

**Municipality/Organization:** Town of Grafton  
**EPA NPDES Permit Number:** MAR04-1119  
**MassDEP Transmittal Number:** (Form BRP WM 08A, 2003, W-035459)  
**Annual Report Number & Reporting Period:** Year 15  
May 1, 2017 – April 30, 2018

**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2018)**

**Part I. General Information: *Transmittal Number W 035459***

**Contact Person:** Brian Szczurko **Title:** Assistant Engineer  
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**Mailing Address:** 30 Providence Road, Grafton, MA 01519

**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:** Rebecca Meekins  
**Title:** Assistant Town Administrator  
**Date:** 4/26/18

## **Part II. Self-Assessment**

The Town of Grafton continues to focus on its Stormwater Management Program to meet the conditions of the *2003 NPDES General Permit for Stormwater Discharges from Small MS4s* (2003 MS4 Permit). During Permit Year 15, the Town continued its best management practices (BMPs) under the six minimum control measures, while building capacity to meet upcoming requirements of the 2016 MS4 Permit (effective on July 1, 2018). DPW and Conservation staff participated in Central Massachusetts Regional Stormwater Coalition (CMRSWC) meetings (see Attachment 1) and attended stormwater/MS4 trainings and conferences. Grafton DPW continues to maintain the Town's NPDES Phase II public outreach webpage: <http://www.grafton-ma.gov/departments-public-works-engineering/pages/stormwater-npdes-phase-ii-information>.

As required by Part II.D.1 of the 2003 MS4 Permit, the Town has evaluated compliance of its Stormwater Management Program with the conditions of the Permit as part of developing this annual report. The Town has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions. Also, as required by Part II.D.2 of the MS4 General Permit, the Town has evaluated the appropriateness of selected BMPs in efforts towards achieving the defined measurable goals, and has determined that BMPs and measurable goals continue to be appropriate.

## 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 15<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                | Planned Activities                                                                                                                                                               |
|----------|---------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1A       | Stormwater Flyer Residents            | DPW & Cons Com                | Year 1: distribute flyer to 75% of Town residents.                                                               | Measurable goal has been met. Flyers continue to be available on a self-service basis at the Town offices. Links to documents are on the Town website:<br><a href="http://www.grafton-ma.gov/departments-public-works-engineering/pages/stormwater-npdes-phase-ii-information">http://www.grafton-ma.gov/departments-public-works-engineering/pages/stormwater-npdes-phase-ii-information</a> | DPW will continue to make flyers available at Town offices, and will maintain links on the Town website.                                                                         |
| Revised  |                                       |                               | Ongoing program, one communication per year. Provide links to materials on the Town website.                     |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| 1B       | Lesson Plan for 5 <sup>th</sup> Grade | DPW & SuAsCo                  | Year 2: Develop, distribute, and teach lessons at one or more 5 <sup>th</sup> grade classrooms in the community. | Measurable goal has been met. A copy of the lesson plan is available at the DPW office. Outreach activities for youth groups included Boy Scouts' participation in town clean up days.                                                                                                                                                                                                        | DPW will continue to make the lesson plan available. CMRSWC is working with WPI to develop a new 5 <sup>th</sup> grade curriculum that is consistent with Common Core standards. |
| Revised  |                                       |                               |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| 1C       | Stormwater Flyer Businesses           | DPW & SuAsCo                  | Year 3: Distribute flyer to 50% of Town businesses.                                                              | Measurable goal has been met. Flyers continue to be available on a self-service basis at the Town offices. Links to documents are on the Town website.                                                                                                                                                                                                                                        | DPW will continue to make flyers available at Town offices, and will maintain links on the Town website.                                                                         |
| Revised  |                                       |                               | Ongoing program, one communication per year. Provide links to materials on the Town website.                     |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| 1D       | Stormwater Media Campaign             | DPW & SuAsCo                  | Year 4 requirement                                                                                               | Measurable goal has been met. Links to documents are on the Town website.                                                                                                                                                                                                                                                                                                                     | The Statewide Municipal Stormwater Coalition is developing a statewide stormwater awareness campaign.                                                                            |
| Revised  |                                       |                               |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| 1E       | Stormwater Video                      | DPW & SuAsCo                  | Year 5 requirement                                                                                               | Measurable goal has been met. The educational PowerPoint presentation remains on file in the DPW office.                                                                                                                                                                                                                                                                                      | See response to 1D.                                                                                                                                                              |
| Revised  | 09/05 – Powerpoint Presentation       | DPW & SuAsCo                  |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |

| <b>BMP ID #</b> | <b>BMP Description</b>                     | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                                                                    | <b>Progress on Goal(s) – Permit Year 15</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                       | <b>Planned Activities</b>                                                                                |
|-----------------|--------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1F              | Grafton-Specific Stormwater Flyers         | DPW                                  | Year 1, 3: Distribute Grafton-specific brochure along with SuAsCo brochures.                 | Measurable goal has been met. Flyers continue to be available on a self-service basis at the Town offices. Links to documents are on the Town website.                                                                                                                      | DPW will continue to make flyers available at Town offices, and will maintain links on the Town website. |
| Revised         |                                            |                                      | Ongoing program, one communication per year. Provide links to materials on the Town website. |                                                                                                                                                                                                                                                                             |                                                                                                          |
| 1G              | Coordinate with Businesses and Landscapers | DPW                                  | Coordinate education on the use and sale of slow-release fertilizers.                        | Measurable goal has been met. The Town offices contain self-service educational materials for businesses and landscapers who enter the town offices pursuing support or permits. Links to educational materials developed by others are also available on the Town website. | DPW will continue to make flyers available at Town offices, and will maintain links on the Town website. |
| Revised         |                                            |                                      |                                                                                              |                                                                                                                                                                                                                                                                             |                                                                                                          |
| 1H              | Stormwater Flyer for Agriculture           | DPW                                  | Year 3: Distribute flyers to agricultural owners/properties                                  | Measurable goal has been met. Links to the educational materials are available on the Town website.                                                                                                                                                                         | The Agricultural Department is currently inactive. DPW will maintain links on the Town website.          |
| Revised         |                                            |                                      | Provide links to educational materials on the Town website.                                  |                                                                                                                                                                                                                                                                             |                                                                                                          |
| 1I              | Newspaper Articles                         | DPW                                  | At least 1 article per year.                                                                 | Measurable goal has been met. Links to past articles are posted on the Town website. No new articles were published during Permit Year 15.                                                                                                                                  | DPW will publish an article in the local newspaper after filing the NOI for the 2016 MS4 Permit.         |
| Revised         |                                            |                                      |                                                                                              |                                                                                                                                                                                                                                                                             |                                                                                                          |
| 1J              | Stormwater Info on Town Website            | DPW                                  | Ongoing Program to distribute educational materials via the web.                             | Measurable goal has been met. The stormwater and illicit discharge bylaws and other assorted educational materials are available on the Town website.                                                                                                                       | DPW will maintain links on the Town website.                                                             |
| Revised         |                                            |                                      |                                                                                              |                                                                                                                                                                                                                                                                             |                                                                                                          |

| <b>BMP ID #</b> | <b>BMP Description</b>                       | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b> | <b>Progress on Goal(s) – Permit Year 15</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                      | <b>Planned Activities</b>       |
|-----------------|----------------------------------------------|--------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 1K              | Trees and their use in stormwater management | DPW/Tree Warden                      | Ongoing Program           | Grafton continues to participate in the Tree City program. The program includes purchasing seeds and saplings and recruiting schoolchildren to plant them as part of Arbor Day activities. | DPW will continue this program. |
| Revised         |                                              |                                      |                           |                                                                                                                                                                                            |                                 |

## 2. Public Involvement and Participation

| BMP ID # | BMP Description                            | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                              | Progress on Goal(s) – Permit Year 15<br>(Reliance on non-municipal partners indicated, if any)          | Planned Activities                                                          |
|----------|--------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 2A       | Stormwater Traveling Display               | DPW & SuAsCo                  | Year 1-5: Stormwater display circulates around the community for a minimum of 3 months; Stormwater display is posted at a minimum of 3 different public locations in the community; Stormwater display is also used in future permit years for posting in public places or at stormwater events | Measurable goal has been met. Grafton continues to display poster and flyers at the kiosk at Town Hall. | DPW will continue to display the educational materials at the Town offices. |
| Revised  |                                            |                               |                                                                                                                                                                                                                                                                                                 |                                                                                                         |                                                                             |
| 2B       | Poster Contest for 5 <sup>th</sup> Graders | DPW & SuAsCo                  | Year 2: Poster contest held and entries received, judged, and displayed.                                                                                                                                                                                                                        | Measurable goal has been met. One-time event.                                                           | No activities are planned for this BMP.                                     |
| Revised  |                                            |                               |                                                                                                                                                                                                                                                                                                 |                                                                                                         |                                                                             |
| 2C       | Photo Contest for High Schoolers           | DPW & SuAsCo                  | Year 3: Photo contest is held and entries are received, judged, and displayed.                                                                                                                                                                                                                  | Measurable goal has been met. One-time event.                                                           | No activities are planned for this BMP.                                     |
| Revised  |                                            |                               |                                                                                                                                                                                                                                                                                                 |                                                                                                         |                                                                             |
| 2D       | Stormwater Summit Event                    | DPW & SuAsCo                  | Year 4 requirement.                                                                                                                                                                                                                                                                             | Measurable goal has been met. One-time event in 2006.                                                   | No activities are planned for this BMP.                                     |
| Revised  |                                            |                               |                                                                                                                                                                                                                                                                                                 |                                                                                                         |                                                                             |
| 2E       | Stormwater Super Summit Event              | DPW & SuAsCo                  | Year 5 requirement.                                                                                                                                                                                                                                                                             | Measurable goal has been met. One-time event in 2007.                                                   | No activities are planned for this BMP.                                     |

