

5/1/12

P

Municipality/Organization: Shrewsbury, Massachusetts

EPA NPDES Permit Number: MAR041158

MassDEP Transmittal Number: W-036325

Annual Report Number & Reporting Period: Year 9
April 1, 2011 – March 31, 2012

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2012)

Part I. General Information

Contact Person: Jack Perreault Title: Town Engineer

Telephone #: (508) 841-8502 Email: jperreau@th.ci.shrewsbury.ma.us

Mailing Address: Richard D. Carney Municipal Office Building, 100 Maple Avenue,
Shrewsbury, MA 01545

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: Daniel Morgado

Title: Town Manager

Date: 4/25/2012

Part II. Self-Assessment

The Town has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

Current State of the Phase II Program in Shrewsbury:

In the past the Town has budgeted \$5,000 per year for the Phase II Program. For the upcoming permit year, the Town has appropriations totaling \$50,000 for the stormwater program. This cost does not include money for catch basin cleaning and street sweeping, which is currently budgeted separately with the Town Highway Department. It also does not include funds used for reviews, inspections, research, and reporting for compliance with the permit conditions. Those funds are part of the Engineering Department budget. Occasionally funds have been made available for the Phase II Program from other sources within town budget areas as well.

Town budgets as a whole have been greatly reduced in recent years, and the stormwater program has suffered due to the lack of available funding. Catch basin cleaning is one example in town. Just prior to the issuance of the Phase II Permit, the Town was cleaning 100% of the catch basins within public roadways annually. With each passing year there has been a steady decrease in the amount of catch basins the Town has been able to maintain. During Year One of the permit, the Town was able to clean 60% of the catch basins. By Year Six the Town cleaned 30% of the catch basins annually, and during Permit Year Eight, the Town was only able to clean 4% of the catch basins. The Town was able to increase then number of basins cleaned to approximately 16% during Permit Year 9.

While it's clear that an additional funding source is needed to simply maintain the status quo in town, the Town has also been reviewing the potential fiscal impact of the next Phase II Permit. It is apparent that the projected costs cannot be covered within the existing Town budget, and a new revenue source such as a stormwater utility fee will be needed. A final course of action will be decided once the new permit is issued and the impacts are fully understood. In the meantime, the Town continues to be proactive and has just recently entered a contract with an environmental consulting firm to develop a stormwater utility for the Town, and to evaluate the future stormwater program and assess annual program costs. We estimate spending approximately \$33,000 to complete these tasks, and we anticipate that the tasks will take additional time beyond Permit Year 10 to be completed.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised					

1a. Additions

01	Pamphlet Mailings	Water & Sewer	# Pamphlets Mailed	Two pamphlets mailed to approximately 11,000 subscribers of municipal water/sewer utilities.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
04 Revised	Water Monitoring & Sampling	Health Dept.	Sample Data	Samples for E. Coli & Total Coliform bacteria were taken on a weekly basis during the bathing season in Lake Quinsigamond.	
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
05 Revised	Local Ordinance	Engineering Dept.	Bylaw Adopted	Local Bylaw adopted at Annual Town Meeting in May 2007.	
06 Revised	Storm Sewer Map	Engineering Dept.	GIS Map	GIS Map under production to show additional drainage utility components, such as catch basins and manholes.	
Revised					

3a. Additions

14	Grease Trap Inspection Program	Water & Sewer Dept.	# Grease Traps Inspected	Inspection of grease traps began in the fall of 2009.	Continue inspections.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
05 Revised	Local Ordinance	Engineering Dept.	Bylaw Adopted	Local Bylaw adopted at Annual Town Meeting in May 2007. Continuing to discuss regulations to supplement bylaw.	
08 Revised	Mass. Stormwater Policy	Engineering Dept.	# Projects Reviewed	4 Projects submitted to the Conservation Commission and/or Planning Board were reviewed.	Continue to review new applications.
09 Revised	Site Plan Reviews	Engineering Dept.	Bylaw Adopted	Local Bylaw Adopted at Annual Town Meeting. Reviewed 9 construction projects with > 1 acre disturbance.	Continue to review projects.
Revised					

4a. Additions

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
05 Revised	Local Ordinance	Engineering Dept.	Bylaw Adopted	Local Bylaw adopted at Annual Town Meeting in May 2007. Continue to discuss regulations to supplement bylaw.	
08 Revised	Mass. Stormwater Policy	Engineering Dept.	# Projects Reviewed	4 projects submitted to the Conservation Commission and/or Planning Board were reviewed.	Continue to review new applications.
Revised					

