Town of Dartmouth, Massachusetts

Department of Public Works
Dartmouth, Massachusetts

2004 APR 28 P 10: 38

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MAR041102

# NPDES PII Small MS4 General Permit

# Annual Report

MAY 3 - 2004

MUNICIPAL ASSISTANCE UNIT

Prepared for

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Washington, DC 20460

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Boston, MA 02108

**May 2004**

**Municipality/Organization:** **Dartmouth, Massachusetts**

**EPA NPDES Permit Number:** MAR041102

**MaDEP Transmittal Number:** **W-**

**Annual Report Number & Reporting Period:** **No. 1: March 03-March 04**

MAY 3 - 2004

MUNICIPAL ASSISTANCE UNIT

# NPDES PII Small MS4 General Permit Annual Report

## Part I. General Information

Contact Person: David T. Hickox, P.E. Title: Assistant 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, 2004

**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** | **Identify tributaries, select signage and prepare signs.** |
| **Revision:** | **The Town has determined that numerous brooks and streams are unnamed. The Town has been in contact with USGS to implement the process of formally naming these brooks and streams. The Town's Environmental Affairs Coordinator is leading this effort.** |
| **Section 2-2** | **The Board of Health will invite volunteers to assist in the collection of water Quality samples from various water bodies.** |
| **Revision:** | **The Town has entered into contract with the University of Massachusetts – Dartmouth to assess water quality and flow in all streams, to assess bacteria Loading to the estuaries, to review fresh water hydrology of the Paskamansett River, Slocums River and Little Rivers management options, and water quality Study modeling. This cooperatively funded effort is referred to as "Turn the Tide Project".** |

## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 1-1 | Partnerships | DPW,BOH | Partnerships, Press releases, distribute | "Pollution Solutions" provided in local newspaper, partnership with the Coalition for Buzzards Bay formed. | Develop informational video, obtain tributary signs, coordinate storm drain stencil painting |
| Revised | *Work with USGS in the naming of brooks and streams.* | Conservation Commission | Begin the process on obtaining historical data on streams and brooks past use and ownership. | | |
| 1-2 | Educational Materials | DPW,BOH | Distribute Fact Sheets to municipal buildings, Promote "Storm Drain Stencil Contest" at Middle School | Facts Sheets on display at municipal facilities, Storm Drain Stencil Contest held at Dartmouth Middle School, winner chosen with public announcement and presentation of awards on May 5, 2004. | 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 . | Coordinate the painting of winning storm drain stencil.<br>Board of Health to complete distribution of septic and grease trap maintenance information. |
| Revised | | | | | |
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| Revised | | | | | |

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## 1a. Additions

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## 2. Public Involvement and Participation

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 2-1 | Storm Drain Stenciling | Planning, ConCom, DPW | Conduct Storm Drain Stencil contest at Middle School | Contest conducted, three finalists and one #1 stencil chosen. Public presentation to winner scheduled for May 5, 2004 at the Dartmouth Middle School. | Coordinate painting of storm drains with civic organizations, ie Boy Scouts, Buzzards Bay Coalition |
| Revised | | | | | |
| 2-2 | Existing Program Assistance | DPW, ConCom | Present 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. |
| Revised | | | | | |
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## 2a. Additions

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## 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 3-1 | Mapping | DPW,ConCom | Perform aerial flight of Town with horizontal and vertical control | Aerial flight of Town has been completed. | Subject to funding, the will create composite drainage plans utilizing the Town's GIS base plan . |
| Revised | | | | | |
| 3-2 | Legal Prohibited – Enforcement | BOH, ConCom | Review of existing stormwater related bylaws. | Board of Health and Conservation Commission regulations have been reviewed to strengthen if required areas that prohibit illicit connections to storm drain systems. | Monitor regulations and revise as necessary. |
| Revised | | | | | |
| 3-3 | Detection Plan | BOH,DPW | Water quality testing and monitoring. | The Town has contracted with the University of Massachusetts – Dartmouth to perform water quality testing and stream flow monitoring as part of the Turn the Tides Project. | 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 | Placement of Fact Sheets in Public Facilities, 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. |
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## 3a. Additions

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## 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 4-1 | Stormwater Management | ConCom | Providing Stormwater Management Guidelines & Requirements | The Town has in place complete standards for Stormwater related to the construction of residential and commercial developments. | Update 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. | Subdivision regulations prevent the release of residential lots for sale until all stormwater facilities have been constructed and are fully operational. | Implement and enforce stormwater regulations relative to construction activities. |
| Revised | | | | | |
| 4-3 | Education Materials | DPW | Provide Stormwater Information Contractors | 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 | | | | | |
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## 4a. Additions

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## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 5-1 | Stormwater Management | ConCom | Enforcement of Town of Dartmouth's and Mass DEP's Stormwater Guidelines. | 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 review of all Notice of Intent drainage calculations, consultant input to proposed Aquifer Protection Bylaw amendments. | 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 | | | | | |
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## 5a. Additions

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## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 6-1 | Employee Training | DPW | Provide employee training in conjunction with 40 CFR 112 program. | Superintendent Bernier of DPW has completed a revised SPCC Plan training program which incorporated several operation and maintenance procedures related to stormwater. | 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. | All road salt/sand is stored within the salt shed. Additional equipment is stored within new equipment storage facility equipped with approved floor drain system. New stormwater detention pond has been designed and permitted to reduce siltation entering resource area. | Design of Salt Only covered facility. Construction of a new detention facility. |
| Revised | | | | | |
| 6-3 | Roadway Maintenance | DPW | Sweep all streets. Purchase 2nd Sweeper Clean all catch basins annually. | The Town swept all streets and purchased a 2nd Elgin Sweeper. The Town has cleaned all catch basins in Town under private contract. | The sweeping of all streets prior to the cleaning of catch basins to allow for improved operation of the deep sump catch basin design. |
| Revised | | | | | |
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## 6a. Additions

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## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 7-1 | BMP's for TMDL Reduction | DPW | Implement BMP's. | BMP's have been established . | Establish administrative record for monitoring reductions in TMDL's. |
| Revised | | | | | |
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## 7a. Additions

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**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 | (# )<br>(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 | (#) | |

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**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 | ($) | |
| | | |
| | | |

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|---|---|---|
| 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 %) | |
| | | |
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|---|---|---|
| Anti-/De-Icing products and ratios | % NaCl<br>% $CaCl_2$<br>% $MgCl_2$<br>% CMA<br>% Kac<br>% KCl<br>% 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) | |
| | | |
| | | |