# TOWN OF WESTFORD
## ENGINEERING DEPARTMENT

*JOHN R. LIVSEY, P.E.*
*Town Engineer*

*PAUL M. STARRATT, E.I.T.*
*Assistant Town Engineer*

P.

To: Thelma Murphy
From: Paul Starratt
Re: Year One NPDES Report
Date: October 17, 2006

I have enclosed a copy of the Town of Westford's NPDES annual report for year one as requested in the recent *Program Implementation – Progress and Compliance Status* correspondence from David M. Webster. Please let me know if you require any additional information.

Thank You,

Paul Starratt
Assistant Town Engineer

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**Engineering Department**
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| | |
|---|---|
| **Municipality/Organization:** | Town of Westford, MA |
| **EPA NPDES Permit Number:** | MAR05C490 |
| **MaDEP Transmittal Number:** | **W-** |
| **Annual Report Number & Reporting Period:** | **No. 1**<br>**March 08, 2004-March 12, 2004** |

# NPDES PII Small MS4 General Permit Annual Report

**Part I. General Information**

| | | | |
|---|---|---|---|
| Contact Person: | Jim Arsenault, P.E. | Title: | Town Engineer |
| Telephone #: | 978-692-5520 | Email: | jarsenault@westford.mec.edu |

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: Steven Ledoux

Title: Town Manager, Town of Westford

Date: April 7, 2004

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## 1.0 INTRODUCTION

The Town of Westford, Massachusetts has prepared their Year 1 compliance summary to fulfill the requirements of the Environmental Protection Agency (EPA) Phase II Stormwater Management Regulations. The following completed and ongoing tasks, combined with the implementation of future mitigation and monitoring procedures, were designed to aid in reducing the amounts of pollutants introduced into the Municipal Separate Storm Sewer Systems (MS4s). The procedures implemented this past year provide the foundation for successful compliance with the Town of Westford's Five-Year Stormwater Management Plan, contained herein in Appendix 12.

The Town of Westford, which is located approximately 23 miles northwest of Boston, is bordered by Littleton and Groton to the west, Tyngsboro to the north, Chelmsford to the east, and Acton to the South. The current population of the Town is slightly over 20,000 people.

The Town contains several water bodies including: Nabnasset Pond, Long Sought-For Pond, Keyes Pond, Keyes Brook, Nashoba Brook, Nonset Brook, Butter Brook, Pond Brook, Forge Pond, Flushing Pond, Snake Meadow Brook, Boutwell Brook, Beaver Brook, Heart Pond, and Stony Brook.

As stated in Westford's Municipal Storm Water Management Plan, the NPDES Stormwater Phase II Regulations require municipalities to prepare and implement six minimum control measures defined by the EPA:

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention / Good Housekeeping for Municipal Operations

The first year of the five-year implementation program contains measures related to each of the six categories above. The following is a summary of policies implemented during Year 1, which have been arranged according to the requirement category under which they most logically fall.

Tasks for implementation during subsequent years, and parties responsible for completing such tasks, are listed in Appendix 12, Westford's Five-Year Stormwater Management Plan Outline.

## 1.0 PUBLIC EDUCATION AND OUTREACH

### *1.1 STORMWATER PAMPHLET TO RESIDENTS*

A separate stormwater information pamphlet has been mailed to each resident in the Town of Westford as part of a newsletter package prepared by the Westford Water Department. The pamphlet covers the general definition of *stormwater*, the ways in which stormwater can transport pollutants to nearby waterways, the importance of keeping the waterways clean, and steps that residents can take in eliminating or reducing the amounts of potential pollutants released into the Town drainage system and nearby waterways when servicing and washing automobiles, maintaining landscaping and lawn care, and properly disposing household chemicals.

The pamphlet also contains an 8 question "self test" which residents can complete and mail to SuAsCo Watershed Community Council to enter a raffle to win free SuAsCo "stormwater umbrellas". The pamphlet serves as an educational tool, which seeks to engage the residents and offer incentive to learn about stormwater.

The stormwater pamphlet has been included in Appendix 1 of this report.

### 1.2 *RECYCLING INFORMATION*

Last year, the Town of Westford collected more than 2,300 tons of glass, cans, plastic, and paper and continues to actively recycle, minimizing impact to the environment. The Westford Recycling Commission actively maintains its own website, which is linked to the Town of Westford main website.

