Municipality/Organization: **Town of Bourne**

EPA NPDES Permit Number: **MAR041094**

MaDEP Transmittal Number: **W-040428**

Annual Report Number & Reporting Period: **No. 3: March 2005-March 2006**

APR 28 2006

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Mr. Thomas Guerino Title: Town Administrator

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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: Thomas M. Guerino

Title: Town Administration

Date: 4/27/06

Part II. Self-Assessment

The Town of Bourne 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 Bourne's NOI to the General Permit issued to Massachusetts under Phase II of the Regulations. Efforts over the third year involved the participation of key people, including monthly meetings of the Phase II Stormwater Management Community Oversight Group, and the Town Staff Working Group to 1. Be knowledgeable of the Phase II Requirements and 2. To assist in the formulation and implementation of Programs, Regulations and By-laws with their respective Boards and Commissions.

While Year 1 detailed the implementation of technical areas required, Year 2 exposed the political reality of By-laws and Regulations necessary to administer BMP 3, 4, & 5. While not yet achieving the results of adoption, the community is digesting relevant documentation and examples and drafting meaningful Regulations and By-laws that can be voted at Town Meeting. This can be accomplished in Year 4.

The Town has requested and received a determination from U.S. Fish and Wildlife meeting the eligibility criteria for "listed species" and critical habitat.

Bourne has accomplished many of the objectives of the Stormwater Phase II Program even before the Program came to be. For example:

a. Bourne has a vacuum truck to clean storm drains and infiltration systems.
b. Bourne has worked closely with the Buzzards Bay Project and has constructed many infiltration systems largely with grant funds.
c. Citizens of Bourne are aware of the delicate ecosystems with water on three sides and participate in the sampling and cleanups of shoreline at many locations. The DPW has a mechanical beach rake and cleans all beaches on a weekly basis in season.
d. The Town has a Pollution Task Force consisting of dedicated citizens that identify sources of pollution and seeks relief by working with regional groups, seeking funds and overseeing the formulation of corrective action.
e. The Integrated Solid Waste Management Department (ISWM) has initiated and financially supported curbside recycling for residents, supports a recycling drop-off center for residents, accepts recyclables from most area communities, provides 4 hazardous waste collections per year through the County Extension, receives waste oil at the drop-off center, and promotes these activities with a yearly newsletter mailed to each household (8,600).
f. Citizens volunteer time to assist environmental groups such as Baywatch and Buzzards Bay Action Committee.
g. The Bourne Department of Natural Resources operates 3 boat pumpout facilities, one stationary and two vessels.
h. The Town has an animal waste pickup By-law.

Comprehensive By-Laws to address BMP 4 & 5 are not yet ready for adoption by Town Meeting (May 2006). They are being developed utilizing the many examples available, and need to be presented to the parent Boards and Commissions for support and possibly further input. It is planned for adoption in year 4 but will not be in effect until the Fall Town Meeting, 2006, or Annual Town Meeting in May 2007.

Powerpoint Stormwater program has been presented to the following Boards and Commissions:

Planning Board and Zoning Board of Appeals	-	June 9, 2005
Board of Health	-	June 22, 2005
Conservation Commission	-	June 23, 2005
Board of Selectman	-	June 29, 2005

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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1-1	Establish and Advisory Committee	Town Administration Board of Selectman	Task Force on Local Pollution appointed 3/30/04 as Phase II Stormwater Community Oversight Group	Committee is meeting monthly and coordinating information inflow. Town Department Managers appointed as Stormwater Working Group meet at least monthly to provide outreach and coordinate to meet goals of Stormwater Permit.	Significant public education and outreach efforts. Developing a broad base of support for Phase II By-law enactment.
Revised					
Revised					
Revised					
Revised					
				-	
Revised					
Revised					

1-2	Include Stormwater News with ISWM newsletter. Town initiatives	Public Works Supt., Integrated Solid Waste Manager Stormwater Working Group	Incorporation of Stormwater news into ISWM newsletter and mailing to all addresses. Handouts. Posters distributed. Media coverage.	- Mail newsletter approx. May 1, 2006 - Place posters at Public Buildings - Handouts and display booth at Town Meeting - Regional Municipal Hazardous Waste Collections (4 per year) Stormwater handout at event - Municipal weekly curbside recycling - 7 day a week drop off center - Used motor oil collection at drop off center. - Paint collection Friday and Saturday April – Oct. at drop off center - Stormwater Phase II subject of one-hour Bourne Environmental Review local TV Program hosted by Phil Goddard, Bourne resident - Stormwater flyer put on Town of Bourne website. - Stormwater Program presented to all Bourne 3rd graders by BOH Agent and Conservation Administrator. - Selectman's Cable program featured Stormwater discussion Dec. 12, 2005. - Grant to ISWM to distribute rain barrels to residents.	Continue and improve this excellent program.

