

**Municipality/Organization:** Town of Halifax, MA

**EPA NPDES Permit Number:** MA041035

**MaDEP Transmittal Number:** W-040977

**Annual Report Number**

**& Reporting Period:** No. 3: March 05-March 06

JUN 19 2006

## **NPDES PII Small MS4 General Permit Annual Report**

### **Part I. General Information**

**Contact Person:** Rose Campbell

**Title:** Halifax Highway Surveyor

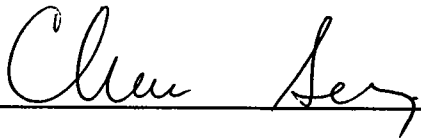
**Telephone #:** 781-293-1760

**Email:** \_\_\_\_\_

#### 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:** Charles Seelig

**Title:** Town Administrator

**Date:** April 26, 2006

April 26, 2006

United States Environmental Protection Agency  
Water Technical Unit (WTU)  
P.O. Box 8127  
Boston, Massachusetts 02114

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street  
Worcester, Massachusetts 01608

RE: NPDES Phase II Small MS4 General Permit  
Town of Halifax, Massachusetts Annual Report  
MADEP Transmittal No. W-040977  
EPA Permit Number MA041035

To Whom It May Concern:

The Town of Halifax, Massachusetts is pleased to provide you with the attached National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit Annual Report for the period from March 2005 to March 2006. In general, the Town has developed a stormwater management program and will continue to implement activities in accordance with regulatory requirements and as available funding will allow.

Should you have any questions, please do not hesitate to call Rose Campbell at (781) 293-1760.

Sincerely,



Charles Seefig  
*Town Administrator*

cc: Rose Campbell, Halifax Highway Surveyor

## Part II. Self-Assessment

In general, the Town of Halifax's stormwater management activities for the third year of the General Permit (March 2005 through March 2006) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted in July 2003. The Town has developed a Stormwater Management Plan with program priorities for 2003-2008 including:

1. Achieving regulatory compliance, particularly EPA and DEP Phase II NPDES permit requirements;
2. Incorporating storm water protection measures into municipal activities;
3. Focusing activities on target pollution reduction (e.g. Section 303.d. waters and protecting the Town's water supply);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program will focus on the protection of the local water supply and addressing the State's Section 303.d waters located within the Town. To this end, staff will continue to develop and improve the Program activities to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various Town departments. Program priorities will also focus on increased efforts to reduce target pollutants and restore local water bodies.

The Town is committed to working with local watershed associations to advance their goals and objectives. Another high priority of staff will be to keep abreast of the latest technology and approaches to achieve storm water management. Program activities will also strive to encourage environmental stewardship and continue to build on partnerships with other agencies, neighboring towns, and the community for active participation in accomplishing the Program mission.

During Permit Year Three, the Town focused on obtaining local funding; developing aerial photography of the Town and town-wide mapping; reviewing current regulations; improving local good housekeeping programs; and performing community outreach.

To satisfy the DEP-approved scope of work, the ongoing activities will include GIS mapping and outfall screening and sampling using the aerial photography of Halifax that was conducted by on April 30, 2004. The mapping will serve as the basis for developing a new Geographic Information System (GIS) of the storm drain system, receiving waters and watersheds. Upon completion of the storm

drain system map, the focus will turn to the Water Quality Stewardship element of the program.

### 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<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                                                         |
|--------------|-----------------------------------------------|-------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1<br>Revised | Partnership with local Watershed Associations | Con. Comm., DPW, BOH          | Regular Meeting Attendance         | Taunton River Watershed Association (TRWA).                                                   | Continued updating, seek alternative funding opportunities (such as 604b and 319 grants, and SRF Funding). |
| 2<br>Revised | Develop Brochures                             | DPW                           | Quarterly Mailings                 | Water department mailings and water quality updates.                                          | Continued mailings.                                                                                        |
| 3<br>Revised | WEB Site Public Service Postings              | IT Dept., DPW                 | WEB Site Publication & Maintenance | TRWA information transfer and data publication of data, local WEB updates                     | TRWA information transfer and data publication of data, local WEB updates                                  |
| Revised      |                                               |                               |                                    |                                                                                               |                                                                                                            |
| Revised      |                                               |                               |                                    |                                                                                               |                                                                                                            |
| Revised      |                                               |                               |                                    |                                                                                               |                                                                                                            |

