DARTMOUTH MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

Acting Superintendent
David T. Hickox, P.E.

BOARD OF PUBLIC WORKS

Manuel Branco
Ellsworth C. Chase
Mark S. Nunes

April 28, 2005

Received
5-4-05

Ms. Thelma Murphy, Storm Water Coordinator
United States Environmental Protection Agency
Municipal Assistance Unit (CMU)
One Congress Street - Suite 1100
Boston, MA 02114-2023

RE: Dartmouth, Massachusetts
NPDES Permit Number: MAR041102

Dear Ms. Murphy:

Please find enclosed one signed original NPDES PII Small MS4 General Permit Annual Report for the Town of Dartmouth signed by Michael J. Gagné, Executive Administrator for the Town of Dartmouth.

Should there be any questions, please feel free to contact me at (508) 999-0740.

Sincerely,
DEPARTMENT OF PUBLIC WORKS

David T. Hickox, P.E.
Acting Superintendent of Public Works

DTH:md

Municipality/Organization: **Dartmouth, Massachusetts**

EPA NPDES Permit Number: MAR041102

MaDEP Transmittal Number: **W-**

Annual Report Number & Reporting Period: **No. 1: March 04-March 05**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: David T. Hickox, P.E. Title: Acting Superintendent

Telephone #: (508) 999-0740 Email: dhickox@town.dartmouth.ma.us

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: Michael J. Gagne

Title: Executive Administrator

Date: April 26, 2005

Part II. Self-Assessment

The Town of Dartmouth Massachusetts has completed the required self-assessment and have determined that our municipality is in compliance with all permit conditions, except for the following provisions:

Section 1-1	**Install tributary signage.**
Revision:	**The Town has awarded a contract for the development of tributary signage. The Town will be installing the signs during the summer of 2005. The Town Planner is leading this effort.**
Section 3-2	**Develop storm drain mapping based on aerial flight data, existing plans and field collected data.**
Revision:	**The Town did not fund GIS mapping. The Town will coordinate the collection of field data with the New Bedford Vocational High School students utilizing GPS. Collected data will be downloaded and used in the development of a composite drainage map.**

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	Partnerships	DPW,BOH	Partnerships, Press releases, distribute	Informational video was obtained and scheduled to be aired on local cable television.	Evaluate Public Education and Outreach Program from years 1&2. Prepare press releases noting program accomplishments.
Revised	*Award contract to create tributary signage .*	Planning	.Install tributary signs.		
1-2	Educational Materials	DPW,BOH	Distribute Fact Sheets to municipal buildings, Paint winning "Storm Drain Stencil" in designated areas..	Town had a Storm Drain Stencil Contest at the Middle School. A design was chosen, and gift certificates given out by the Dartmouth Mall. (partnership) Facts Sheets on display at municipal facilities. Tributary signs have been ordered and scheduled for summer 2005 installation.	Coordinate the painting of winning storm drain stencil, include volunteers, fund storm drain programs at Town Meeting.
Revised					
1-3	Reaching Diverse Audiences	DPW, BOH	Middle School Stencil Contest, involving students family in the discussion of storm water / drainage.	A very successful Storm Drain Stencil Contest was conducted at the Middle School. The purpose of the contest and a general overview of stormwater was presented to the students by Town Officials .	Continue painting the winning storm drain stencil in other areas of Town. Include community groups in the painting effort. Board of Health to complete distribution of septic and grease trap maintenance information.
Revised					
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	Storm Drain Stenciling	Planning, ConCom, DPW	Conduct Storm Drain Stencil contest at Middle School	Public presentation to winner of Stencil Contest on May 5, 2004 at the Dartmouth Middle School. The Dartmouth Mall presented Gift certificates to the winner and 2 finalists. Judges for contest consisted of Department Heads from Town Departments.	Coordinate painting of storm drains with civic organizations, ie Boy Scouts, Buzzards Bay Coalition
Revised					
2-2	Existing Program Assistance	DPW, ConCom	Update of the NPDES Phase II Program to Town Boards	Presentations were made by staff to the Dartmouth Board of Health, Conservation Commission, Planning Board and Board of Public Works.	Maintain communication on storm water issues with various Boards. Prepare press releases for local newspaper on the installation of new tributary signage.
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3-1	Mapping	DPW,ConCom	Coordination of data collection with students from New Bedford Vocational High School	Funding for continued mapping was denied at Town Meeting, other sources of data collection are now being planned including the use of High School students and hand held GPS units .	Establish priority areas for identification of illicit discharges. Solicict public input on potential problems.
Revised					
3-2	Legal Prohibited – Enforcement	BOH, ConCom	Continued review and upgrading of existing stormwater related bylaws. Restrict feeding of geese.	Board of Health and Conservation Commission regulations have been reviewed to strengthen if required areas that prohibit illicit connections to storm drain systems. Board of Health has removed the influx of wild geese from the Apponagansett Bay watershed.	Monitor regulations and revise as necessary. Remove geese from Apponagansett Bay Watershed.
Revised					
3-3	Detection Plan	BOH,DPW	Water quality testing and monitoring.	The Town continued to fund and partnership with the Loyd Center for Environmental Studies and the University of Massachusetts on the water quality testing and stream flow monitoring as part of the Turn the Tides Project.	Continue Turn the Tides partnership and based on water quality testing results, the Town will move forward with the Source Location phase on the Detection Plan. The Town's I/I test equipment will be used to aid in the location of illicit connections.
Revised					
3-4	Awareness & Education	BOH,Planning	Update the placement of Fact Sheets in Public Facilities, prepare and fund Household Hazardous Waste Day.	Fact sheets and Stormwater informational brochures have been obtained and displayed, Hazardous Waste Days have been advertised and held at the DPW Highway Yard.	Corrective action will be documented and local the newspaper will be informed as to the problem and solution.