1-3	Network with other Agencies	Supt. DPW	Meet 2 times per year minimum.	- Participate with Cape communities through resources of Cape Cod Commission. - CCC sponsored workshop April 11, 2006 "Low Impact Development" attended by Stormwater Working Group. - Workshop "Training for Low Impact Development" in Westboro May 17, 2005. - Phase II Workshop April 29, 2005 by EPA. - Utilize resources of Buzzards Bay Project to seek Stormwater remediation construction funds. - Americorps WET Program (school program).	Work closely with Cape Cod Commission Group to share information and reduce costs. Work with Buzzards Bay Project staff to get information to the public.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
2-1	Public Input to Process (HOTLINE)	Public Works Supt.	Record messages and respond to complaints	Public has begun to use hotline. Continue to publicize. Local Emergency Planning Committee. Selectman's Task Force on Local Pollution investigates stormwater problems and determines pollution priorities.	Continue to inform Bourne Citizens of Hotline number and purpose. Meet with Civic Associations. Share information at Family Day at Town Green, Scallop Festival, Beach Clean-up. Involve TRIAD (Senior organization)
Revised					
2-2	Work with stormwater groups to sample water quality and share information.	Stormwater Community Oversight Group/ DPW Supt.	Attendance at, and participation with Agencies and volunteer groups.	- Work with Buzzards Bay Project Staff on Stormwater issues. - Mass. Div. Of Marine Fisheries samples local waters and determines if restrictions (or prohibitions) will be placed on shellfishing. - BOH samples bathing beaches for similar sanitary conditions. - Coalition for Buzzards Bay has an active membership that regularly samples and reports water quality. - Massachusetts Bays Program.	Continue participating in existing programs.
Revised					
2-3	Present annual progress report at Selectmen's meeting.	Stormwater Community Oversight Group/Public Works Supt.	Meet and present information to Selectmen.	Power Point Program will be presented to Selectmen after Annual Town Meeting as schedule permits. Except meeting late May.	Selectman appoint the Stormwater Committee and will be informed of progress. Annual Town Meeting is mid – May and preparation precludes adequate focus on stormwater during this period.
Revised					
Revised					

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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
3-1	Inventory Storm Drain System.	Supt. DPW	Produce map with drainage structures and outfall locations.	- Buzzards Bay inventoried by Buzzards Bay Project. - North and South Sagamore and interior areas of town, including Cape Cod Canal done with grant assistance of Americorp. - DPW has three GPS units to update as necessary.	Update mapping as new development occurs and include collection system data as it becomes available. Buzzards Bay Project, through a grant will survey additional areas in Bourne and map same.
Revised					
3-2	Illicit discharge detection plan.	Supt. DPW and BOH	- Respond to all complaints and record. - Install leaching chambers to reduce run-off to waterways.	- Two infiltration drainage systems at Squeteague Harbor (Buzzards Bay) are funded through a CPR Grant and are completed. - A CPR Grant has been received to design and prepare contract documents for the remediation of Stormwater pollution through infiltration system technology for Conservation Pond/Hen's Cove. This is complete. - A CPR construction grant has been received to remediate Conservation Pond/Hen's Cove and will be completed by 6/30/06.	Staff to check outfalls in dry weather and look for suspicious indicators. Employees have been given training to also spot illicit discharges. Priorities will be set from water quality sampling and information from our HOTLINE.
Revised					
3-3	General Information Materials	Supt. DPW, Stormwater Community Oversight Group	Produce informational brochures or flyer. Distribute information to all employees. Distribute information to businesses. Provide to public at Library, Town Hall and Town Meeting.	Flyers have been printed and distributed at Town Meeting and will be available at Town Hall and Public Library. Posters are also prominent at these locations. Information is also being distributed to all employees. Refrigerator magnets are being distributed at Town Meeting.	Increase distribution to Schools and public gathering places.
Revised					