#### 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                                              |
|----------|------------------------|-------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 4        | Water Quality Testing  | DPW                           | 2 Rounds of Water Quality Sampling of Priority Water Bodies         | No funding available                                                                          | Seek funding and initiate dry weather and wet weather field screening of outfalls after mapping |
| Revised  |                        |                               | 1 Round of Water Quality Sampling and Targeted Wet Weather Sampling |                                                                                               |                                                                                                 |
| 5        | Community Cleanup Days | DPW                           | Annually                                                            | Conducted in Spring 2005                                                                      | Scheduled for Spring 2006                                                                       |
| Revised  |                        |                               |                                                                     |                                                                                               |                                                                                                 |
| Revised  |                        |                               |                                                                     |                                                                                               |                                                                                                 |
| Revised  |                        |                               |                                                                     |                                                                                               |                                                                                                 |
| Revised  |                        |                               |                                                                     |                                                                                               |                                                                                                 |
| Revised  |                        |                               |                                                                     |                                                                                               |                                                                                                 |

### 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                                                           |
|--------------|-------------------------------------------------|--------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 6<br>Revised | Catch Basin/Outfall and Receiving Water Mapping | DPW                                  | GIS Mapping                                       | Aerial photography taken in April 2004.                                                       | Aerial photography will serve as basis for outfall and catch basin mapping pending funding from Town meeting |
| 4<br>Revised | Water Quality Testing                           | DPW                                  | Testing of Priority Water Bodies                  | No funding available                                                                          | Seek funding and initiate dry weather and wet weather field screening of outfalls after mapping              |
| 7<br>Revised | Regulatory Review                               | DPW, Planning Board, BOH, Con. Comm. | Regulatory Revisions and Action                   | Continued to review applicable stormwater and aquifer protection regulations                  | Finalize consolidated regulations and investigate areas for revisions                                        |
| 8<br>Revised | Permit Enforcement                              | DPW, Planning Board, BOH, Con. Comm. | Local Construction Site Oversight and Enforcement | Ongoing to comply with local bylaws, state and federal requirements.                          | Ongoing to comply with local bylaws, state and federal requirements.                                         |
| 9<br>Revised | Misconnection/Illegal Dumping and Correction    | DPW, BOH                             | Connectivity Mapping, Bylaw Enforcement and Fines | Began GIS mapping and continued local bylaw enforcement                                       | Continue GIS mapping and continue local bylaw enforcement                                                    |

#### 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                                |
|----------|--------------------------|--------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 7        | Regulatory Review        | DPW, Planning Board, BOH, Con. Comm. | Regulatory Revisions to Bylaws as Necessary       | Review of applicable stormwater and aquifer protection regulations.                           | Finalize consolidated regulations and investigate areas for revisions             |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |
| 8        | Permit Enforcement       | DPW, Planning Board, BOH, Con. Comm. | Local Construction Site Oversight and Enforcement | Ongoing to comply with local bylaws, state and federal requirements.                          | Ongoing to comply with local bylaws, state and federal requirements.              |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |
| 10       | Improved As-Built Review | DPW, Planning Board                  | Electronic As-Built Submittals on Town GIS System | Began GIS mapping                                                                             | Continue GIS mapping and develop protocol for submitting as-builts electronically |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |
| Revised  |                          |                                      |                                                   |                                                                                               |                                                                                   |

##### 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                    |
|----------|--------------------|--------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 7        | Regulatory Review  | DPW, Planning Board, BOH, Con. Comm. | Regulatory Revisions to Bylaws as Necessary       | Review applicable stormwater and aquifer protection regulations,                              | Finalize consolidated regulations and investigate areas for revisions |
| Revised  |                    |                                      |                                                   |                                                                                               |                                                                       |
| 8        | Permit Enforcement | DPW, Planning Board, BOH, Con. Comm. | Local Construction Site Oversight and Enforcement | Ongoing to comply with local bylaws, state and federal requirements.                          | Ongoing to comply with local bylaws, state and federal requirements.  |
| Revised  |                    |                                      |                                                   |                                                                                               |                                                                       |
| Revised  |                    |                                      |                                                   |                                                                                               |                                                                       |
| Revised  |                    |                                      |                                                   |                                                                                               |                                                                       |
| Revised  |                    |                                      |                                                   |                                                                                               |                                                                       |

