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Innovative Solutions since 1899

05

**Wrentham, Massachusetts**
**WSE Project No. 203111.A**

April 29, 2005

United States Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, Massachusetts 02114-2023

Re: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)
Annual Report for Town of Wrentham (Permit Year 2)
**Permit Number: MAR041175/MA DEP Transmittal Number: W036282**

To Whom It May Concern:

Pursuant to the requirements of EPA's "National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems" issued May 1, 2003; Weston & Sampson Engineers, Inc. is pleased to submit the enclosed Annual Report for Permit Year 2 on behalf of the Town of Wrentham, Massachusetts.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

John L. Meader

John L. Meader, P.E.
Project Manager

Enclosures

cc: Mr. Robert J. Reardon – DPW Superintendent, Town of Wrentham
File

**Municipality/Organization:** **Wrentham, MA**

**EPA NPDES Permit Number:** **MAR041175**

**MaDEP Transmittal Number:** **W036282**

**Annual Report Number & Reporting Period:** **No. 2: May 1, 2004 - April 30, 2005**

# NPDES PII Small MS4 General Permit Annual Report

## Part I. General Information

Contact Person: **Robert J. Reardon** Title: **DPW Superintendent**

Telephone #: **(508) 384-5477** 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: Steven C. Boudreau

Printed Name: **Steven C. Boudreau**

Title: **Town Administrator**

Date: 4/29/05

**Part II. Self-Assessment**

**The town of Wrentham has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:**

**Part I.B.2(e)(vi)** **The Town of Wrentham's permit eligibility with regard to the Endangered Species Act was pending at the time of our NOI submission due to the fact that the town's outfalls had not yet been mapped. All outfalls located in urbanized areas have since been mapped and both the National Marine Fisheries Service and the United States Fish & Wildlife Service have been provided with this information. The town is waiting for a written determination from these agencies. This determination will be available during Permit Year 3.**

**Part I.B.2(g)** **The Town of Wrentham's permit eligibility with regard to the National Historic Preservation Act was pending at the time of our NOI submission due to the fact that the town's outfalls had not yet been mapped. All outfalls located in urbanized areas have since been mapped and the locations of properties listed or eligible to be listed on the National Register of Historic Places have been compared with mapped outfall locations. It has been determined that MS4 discharges are not located in close proximity to any of those buildings listed or eligible to be listed on the National Register of Historic Places.**

## 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 |
|---|---|---|---|---|---|
| 1a | Distribute/Post Nonpoint Source Pollution Posters | DPW Superintendent | Post in all schools and town buildings | During Permit Year 1, nonpoint source pollution posters were given to all fifth grade teachers at the Roderick School to hang in their classrooms, and posters were also distributed to town office buildings. No goals relative to this item were planned for Permit Year 2. | If necessary, posters will be distributed again in Permit Year 3. |
| Revised | | | | | |
| 1b | Air Stormwater Message on Local Cable Access Channel | DPW Superintendent | Post one message every month | The town has put together a list of stormwater messages to be aired on the local cable access channel. These messages will either be aired individually or in conjunction with the public education workshop that was held at the Roderick School. | In the third permit year, the town intends to televise both the public education workshop and the list of stormwater messages on the Wrentham Cable Access Channel either individually or in conjunction with one another. |
| Revised | | | | | |
| 1c | Obtain and Distribute Auto Repair Shop Brochures | DPW Superintendent | Distribute to all impacted local businesses | A brochure was obtained during Permit Year 1 to send to auto repair shops regarding the proper storage and disposal of waste oil. During Permit Year 2, the town developed a letter to mail to all auto repair shops along with the brochure. A list was also devised of all auto repair shops within town to mail the brochure to. | The town will distribute the letter and brochure to all listed auto repair shops during the third permit year. |
| Revised | | | | | |
| 1d | Add Stormwater Information to Town's Website | DPW Superintendent | Update information quarterly to address seasonal concerns | During Permit Year 1, a list of stormwater links was developed to be added to the town website. At this time, the town is still in the process of accepting bids for the development of a town website. | As soon as an official town website is established, the list of stormwater links, and other pertinent stormwater information will be added to the town website to help in educating residents and local business owners. |
| Revised | | | | | |
| 1e | Prepare and Distribute Stormwater Brochure | DPW Superintendent | Distribute to local residents, businesses, and schools | During Permit Year 1, the town prepared a brochure that targets homeowners, and informs them what they can do to prevent stormwater pollution. During Permit Year 2, the town had 250 copies of the brochure printed. The town will make these brochures available at Town Hall. A copy of this brochure is attached. | During Permit Year 3, the town will continue to make brochures available to residents at Town Hall. Additional brochures may be printed during Permit Year 3 for distribution depending on the level of interest from residents. |
| Revised | | | | | |