5a. Additions

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
10 Revised	Catch Basin Cleaning	Hithway Dept.	Catch Basins Cleaned	Approximately 16% of all catch basins were cleaned.	Continue to clean catch basins. Award a contract to clean 2,000 catch basins with cost estimate of \$30,000.
11 Revised	Street Sweeping	Highway Dept.	Streets Swept	All public streets were swept.	
Revised					

6a. Additions

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
05 Revised	Local Ordinance	Engineering Dept.	Bylaw Adopted	Local Bylaw adopted at Annual Town Meeting in May 2007.	
08 Revised	Mass Stormwater Policy	Engineering Dept.	# Projects Reviewed	4 projects submitted to the Conservation Commission and/or Planning Board were reviewed.	Continue to review new applications.
Revised					

7a. Additions

7b. WLA Assessment

During Year 10 – The Town is waiting for the new Phase II Permit to be issued and will make plans at that time.



**Town of Shrewsbury, Massachusetts
Highway Department
Richard D. Carney Municipal Office Building
100 Maple Avenue
Shrewsbury MA 01545-5398**

**John F. Knipe Jr. 508-841-8513 508-841-8497
Superintendent Voice Facsimile**

Email: jknipe@th.ci.shrewsbury.ma.us

Date: April 24, 2012
To: Brad Stone, Town Conservation
From: John Knipe, Jr., Superintendent of Streets
Re: Storm Water Permits

From April 21, 2011 through April 23, 2012 the following is an estimate of man-hours related to storm water management activities.

Street Sweeping-	1,524 hours
Catch Basin Cleaning-	686 hours
Total of 810 catch basins cleaned or 16% of total catch basins	
Detention Basin Activities-	28 hours

During this period all streets were swept and we cleaned approximately 16% of the catch basins and waterway outlets in town.

With current staffing levels and limited funding we found it difficult to clean all the catch basins.

We are currently in the process of awarding a contract to clean 2,000 catch basins at an estimated \$30,000.00. Work to be completed this fiscal year.

cc: Daniel J. Morgado, Town Manager

Water Conservation Kits For Sale

- **Where:** Shrewsbury Water Dept. Office, Shrewsbury Town Hall
- **Hours:** 8 am - 4:30 pm Monday through Friday
- **Cost:** \$3 or \$6 per kit.

Indoor (\$6 each) and outdoor (\$3 each) water conservation kits are now on sale at the Water Department at the Shrewsbury Town Hall.

Kits for Shrewsbury Residents only.



Water Saving Tips

With Spring just around the corner, here is some water saving tips to help you conserve water.

Outdoor

Water your lawn only when needed. Use a soil moisture meter to determine when to water.

Water lawns early in the morning during the hotter summer months. This will reduce water loss due to evaporation.

Set your lawn mower blade one notch higher. Longer grass means less evaporation.

Indoor

Don't let water run when washing your hands.

Use a small pan of water to clean vegetables, rather than running water over them.

When brushing your teeth, turn water off until you're ready to rinse.

RAIN BARRELS NOW AVAILABLE

The Town of Shrewsbury Water Conservation Project has again teamed up with The New England Rain Barrel Company to offer discounted rain barrels to residents. Rain barrels help conserve water and save money, and can be used for outdoor watering or car washing.



Rain barrels are available to Shrewsbury residents at the discounted price of \$72.70 (regular retail price \$119.95). New England Rain Barrels are made from recycled 55 gallon food-grade plastic drums and come equipped with a 5 ft. hose and shutoff valve. They are easy to install and set up. Orders may be placed through April 29, 2011. Rain Barrel Pick-up Day is Saturday May 7, 2011 from 9:00 a.m. to 12 noon at the Shrewsbury Town Hall. Call 1-877-977-3135 to place your order with The New England Rain Barrel Company or visit them at www.nerainbarrel.com. The Water Department will not take rain barrel orders.

WaterSense



Save water and protect the environment by choosing WaterSense labeled products in your home and business and taking simple steps to save water each day. Save dollars and cents with WaterSense, the U.S. EPA labeling program that provides information on products and programs that save water without sacrificing performance. In fact, every average household that fully adopts water efficient products and practices saves approximately 30,000 gallons per year – enough to supply a year of drinking water for 150 thirsty neighbors.

WaterSense labeled products have significant water savings over traditional products, just as the EnergyStar label has come to represent significantly more energy-efficient equipment. Using WaterSense labeled products and services will save you at least 20 percent of water over average counterparts.