The Recycling commission has prepared an informational pamphlet discussing the proper disposal of household hazardous materials and used oil, bulk items, construction debris, recycling dates and materials, various leaf and yard waste collection dates, electronics collection dates, mercury recycling information, multi-collection event dates, and contacts for additional information. This pamphlet has been mailed out to the residents of Westford for Fiscal Year 2004 (July 2003 – June 2004) and is also available to residents at Westford Town Hall.

A printout of the Recycling Pamphlet and Westford Recycling Commission Website has been included in Appendix 2 of this report.

### 1.3 *NEWSPAPER ARTICLE – EFFECTS OF LEAVES ON WATER BODIES*

The Westford Conservation Administrator has prepared an article describing the effects of leaves and yard debris on water bodies. The article informs the reader of the importance of the proper disposal of leaves, grass clippings, and yard debris, and

mention's where and when residents can bring their yard waste to be properly recycled into compost. The article was placed in the Thursday, March 11, 2004 issue of the Westford Eagle, the local newspaper, and is included in Appendix 3 of this report.

### 1.4 *NEWSLETTER REGARDING FERTILIZER INFORMATION*

Fertilizer information has been included in the annual newsletter prepared by the Westford Water Department and will be mailed to the residents of Westford during April of 2004. Furthermore, general information regarding the uses of fertilizers, pesticides, and herbicides is discussed in the stormwater pamphlet mentioned in item 1.1.

Both mailings discuss the harms of using too much fertilizer or pesticides than recommended by the manufacturer. The possibilities of fertilizer entering the Town drainage system by means of stormwater runoff and the effects the chemicals may have on aquatic plants and animals is mentioned in the mailings. The informational pamphlets also suggest the use of organic lawn care methods in lieu of chemical fertilizers.

A printout of the Water Department newsletter has been included in Appendix 4 of this report.

## 2.0 PUBLIC INVOLVEMENT AND PARTICIPATION

### 2.1 *STORMWATER DISPLAY*

The Town of Westford has contracted and received from SuAsCo Watershed Community Council a traveling informational display. The display defines stormwater, the ways in which stormwater can transport pollutants to nearby waterways, the importance of keeping the waterways clean, and steps that residents can take in eliminating or reducing the amounts of potential pollutants released into the Town drainage system and nearby waterways when servicing and washing automobiles, maintaining landscaping and lawn care, properly disposing household chemicals, practical ideas, good housekeeping practices, fertilizer use, water conservation, and trash and pet waste management.

The display is currently being routed in public areas around the Town of Westford, including Town Hall and Westford Academy, the local public High School. The board was on display at the March 2, 2004 Westford Academy Science Fair and will be routed to the following Westford School Science Fairs at the specified dates:

| Where | When |
|---|---|
| Westford Academy | Tuesday, March 2 |
| Norman E. Day School | Tuesday, March 16 |
| Blanchard School | Friday, April 16 |
| Crisafulli School | Tuesday, March 9 |
| Miller School | Monday, March 22 |
| Abbot School | Friday, March 26 |
| Stony Brook School | Tuesday, April 13 |
| Robinson School | Wednesday, April 7 |
| Nabnasset School | Wednesday, March 31 |

Pictures of the stormwater display have been included in Appendix 5 of this report.

## 2.2 *ELEMENTARY SCHOOL POSTER CONTEST*

Representatives from the Water Department currently visit all of the fourth grade classes at the Crisafulli School, Norman E. Day School and the Abbot School to give annual presentations about the Town's water supply. This coming spring, the Water Department has agreed to work stormwater awareness into their presentation to educate the students on the importance of keeping stormwater clean and the various ways to minimize pollutants entering the stormwater system.

After this year's presentation, the Water Department will invite all fourth graders to participate in its annual Poster Contest, and will award cash prizes to the first, second, and third place winners from each of the three schools at the Water Department Open House, which is held in May. Entries are due by April 27th, 2004. The posters will reflect what the students learned about stormwater management practices and the importance of keeping the waterways clean, in addition to the water cycle and water conservation.