### 1a. Additions

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|---|---|---|---|---|---|
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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 2 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 3 |
|---|---|---|---|---|---|
| 2a<br>Revised | Hold Public Meetings with Local Residents | DPW Superintendent | Conduct two public meetings during the permit cycle | On May 4th, 2004, a public meeting was held in conjunction with the Board of Selectman's weekly meetings. This public meeting provided an overview of the NPDES Phase II Program, and helped the public learn about what they can do to prevent nonpoint source pollution. This public meeting was aired live on the cable access channel on May 4th, and aired again 7 times a day on May 5th, 10th, 12th, and 17th for a total of 29 viewings. | A public meeting is planned in conjunction with the town-wide Stormwater Management Plan currently being finalized. |
| 2b<br>Revised | Coordinate Public Outreach Program | DPW Superintendent | Conduct two workshops for residents over the permit cycle | A public education workshop was conducted with each of the fifth grade classes at the Roderick School during the first permit year. Eight workshops were held with approx. 200 children participating. Articles about the workshops were placed in two local newspapers, The Sun Chronicle and The Country Gazette. Copies of these articles are attached. One workshop was taped, is in the process of being edited, and will eventually air on the town's cable access channel. | The public education workshop that was taped at the Roderick School will air on Wrentham's local cable access channel during the third permit year. |
| 2c<br>Revised | Hold Hazardous Waste Collection Day | Wrentham Recycling Committee | Hold collection day once every year | The Wrentham Recycling Committee held their annual household hazardous waste collection day in May of 2004. A sampling of those materials collected included antifreeze, brake fluid, motor oil, batteries, fertilizers, fuels, paint, pesticides, mercury containing items and solvents. In addition, waste oil was collected from residents at the DPW the first Saturday of every month. In addition to their own household hazardous waste collection day, Wrentham residents are also now allowed to participate in the annual household hazardous waste collection days of three neighboring towns as part of a consortium. These days are held in the spring and fall. | The Wrentham Recycling Committee will again hold their annual household hazardous waste collection on May 14, 2005. During Permit Year 3, the town will also continue to collect waste oil from residents at the DPW the first Saturday of every month. |

## 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 2 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 3 |
|---|---|---|---|---|---|
| 3a | Map Outfalls and Receiving Waters | DPW Superintendent | Develop map in first permit year and map 25% of outfalls that drain urbanized areas in each year after | Clean up and QA/QC was performed on the GIS drainage mapping to ensure that all outfalls within Phase II urbanized areas were mapped. A drainage system database was also configured and linked to the drainage mapping, but has yet to be populated. This database contains datasets for the following drainage features: drain manholes, catch basins, drainage pipes, and outfalls. Also, where available, inspection forms completed and digital photographs taken during the outfall inspection work completed during Permit Year 1, were linked to the individual outfalls. | At this point, the mapping is complete, and permit years three through five will focus on populating the drainage system database, and making sure that drainage structures included in new subdivisions in urbanized areas get added to the GIS drainage mapping. Outfalls located in urbanized areas that collect runoff from state highways or state-owned facilities still need to be mapped by the state. |
| Revised | | | | | |
| 3b | Review Existing Bylaws and Regulations | DPW Superintendent | Determine if existing bylaws and regs fulfill EPA requirements | The town's existing Stormwater and Runoff Management Regulations were reviewed. Recommended changes to these regulations to ensure compliance with EPA plan requirements will be included in the town-wide Stormwater Management Plan currently being finalized. | None planned for Permit Year 3. |
| Revised | | | | | |
| 3c | Develop Illicit Discharge Detection & Elimination Plan | DPW Superintendent | Make recommendations for inclusion into proposed plan | None to date. | If the town's existing bylaws and regulations do not fulfill EPA's stormwater management plan requirements, an illicit discharge detection and elimination plan will be developed during Permit Year 3. |
| Revised | | | | | |
| 3d | Develop/Modify General Illicit Discharge Bylaw | DPW Superintendent | Propose recommendations for modifying/ developing bylaw | None to date. | A general illicit discharge bylaw that satisfies EPA requirements will be developed during Permit Year 3. |
| Revised | | | | | |
| 3e | Present Bylaw for Town Meeting Action | DPW Superintendent | Make Presentations for Town Meeting Action | None to date. | During the third year of the permit, the general illicit discharge bylaw will be presented for Town Meeting action. |
| Revised | | | | | |