Right now there are currently over 200 models of high-efficiency toilets certified by WaterSense. By looking for the WaterSense label when making purchasing decisions, you can reduce your water bills and conserve resources for future generations. For more information, please visit www.epa.gov/watersense.

Mr. Raindrop's "Edible Aquifer" for Grades 3-6 School Vacation Week @ Shrewsbury Public Library



What: Mr. Raindrop's "Edible Aquifer" – Educational Ice Cream!
When: Wednesday, April 20, 2011
Time: 2:00 PM
Where: Shrewsbury Public Library
Cost: FREE! Pre-registration is required due to limited space. Stop by the Library or call 508-842-0081 ext. 3 to sign up!

Mr. Raindrop's "Edible Aquifer" is a fun, hands-on activity that will teach students about the need for water conservation through the use of ice cream, soda and candy! Each participant will create their own "edible aquifer" and learn some simple ways to conserve water at home.

Where Does Your Household Rank?

Check your current water bill. If your family's quarterly water use is higher than the target numbers listed below, your household needs to make a greater effort to conserve water.

Target Quarterly Residential Water Use								
No. of People in Household	1	2	3	4	5	6	7	8
Target Quarterly Water Use (in gallons)	5,931	11,862	17,793	23,724	29,655	35,586	41,517	47,448

If your family's quarterly water usage is equal to or lower than the target numbers in the chart above, keep up the good work! You are doing your part to conserve water at home, and your family meets or beats the State's 65 gallons per person per day water use goal.

Water Conservation Kits For Sale

- ∞ **Where:** Shrewsbury Water Dept. Office, Shrewsbury Town Hall
- ∞ **Hours:** 8 am - 4:30 pm Monday through Friday
- ∞ **Cost:** \$3 or \$6 per kit.

Indoor (\$6 each) and outdoor (\$3 each) water conservation kits are now on sale at the Water Department at the Shrewsbury Town Hall.

Kits for Shrewsbury Residents only.



Summer Water Saving Tips

With Summer here, here are some water saving tips to help you conserve water.

Outdoor

If you have a pool, use a pool cover to cut down on evaporation. It will also keep your pool cleaner and reduce the need to add chemicals.

Cut down watering your lawn on cool and overcast days and don't water in the rain.

Rather than washing your car at home, take it to a car wash that recycles its wash water.

Indoor

If you wash dishes by hand—that's the best way—don't leave the water running for rinsing. If you have two sinks, fill one with rinse water. If you have one sink, use a spray device instead of letting the water run.

Don't defrost frozen foods with running water. Plan ahead by placing frozen items in the refrigerator overnight or defrost them in the microwave.

NOTICE TO WATER AND SEWER CUSTOMERS

Effective April 1, 2011, the Board of Sewer Commissioners has instituted an increase in the present sewer rates. This increase is primarily necessary to pay for federally mandated upgrades at the Westborough Wastewater Treatment Plant. The cost of this project is estimated to be \$54 million dollars. In addition, the increase is necessary to pay for major capital improvements related to the operation and maintenance of the sewer system.

	<u>Current</u>	<u>Effective April 1, 2011</u>
Residential		
Base Charge	\$30.00	\$30.00
Rate per thousand gallons	\$ 4.20	\$ 7.50
Condominiums		
Base Charge	\$30.00	\$30.00
Rate per thousand gallons	\$ 4.20	\$ 7.50
Commercial, Industrial & Apartments		
Base Charge	\$30.00	\$30.00
Rate per thousand gallons	\$ 5.40	\$ 9.30

Water Use Restriction

The Board of Selectmen has determined that a shortage of water exists and conservation measures are necessary to ensure an adequate supply of water to all water consumers and pursuant to Article 18, Section 4 of the General By-Laws of the Town of Shrewsbury the following water conservation measures is hereby implemented:

Outdoor Use of Water Restriction

Based upon the street address number as follows:

Even numbered addresses may use water outdoors: **Tuesday, Thursday and Saturday**

Odd numbered addresses may use water outdoors: **Wednesday, Friday and Sunday**

No nonessential outdoor water use from 9:00am-5:00pm on days allowed

No outdoor use of water on **Monday** for any address

The Board of Selectmen calls upon all water users to conserve water whenever possible and to observe the above listed water restriction.



