TOWN OF WESTBOROUGH
MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS
John M. Walden, Manager

131 OAK STREET
WESTBOROUGH, MA 01581-3317
TEL. (508) 366-3070
FAX 366-3074

April 30, 2008

Ann Herrick - CIP
U.S. Environmental Protection Agency - Region 1
1 Congress Street, Suite 1100
Boston, MA 02114-2023

RE: NPDES Phase II Small MS4 General Permit
EPA NPDES Permit No MAR041173

Dir Sir/Madam:

Enclosed is the Annual Report for Permit Year 5.

If you have any questions, please call me at (508) 366-3070.

Sincerely,

John M. Walden
Manager
Department of Public Works

CMP

TOWN OF WESTBOROUGH, MA
DEPARTMENT OF PUBLIC WORKS

Annual Report

FOR

NPDES PHASE II
SMALL MS4
GENERAL PERMIT

YEAR 5

Department of Public Works

John M. Walden, Manager

April 30, 2008

NPDES PII Small MS4 General Permit
Annual Report – Year 5

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Enter your transmittal number → W219338
Transmittal Number

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml or call MassDEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

1. Permit Code: 7 or 8 character code from permit instructions: NPDES Phase II Permit Annual Report - Year 5
2. Name of Permit Category
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

1. Name of Firm - Or, if party needing this approval is an individual enter name below: Town of Westborough
2. **Last Name** of Individual: Abladian
3. **First Name** of Individual: Susan
4. MI
5. Street Address: Chairman, Board of Selectmen, Town Hall
6. City/Town: Westborough
7. State: MA
8. Zip Code: 01581
9. Telephone #: 508-366-3076
10. Ext. #
11. Contact Person: John M. Walden
12. e-mail address (optional): jwalden@town.westborough.ma.us

C. Facility, Site or Individual Requiring Approval

1. Name of Facility, Site Or Individual
2. Street Address
3. City/Town
4. State
5. Zip Code
6. Telephone #
7. Ext. #
8. DEP Facility Number (if Known)
9. Federal I.D. Number (if Known)
10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

1. Name of Firm Or Individual
2. Address
3. City/Town
4. State
5. Zip Code
6. Telephone #
7. Ext. #
8. Contact Person
9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
   If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☒ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
   There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

Check Number | Dollar Amount | Date

Municipality/Organization: Town of Westborough

EPA NPDES Permit Number: MAR041173

MA DEP Transmittal Number: W219338

Annual Report No & Report Period: No. 5 March 07-March 08

NPDES PII Small MS4 General Permit

Annual Report

Part I. General Information:

Contact Person: John M. Walden, Manager, Department of Public Works,

Telephone #: (508) 366-3070 Email: jwalden@town.westborough.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: Susan Abladian

Printed Name: Susan Abladian

Title: Chairman, Board of Selectmen

Date: April 30, 2008

1.0 INTRODUCTION AND BACKGROUND:

In 1990, The United States Environmental Protection Agency (EPA) began implementing a storm water management program under the National Pollutant Discharge Elimination System (NPDES). This program, know as Phase I of the NPDES storm water program, was intended to reduce pollution in storm water discharges for large urban areas with population of 100,000 or greater.

On December 1999, the Phase II Rule of the NPDES storm water program was published to address Municipal Separate Storm Sewer Systems (MS4s) within urban areas of populations less than 100,000 that were not addressed under the Phase I program. Objectives of the Phase II rule is for the MS4s to develop, implement and enforce a storm water program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

On May 1, 2003, the EPA issued the General Permit for Storm Water Discharges from MS4s. The general permit requires that the storm water program for each MS4 submit an annual evaluation. The following report contains information regarding the activities on the storm water program for the previous calendar year. The report contains the information required in the general permit as follows: (a) Self- Assessment Review of Compliance with the Permit Conditions; (b) Assessment of the Appropriateness of the selected BMPS; (c) Assessment of the Program towards Achieving the Measurable Goals; (d) Summary of the Results of Any Information that has been Collected and Analyzed; (e) Discussion of Activities for the Next Reporting Cycle; (f) Discussion of any Changes in Identified BMPs or Measurable Goal; and (g) Reference any Reliance on another Entity for Achieving any Measurable Goal.

The Town of Westborough filed the NPDES Phase II Storm Water Management Plan in March 2003. The Town submitted the Annual Report for year one on May 4, 2004, year two on April 25, 2005, year three on April 27, 2006, and year four on April 30, 2007.