### 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 2 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 3 |
|---|---|---|---|---|---|
| 4a | Review Existing Site Inspection Practices | DPW Superintendent | Determine if existing practices fulfill EPA requirements | During Permit Year 2, the town's existing erosion/sedimentation control and drainage submittal requirements, as well as their site inspection practices, were reviewed. | None planned for Permit Year 3. |
| Revised | | | | | |
| 4b | Develop/Modify Site Inspection Program | DPW Superintendent | Make recommendations for modifying existing program | During Permit Year 2, the town's erosion/ sedimentation control and drainage submittal requirements, as well as their site inspection practices were reviewed. Recommended changes to these existing practices will be included in the town-wide Stormwater Management Plan currently being finalized. | During the third permit year, the town's existing erosion/sedimentation control and drainage submittal requirements, as well as their site inspection practices, will be modified accordingly to ensure compliance with EPA requirements. |
| Revised | | | | | |
| 4c | Review Existing Bylaws and Regulations | DPW Superintendent | Determine if existing bylaws and regs fulfill EPA requirements | During the second year of the permit, existing applicable bylaws were reviewed to determine if they met EPA requirements for construction stormwater runoff control. Recommended changes to these existing regulations will be included in the town-wide Stormwater Management Plan currently being finalized. | None planned for Permit Year 3. |
| Revised | | | | | |
| 4d | Develop/Modify Bylaw for Construction Site Runoff | DPW Superintendent | Propose recommendations for modifying/developing bylaw | None to date. | Applicable bylaws will be modified as necessary during the third year of the permit. |
| Revised | | | | | |
| 4e | Present Bylaw for Town Meeting Action | DPW Superintendent | Make Presentations for Town Meeting Action | None to date. | The revised bylaws will be presented for Town Meeting action during the third year of the permit |
| 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 2 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 3 |
|---|---|---|---|---|---|
| 5a | Review Existing Site Inspection Practices | DPW Superintendent | Determine if existing practices fulfill EPA requirements | During Permit Year 2, the town's existing site inspection and maintenance practices were reviewed to determine whether the existing site inspection and maintenance practices complied with EPA's stormwater management plan requirements. | None planned for Permit Year 3. |
| Revised | | | | | |
| 5b | Develop/Modify Inspection and Maintenance Practices | DPW Superintendent | Make recommendations for modifying existing practices | During Permit Year 2, existing site inspection and maintenance practices were reviewed. Recommended changes to these existing practices will be included in the town-wide Stormwater Management Plan currently being finalized. | During the third permit year, the town's existing site inspection and maintenance practices will then be modified accordingly to ensure compliance with EPA requirements. |
| Revised | | | | | |
| 5c | Review Existing Bylaws and Regulations | DPW Superintendent | Determine if existing bylaws and regs fulfill EPA requirements | During the second year of the permit, regulations regarding the control of post-construction stormwater runoff, including the Stormwater Runoff and Management Regulations, were reviewed. Recommended changes to these existing regulations will be included in the town-wide Stormwater Management Plan currently being finalized. | None planned for Permit Year 3. |
| Revised | | | | | |
| 5d | Develop/Modify Bylaws for Post-Construction Site Runoff | DPW Superintendent | Propose recommendations for modifying/developing bylaw | None to date. | The town will develop a post-construction site runoff control bylaw that meets USEPA requirements and will consider MA DEP Stormwater Management Policy Standard 3 (Recharge to Groundwater) during the third year of the permit. |
| Revised | | | | | |
| 5e | Present Bylaw for Town Meeting Action | DPW Superintendent | Make Presentations for Town Meeting Action | None to date. | This bylaw will be presented for Town Meeting action during the third year of the permit. |
| 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 2 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 3 |
|---|---|---|---|---|---|
| 6a<br>Revised | Street Sweeping Program | Department of Public Works | Sweep all streets up to twice per year | The DPW swept all streets in Wrentham at least once. Some streets were even swept twice once during the spring and once during the fall. Some of the materials gathered from street sweeping were mixed with compost and used to fill roadways. | During the third permit year, the DPW will continue to sweep all streets in Wrentham up to twice per year, typically once during the spring and once during the fall. |
| 6b<br>Revised | Catch Basin Cleaning Program | Department of Public Works | Clean all catch basins at least once per year | The town cleaned all catch basins at least once. Some catch basins may have been cleaned more frequently if there was significant sediment accumulation. | During the third permit year, the DPW will continue to clean all catch basins at least once per year. |
| 6c<br>Revised | Perform Site Visits to Examine Existing Practices at Facilities | DPW Superintendent | Target all applicable municipal facilities | None to date. | During the third year, the town will perform site visits to examine existing practices at municipal facilities. |
| 6d<br>Revised | Train Municipal Employees at Each Town Facility | DPW Superintendent | Target all applicable municipal facilities | None to date. | During the third year, the town will train employees at all applicable municipal facilities. |
| 6e<br>Revised | Perform Follow-ups to Ensure Required Practices are Met | DPW Superintendent | Target all applicable municipal facilities | None to date. | None. In the fourth and fifth years of the permit, annual follow-ups will be performed at municipal facilities to ensure that employees working at these facilities are following the required stormwater management practices, and that new employees are receiving the required training. |