### 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4                                 |
|---------------|--------------------------------|-------------------------------|-------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 11<br>Revised | Improved Street Sweepings      | DPW                           |                         | Semi-annual Collections                                                                       | Semi-annual Collections                                            |
| 12<br>Revised | Improved Catch Basin Cleanings | DPW                           |                         | Annual Collections                                                                            | Annual Collections                                                 |
| 13<br>Revised | Household Hazardous Waste Days | DPW                           |                         | Annual Collection                                                                             | Annual Collection                                                  |
| 14<br>Revised | Drain Stenciling               | DPW                           | Aquifer Protection Area | GIS Mapping underway to locate catch basins                                                   | Continue GIS mapping and stencil drains in Aquifer Protection Area |
| Revised       |                                |                               |                         |                                                                                               |                                                                    |
| Revised       |                                |                               |                         |                                                                                               |                                                                    |

### 6a. Additions

|    |                   |     |                    |                                                                                                              |                                                                                                                    |
|----|-------------------|-----|--------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 18 | Employee Training | DPW | Seminar Attendance | Attended GIS Mapping and Goodhousekeeping Training Seminars Sponsored by Plymouth County Highway Association | Will implement seminar topics and will continue to attend applicable Plymouth County Highway Association seminars. |
|    |                   |     |                    |                                                                                                              |                                                                                                                    |

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

| <b>BMP ID #</b> | <b>BMP Description</b>              | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                            | <b>Progress on Goal(s) – Permit Year 3</b><br>(Reliance on non-municipal partners indicated, if any) | <b>Planned Activities – Permit Year 4</b>                                                                                                  |
|-----------------|-------------------------------------|--------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 6<br>Revised    | GIS Mapping                         | DPW                                  | GIS Mapping of Priority Waters and Drainage Patterns | DEP scope of work approval, No funding available                                                     | Seek Town Meeting approval to obtain funding, Aerial photography on April 30, 2004 will serve as basis for outfall and catch basin mapping |
| 4<br>Revised    | Water Quality Testing               | DPW                                  | Semi-Annual Water Quality Testing                    | DEP scope of work approval, No funding available                                                     | Seek Town Meeting approval to obtain funding, Initiate dry weather and wet weather field screening of outfalls after mapping               |
| 15<br>Revised   | Stormwater Modeling                 | DPW                                  | Needs Assessment for Category 5 Water Bodies         | DEP scope of work approval, No funding available                                                     | Seek Town Meeting approval to obtain funding, Aerial photography on April 30, 2004 will serve as basis for outfall and catch basin mapping |
| 16<br>Revised   | Misc. Structural BMPs as Needed     | DPW                                  | i.e. Construction Improvements                       | None to date (scheduled for Permit Years Four and Five as needed)                                    | To be determined                                                                                                                           |
| 17<br>Revised   | Misc. Non-Structural BMPs as Needed | DPW                                  | i.e. Bylaw Enforcement, Fees and Fines               | None to date (scheduled for Permit Years Four and Five as needed)                                    | To be determined                                                                                                                           |
| Revised         |                                     |                                      |                                                      |                                                                                                      |                                                                                                                                            |

**7a. Additions**

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#### **7b. WLA Assessment**

To date, the Town has focused on available funding sources. GIS mapping of the drainage system and receiving waters has begun and water quality testing will commence in the coming year. WLA assessment will follow.

#### **Part IV. Summary of Information Collected and Analyzed**

The Town has reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and appears to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. Minor revisions may be required for informing local project proponents of the Phase II one-acre NPDES requirement.

The Town continues to seek funding for the project to begin outfall mapping activities and to continue commence water quality testing and field screening of outfalls for both dry and wet conditions, once the outfall locations have been determined. The immediate focus will be on the outfall pipes located the watershed areas of the Massachusetts Section 303d water bodies located in Town (Muddy Pond, Elm Street Pond, Plymouth Street Pond, Winnetuxet River and Monponsett Pond).

The Town will continue to provide updates to the public through water bill mailings and postings on the local WEB site, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town has taken part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA) and will continue to improve its good housekeeping programs.

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**TO BE COMPLETED IN LATER YEARS OF THE PERMIT PROGRAM**

**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<br>Prior to<br>Phase II | Under<br>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      | (%)                |  |

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## 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                                                                    | (\$)           |  |

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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 %) |  |
|                                                                                        |             |  |
|                                                                                        |             |  |

|                                    |                                                                                           |  |
|------------------------------------|-------------------------------------------------------------------------------------------|--|
| Anti-/De-Icing products and ratios | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><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)       |  |
|                                                          |             |  |
|                                                          |             |  |