| <b>BMP ID #</b> | <b>BMP Description</b>           | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                                                             | <b>Progress on Goal(s) – Permit Year 15</b><br>(Reliance on non-municipal partners indicated, if any)                                                           | <b>Planned Activities</b>                                                                 |
|-----------------|----------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Revised         |                                  |                                      |                                                                                       |                                                                                                                                                                 |                                                                                           |
| 2F              | Annual Stormwater Public Meeting | DPW                                  | Hold public hearing by February every year.                                           | DPW discussed MS4 budget requirements at the Finance Committee meeting, which was open to the public.                                                           | DPW plans to meet with the Selectmen before filing the NOI for the 2016 MS4 Permit.       |
| Revised         |                                  |                                      |                                                                                       |                                                                                                                                                                 |                                                                                           |
| 2G              | Watershed Group Involvement      | DPW & Local Groups                   | Continue ongoing activities of local watershed groups such as cleanup and monitoring. | The Blackstone River Watershed Association hosted an Earth Day river cleanup on April 14 <sup>th</sup> , 2018. The DPW provided trash bags and pickup services. | DPW will continue to support watershed and community groups.                              |
| Revised         |                                  |                                      |                                                                                       |                                                                                                                                                                 |                                                                                           |
| 2H              | Involve Local Children's Groups  | DPW                                  | Children's groups help distribute or display educational information once per year.   | See public outreach item 1K, 2G including Arbor Day, Earth Day, and Tree City activities.                                                                       | DPW will continue the program for coordinated activities with children's groups.          |
| Revised         |                                  |                                      |                                                                                       |                                                                                                                                                                 |                                                                                           |
| 2I              | Purchase Land for Conservation   | DPW, various Town Agencies           | Ongoing Program                                                                       | No purchases this year.                                                                                                                                         | The Town will continue purchasing Chapter 61A land as properties and funds are available. |
| Revised         |                                  |                                      |                                                                                       |                                                                                                                                                                 |                                                                                           |

### 3. Illicit Discharge Detection and Elimination

| BMP ID #      | BMP Description              | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                       | Progress on Goal(s) – Permit Year 15<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Planned Activities                                                                                                   |
|---------------|------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 3A<br>Revised | Illicit Discharge Bylaw      | DPW                           | Develop/Implement Bylaw.                                                                                                                                                                                                                 | Measurable goal has been met. Article 37 adopted May 2009.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Continue to implement bylaw.                                                                                         |
| 3B<br>Revised | Storm Sewer Map              | DPW                           | Map 100% of Outfalls in Urbanized Areas by Permit Year 5                                                                                                                                                                                 | Measurable goal has been met. The Town has mapped all outfalls, catch basins, storm drain manholes, and most of the storm drain piping system. The stormwater infrastructure map is maintained through PeopleGIS and can be updated in real-time through their proprietary software.                                                                                                                                                                                                                                                                                       | DPW plans to map Town-owned structural BMPs.                                                                         |
| 3C<br>Revised | Detection & Elimination Plan | DPW                           | Year 1: Determine priority areas and discuss plan.<br>Year 1-5: Visually screen 20% of outfalls.<br>Year 4-5: Trace sources of illicit discharges (50% each year).<br>Year 4-5: Remove all sources of illicit discharges (50% each year) | During Year 13, all outfalls were inspected and tested. No chronic illicit discharges were detected.<br><br>During Year 15, no illicit discharges through the MS4 were identified; however, one sanitary sewer overflow occurred. A sewer backup at a manhole on Creeper Hill Road released a small volume of sewage, which flowed overland into Quinsigamond River. DPW remedied the cause of the backup immediately and notified MassDEP.<br><br>DPW continues to monitor for illicit discharges during regular operations and through resident complaints (see BMP 4E). | DPW will continue to monitor for illicit discharges during regular operations and to respond to resident complaints. |