2.0 SELF-ASSESSMENT REVIEW OF COMPLIANCE WITH THE PERMIT CONDITIONS:

Part II.B.1.a.

Approximately sixty five storm drains were stenciled in April 2005, and approximately 150 storm drains were stenciled in May 2006. These were located on roadways which discharge to the Assabet River. Another 61 storm drains were stenciled in May 2007 in the center of town. An additional 100 are scheduled for stenciling in May 2008. This activity is expected to continue until all storm drains have been stenciled. A copy of this program is in Appendix 6.

3.0 ASSESSMENT OF THE APPROPRIATENESS OF THE SELECTED BMPS:

The Best Management Practices (BMPs) selected for the storm water program appear to be appropriate. With new staff, the town has attempted to catch up to the original schedule of BMPs.

The following are summaries of major achievements in year-5:

- The town will have an opportunity to pass new stormwater and illicit discharge bylaws at the Annual (Spring) 2008 Town Meeting. Construction inspections of stormwater management on construction sites are in effect, and the procedure will be reassessed with the implementation of the bylaws. A copy of these bylaws are in Appendix 7.

- The Conservation Agent is making an effort to alert the commercial properties of their obligation to continue maintenance of detention basins and cleaning of catch basins, along with any other general BMP maintenance. The Agent is personally visiting each commercial property to assess their compliance with his recommendations to maintenance. The Agent is improving on his inspection process each year and has noticed progress among the maintenance of commercial properties. A copy of this letter is in Appendix 4.

- Stormwater stenciling is ongoing though the town of Westborough. We have several volunteer groups which participate in the stenciling in the spring time. Approximately 61 basins were stenciled in May 2007, with an additional 100 scheduled for May 2008. A copy of this letter is in Appendix 6.

- Regarding the discharge into Water Quality Impared Waters and Waters with Approved Total Maximum Daily Load Allocations, the following may be summarized:

    - In May 2007, the Town voted to authorize nearly 2 million dollars in design authorization and over 28 million in construction authorization to upgrade the Westborough Wastewater Treatment Plant. The upgrade is being designed to achieve the new EPA limits of 0.1 ppm phosphorous in the summer and 0.75 ppm in the winter. Redesign was completed and bid in March 2008 with bids to be opened in April and May 2008. Construction will proceed thereafter with the upgrade complete in 2010.
    - Westborough participated in a sediment study of the Assabet River as one of the Assabet River Consortium Members. The consulting firm of Camp Dresser & McKee Inc. performed the study for the Army Corps of Engineers. The study was completed in 2007 with recommendations. In summary, some dam removals may be possible and beneficial downstream, however, funding sources have not been determined. Other than possible financial impacts this should have little to no effect on

Westborough's future plans. The wastewater Treatment Plan upgrade will proceed as noted above.

- The Town of Westborough continues its efforts to clean catch basins from debris and sediment build up. The Town was able to clean all its catch basins in 2007. In conjunction with the catch basin cleaning the Town performs street sweeping on a regular basis to aid in pollution prevention to the waters of Westborough.

- Regarding the Medium Stressed Basin; Westborough Community Land Trust, Westborough Civic Club and the Town of Westborough have partnered together to provide residents of Westborough an opportunity to purchase Rain Barrels for a reduced price. This program began in April 2008. This will help the local watershed by slowly releasing rainwater from the rain barrels into resident's gardens. This will decrease stormwater runoff and pollution as well as help to recharge the groundwater. Copies of the website are in Appendix 5.

- Due to staffing restraints, no additional mapping has been done. The existing staffing focused on other parts of the MS4 program which needed more attention at this time.

- On October 25, 2007, the DPW educated students in the Westborough Public Schools, grades 4th, 5th and 6th , about various causes of pollution to water and the importance of not pouring anything down a storm drain. The students were given an activity book filled with fun and educational material about stormwater pollution. The students participated in an activity where the instructor read "A Fish Story" and the students "polluted" the fish bowl with various pollutants until the fish bowl was dirty and the fish was not visible. A copy of the letter from the Director of Westborough Community Education, Kim Sholler, is in Appendix 3. A copy of this lesson is in Appendix 2.