## 2.3 *CURBSIDE RECYCLING*

Last year, the Westford Recycling Commission collected more than 2,300 tons of glass, cans, plastic, and paper, and continues to actively promote their recycling program. The Recycling Commission website, www.westford.mec.edu/util/recycle/recycle.htm, is quite comprehensive and is linked to the Town of Westford's main website. A printout of the Westford Recycling Commission's website has been included in Appendix 2.

As shown on the Westford Recycling Guide (Appendix 2), the recycling schedule for fiscal year 2004 shows that recycling is picked-up every other week. The guide describes the allowable materials, how to prepare the materials for recycling, and what *not* to include in the recycling bins. Furthermore, to offer incentive to the residents, the

Westford Recycling Prize Patrol rewards one randomly selected family per month $100 simply for participating in the recycling program.

## 2.4 *LEAF AND YARD WASTE*

The Town of Westford continues to actively promote leaf and yard waste drop-off. Residents can drop off leaves, grass, and hedge trimmings at Laughton's Nursery Monday through Saturday year round, where the waste is composted. There is no cost to the residents for this service.

Brush collection occurs twice a year, once in the fall and once in the spring, at the Norman E. Day School. To better accommodate the residents of Westford, the collection is held on two dates in October and two dates in April. Please refer to the "Special Collection Events for the Town of Westford" in the Recycling Guide presented in Appendix 2.

## 2.5 *MULTI COLLECTION EVENTS*

The Westford Recycling Guide informs of an upcoming Westford Household Hazardous Waste Collection Day during the Fall of 2004. Also, residents can bring hazardous household materials to the Minuteman Household Hazardous Waste Collection Site in Lexington, MA. The guide informs residents that collections are held on the third Saturday of the month from April to November.

Furthermore, the recycling guide informs the residents of Westford of the proper disposal and contact information for appliances, large amounts of cardboard, latex paint, lawn mowers, automobiles, batteries, brush and branches, building materials and house fixtures, cell phones, computers, construction debris, electronics, furniture, clothing, printer cartridges, oil, oil-based paint, propane tanks, styrofoam, televisions, and tires. Multi collection events are typically held three times a year by the Westford Recycling Commission, with upcoming events scheduled for March, June, and September.

## 2.6 *DAILY MERCURY DROPOFF AT BOH OFFICE*

Residents can currently bring mercury-containing devices such as thermometers and thermostats to the Board of Health Office. This is an on-going program and the Board of Health contact information has been provided in the Recycling Guide, as provided in Appendix 2.

### 2.7 *PUBLIC MEETING*

The Town of Westford is holding a public meeting during the May 25, 2004 Board of Selectmen's meeting. The public meeting will further inform Westford residents of the Phase II Stormwater Program, with emphasis on where the Town currently stands with respect to conforming to the requirements of year 1. The Town of Westford will be contracting the help of an outside professional to aid in the preparation and implementation of the public meeting. General public meetings regarding the 5-year management plan have already been conducted and have covered such topics as:

- Public education and outreach on storm water impacts
- Public involvement/participation
- Illicit discharge detection and elimination
- Construction site runoff control
- Post-construction storm water management in new development and redevelopment.
- Pollution prevention/good housekeeping for municipal operations.

On November 26, 2002, a representative from VHB gave a public presentation at the Board of Selectmen's meeting outlining the requirements of the NPDES Phase II regulations. This presentation covered the general 5-year program requirements and the future steps that Westford was taking to achieve compliance.

### 2.8 *CONTACT ESTABLISHMENT AND ADVERTISEMENTS*

For questions regarding pollution prevention and to register complaints regarding construction runoff, contact information was established on the Town Website, www.westford.mec.edu. The following contact information has been included:

James Arsenault, P.E.
Westford Town Engineer
Phone: 978-692-5520
Email: jarsenault@westford.mec.edu

This information was also included in the general informational packet, as described in item 1.1.

## 3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

### 3.1 *TOWN DRAINAGE MAP*

The Westford Highway Department has obtained the locations of all of the outfalls within the town. Together with the Westford GIS Department, the outfall locations have been mapped along with the other key components of the town drainage system including

catch basins and manholes. A copy of the current stormwater drainage map has been included in Appendix 6. The department is currently working on finalizing the map.

