Goal met, ongoing. Engineering design underway to address stormwater discharges into Muddy Creek (CHA-24) and Chatham Harbor (CHA-16). MassDOT re-designing Mitchell River Bridge to incorporate stormwater BMPs (CHA-8). Chatham and Harwich working cooperatively with MassDOT-Highway, USDA NRCS, and MA Div. of Ecological Restoration on Muddy Creek Wetland Restoration Project that will incorporate stormwater BMPs where Route 28 crosses muddy Creek at Pleasant Bay.	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 2012.	Same as Year 10.

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 11. Town to investigate use of outside consultant(s) for training.
Revised					
Revised					

6a. Additions

6.6	Stormwater staff Education/Training	DPW, DHE	Document participation.	Phase II Coordinator attended training in following areas: <i>Cleaning Up Our Coastal Waters, A workshop on TMDLs and Managing Nitrogen Pollution and Evaluating Stormwater Best Management Practices</i>	Continue professional education as opportunities arise.
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
7.1	No Discharge Area (NDA)	DHE	NDA enacted	Goal met. NDA enacted for Nantucket Sound. All Chatham waters now covered by No Discharge Area.	Ongoing public education. Operate and maintain vessel pumpout facilities.
Revised					

7.2	Comprehensive Wastewater Management Plan (CWMP)	DHE, CAC, Water & Sewer	CWMP completed. Town Meeting action to begin implementation.	Phase 1A of sewer expansion completed and new Enhanced Nutrient Removal (ENR) treatment facility operational. Engineering design completed for sewer expansion Phase 1B and started for Phase 1C. SRF funding approved for Phase 1B and 1C.	Construction of Phase 1B sewer expansion. Complete engineering design for Phase 1C.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7.3			Completed		
7.4	Fertilizer Management	DHE	Implement fertilizer management BMPs	Pleasant Bay Alliance forwarded municipal fertilizer management policy to town for adoption.	Review Policy and work with Board of Selectmen on adoption.

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 were incorporated into the town-wide Comprehensive Wastewater and Nutrient

Management Planning Program. Final CWMP/Final EIR completed and approved; Phase 1A sewer expansion completed and new Enhanced Nutrient Removal (ENR) wastewater treatment facility completed and operational. Engineering design completed for Phase 1B sewer expansion and SRF funding obtained. Engineering design initiated for Phase 1C sewer expansion, SRF funding obtained.

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.)	Yes
Household Hazardous Waste Collection Days		Yes
▪ days sponsored	(#)	6
▪ community participation	(%)	177 Households
▪ material collected	(tons or gal)	17,800± 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		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	(#)	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	(%)	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)	1/3 OF TOWN PER YEAR
Total number of structures cleaned	(#)	400±
Storm drain cleaned	(LF or mi.)	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.)		COMPOST.
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)	3
Qty. of sand/debris collected by sweeping	(lbs. or tons)	40 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	COMPOST
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	1
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)	