- The DPW held a Stormwater Poster Contest for all 4th, 5th and 6th graders. The poster was to convey the message "Stormwater Matters", and was due November 2, 2007. The winner of the poster contest received a $5 gift certificate to Wendy's and a "First Place" award certificate. The winning poster was displayed at the DPW from November 20 to December 4, 2007. It was then displayed at the Westborough Town Hall at the front entrance from December 4 to December 11, 2007. Photos of the winning poster are in Appendix 1.

- The Town has decided to use SuAsCo Watershed Community Council to aid in the public outreach requirements of the Permit. Currently, SuAsCo's year-5 product has not arrived. Once it arrives, it will be implemented.

4.0 SUMMARY OF MINIMUM CONTROL MEASURES:

Attached is a copy of our implementation schedule, as included with our NOI, as modified to reflect our progress in year five. The Board of Selectmen decided not to have a committee oversee the program, but to utilize current staff in lieu thereof.

5.0

TABLE 1
TOWN OF WESTOBOROUGH, MASSACHUSETTS
NPDES PHASE II
STORM WATER MANAGEMENT PLAN
BEST MANAGEMENT PRACTICES (BMPS)

PUBLIC EDUCATION AND OUTREACH

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL PERMIT YEAR 5	PLANNED ACTIVITIES
5.1.1	Homeowners	Mail educational flyer with stormwater survey	SuAsCo Council and DPW	Flyer distribution. Compile and evaluate survey results	Completed	Completed
5.1.2	Students	Teach stormwater lessons to fifth grader students	SuAsCo Council and DPW	Prepare and implement lesson	On October 25, 2007, the DPW gave a stormwater lesson to 4th, 5th and 6th graders.	Completed
5.1.3	Businesses	Mail educational flyer with stormwater survey	SuAsCo Council and DPW	Flyer distribution Logo Display	Flyer mailed to all businesses in June 2007. Provide logo to applicable businesses for display.	Completed
5.1.4	General Public	Hold a stormwater media campaign	SuAsCo Council and DPW	4 press releases	Completed	Completed
		Show a stormwater video on a local cable station	SuAsCo Council and DPW	Develop and air stormwater video	No Progress	Develop and air stormwater video

PUBLIC PARTICIPATION AND INVOLVEMENT

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL PERMIT YEAR 5	PLANNED ACTIVITIES
5.2.1	Homeowners	Circulate stormwater traveling display	SuAsCo Council and DPW	Develop display Feature at 3 locations	Display featured at Earth Day Program, Spring Festival and Town Meeting.	Continue to display
5.2.2	Students	Poster contest for fifth graders Photo contest for high school students	SuAsCo Council and DPW SuAsCo Council and DPW	Hold poster contest Hold photo contest, judge and display entries	Stormwater Poster Contest held at Middle School. Not Completed	Completed
5.2.3	General Public	Hold a local stormwater summit Hold a watershed-wide stormwater summit	SuAsCo Council and DPW SuAsCo Council and DPW	Advertise and hold summit Advertise and hold summit	Completed Not Completed	Hold Summit
5.2.3(new)	General Public	Catch Basin Stenciling	SuAsCo Council, Westborough Community Land Trust and DPW	Catch Basin Stenciling	Approximately 61 Catch Basins Stenciled in May 2007.	Continue every year to mark more storm drains.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.3.1	Stormwater system mapping	Map outfalls	DPW	Prioritize outfalls. Percentage of total outfalls mapped per year	GPS location of known outfalls complete	Complete GPS location of outfalls as they become available
		Map pipes manholes and catch basins	DPW	Prioritize areas. Percentage of total system	No action taken due to time constraints.	Complete location of structures. Complete mapping of system.
		Map structural BMPS (i.e. detention basins, water quality inlets, etc)	DPW	Percentage of total structures	No action taken due to time constraints	Complete GPS locations and map 100% of structures
5.3.2	Regulatory Mechanism	Develop a bylaw prohibiting non storm water discharges into storm sewer system	DPW and/or Board of Health	Formation of a technical committee and annual review of program. Development of a bylaw	Bylaw developed by Water Resource Management Committee and Article sponsored by DPW on Spring 2008 Town Meeting Warrant.	Implement Bylaw
		Develop enforcement procedures for non storm water discharges including illegal dumping	DPW and/or Board of Health	Development of enforcement procedures	Enforcement included in the Bylaw	Implement Bylaw

