

Municipality/Organization: Marlborough, MA

EPA NPDES Permit Number: MAR041128

MaDEP Transmittal Number: W-035393

**Annual Report Number
& Reporting Period:** No. 10 – May 2012- May 2013

NPDES PII Small MS4 General Permit
MAR041128
Annual Report
#10

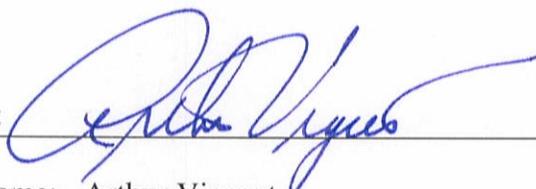
Part I. General Information

Contact Person: Priscilla Ryder **Title:** Conservation Officer

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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: Arthur Vigeant _____

Title: Mayor _____

Date: 4/30/13 _____

Part II. Self-Assessment

The City of Marlborough has completed the required self assessment and has determined that our municipality is in compliance with all permit conditions, except as noted below. Below we have highlighted items that were completed and proved successful, and items which were changed slightly or delayed for reasons noted, for this past year- May '12-May' 13.

Part D 1-1 – Informational brochures. The informational storm water pollution brochures were mailed in the spring '12 water bills. 10,500 pieces were mailed. The May 2012 mailing will go out in the spring '13 water bills as well. A copy of the brochure can be found at the following link http://www.marlborough-ma.gov/Gen/MarlboroughMA_PublicWrks/MarlboroughMA_Engineerng/stormwater-flyer.pdf

Part D 1-2 – Storm Drain Marking. We began our storm water marker replacement project in the spring of 2012. The markers which were installed 8+ years ago are now fading, chipping or have fallen off due to the adhesive wearing out. In 2010 we purchased 6,000 replacement markers. In spring 2013 we worked again with boy scouts and volunteer groups to replace markers that have been removed and to begin replacing markers that have faded. When doing marker replacements we are also require that the door hangers be hung on every door near the replaced marker as an added reminder to resident, this will be an ongoing project.

Part D 1-3 – Cable TV show- A Public Service Announcement has been airing since the fall of '09 which follows a small rubber duck down a storm drain sharing a message that only clean water should go down the storm drain. It continued to runs in 2012-2013, perhaps 100 times a year or more. The YouTube link to this PSA can be seen through the Engineering web page on the city web and can be viewed here.
http://www.youtube.com/watch?v=ieIm6bT5j10&feature=player_embedded

Part D 1-4 Student Education- The Conservation Commission continued to work with the local watershed group now called OARS (the SuAsCo Watershed organization) who taught the curriculum for the” Water Wise workshops” which were held again during the summer months in '12. Their web site describes the program as:

“Water Wise Workshop 2012 Season

During the summer local children continued their education by taking part in our "Water Wise Workshops" that were held at Memorial Beach in Marlborough, Lake Cochituate in Wayland, and Lake Chauncy in Westborough. In addition, OARS partnered with the Boys & Girls Clubs of Hudson, Marlborough, and Framingham to offer the workshops as part of their summer camps.

Participating children were given the opportunity to become **Junior River Rangers**, a National Park Service program. Eleven students received their badges!
<http://www.oars3rivers.org/our-work/education/waterwiseworkshops>

Part D 1-5 – Web site - The Storm Water web page is updated annually and is posted at http://www.marlbrough-ma.gov/Gen/MarlboroughMA_PublicWrks/MarlboroughMA_Engineerng/Stormwater-Management.

Part D 2-5- Stream Teams. –All the streams in the city have been surveyed by stream teams except three small remaining stream tributaries which still need to be reviewed and will be done in the fall 2013. The stream team reports have revealed that for the most part our streams are healthy. Although we did find several illicit discharges which were identified, reported and corrected. In general the inspections are revealing a relatively healthy system. The stream team reports are now posted on line at the following link.
http://www.marlbrough-ma.gov/Gen/MarlboroughMA_ConCommisn/StreamTeamReports

Part D 2-4; 3-2, 3-3, 3-4, 4-2- The Stormwater Regulations, the Stormwater Management Ordinance and the Illicit discharge ordinances are on the books and are currently being enforced and followed.