The Spirit of Shrewsbury Oak Street Expo will be held on Saturday October 1, 2011 from 10:00am to 4:00pm at the Oak Middle School, 45 Oak Street. please stop by the Water Conservation Booth to receive free complimentary water saving devices and items. Hope to see you there.

Where Does Your Household Rank?

Check your current water bill. If your family's quarterly water use is higher than the target numbers listed below, your household needs to make a greater effort to conserve water.

Target Quarterly Residential Water Use								
No. of People in Household	1	2	3	4	5	6	7	8
Target Quarterly Water Use (in gallons)	5,931	11,862	17,793	23,724	29,655	35,586	41,517	47,448

If your family's quarterly water usage is equal to or lower than the target numbers in the chart above, keep up the good work! You are doing your part to conserve water at home, and your family meets or beats the State's 65 gallons per person per day water use goal.

Water Conservation Kits For Sale

- **Where:** Shrewsbury Water Dept. Office, Shrewsbury Town Hall
- **Hours:** 8 am - 4:30 pm Monday through Friday
- **Cost:** \$3 or \$6 per kit.

Indoor (\$6 each) and outdoor (\$3 each) water conservation kits are now on sale at the Water Department at the Shrewsbury Town Hall.

Kits for Shrewsbury Residents only.



Water Saving Tips

Here are some water saving tips to help conserve water.

Outdoor

Apply as little fertilizer to your lawn as possible. Applying excess fertilizer increases water consumption and actually creates more mowing.

Avoid bursting or freezing pipes by winterizing your outdoor spigots.

Consider replacing infrequently used lawn areas with low-water use plants or ground covers.

Indoor

Pay attention to your water bill and become familiar with your water meter. Use them to track your water use and detect leaks.

Install aerators on every faucet. This could save you as much as 1 gallon every minute you use them.

Locate your main water shut-off valve so that water can be saved if a pipe bursts.

INFILTRATION AND INFLOW CAN BE COSTLY FOR COMMUNITIES

The Town is working continuously to reduce groundwater known as infiltration and inflow (I/I) from entering the sewer system. Why is this important to you the customer? Shrewsbury pays for flow on a percentage basis entering the Westborough Treatment Plant so everyone pays to treat groundwater instead of just sewerage; and the costs are passed on to the consumer. This also uses up valuable capacity at the plant limiting the ability of the Town to increase the commercial tax base in the community. This increased flow also can cause overflows into wetlands and into private homes causing a myriad of problems and environmental concerns. Groundwater is entering the system both on public roadways and on private property in various ways. The Town is working on relining and replacing pipelines and manhole structures to reduce I/I. There are also problems on private property with property owners with water issues using sump pumps, roof leaders and other drainage pumping into the sewer system. The Town, along with its valued customers, need to work together to minimize the impact of I/I which will benefit everyone in the long term.

WHAT IS INFILTRATION?

The term infiltration is described by the excess water that seeps, trickles or flows into old or damaged collection systems from the surrounding soil. For example, high groundwater table or water remaining in the soil after rain or snow often can infiltrate sewer main line pipes, joints, service laterals connections, and other parts of a sewerage system that may have deteriorated, cracked, sagged or collapsed.

WHAT IS INFLOW?

Additional unwanted water can enter sewer collection systems from above-ground sources. During storms or snow thaws, for example, large volumes of water may flow into systems through leaky manhole covers or combined stormwater/wastewater connections. In addition, private residences may have roof, cellar, yard, or foundation drains inappropriately connected to sanitary sewers. Any extra water flowing into wastewater collection systems from above-ground sources is referred to as inflow.

RESIDENTS CAN HELP BY CONSERVING WATER

Sometimes an ounce of prevention can be worth gallons and gallons of reduced wastewater flows. One of the most effective ways communities can reduce I/I and the costs associated with it is by simply conserving water.

In households without low-flow fixtures, up to 75 percent of water is used to flush toilets and take showers. Residents should replace old fixtures with low-flow models for the good of the community and to save on water bills; it can be well worth the investment.

Where Does Your Household Rank?

Check your current water bill. If your family's quarterly water use is higher than the target numbers listed below, your household needs to make a greater effort to conserve water.

Target Quarterly Residential Water Use								
No. of People in Household	1	2	3	4	5	6	7	8
Target Quarterly Water Use (in gallons)	5,931	11,862	17,793	23,724	29,655	35,586	41,517	47,448

If your family's quarterly water usage is equal to or lower than the target numbers in the chart above, keep up the good work! You are doing your part to conserve water at home, and your family meets or beats the State's 65 gallons per person per day water use goal.