### 3.2 *PLAN TO DETECT AND ADDRESS ILLICIT DISCHARGES*

The Westford Engineering Department / Highway Department will begin inspecting the mapped outfalls this coming spring. The outfall map will be divided into 4 sections, each section to be completed over the next 4 years of the stormwater management plan. The inspections will occur during dry weather conditions to aid in the detection of any illicit discharges and/or illegal dumping into receiving waters.

### 3.2 *PRIORITIZE AREAS*

After recording the findings of the visual inspections, the outfalls will be prioritized and studied based on the severity of the suspected illicit discharge. Illicit discharges will then be traced back to the points of origin and removed accordingly during subsequent years, as stated in the stormwater management plan. Twenty-five percent (25%) of the outfalls will be inspected and prioritized during this first year of stormwater management implementation.

## 4.0 CONSTRUCTION SITE RUNOFF CONTROLS

### 4.1 *WETLANDS BYLAW IN EFFECT*

The Town of Westford Conservation Commission is currently enforcing the Town of Westford Wetlands Bylaw and Regulations. The Commission strives to enforce the bylaw in order to protect the natural resources of the wetlands and enforce groundwater protection, flood control, erosion and sedimentation control, storm drainage prevention, and aquaculture values. The existing Westford Wetlands Bylaw also gives the Commission the authority to enforce the requirements of the Bylaw by enforcement orders, civil, and criminal court actions. The existing Westford Wetlands Bylaw has been included in Appendix 7 of this report.

### *4.2 SITE PLAN PROCEDURES*

Existing procedures for site plan review of sedimentation and erosion controls are continually being implemented with every new plan review conducted by the Engineering and Conservation Departments. Projects are reviewed for conformance to the wetlands bylaw, construction runoff controls, sediment control, slope stabilization, drainage practices, BMP's and general engineering practice.

Projects triggering the Department of Environmental Protection Stormwater Management Standards are also reviewed for conformance to the 9 stormwater management regulations set forth by the DEP.

### 4.3 *IMPLEMENTATION OF EXISTING INSPECTION AND ENFORCEMENT PROCEDURES*

The Westford Conservation Commission continues it's ongoing visual review of sites throughout the town by conducting site walks on a regular basis. As stated above, the existing Westford Wetlands Bylaw gives the Commission the authority to enforce the requirements of the Bylaw by enforcement orders, civil, and criminal court actions.

### 4.4 *CONTACT ESTABLISHMENT*

For questions regarding pollution prevention and to register complaints regarding construction runoff, contact information was established on the Town Website, www.westford.mec.edu. The following contact information has been included:

James Arsenault, P.E.
Westford Town Engineer
Phone: 978-692-5520
Email: jarsenault@westford.mec.edu

This information was also included in the general informational packet, as described in item 1.1.

Furthermore, the newspaper article described in item 1.3 (Appendix 3) publicly establishes a contact for the Westford Conservation Administrator. This contact can be used to address complaints or questions regarding construction runoff and/or activity in proximity to wetland or environmentally sensitive areas.

## 5.0 POST-CONSTRUCTION SITE RUNOFF CONTROLS

### 5.1 *ESTABLISHMENT OF STORMWATER BYLAW*

The Engineering Department is currently working on a separate storm water bylaw, which will establish specific post-construction site runoff requirements. Although it is not a requirement of year 1, the Engineering Department strives to ensure that existing and newly constructed stormwater facilities and systems operate as designed. The eventual adoption of the stormwater bylaw will further aid in the enforcement of proper stormwater maintenance in newly constructed systems.

## 6.0 MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION

### 6.1 *CATCH BASIN CLEANING SCHEDULE*

The Westford Highway Department continues to clean the Town's catch basins twice a year on hills, and once a year everywhere else. Catch basins are prioritized and are

visually inspected at the time of cleaning to ensure proper functioning of the overall drainage system in the area.

### 6.2 *REGULAR STREET SWEEPING*

The Westford Highway Department has recently purchased a new street sweeper, featuring some of the newest technology for efficient sweeping in the industry. The Westford Highway Department had been asked by the Department of Environmental Protection to display the sweeper at a recent "Preferred Methods" exposition at the Worcester Centrum during the fall of 2003. Westford's sweeper has gained national recognition as it has appeared in the October 2003 issue of "Better Roads" magazine. A copy of the article has been included in Appendix 8 of this report.