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	Stormwater Management	ConCom	Providing Stormwater Management Guidelines & Requirements	The Town has cpmpleted the upgrade of the aquifer protection bylaw for Town Meeting approval. Conservation continued the review of standards for Stormwater related to the construction of residential and commercial developments.	Continue the review of regulations as necessary and incorporate bylaw revisions as the pertain to stormwater and new Aquifer Protection guidelines.
Revised					
4-2	Stormwater Regulations	Planning Board	Review of Subdivision Regulations relative to stormwater control during construction.	Enforcement of subdivision regulations that prevent the release of residential lots for sale until all stormwater facilities have been constructed and are fully operational.	Review, update and implement stormwater regulations relative to construction activities.
Revised					
4-3	Education Materials	DPW	Provde Stormwater Information to all contractors that have been awarded construction contracts with the Department of Public Works.	All contractors performing site work or utility work on significant size projects are provided with a Memorandum and wall guide to Planning & Implementing Erosion & Sediment Control Practices.	Continue to provide information to contractors involved in site development related projects.
Revised					
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	Stormwater Management	ConCom	Enforcement of Town of Dartmouth's and Mass DEP's Stormwater Guidelines.	Ongoing review and monitoring of the current stormwater bylaws and regulations. The Town has a designated drainage consultant who is responsible for the review of all stormwater designs. The Town's Environmental Affairs Coordinator monitors all construction related activities.	Continue the current post construction monitoring of sites.
Revised					
5-2	Drainage Consultant	ConCom	Consistent Technical Review of Stormwater design and policy.	Consultant provided technical imput to the Aquifer Protection Bylaw Committee during the Bylaw upgrade in preparation for Town Meeting. Consultant continued the review of all Notice of Intent drainage calculations.	Continue Consultant reviews.
Revised					
5-3	Subdivison Rules & Regulations	Planning	Enforcement of regulations pertaining to stormwater facilities being fully operational prior to release of lots.	Developers are aware that they must construct all drainage facilites, and provide fully operational system prior to the release of any lot for sale.	Monitor and update regulations as needed.
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	Employee Training	DPW	Provide employee training in conjunction with 40 CFR 112 program.	Acting Superintendent of DPW has completed a review of the SPCC Plan. Preparation for a new training program which incorporated several operation and maintenance procedures related to stormwater has been completed.	Continue annual training of employees in stormwater related procedures.
Revised					
6-2	O&M Program	DPW	Implementation of O&M program designed to reduce and or eliminate the discharge of pollutants form various DPW facilities.	DPW Highway Division has alll road salt/sand is stored within the salt shed. Staff monitors all exterior stored equipment for fluid leakage. New stormwater detention pond has been designed constructed to service the remaining Highway Division Yard and the existing oil/gas separator has been fully serviced after the winter season in preparation for the new season	Town will solicit funding for a new "salt only" covered facility. Grants and other funding sources will be explored.
Revised					
6-3	Roadway Maintenance	DPW	Sweep all streets. Clean all catch basins annually.	The Town swept all primary roadways and a majority of secondary roadways. The Town has cleaned all catch basins in Town under private contract.	The sweeping of **all** primary streets prior to the cleaning of catch basins to allow for improved operation of the deep sump catch basin design.
Revised					
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7-1	BMP's for TMDL Reduction	DPW	Implement BMP's for existing stormwater facilities..	Town has solicited funding and has been successful in the receipt of funds for purchase of a Vacum Truck for servicing stormwater facilities. Town has completed design and permitting for the installation of Vortechnic Unit funded by the grant. BMP for Paskemansett Bay (Delano Way) Stormwater Project has been developed and specified.	Establish administrative record for monitoring reductions in TMDL's resulting from the installation new BMP's on existing watersheds.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

- Pollution Solutions, the Town has a series of weekly healthy household habits listed in the local newspaper to make residents aware of stormwater and what can be done individually to improve stormwater quality in the area.

- The Coalition for Buzzards Bay has provided an informational section in their newsletter on Dartmouth's Phase II Storm Water Management Program. The summary provides a general overview of the Phase II Program.

- Extensive research and debate has taken place over the last year a Dartmouth review the Aquifer Protection Bylaw. Professional Staff and residents working together have evaluated the pro's and con's of impervious cover, recharge, new BMP's for stormwater, O&M of new BMP's, monitoring and certification on operation of various new technologies.

- The public was notified on EPS's half-hour TV Special "After the Storm" via local cable TV.

- The Town's contribution of $336,000 to partner with the Lloyd Center, The Coalition for Buzzards Bay, and the University iof Massachusetts on the Turn the Tide Project is a commitment by the Town to protect it's most natural asset by restoring the health and vitality of Dartmouth's waters.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	($)	

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		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ 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				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "X")				

▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
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	(%)	
% of population on septic systems	(%)	

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)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
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)	
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)	
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	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	