The web links to both these ordinances are as follows:

Link to City Code: <http://www.ecode360.com/?custId=MA1056>; Search word: “Stormwater Management” and “Detection and Elimination of Illicit Discharge to Municipal Storm Drain System”

The stormwater regulations can be found at: http://www.marlbrough-ma.gov/Gen/MarlboroughMA_PublicWrks/MarlboroughMA_Engineerng/2011%20STORMWATER%20RULES%20%20REGS.pdf

Part D 4-2; 4-4– We have not established a baseline testing protocol for the streams in the city. As noted in previous reports we do have some baseline data on several of the major stream systems done on Ft. Meadow Reservoir, Millham Reservoir, and the Sudbury Reservoir and Hop Brook which can be used in the future as needed for future comparison. The Stream Team reports noted above have provided valuable data and information about stream health and have allowed for follow up and elimination of discharges into the stream system. With new testing requirements anticipated in the next round of EPA permits it was determined that the specific testing protocol would be developed once these new criteria are established.

Roadway retrofits- Although this doesn’t fall under a specific category in the permit, the City has been aggressive in requiring that all catchbasins are retrofitted with deep sumps when roadways are reconstructed. A list at the end of the report lists all the streets that have been reconstructed or repaved and now have deep 4’ sumps and hoods in their Catch Basins. This will be an ongoing project so as streets are upgraded they will all be retrofitted with deep precast concrete sumps, and hoods.

Part D 6-3 Employee Training - The DPW has an Integrated Contingency Plan dated Sept. '03 which was updated in '06. The purpose of the plan is: "To describe how the Marlborough DPW handles emergencies associated with fires, injuries and releases and spills of hazardous chemicals, hazardous and extremely hazardous substances, hazardous wastes, hazardous matters and petroleum products at their Neil St. facility." As noted in previous reports this document helps guide the handling and proper storage of hazardous materials at the DPW facility. Annual training, materials handling and labeling and specific storage protocols are in place. Annual evaluations by MIAA also keep the DPW in compliance. This program is working well.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – continuing
1-1	Informational brochures	Conservation/ Priscilla Ryder	Distribute city wide annually	The brochure is complete. (web link noted above) This was mailed out in the water bill cycle in June of '11	We will send out the flier once more in the water bills June '12 cycle.
1-2	Storm drain stenciling	Conservation/ Priscilla Ryder	Stencil ¼ of drains per year	All city storm drains were marked in 2009. 6000 additional markers have been purchased. A marker replacement program began spring 2012.	Boy scouts and volunteers will continue to replace storm drain markers as needed.
1-3	Cable TV Program	Conservation/ Priscilla Ryder	Tape/ air once annually	A one minute PSA has been running regularly since Fall of 2009 on the local cable channel approximately 10 times per week. (see link above)	PSA will continue to air indefinitely. A link to this PSA is now on the website. http://www.youtube.com/watch?v=ieIm6bT5j10&feature=player_embedded
1-4	Student Education		Speak to middle school class	The Water Wise Workshop series was held again in summer of '12 and was successful. (see link to the web site above)	We anticipate funding to be provided for another summer of Water Wise Workshops in summer of '13 in conjunction with the OARS.
Revised		Organization for the Assabet River and Conservation Commission/ Priscilla Ryder	Water Wise workshop program developed and implemented		
1-5	Web site posting	Conservation/ Priscilla Ryder	Post storm water information on City Web site	The Stormwater web page has been posted at http://www.marlborough-ma.gov/Gen/MarlboroughMA_PublicWrks/MarlboroughMA_Engineering/Stormwater-Management	Information to be updated as needed annually in May of each year.

1-6	Prepare compliance report	Conservation/ Priscilla Ryder	Prepare annual report	Report prepared April '13	Will submit reports based on new MS4 permit requirements.
1-7	Annual Reporting Reminders	Conservation/ Priscilla Ryder	Notices to non-residential properties	Annual reports from companies are being filed with the Conservation Commission by June 1 st of each year. We received several such reports.	Will do ongoing monitoring to ensure stormwater maintenance is done on private non-residential properties.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Continuing
2-1	Volunteer for stenciling	Conservation/ Priscilla Ryder	Volunteers to install storm drain markers	Ordered 6,000 new storm drain markers to replace faded and missing makers.	All street storm drains have been marked, but old ones have faded and need replacing. Some newer ones have become unglued and need replacing. We will work on replacing markers as needed and hanging door hangers when that is done. Will use boy scouts and other volunteers for this work.
2-2	Household Hazardous Waste Collection day	Emerg. Mgt/ Don Cusson	Hold HHWCD Annually	Two events were held in May and November of '12	Two events scheduled annually spring and fall.
2-3	Storm Water Management Advisory Committee	Conservation/ Priscilla Ryder	Form SWMAC	The SWMAC did not meet in 2012	Since the ordinances are passed, no further meetings have been scheduled.
2-4	Public Hearings	Conservation/ Priscilla Ryder	Hold Public Meeting on SWP	The public hearing was held on May 30, 2011 to review the Stormwater Regulations before being adopted.	No additional meetings needed.