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.3.3	Illicit Discharge Detection and Elimination Plan	Identify areas likely to have illicit discharges	DPW	Develop record keeping. Prioritize outfalls. Percentage of outfalls inspected	No action taken due to time constraints	Continue to inspect outfalls
		Develop and implement a plan to detect and address illicit discharges	DPW	Plan Completion	Suspect outfalls have no illicit discharges found to date.	Develop goals for plan to eliminate discharge found when they are found
		Implement illicit discharge detection and elimination inspection	DPW	Identify and train inspection agents. Begin inspections	Identified Inspector	Begin inspections in accordance with illicit discharge detection and elimination plan (previous BMP)
5.3.4	Post removal evaluation and reporting	Implement a program to evaluate and report on conditions after illicit connections have been removed	DPW	Annual Report	No illicit discharges found to date.	Continue searching for illicit connections.

CONSTRUCTION SITE RUNOFF CONTROL

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.4.1	Regulatory Mechanism	Develop and implement a bylaw regulating erosion and sediment control for construction sites utilizing appropriate BMPs	DPW and Planning Department	Formation of a technical committee and annual review of program. Development of a bylaw	Bylaw developed by Water Resource Management Committee and Article sponsored by DPW on Spring 2008 Town Meeting Warrant.	Implement Bylaw
5.4.2	Site Plan Review Procedures	Implement pre-construction review of storm water control plan for proposed construction site	DPW and Planning Department	Identify and train staff Review each project	Review plans for site runoff control	Continue Plan Review
5.4.3	Site Inspection and Enforcement Procedures	Conduct construction site inspections Develop a procedure for handling reports of non-compliance	DPW DPW	Identify and train staff. Review each project Development of procedure	Identified staff Enforcement included in Storwater Bylaw	Implement Inspection Implement Procedure

POST-CONSTRUCTION RUNOFF CONTROL

ID	BMP CATEGORY IN NOTICE OF INTENT (NOI)	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.5.1	Regulatory Mechanism	Develop and implement a bylaw regulating controls for post construction runoff utilizing appropriate BMPs	DPW and Planning Department	Formation of a technical committee and annual review of program. Development of a bylaw	Bylaw developed by Water Resource Management Committee and Article sponsored by DPW on Spring 2008 Town Meeting Warrant.	Implement bylaw
5.5.2	Plan Review of BMP Designs	Implement preconstruction review of BMPs for conformance with regulations	DPW and Planning Department	Identify and train staff. Review each project	Review Plans	Continue to Review Plans
5.5.3	Site Inspection/Enforcement Procedures	During construction, inspect for assurance that BMPs are compliant	DPW	Identify and train staff. Inspect each project.	Begin inspection of BMPs	Enforce bylaw and procedures
5.5.4	Operation and Maintenance Procedures for Structural BMPs	Develop operation and maintenance procedures for structural BMPs	DPW	Development of procedure	Not completed	Develop Procedure

POLLUTION PREVENTION/GOOD HOUSEKEEPING

ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.6.1	Employee training Program	Implement employee training	DPW	Develop goals. Develop program. Annually conduct training	Prepared training presentation for: illicit discharge detection, stormwater runoff, and good housekeeping.	Perform training and continue developing training program
5.6.2	Stormwater System Operation and Maintenance	Enhance the existing storm sewer system and catch basin cleaning	DPW	Implement schedule. Strengthen record tracking. Clean all catch basins twice per year	Maintain record keeping procedures.	Continue to maintain record keeping procedures.
		Structural BMP inspection and maintenance program	DPW	Develop and implement record keeping. Annually inspect and clean all BMPs once per year.	100% of catch basins cleaned at least once/yr. Problematic basins cleaned twice/yr.	Continue to implement program. Clean more basins twice/yr.