| <b>BMP ID #</b> | <b>BMP Description</b>            | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                                                                             | <b>Progress on Goal(s) – Permit Year 15</b><br>(Reliance on non-municipal partners indicated, if any)                                                                            | <b>Planned Activities</b>                                                                                                          |
|-----------------|-----------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 3D              | Education for Public & Businesses | DPW                                  | Year 1, 3: Include illicit discharge education in the community business and Grafton-specific flyers. | Measurable goal has been met. Flyers continue to be available on a self-service basis at the Town offices. Links to IDDE fact-sheet materials are available on the Town website. | DPW will continue to make flyers available at Town offices, and will provide the illicit discharge fact sheet on the Town website. |
| Revised         |                                   |                                      | Provide links to materials on Town website.                                                           |                                                                                                                                                                                  |                                                                                                                                    |
| 3E              | Education for Municipal Employees | DPW                                  | Year 2-5: Include illicit discharge education.                                                        | All current DPW employees are trained to identify illicit discharges.                                                                                                            | Continue to train new staff as necessary.                                                                                          |
| Revised         |                                   |                                      |                                                                                                       |                                                                                                                                                                                  |                                                                                                                                    |
| Revised         |                                   |                                      |                                                                                                       |                                                                                                                                                                                  |                                                                                                                                    |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID #      | BMP Description                     | Responsible Dept./Person Name | Measurable Goal(s)                   | Progress on Goal(s) – Permit Year 15<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                     | Planned Activities           |
|---------------|-------------------------------------|-------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 4A<br>Revised | Construction Site Runoff Bylaw      | DPW, Planning, & Con Com      | Develop & Implement Bylaw. Goal Met. | Measurable goal has been met. Article 36, adopted May 2009.                                                                                                                                                                                                                                                                                        | Continue to implement bylaw. |
| 4B<br>Revised | Erosion, Sediment, & Waste Controls | DPW, Planning, & Con Com      | Develop & Implement Bylaw            | Measurable goal has been met. Article 36, adopted May 2009. Refers to MassDEP Stormwater Management Standards and Guidance Documents.                                                                                                                                                                                                              | Continue to implement bylaw. |
| 4C<br>Revised | Site Plan Review Procedures         | DPW, Planning, & Con Com      | Develop & Implement Bylaw            | Measurable goal has been met. Article 36, adopted May 2009. Refers to MassDEP Stormwater Management Standards and Guidance Documents. Projects are currently reviewed for compliance with local and state bylaws and regulations.                                                                                                                  | Continue to implement bylaw. |
| 4D<br>Revised | Site Inspection & Enforcement       | DPW, Planning, & Con Com      | Develop & Implement Bylaw            | During Permit Year 15, over 100 construction site inspections were completed. No enforcement actions were taken.                                                                                                                                                                                                                                   | Continue to implement bylaw. |
| 4E<br>Revised | Stormwater Hotline                  | DPW, Planning, & Con Com      | Receipt of complaints at DPW         | Grafton subscribes to the SeeClickFix service at <a href="https://en.seeclickfix.com/us-ma-grafton">https://en.seeclickfix.com/us-ma-grafton</a> Residents also call town emergency services, the Highway Department, and the DPW to report complaints. Reports are referred to the DPW. Hundreds of calls are received and responded to annually. | Continue the program.        |
| Revised       |                                     |                               |                                      |                                                                                                                                                                                                                                                                                                                                                    |                              |

## 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 15<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                           | Planned Activities                                                                        |
|---------------|------------------------------------------|-------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 5A<br>Revised | Post-Construction Site Runoff Bylaw      | DPW, Planning, & Con Com      | Develop & Implement Bylaw | Measurable goal has been met. Article 36, adopted May 2009.                                                                                                                                                                                                                                                                                                                              | Continue to implement bylaw.                                                              |
| 5B<br>Revised | Structural & Non-Structural BMPs         | DPW, Planning, & Con Com      | Develop & Implement Bylaw | Measurable goal has been met. Article 36, adopted May 2009. Refers to MassDEP Stormwater Management Standards and Guidance Documents for BMP list. The DPW reviews plans prior to construction and then reviews the as-built condition before a project is accepted. Before a project is accepted, the DPW inspects sites to verify that the stormwater facilities function as designed. | Continue to enforce compliance with stormwater BMP requirements for projects in the Town. |
| 5C<br>Revised | Long-Term O&M                            | DPW, Planning, & Con Com      | Develop & Implement Bylaw | Measurable goal has been met. Article 36, adopted May 2009. Refers to MassDEP Stormwater Management Standards and Guidance Documents.                                                                                                                                                                                                                                                    | Continue to implement bylaw.                                                              |
| 5D<br>Revised | Structural BMP Implementation Procedures | DPW, Planning, & Con Com      | Develop & Implement Bylaw | Measurable goal has been met. Article 36, adopted May 2009. Refers to MassDEP Stormwater Management Standards and Guidance Documents.                                                                                                                                                                                                                                                    | Continue to implement bylaw.                                                              |

## 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 15<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                    | Planned Activities         |
|----------|--------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 6A       | Municipal Employee Training          | DPW                           | Develop a comprehensive Municipal Operations and Maintenance Plan to include training protocols.                        | All DPW staff are currently trained in stormwater management.                                                                                                                                                                                                                                                                                     | Train new staff as needed. |
| Revised  |                                      |                               |                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |                            |
| 6B       | Maintenance & Inspection Procedures  | DPW                           | Develop a comprehensive Municipal Operations and Maintenance Plan to include activities, schedules and procedures.      | Annual programs are in place to clean catch basins and sweep streets. The streets are swept in the spring and fall. Catch basins are cleaned at least once per year starting in the spring. Known problem areas are addressed more often. Records for these activities are kept with the Highway Superintendent.                                  | Continue with the program. |
| Revised  |                                      |                               |                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |                            |
| 6C       | Municipal Pollutant Source Reduction | DPW                           | Develop a comprehensive Municipal Operations and Maintenance Plan to include BMPs to reduce municipal pollution sources | Measurable goal has been met. During Permit Year 15, DPW established a new program to proactively maintain Town-owned structural BMPs and performed maintenance on most stormwater basins. The Town also constructed a new stormwater basin on Stowe Road to treat runoff before discharging to an area of critical environmental concern (ACEC). | Continue with the program. |
| Revised  |                                      |                               |                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |                            |
| 6D       | Waste Disposal Procedures            | DPW                           | Develop a comprehensive Municipal Operations and Maintenance Plan to include BMPs to reduce municipal pollution sources | Materials are collected and properly disposed of by a licensed 3 <sup>rd</sup> party.                                                                                                                                                                                                                                                             | Continue with the program. |
|          |                                      |                               |                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |                            |

| <b>BMP ID #</b> | <b>BMP Description</b> | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b> | <b>Progress on Goal(s) – Permit Year 15</b><br>(Reliance on non-municipal partners indicated, if any) | <b>Planned Activities</b> |
|-----------------|------------------------|--------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------|---------------------------|
| Revised         |                        |                                      |                           |                                                                                                       |                           |