2-5	Stream Team	Conservation/ Priscilla Ryder	Form Stream Team	Stream team leadership groups went out to investigate additional streams in the city. Several illicit discharges were detected and followed up on. Reports are on line as noted above in the self- assessment.	Only three streams tributaries remain to be investigated, these will be checked in fall 2013 and report finalized.
2-6	Clean up day	Mayor and City Council	Sponsor city wide Clean-up day	300 volunteers worked for three hours collecting 7.7 tons of trash during the annual city wide Clean Sweep in, '12	Annual cleanup to continue 4-27-13 and annually.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – continuing
3-1	GIS Mapping	DPW/ Nat Bowen GIS coordinator	Map City ¼ of Drainage System	95% of the city's drainage system has been entered onto the GIS mapping system. New information being added as it is provided.	The remaining 5% of the final drainage linkages through private property will be done by interns as time permits and as as-built plans are submitted. This will be ongoing.
3-2	Ordinance Review	DPW/ city engineer Tom Cullen and Priscilla Ryder Conservation Officer	Review applicable ordinances	A public hearing was held on May 30, 2011 for the Stormwater regulations. The regulations were adopted in June 2011.	No further action needed.

3-3	Protocol development for IDDE	DPW/ city engineer Tom Cullen	Develop protocol for IDDE	Detection and Elimination of Illicit Discharge to Municipal Storm Drain System Ordinance was passed in Nov. '09	None further action needed
3-4	Ordinance Modifications	DPW/ city engineer Tom Cullen	Drainage ordinance modifications	Detection and Elimination of Illicit Discharge to Municipal Storm Drain System Ordinance was passed in Nov. '09	Done Ordinance passed.
3-5	Stream Team inspections	Conservation/ Priscilla Ryder	Inspect city's streams/outfalls	See 2-5 above	See 2-5 above
3-6	Ill. Dis. Notice/Enforcement	DPW/ city engineer Tom Cullen	Disconnect w/in 6 mos.	Currently ongoing. When illicit connections are identified, owners are required to disconnect as outlined in the ordinance.	This will be ongoing

4. Construction Site Storm water Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – continuing
4-1	Regulation Review	DPW/ City Engineer- Tom Cullen	Review applicable regulations	Stormwater Management Ordinance passed in Nov. '09	Done – ordinance passed.
4-2	Sampling/Testing	DPW/city engineer- Tom Cullen	Sample/test to est. baseline	Have not established baseline for sampling. (see self assessment above)	Protocol for baseline sampling will be developed after new permit is issued.
4-3	Storm water management policy	DPW/ City Engineer- Tom Cullen	Adopt DEP Policy	Stormwater Management Ordinance passed in Nov. '09	Done – ordinance passed

4-4	Re-sampling retesting discharges	DPW/ city engineer- Tom Cullen	Resample/retest discharges	See 4-2 above	See 4-2 above
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5. Post-Construction Storm water Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – continuing
5-1	Regulation Reviews	DPW/ city engineer- Tom Cullen	Review applicable regulations	See 4-1 above	See 4-1 above
5-2	Sampling/testing	DPW/city engineer- Tom Cullen	Sample/test to est. baseline	See 4-2 above	See 4-2 above
5-3	Storm water management policy	DPW/ city engineer- Tom Cullen	Adopt DEP Policy	See 4-1 and 4-3 above	See 4-1 and 4-3 above
5-4	Re-sampling/retesting	DPW/ city engineer- Tom Cullen	Resample/retest discharge	See 4-4 above	See 4-4 above
5-5	Annual Reporting	Conservation/ Priscilla Ryder	Achieve annual reporting compliance	See 1-7 above	See 1-7 above
5-6	Random inspections	Conservation/ Priscilla Ryder	Inspect 10 facilities	See 1-7 and 1-7a above	See 1-7 and 1-7a above

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – continuing
6-1 revised	Street Sweeping	DPW/ Tom Temple	Sweep all streets annually	All streets were swept between April and Nov. 2011 (see city web link below)	All streets will be swept between April and Nov. 2012

6-2 revised	Catch basin cleaning	DPW/ Tom Temple	Clean ½ catch basins annually	1/2 of catch basins were cleaned in 2012.	Anticipated 3/4 of catch basins will be cleaned in 2013.
6-3	Employee training	DPW/ city engineer	Train DPW employees	Training on integrated pest management practices was done for school buildings and field maintenance. The DPW has been keeping up with good housekeeping practices discussed in previous years and continue to do annual training on hazardous materials and right to know.	In-house employee training will be ongoing regarding materials storage, sweeping, and IPM management. In the future custodial staff will also be trained.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