## 6a. Additions

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

***This Section is not 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 |
|---|---|---|---|---|---|
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

### 7a. Additions

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### 7b. WLA Assessment

## Part IV. Summary of Information Collected and Analyzed

Fifteen different outfalls were sampled during two wet weather events. These outfalls discharged stormwater to a number of different surface water resources, which included Lake Pearl, Lake Archer, Mirror Lake, Desert Brook, Uncas Brook, Eagle Brook, and Meadow Brook. The first storm event sampled occurred on October 29, 2003. This storm event produced approximately 1.55 inches of rainfall. There was significant flow observed in all of the outfalls. The second storm event sampled occurred on November 20, 2003, and produced 0.98 inches of rainfall. The following water quality parameters were analyzed: fecal coliform, total coliform, escherichia coli, enterococcus, ammonia-nitrogen, total phosphorous, dissolved phosphorous, total suspended solids. The outfall sampling results are still being assembled and evaluated as part of the Stormwater Management Plan being prepared by the town's consultant and will be available when the plan report is finalized in Permit Year 3.

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

### Programmatic

| | | |
|---|---|---|
| Stormwater management position created/staffed | (y/n) | No (DPW Director oversees stormwater management) |
| Annual program budget/expenditures | ($) | |
| | | |
| | | |

### Education, Involvement, and Training

| | | |
|---|---|---|
| Estimated number of residents reached by education program(s) | (# or %) | |
| Stormwater management committee established | (y/n) | No |
| 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 | (#) | 1 (annually) |
| ▪ 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 | | 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% (urbanized areas under town jurisdiction only) |
| Estimated or actual number of outfalls | (#) | Approx. 200 outfalls (urbanized areas under town jurisdiction only) |
| System-Wide mapping complete | (%) | 85% (only areas that are not urbanized remain) |
| Mapping method(s) | | |
| ▪ Paper/Mylar | (%) | 20% (includes only areas that are not urbanized) |
| ▪ CADD | (%) | 0% |
| ▪ GIS | (%) | 80% |
| Outfalls inspected/screened | (# or %) | 50 |
| Illicit discharges identified | (#) | 0 |
| Illicit connections removed | (# ) (est. gpd) | 0 |
| % of population on sewer | (%) | 0% |

SUBMITTED

Lisa Eggleston teaches students using a model.

# Wrentham students get lesson in water pollution

**WRENTHAM** — Local elementary students recently learned how they can help protect the environment from pollution.

Fifth-graders at Roderick School had a hands-on chance to learn about the causes of stormwater pollution and what they and their parents can do to help improve the quality of Wrentham's waterways.

The students learned how many of the simple everyday habits may actually be causing more harm than good.

Representatives of Weston and Sampson of Peabody, the town's contracted engineering firm, visited with students as part of their community outreach portion of developing a stormwater management plan for Wrentham.

Under the direction of Lisa Eggleston of Eggleston Environmental of Sudbury, students used an enviroscape model that interactively simulates the movement and contamination of stormwater in the natural environment

The stormwater management plan, required for all communities by the federal government, calls for the town to use a variety of "best management practices" — including public education, to identify and control pollution carried by stormwater runoff, with the goal of protecting water quality.

The plan is being coordinated by the Department of Public Works.

*Article Appeared on page B4 of the May 7, 2004 issue of The Sun Chronicle.

# EDUCATION

This article appeared in the May 21st, 2004 edition of The Country Gazette.

CONTRIBUTED PHOTO

Lisa Eggleston uses the Enviroscape Model to teach a fifth grade class at the Roderick School.

## Wrentham students learn about preventing stormwater polllution

WRENTHAM — The Town of Wrentham Public Works Department, with assistance from the consulting firm of Weston & Sampson Engineers of Peabody, is currently in the process of preparing a Stormwater Management Plan that will be used as a tool to comply with new Federal government permit requirements.

The permit calls for the town to use a variety of "best management practices" to identify and control pollution carried by stormwater runoff, with the goal of protecting water quality. In this way, local streams, lakes, and ponds can continue to serve their public uses as well as support aquatic life.

One of the best management practices contained in the Town's stormwater management plan is public education and participation. Fifth graders at the Roderick School have had a hands-on chance to learn more about the causes of stormwater pollution and what they and their parents can do to help improve the quality of Wrentham's surface water resources.

The Public Works Department, along with Weston & Sampson and their subconsultant, Eggleston Environmental of Sudbury, used a nationally-recognized three dimensional water quality diorama called "EnviroScape" to interactively allow the fifth graders to simulate the movement and contamination of stormwater in the natural environment. The students were able to learn about the causes of stormwater pollution and how many of our simple everyday habits may actually be causing more harm than good to the Town's surface water resources.