## 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 14<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                      | Planned Activities                                                                                                                                        |
|----------|--------------------------------------|-------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7A       | Residential and Commercial Education | DPW                           | Provide links to materials on the Town website. | Met goal, refer to items 1A, 1C.                                                                                                                                                                                                                                                                    | Expand educational materials on Town website as they become available.                                                                                    |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |
| 7B       | Outfall Inspection and Testing       | DPW                           |                                                 | Outfalls inspected in accordance with the municipal schedule and cleaned as-needed. The one municipal outfall identified at Flint Pond was inspected and contributing structures were cleaned out in April 2015. All outfalls were inspected in 2015. Wet- and dry-weather sampling were conducted. | Continue to monitor the outfall to Flint Pond and the contributing infrastructure.                                                                        |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |
| 7C       | Illicit Discharge Elimination        | DPW                           |                                                 | No chronic illicit discharges have been identified. During Permit Year 15, no illicit discharges to the MS4 were identified.                                                                                                                                                                        | Continue to monitor the outfall to Flint Pond outfall and the contributing infrastructure. Continue reviewing methods to fund and implement this program. |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |
| 7D       | Municipal Operations Prioritized     | DPW                           |                                                 | Street sweeping and catch basin cleaning activities conducted in accordance with the municipal schedule. The schedule is kept at the Highway Superintendent's Office.                                                                                                                               | Continue ongoing maintenance activities.                                                                                                                  |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |
| Revised  |                                      |                               |                                                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                           |

## **7b. WLA Assessment**

Grafton's MS4 discharges into Flint Pond, which has an approved Final TMDL for Total Phosphorus. The Flint Pond TMDL indicates that the pond is impaired for turbidity as a result of excessive phosphorus loading, and that stormwater contributions of phosphorus must be reduced by 52% to meet the waste load allocation (WLA) of the TMDL.

Grafton's Stormwater Management Program includes stormwater control measures, as reported above, that address pollutants of concern in water quality impaired waters. Regular street sweeping and catch basin cleaning provide a reduction in phosphorus loading. During Permit Year 15, fertilizers and pesticides were not applied within buffer to a resource area, except for fertilizer application at Mill Villages Park by a licensed contractor.

The Blackstone River Coalition performed a volunteer watershed-wide water quality monitoring program during the 2016 monitoring season. The Flint Pond Outlet was sampled and evaluated for aesthetics, temperature, DO, % saturation, and nutrients. The site received an excellent grade for temperature, a good grade for aesthetics (turbidity), % saturation (DO), and nutrients, and a fair grade for DO.

#### Part IV. Summary of Information Collected and Analyzed

In Year 15 reporting period, no outfalls were sampled and tested during dry or wet weather conditions.

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

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering May 1, 2017 through April 30, 2018)

##### Programmatic

|                                                                | (Preferred Units) | Response                             |
|----------------------------------------------------------------|-------------------|--------------------------------------|
| Stormwater management position created/staffed                 | (y/n)             | No                                   |
| Annual program budget/expenditures **                          | (\$)              | \$15,000+/- (for external contracts) |
| Total program expenditures since beginning of permit coverage  | (\$)              | Not calculated                       |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc.) |                   | General Fund                         |
|                                                                |                   |                                      |

##### Education, Involvement, and Training

|                                                                            |               |                 |
|----------------------------------------------------------------------------|---------------|-----------------|
| Estimated number of property owners reached by education program(s)        | (# or %)      | 50%             |
| Stormwater management committee established                                | (y/n)         | No              |
| Stream teams established or supported                                      | (# or y/n)    | No              |
| Shoreline clean-up participation or quantity of shoreline miles cleaned ** | (y/n or mi.)  | Yes             |
| Shoreline cleaned since beginning of permit coverage                       | (mi.)         | 1.25 (annually) |
| Household Hazardous Waste Collection Days                                  |               |                 |
| ▪ days sponsored **                                                        | (#)           | 0               |
| ▪ community participation **                                               | (# or %)      |                 |
| ▪ material collected **                                                    | (tons or gal) |                 |
| School curricula implemented                                               | (y/n)         | Y               |
|                                                                            |               |                 |



## Legal/Regulatory

|                                                    | In Place<br>Prior to<br>Phase II | Reviewing<br>Existing<br>Authorities | Drafted | Draft<br>in<br>Review | Adopted |
|----------------------------------------------------|----------------------------------|--------------------------------------|---------|-----------------------|---------|
| Regulatory Mechanism Status (indicate with “X”)    |                                  |                                      |         |                       |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  |                                      |         |                       | X       |
| ▪ Erosion & Sediment Control                       |                                  |                                      |         |                       | X       |
| ▪ Post-Development Stormwater Management           |                                  |                                      |         |                       | X       |
| Accompanying Regulation Status (indicate with “X”) |                                  |                                      |         |                       |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  |                                      |         |                       | X       |
| ▪ Erosion & Sediment Control                       |                                  |                                      |         |                       | X       |
| ▪ Post-Development Stormwater Management           |                                  |                                      |         |                       | X       |

