Municipality/Organization: Town of Chatham

EPA NPDES Permit Number: MAR041101

MADEP Transmittal Number: W-035745

Annual Report Number
& Reporting Period: No. 5: March 07-March 08

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: William Hinchey

Title: Town Manager

Date: April 29, 2008

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 fourth 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. The completed Oyster Pond (a significant swimming, boating and shellfishing resource) stormwater mitigation project included several $100,000's in mitigation. This project eliminated several identified direct stormwater discharges from town roads, as well as providing end-of-pipe treatment (StormCeptor) for a significant volume of stormwater runoff from other town roads and State Route 28.

The Barn Hill Road/Landing stormwater mitigation project has been designed and construction is expected later in 2008. This will eliminated additional direct stormwater discharge into an important shellfish and recreational use area.

The Town has completed conceptual design of improvements to a municipal parking that will incorporate a constructed wetland for stormwater mitigation. This project is being done in cooperation with an abutting property owner. Funds for final design/construction were appropriated at the May 2007 Annual Town Meeting. Project construction is expected in fall 2008.

The Town continues work with Massachusetts 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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
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 and Project STORM, a regional Cape Cod effort.	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. Information Systems Department indicates 220 hits during the reporting period.	Maintain and update web page.
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 5.

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. Two (2) additional Mutt Mitt dispensers were installed; bringing the total number of Mutt Mitt dispenser locations in Chatham is 23. Mutt Mitt program to be expanded along recently completed Chatham Rail Trail bicycle path.	Same as Year 5.
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
2.1	Citizen Water Quality Monitoring	DHE	Program goals met/annual meeting held	Goal met. Summer 2007 water quality monitoring completed as per program goals.	Same as Year 5.
Revised					
2.2	Storm Drain Marking	DHE	Document number marked/year	Effort postponed to Year 6 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 5.
Revised					
2.4	Household Hazardous Waste Collections	DHE	Document participation	Goal met. Six household hazardous waste collections were held May through October 2007, jointly with 2 adjoining towns, in cooperation with Cape Cod Cooperative Extension. In 2007 366 households participated, compared to 321 in 2006.	Same as Year 5.
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. Information Systems Department indicates 220 hits during the reporting period.	Maintain and update web page.
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
3.1	Stormwater System Mapping	DHE, DPW, GIS	Complete mapping by year 4 of program	Field data collection completed during fall of 2007. Integration into GIS system and QA/QC is estimated to be completed during fall 2008.	Continue collection of field GPS data, integrate 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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
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. Goal is dependent on community consensus on proposed zoning changes; this has been illusive so far.	Re-program to year 6. 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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
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 6. 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 5** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 6**
6.1	Catch Basin Cleaning	DPW	Clean/document 1/3 of town basins per year	Goal met.	Same as Year 5.
Revised					
6.2	Street Sweeping	DPW	Sweep/document roads once per year	Goal met.	Same as Year 5.
Revised					

6.3	Utilize Appropriate BMP's for All Municipal Projects	DPW, Building Maintenance	Document implementation	Goal met, ongoing. New DPW building construction completed utilizing appropriate BMP's, including stat-of-the-art vehicle wash bay with 100% re-cycling. Construction completed of stormwater improvements to Stage Harbor Rd., Pond St., and Queen Anne Rd. at Oyster Pond resulting in elimination of stormwater discharge sites CHA-11 and CHA-13 utilizing multiple BMP's. CHA-12 being treated prior to discharge by StormCeptor unit. Design of improvements to Barn Hill Road and Landing utilizing multiple BMPs (CHA-5) complete; funding identified; construction anticipated fall 2008. Re-design of town parking lot and adjacent private parking lot conceptual design complete, to include constructed wetland BMP for stormwater management; project funding approved; final design underway; construction anticipated fall 2008. Preliminary design of new Police/Town Office Annex facility incorporates "rain gardens" for parking areas.	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. Two (2) additional Mutt Mitt dispensers were installed; bringing the total number of Mutt Mitt dispenser locations in Chatham is 23. Mutt Mitt program to be expanded along recently completed Chatham Rail Trail bicycle path.	Same as Year 5.
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 6.
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 EPA NE "Monitoring Meeting for MS4 Phase II Communities". DHE staff participated in DEP training on revisions to Mass. Wetlands Regulations for Stormwater Management. DHE and DPW staff participated in "Environmental, Health & Safety Regulatory Update Seminar.	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 5** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 6**
7.1	No Discharge Area (NDA)	DHE	NDA enacted	NDA previously established for Stage Harbor complex, with fixed pumpout facility at Harbormasters Office.	Work with Pleasant Bay Alliance on establishment of NDA for Pleasant Bay.
Revised					
7.2	Comprehensive Wastewater Management Plan (CWMP)	DHE, CAC, Water & Sewer	CWMP completed. Town Meeting action to begin implementation.	Draft CWMP/Draft EIR completed; to be filed with MEPA/DEP in May 2008.	Complete regulatory review process of Draft and Final CWMP. Funding for 1st phase of wastewater treatment facility upgrade/expansion to be sought at May 2009 Annual town Meeting.
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. Draft CWMP/EIR completed; to be filed with MEPA/DEP in May 2008.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	2, 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	(%)	321 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	(%)	100
Estimated or actual number of outfalls	(#)	30
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	

▪ CADD	(%)	
▪ GIS	(%)	50
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.)		Beneficial re-use being explored
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)	