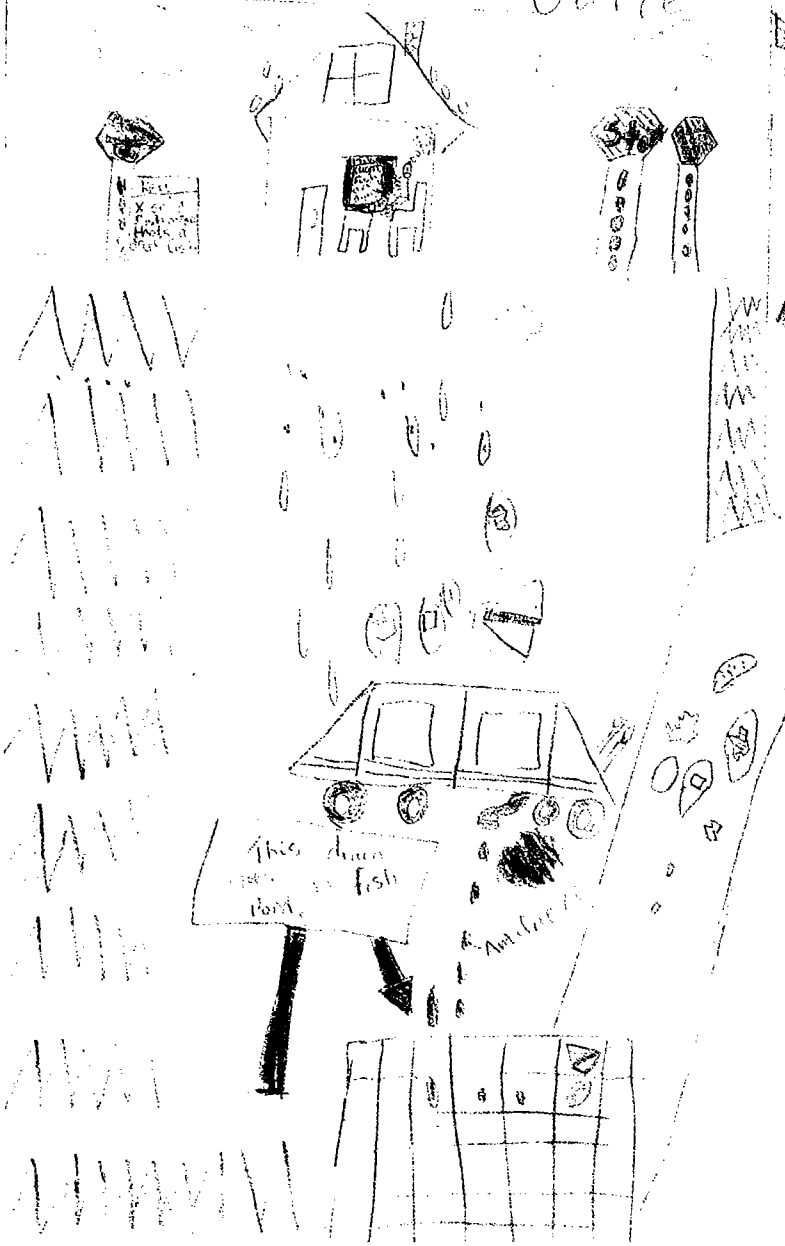
ID	BMP CATEGORY	BMP	DEPARTMENT RESPONSIBLE FOR IMPLEMENTING BMP	MEASURABLE GOALS	PROGRESS ON GOAL(S) PERMIT YEAR 5	PLANNED ACTIVITIES
5.6.3	Parks and Open Space	Develop and implement a management program for fertilizer and pesticide application	Parks Department	Annually summarize applications	Implement Management Program and revise as necessary.	Continue to implement program
5.6.4	Municipal Vehicle Maintenance and Repair	Review maintenance and repair programs for municipal vehicles	DPW	Review every two years	Evaluated operations and made improvements	Continue to evaluate operations and make improvements
5.6.5	Municipal Roads	Enhance street sweeping operations	DPW	Strengthen record tracking system. Evaluate increasing frequency in urban areas. If applicable, increase frequency.	Evaluated record keeping and modified as necessary. All streets swept in spring and fall and downtown area swept every other week.	Continue to evaluate and strengthen record keeping.