## Mapping and Illicit Discharges

|                                                                    | (Preferred Units)       | Response              |
|--------------------------------------------------------------------|-------------------------|-----------------------|
| Outfall mapping complete                                           | (%)                     | 100%                  |
| Estimated or actual number of outfalls                             | (#)                     | 336                   |
| System-Wide mapping complete (complete storm sewer infrastructure) | (%)                     | 100%                  |
| Mapping method(s)                                                  |                         |                       |
| ▪ Paper/Mylar                                                      | (%)                     | 0%                    |
| ▪ CADD                                                             | (%)                     | 15%                   |
| ▪ GIS                                                              | (%)                     | 100%                  |
| Outfalls inspected/screened **                                     | (# or %)                | 0%                    |
| Outfalls inspected/screened (Since beginning of permit coverage)   | (# or %)                | 100%                  |
| Illicit discharges identified **                                   | (#)                     | 0                     |
| Illicit discharges identified (Since beginning of permit coverage) | (#)                     | 8 (acute)             |
| Illicit connections removed **                                     | (# ); and<br>(est. gpd) | 0 (not<br>applicable) |
| Illicit connections removed (Since beginning of permit coverage)   | (#); and<br>(est. gpd)  | 0 (not<br>applicable) |
| % of population on sewer                                           | (%)                     | 61%                   |
| % of population on septic systems                                  | (%)                     | 39%                   |

## Construction

|                                                                                                      | (Preferred Units) | Response |
|------------------------------------------------------------------------------------------------------|-------------------|----------|
| Number of construction starts (>1-acre) **                                                           | (#)               | 0        |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control ** | (%)               | 100%     |
| Site inspections completed **                                                                        | (# or %)          | >100     |
| Tickets/Stop work orders issued **                                                                   | (# or %)          | 0        |
| Fines collected **                                                                                   | (# and \$)        | 0        |
| Complaints/concerns received from public **                                                          | (#)               | >100     |

## Post-Development Stormwater Management

|                                                                                                                          |          |      |
|--------------------------------------------------------------------------------------------------------------------------|----------|------|
| Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control | (%)      | 100% |
| Site inspections (for proper BMP installation & operation) completed **                                                  | (# or %) | 6    |
| BMP maintenance required through covenants, escrow, deed restrictions, etc.                                              | (y/n)    | Yes  |
| Low-impact development (LID) practices permitted and encouraged                                                          | (y/n)    | Yes  |

## Operations and Maintenance

|                                                                                              |                |          |
|----------------------------------------------------------------------------------------------|----------------|----------|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **           | (times/yr)     | 1x/yr    |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) ** | (times/yr)     | 1-2x/yr  |
| Qty of structures cleaned **                                                                 | (#)            | 2400+/-  |
| Qty. of storm drain cleaned **                                                               | (%, LF or mi.) | 30 LF    |
| Qty. of screenings/debris removed from storm sewer infrastructure **                         | (lbs. or tons) | ~75 tons |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **             | (location)     | Landfill |

|                                                   |                         |                                          |
|---------------------------------------------------|-------------------------|------------------------------------------|
| Basin Cleaning Costs                              |                         |                                          |
| • Annual budget/expenditure (labor & equipment)** | (\$)                    | see hourly rate                          |
| • Hourly or per basin contract rate **            | (\$/hr or \$ per basin) | ~ \$25/hr                                |
| • Disposal cost**                                 | (\$)                    | ~ \$9/ton ~ 200 tons every 2 or 3 years. |
| Cleaning Equipment                                |                         |                                          |
| • Clam shell truck(s) owned/leased                | (#)                     | 1                                        |
| • Vacuum truck(s) owned/leased                    | (#)                     | 0                                        |
| • Vacuum trucks specified in contracts            | (y/n)                   | No                                       |
| • % Structures cleaned with clam shells **        | (%)                     | 100%                                     |
| • % Structures cleaned with vector **             | (%)                     | 0%                                       |

|                                                                                         | (Preferred Units)  | Response        |
|-----------------------------------------------------------------------------------------|--------------------|-----------------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)         | 1/yr            |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)         | 1-2/yr          |
| Qty. of sand/debris collected by sweeping **                                            | (lbs. or tons)     | ~70 tons        |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)         | Landfill        |
| Annual Sweeping Costs                                                                   |                    |                 |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)               | see hourly rate |
| • Hourly or lane mile contract rate **                                                  | (\$/hr. or ln mi.) | ~\$25/hr        |
| • Disposal cost**                                                                       | (\$)               | 0               |
| Sweeping Equipment                                                                      |                    |                 |
| • Rotary brush street sweepers owned/leased                                             | (#)                | 2               |
| • Vacuum street sweepers owned/leased                                                   | (#)                | 0               |
| • Vacuum street sweepers specified in contracts                                         | (y/n)              | No              |
| • % Roads swept with rotary brush sweepers **                                           | %                  | 100%            |
| • % Roads swept with vacuum sweepers **                                                 | %                  | 0%              |