Street sweeping continues to be an integral part of the regular duties of the Westford Highway Department.

### 6.3 *LIQUID DE-ICER*

The Westford Highway Department currently uses "Ice Ban" liquid de-icer to treat the local roadways. Ice Ban is an effective melting agent produced from the wet milling of corn and alcohol, making it non-toxic and environmentally friendly. In addition, Ice Ban is much less corrosive than other melting agents.

Additional information regarding "Ice Ban" de-icer is presented in Appendix 9 of this report.

### 6.4 *SAND AND SALT SHED COVERED*

The existing Westford Highway Department sand and salt shed is approximately 8,000 sf in area and is fully covered to protect from the natural elements and to greatly reduce the amount of salt entering nearby stormwater runoff.

### 6.5 *FUELING AREA COVER*

The Westford Water Department contains an indoor fueling station, eliminating the possibility of fuel entering stormwater runoff while re-fueling vehicles. The fueling station at the Westford Highway Department is covered to reduce the risk of spillage entering nearby runoff.

### 6.6 *USED OIL IS RECYCLED*

Waste oil from the Westford Highway Department is used in the permitted Highway waste oil heater.

## 6.7 *INSIDE STORAGE OF MUNICIPAL HAZARDOUS MATERIALS*

The Westford Highway Department stores hazardous materials indoors. The annual EPCRA Tier II Chemical Inventory Report was submitted to the State Emergency Response Commission and Regional Northern Middlesex Regional LEPC on August 18, 2003.

## 6.8 *SWPPP PREPARED AND IMPLEMENTED*

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared and is currently being implemented as part of a Multi-sector Industrial Permit for the Highway Garage. The SWPPP, received by DEP on November 10, 2003 and on file with the state, is currently on file at the Westford Engineering Department.

The plan identifies the SWPPP coordinator, members and duties of the SWPPP team, gives a general description of the facility, describes the stormwater drainage system, identifies potential contaminants and BMPs to reduce pollutants, describes the facility's monitoring plan and describes employee training.

The ROS Inspection and Monitoring Report regarding groundwater remediation for removing underground fuel storage is submitted bi-annually for the Highway Facility, the last submission occurring on November 5, 2003.

The Industrial Wastewater Holding Tank Permit was sent to the Massachusetts Department of Environmental Protection on August 13, 2003. This report is submitted annually.

## 6.9 *TRAINING OF MUNICIPAL EMPLOYEES*

All Highway Department personnel are annually trained in spill prevention and containment, prevention/reduction of stormwater pollution, and illicit discharges. As stated in the SWPPP, all DPW employees are trained during an annual safety meeting conducted by designated trainers/managers. Pollution prevention team members will meet at least twice a year to discuss the effectiveness of the Plan. This coming year, the Town of Westford will be contracting the help of an outside agency to aid in the preparation and implementation of the municipal training. Further information is available in the Stormwater Pollution Prevention Plan on file with the State and at the Westford Engineering Department.

## 6.10 *CENTRAL MASSACHUSETTS MOSQUITO CONTROL PROJECT*

The Town of Westford has contracted the services of the Mosquito Control Project to mitigate the population of mosquitoes in town. Since mosquitoes breed in stagnant

waters, preventative measures include removing brush and other accumulated debris form culverts and streams, ensuring proper flow conditions and reducing the amount of stagnant water. While this activity seeks to reduce the amount of mosquitoes, it also serves as a maintenance check of the town-wide drainage system, ensuring proper flow and working order of the system.

The EPA and the Massachusetts Pesticide Bureau register all products used by the Mosquito Control Project. The 2003 Annual Report of the Mosquito Control Project is included in Appendix 10 of this report and documents dated accounts of stream and culvert cleaning/inspection.

## 6.11 *MUNICIPAL O&M PLAN*

The goal for the Municipal Operations and Maintenance Plan for the first year is to evaluate existing measures of the facility. Although a new Highway Facility is currently under construction, the existing facilities continue to be accessed, along with the review of activities and procedures, and the BMPs used throughout the facility.

A copy of the Operations and Maintenance Plan for the new Highway Garage, which is anticipated to be fully constructed by November 2004, has been included in Appendix 11 of this report.