Middle School
Poster Contest Winner

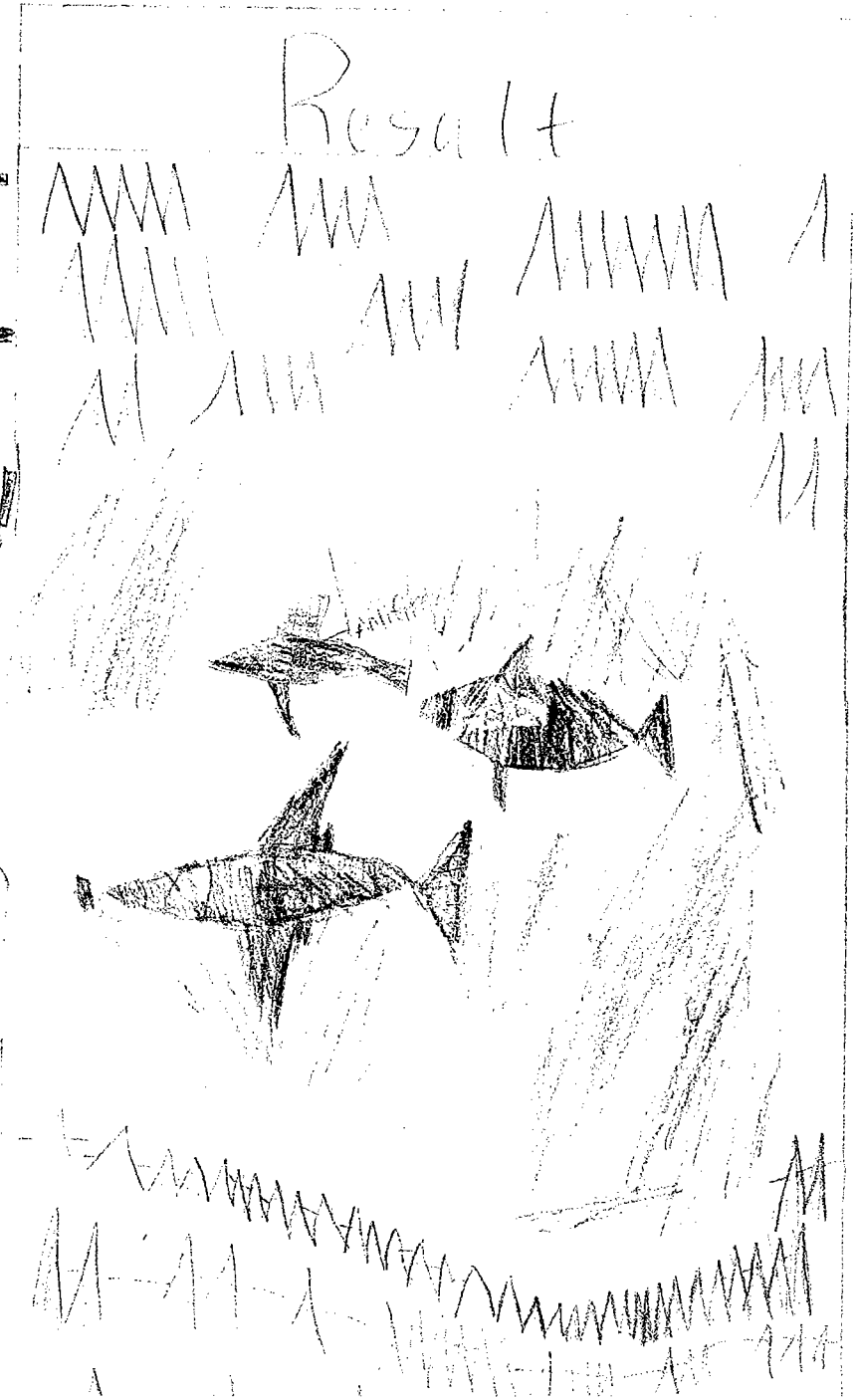
Appendix
1

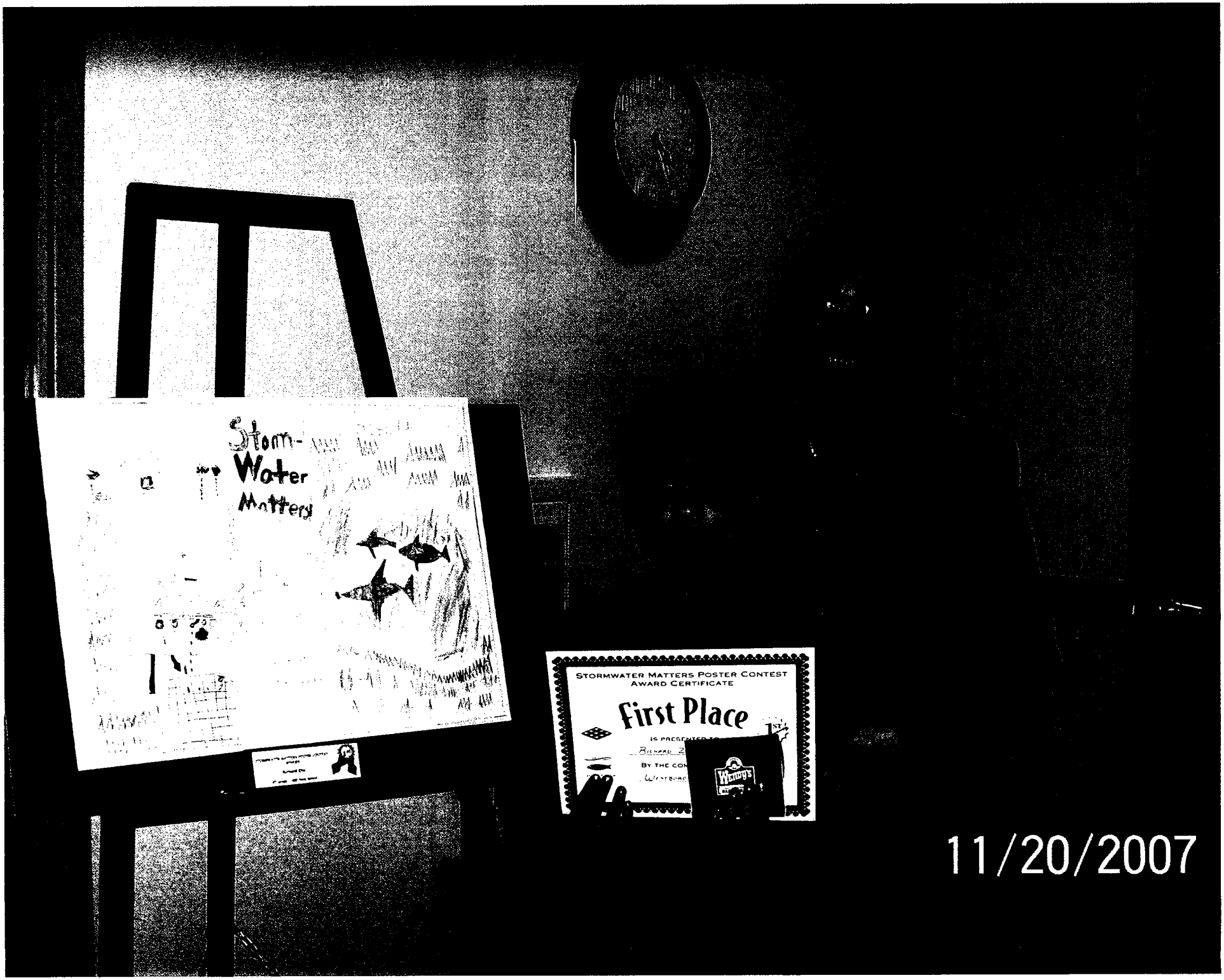
Stom-Water Matters!

Pollute Source



Result




Storm-
Water
Matters
STORMWATER MATTERS POSTER CONTEST
AWARD CERTIFICATE
First Place
Wendy's

11/20/2007

Sample from Stormwater Lesson Activity Book and a "Fish Story"

Appendix 2

Stormwater Lesson Intro for Middle School

Massachusetts gets an average of 45 inches of precipitation (rain and snow) every year.
When the rain and snow hit the ground, some of it evaporates, some of it seeps into the soil, and some of it runs off over impervious surfaces (roads, parking lots, rooftops).
That runoff is called stormwater.
Stormwater can pick up pollutants (litter, sand, soil, oil, chemicals) and carry them to streams lakes and wetlands.
Stormwater is one of the largest sources of pollution to fresh and marine waters.

Today we're going to learn about the different ways stormwater gets polluted and we will also talk about how the pollution can be reduced.

You probably don't realize that storm drains in streets and parking lots are directly connected to the nearest water body. So anything that flows into the storm drain also flows to the waterway **without** treatment.