3-4 Revised	DPW training for Illicit Connections	Supt. DPW	Hold meeting. Take attendance Training materials available.	Meeting to be held for DPW personnel and a record of attendees and program is on file. (Early May)	Better training materials will be shared.
3-5 Revised	Illicit discharge prohibition	Board of Health, Supt. DPW	Necessary Regulation changes.	Regulation adopted by Board of Health April 13, 2005	Action complete.
Revised					

3a. Additions

	Regional Landfill (See BMP 1-2, 6.5)				

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4-1	Wetlands By-law for Stormwater Management	Conservation Commission	Adoption of additional Regulations and/or By-laws to expand and improve requirements for stormwater management.	Conservation Commission currently administers provisions of the Massachusetts Wetlands Protection Act, and Riverways Act and all development projects within 200 feet of a wetlands resource. Town staff, Boards, and Committees are reviewing protocols, process, by-laws and regulations to expand review of stormwater issues and bring pertinent development sites under scrutiny for stormwater compliance issues.	Conservation Commission review recommendations for revisions to expand and improve stormwater management practices. Conservation Commission to seek Town Meeting approval of changes to Bourne's Wetlands Regulations, defining new standards and/or referring to a new Town Stormwater By-law. Agent part of working group to develop town-wide by-laws.
Revised					
4-2	Subdivision Regulations for Stormwater Management	Planning Board, Zoning Enforcement Officer, Bldg. Inspector, DPW Supt.	Adopt Regulations/By-laws as necessary to expand and improve requirements for stormwater management.	Stormwater management is currently required, and standards specified, by Subdivision Regulations. Planning Board currently requires certification of Site Plan stormwater design and calculations by a Registered Professional Engineer. Town staff, Boards, and Committees are reviewing Subdivision Regulations and researching available resources as to what other Communities have adopted.	Planning Board to review recommendations for changes to improve requirements for Stormwater Management. Planning Board adopt changes to Subdivision Regulations or referral in Regulations to a new Stormwater By-law.
Revised					

4-3 Revised	Erosion control by-law	Planning Board, Zoning Enforcement Officer, Bldg. Inspector, DPW Supt.	Adoption of Construction Erosion Control language in a Town Stormwater By-law and/or Subdivision Regulations.	Construction Erosion Controls are currently required, and reviewed by Planning Staff and Planning Board, for commercial projects under Site Plan Review. Town Staff, Boards, and Committees are reviewing protocols, process, by-laws and regulations to improve requirements and include other development sites.	Town Staff, Boards, and Committees complete review and seek Town Meeting approval of additional By-law language to require construction erosion controls for all development sites. Planning Board amend Subdivision Regulations to require construction Erosion Controls by specifying new standards, or by referring to a new Town Stormwater By-law.
4-4 Revised	Reporting Hotline	Supt. DPW/ Board of Health	Record calls and respond. Keep records	Hotline has been established and is being publicized.	Inform the public of the program and how everyone can help by forwarding information via the HOTLINE
4-5	Site plan review/ construction site inspection program	DPW Supt., Planning Board, Building Inspector, Conservation Commission	Review plans, inspect, pre-construction site visit.	Town has formal site plan review of Commercial development, including PE Certified stormwater design, construction and post-construction erosion control measures. Conservation Commission currently reviews projects within 200 feet of wetlands resources. Town is reviewing protocols, process, by-laws and regulations to expand review to include additional high-priority development sites for stormwater management.	Develop a protocol and process to review, pre and post construction site inspections of additional development sites, not currently reviewed by Town Boards for stormwater management.

4a. Additions

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	(#)	50
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	20% +/-
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	12%

% of population on septic systems	(%)	88%

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)	As needed
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	As needed
Total number of structures cleaned	(#)	479
Storm drain cleaned	(LF or mi.)	Clogged only
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	900 Tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Permitted landfill

Cost of screenings disposal	($)	0$
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	Annually as needed

Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Bi-Monthly
Qty. of sand/debris collected by sweeping	(lbs. or tons)	1000 tons +/-
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	($)	0$
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction 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

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	25% neg. 75%
Pre-wetting techniques utilized	(y/n)	Some
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	10%

Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	In Use