|                                                                                                                                |             |     |
|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----|
| Reduction (since beginning of permit coverage) in application on public land of:<br>("N/A" = never used; "100%" = elimination) |             |     |
| ▪ Fertilizers                                                                                                                  | (lbs. or %) | 70% |
| ▪ Herbicides                                                                                                                   | (lbs. or %) | N/A |
| ▪ Pesticides                                                                                                                   | (lbs. or %) | 90% |
| Integrated Pest Management (IPM) Practices Implemented                                                                         | (y/n)       | No  |
|                                                                                                                                |             |     |

|                                                                                                                                                          | (Preferred Units)                                                                         | Response                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------|
| Average Ratio of Anti-/De-Icing products used **<br><br>(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas) | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 80%<br>20%               |
| Pre-wetting techniques utilized **                                                                                                                       | (y/n or %)                                                                                | Yes                      |
| Manual control spreaders used **                                                                                                                         | (y/n or %)                                                                                | No                       |
| Zero-velocity spreaders used **                                                                                                                          | (y/n or %)                                                                                | No                       |
| Estimated net reduction or increase in typical year salt/chemical application rate                                                                       | (±lbs/ln mi.<br>or %)                                                                     | 0% change                |
| Estimated net reduction or increase in typical year sand application rate **                                                                             | (±lbs/ln mi.<br>or %)                                                                     | No sand used             |
| % of salt/chemical pile(s) covered in storage shed(s)                                                                                                    | (%)                                                                                       | 100%                     |
| Storage shed(s) in design or under construction                                                                                                          | (y/n or #)                                                                                | Construction<br>complete |

|                                                                      |       |     |
|----------------------------------------------------------------------|-------|-----|
| 100% of salt/chemical pile(s) covered in storage shed(s) by May 2013 | (y/n) | Yes |
|                                                                      |       |     |
|                                                                      |       |     |

### **Water Supply Protection**

|                                                                                                                                     |          |      |
|-------------------------------------------------------------------------------------------------------------------------------------|----------|------|
| Storm water outfalls to public water supplies eliminated or relocated                                                               | # or y/n | None |
| Installed or planned treatment BMPs for public drinking water supplies and their protection areas                                   | # or y/n | None |
| <ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul> | # or y/n | 1    |

Town of Grafton  
NPDES Phase 2  
Small MS4 General Permit  
Annual Report  
Year 15 (2018)

## **Attachment 1**

Central Massachusetts Regional Stormwater Coalition (CMRSWC) Annual Report

## **Central Massachusetts Regional Stormwater Coalition Coalition Activities in Year 15 (April 1, 2017-March 31, 2018)**

### **Introduction**

The Central Massachusetts Regional Stormwater Coalition (CMRSWC) is an MS4 resource for all 30 member communities. CMRSWC has three standing sub-committees to allow members to focus efforts on specific issues important to the Coalition. These sub-committees are:

- Education Sub-Committee: responsible for developing and promoting outreach and educational materials required by the MS4 permit. The Education sub-committee is also responsible for planning and scheduling the Annual Meeting, educational workshops, and other forums for discussion of MS4 topics. The committee is CMRSWC's primary liaison to professional organizations and university partnerships.
- Technical Sub-Committee: responsible for managing Coalition's website and shared equipment resources; advising members on relevant technical issues including GIS system maintenance and upgrades.
- Legislative Sub-Committee: serves as the liaison to the Massachusetts Statewide Stormwater Collaborative; responsible for tracking MS4 related legislation and regulations and keeping the legislature and regulatory agencies informed of the concerns of member communities.

The CMRSWC Steering Committee held four meetings during this 12 month reporting cycle. The CMRSWC Annual Meeting was held on November 15, 2017 in Worcester. Members of CMRSWC also attended and actively participated in the Massachusetts Statewide Municipal Stormwater Coalition meetings.

### **MS4 Workshops and Technical Training (Minimum Control Measures 3, 4, 5, and 6)**

#### ***Best Management Practices Technical Tour***

On October 25, 2017, CMRSWC sponsored a technical tour and workshop for DPWs, Highway, and other staff in member communities responsible for the operations and maintenance of local roads, drainage, sidewalks, parking lots, and other public infrastructure. The tour was led by a team from Fuss & O'Neill and took attendees from 14 communities on a "road trip" to visit sites at Dennison Lubricants (Worcester), Tufts Veterinary School (North Grafton), and several Mass DCR sites. At each site, participants had the opportunity to learn about the BMPs in use at the site from a variety of staff from DCR and Mass DOT, as well as engineers and project owners. A lunch program offered additional opportunities to discuss stormwater management techniques. Handouts, presentation materials, and video footage of the tour are being offered to CMRSWC members through the website.