– The TMDL for the Assabet River and “Brook and Pond Assessment” for Hop Brook were both issued. Both these documents indirectly require the city to significantly reduce the concentration of phosphorus discharged from the city’s 2 wastewater treatment plants (POTW’s). The reports do not require non-point nutrient source controls. However, the implementation of the city’s Stormwater Ordinance and Illicit Discharge Detection and Elimination Ordinance will help to reduce nutrients from stormwater runoff emanating from existing and proposed developments.

The City has completed almost \$30M in construction upgrades to its Westerly Wastewater Treatment Plant (Assabet River), the new plant opened in 2012. The design of upgrades to the Easterly Wastewater Treatment Plant (Hop Brook) has been completed and construction is currently underway. The design of both plants include facilities that will markedly reduce point source nutrient loadings to the receiving waters by reducing phosphorus from our present permitted limit of .75 mg/L to .1 mg/L, an 87% reduction.

Part IV. Summary of Information Collected and Analyzed

All applicable information is included in Part II and III above and includes the links to the various documents and reports. The two additional reports which are attached are:

1. Illicit discharge report which tracks the illicit discharges identified and corrected over the past year;
2. Roadway Drainage Improvement List

- Attachments:** 1) **Illicit Discharge Report**
 2) **Roadway drainage repair/upgrades**

1. Illicit Discharge Report

DATE	Location	Problem	Investigation and Follow up
10-24-11	656 Farm Rd.	Dumping of yard waste and soil over bank above wetland	Required immediate stabilizations, and permitting and final grading and stabilization to prevent siltation. Completed as required.
11-16-11	24 Hager St.	Working near wetland without permit, removing vegetation along bank threat of erosion	Required them to get a permit and reestablish wetland slope banks to ensure stability and eliminate erosion. Done.
1-13-12	111 Neil St.	Clearing of trees along stream bank, loose soil could wash into stream	Stabilized the area, reestablished planting and stabilized slope near stream.
2-3-12	Crowley Dr. Vestas Property	Muddy water discharge from construction site into stream	Enforcement action taken, site regraded and stabilized, stormwater re-routed and treated from this construction site, before discharge
4-13-12	358 Berlin Rd.	Clearing of trees along slope potential for erosion	Violation notice issued, clearing ceased, working this spring to restore vegetation on slope.
8-2012	Royce Rd. culvert replacement	Muddy water released into stream when rain event occurred during construction	cleanup of sediment and stabilization of slopes was done
3-19-2012	780 Boston Post Rd.	Muddy water leaving the site of auto parts	Owner notified and site is being graveled and water directed to a detention basin before being

		facility, causing cloudy stream	discharged. Ongoing monitoring is required.
2-2-12; 2-27-12	150 Cook Lane	Silty water discharge into adjacent stream	Violation notice issued, wetland consultant directed contractor to install additional measures to control runoff
1-17-12; 8-22-12; 3-12-12	Crowley Dr. Toll Brothers Regency at Assabet Ridge	Silty water leaving this large construction site	Multiple violation notices issued, company was required to hire an outside consultant to direct work on site and maintain site in a manner so no further silty discharges would occur.

2. Roadway drainage improvements report

Roadway Drainage Improvements:

As a matter of policy in the past few years the DPW has required that during all roadway re-pavement and reconstruction projects that the catch basins and drainage structures be checked. All catch basins where feasible must have 4' sumps and hoods. Where this isn't already the case and its feasible existing catch basins are replaced with precast concrete 4' sump catch basins. Hoods are added as feasible in all new and old catch basins in road reconstruction and re-pavement projects. By doing so the city is now capturing much more sand and other pollutants from the street. For the 2011-2012 construction season the following streets had these stormwater systems upgraded:

- 1) Cortland Street Roadway Reconstruction;
- 2) Russet Lane Roadway Reconstruction;
- 3) First Road Roadway Reconstruction;
- 4) Preston Street Roadway Reconstruction;
- 5) Middle School Curbing Replacement and Parking Lot (portion) Reconstruction;
- 6) Bridge Street Culvert and Sidewalk Extension;
- 7) Miles Standish sub-drainage installation and Roadway Reconstruction (portion);
- 8) Old Charter Road sub-drainage and Roadway Resurfacing (portion);
- 9) Bellevue Avenue Roadway Reconstruction.