STORMWATER ACTIVITY BOOK

STORMWATER
matters™

WESTBOROUGH
MASSACHUSETTS

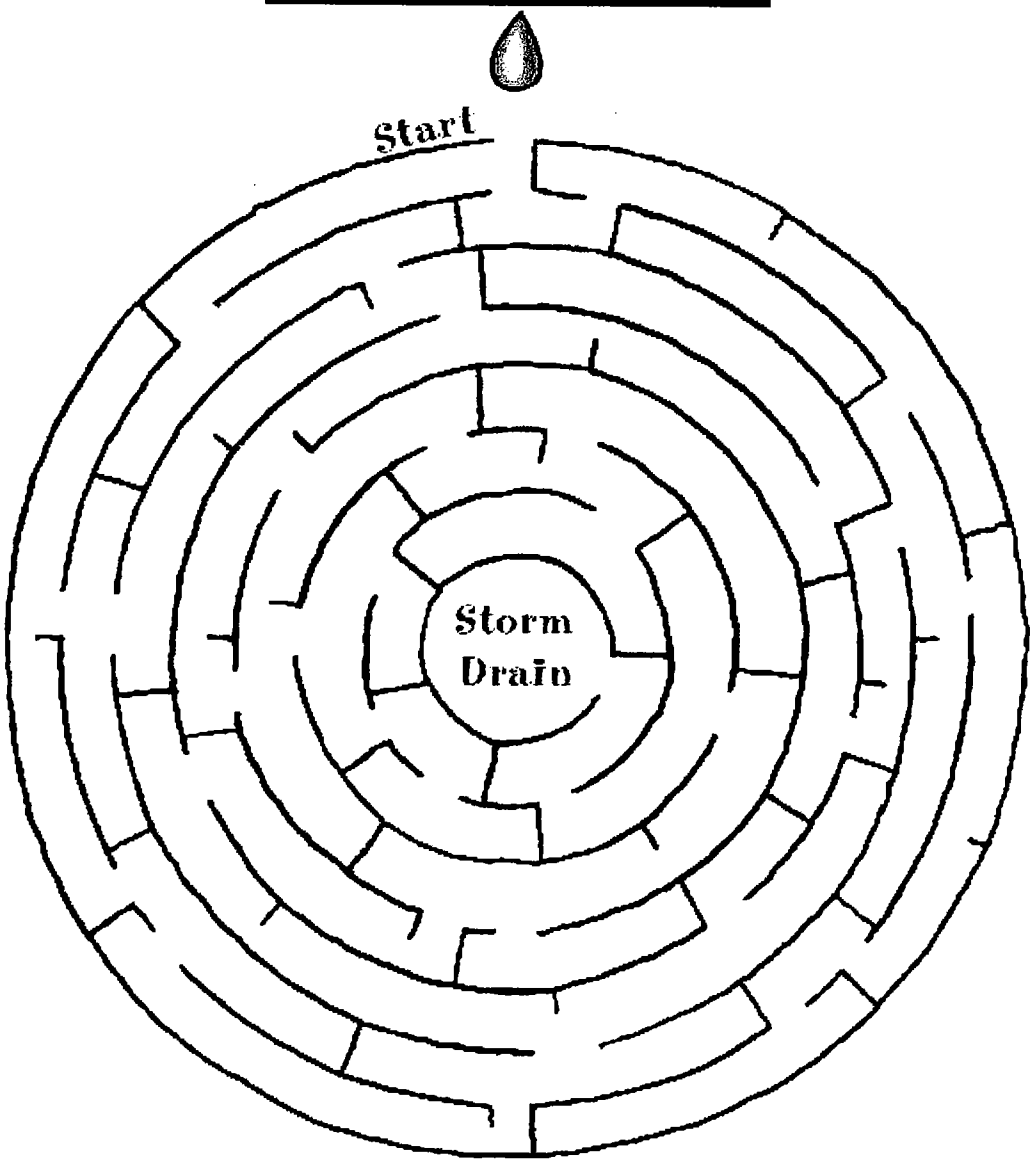
OCTOBER 2007

WHAT IS STORMWATER?

When rain falls or when the snow melts, where do you think the water goes?
Does it soak into the ground?
Does it sit in puddles until it disappears?
If you answered yes, you are partially right.
Some of the water flows over the land surface, heading downhill to the nearest stream or ditch.
We call this **stormwater** runoff.

In cities and towns, the water can't soak through the pavement, rooftops, and concrete. This means that there's more **stormwater** runoff in cities than in forests and fields. The water collects in gutters and usually flows straight into a **storm drain**. You would recognize a storm drain as the big grate in the road where the water disappears. Actually, it connects to a pipe, which carries the water directly to your local river or lake.

STORMWATER

Cities and towns have more stormwater runoff than areas in the country because they have more concrete so the water can't soak into the ground.

Lead the water droplet through the maze and into the storm drain.