#### ***Videos and Templates (Minimum Control Measures 1, 3, 4, 5, 6)***

As a follow-up to the Best Management Practices Technical Tour, 12 new CMRSWC videos were produced that feature the various BMPs visited on the tour, presentations from the day, and additional detailed footage recorded at the BMP sites after the event.

### ***Department of Conservation and Recreation Education and Outreach Materials (Minimum Control Measures 1 and 2)***

As part of the Stormwater BMP Technical Tour, Kelley Freda from the Department of Conservation and Resources presented participants with stormwater education and outreach materials available from DCR. She distributed a packet of various brochures targeting a diverse audience. These materials are available from the DCR website [www.mass.gov/dcr/watersupply](http://www.mass.gov/dcr/watersupply)

### **Worcester Polytechnic Institute Water Resource Outreach Center (Minimum Control Measures 1 and 2)**

Worcester Polytechnic Institute's (WPI) Massachusetts Water Resource Outreach Center (WROC) is dedicated to assisting Central and Eastern Massachusetts municipalities and watershed associations with their water resource needs through student project collaboration. CMRSWC has been working with the WPI-WROC and MassDEP on Interactive Qualifying Projects (IQPs) since 2012.

The CMRSWC and MassDEP sponsored a 2017 WPI-WROC project called "Stormwater Management Educational Materials for Central Massachusetts Municipalities." Municipalities are required to distribute educational materials on stormwater issues to comply with the MS4 permit; "the ultimate objective being to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced." The project team used public surveys and questionnaires to assess the public's understanding of stormwater and stormwater runoff. The results showed that most people do not understand what stormwater is, how it gets into our waterbodies and the impacts it has on water quality and public health. Focusing on increasing awareness of the importance of protecting our water among our elementary school student population, the WPI students developed a stormwater toolkit featuring an activity book and stickers for children. The activity book includes opportunities for parents to participate and ask questions.

Building on the previous work for educational materials, the 2018 student team worked with stormwater experts at MassDEP, MA Department of Education representatives and school teachers from Shrewsbury and Holden to develop a 5<sup>th</sup> grade watershed curriculum that meets the new Massachusetts Next Generation science standards. Components of the curriculum include the water cycle, watersheds, stormwater runoff and other environmental features that demonstrate to children how runoff and contaminants affect water quality. The students will be presenting their findings on May 1, 2018 at 4:00 p.m. at the MassDEP Central Regional Office in Worcester.

More information is available at: <http://wp.wpi.edu/wroc/>

### **EnviroScape Nonpoint Source Pollution Model (Minimum Control Measures 1 and 2)**

The CMRSWC owns two 3D EnviroScape® Watershed/Nonpoint Source models which are available for use by our members. These models provide a hands-on, interactive demonstration of the sources and effects of water pollution and ways to prevent pollution. The CMRSWC sponsored a booth at the EcoTarium's Earth Day Celebration in April using the model to teach about stormwater education. Several member communities including Holden, Charlton, Framingham, Hopkinton, Lunenburg, Palmer, Shrewsbury, Auburn, & Dudley have used the EnviroScape model for presentations at Earth Day festivals, school programs, scouting events, and public works open houses.



## **Member Needs Survey**

In March 2018, CMRSWC contracted with Fuss & O'Neill to develop a technical needs survey that measured the concerns of member communities with respect to compliance with the updated MS4 General Permit for Stormwater Discharges (which is currently stayed pending judicial review). The survey served as a follow-up to the first coalition member survey in the fall of 2016 and asked members to rank certain programs/tasks that CMRSWC could support to assist members in complying with the MS4 Permit. The survey also requested that respondents identify the CMRSWC tools, resources, and events that they made use of during 2017 or provide feedback on why they chose not to take advantage of such tools or events.

Coalition members ranked their needs as follows:

1. Maintain the CMRSWC Website with Available Tools and Templates
2. Provide Written IDDE Program Template and Training
3. Provide NOI/SWMP Template and Training

Coalition members ranked their compliance concerns as follows:

1. Preparation of NOI and SWMP
2. Performing Outfall Inspections
3. Performing Outfall Inventory Ranking
4. Meeting TMDL Requirements
5. Developing Written Catchment Investigation Procedures
6. Designing and Constructing BMP Retrofits
7. Designing and Maintaining SWPPPs
8. Identifying and Removing Illicit/Illegal Discharges
9. Developing a Written IDDE Program
10. Mapping the Storm Sewer System

## **Statewide Stormwater Coalition Grant Award**

CMRSWC announced at its January 8<sup>th</sup> Steering Committee Meeting a \$200,000 grant from the State to the Statewide Stormwater Coalition to develop and implement a statewide stormwater education and outreach campaign. The project will provide stormwater education materials to communities across the state, including CMRSWC member communities. The funds, issued through the Commonwealth's Fiscal Year 2018 "MS4 Municipal Assistance Grant Program," recognize the important work of stormwater coalitions and regionalized stormwater management. Materials will be made available in July 2018.

## **Conclusion**

Working as a group, CMRSWC collectively protects regional water resources while assisting communities with meeting requirements of the MS4 permit in an efficient and cost-effective manner. Member communities continue to benefit from the use of CMRSWC tools, resources, and events to continue to implement their MS4 program with local staff and resources.