

4/12/17

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Municipality/Organization: Town of Wilmington

EPA NPDES Permit Number: MA04123

MaDEP Transmittal Number: X228080

Annual Report Number

& Reporting Period: No. 14: March 2016-March 2017

## NPDES PII Small MS4 General Permit Annual Report

### PART I. GENERAL INFORMATION

Contact Person: Michael J. Woods

Title: Director of Public Works

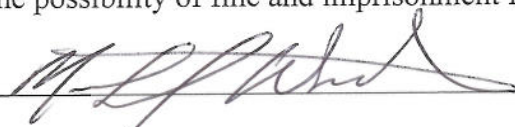
Telephone #: 978.658.4481

Email: mwoods@wilmingtonma.gov

#### 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: Michael J. Woods

Title: Director of Public Works

Date:

4/10/17

## **PART II. SELF-ASSESSMENT**

The Town of Wilmington has completed the required self assessment and has determined that we are in compliance with all of this year's permit conditions, however found some areas which will require greater emphasis for the new MS4 permit:

Part 2-2: Due to budgetary constraints, the Town has not been able to fund two (2) Household Hazardous Waste Collection Days. The Town has held one (1) Hazardous Waste Day during the reporting period. As a compromise, the Town has reviewed alternatives and offers a relatively extensive recycling program. Mercury devices are collected 5 days a week year round at the Town's Health Department, while white goods and Cathode Ray Tubes (CRTs) are collected by a private recycle company once a week. The DPW accepts waste oil from Wilmington Residents year round, Monday through Friday. The Town's former solid waste hauler, Northside Carting, also operates a small hazardous waste facility and has offered use to Wilmington residents for a nominal fee. This facility operates year round and accepts common hazardous waste items such as oil based paints, fluorescent bulbs, auto / boat batteries, propane tanks and miscellaneous electronic equipment.

Part 3-(1-3): Nearly 100% of the Town's MS4 has been mapped and superimposed onto the Town's topographic map system (including pipe materials, sizes, and flow direction). Early on in the permit reporting period, the Town procured the services of SEA Consultants through an advertised procurement process to develop a complete Drainage System Master Plan, which included the GPS mapping of the Town's drainage system. The Town has been updating this GIS data layer as new MS4 projects were constructed throughout the reporting year. The majority of the Town's drainage outfalls were located during the development of the Drainage System Master Plan as part of outfall assessments, which included water quality testing of outfall discharges. Although high and medium suspicion flows have been sampled and analyzed, low suspicion dry weather flows have not yet been analyzed due to testing budget constraints, personnel constraints, and poor accessibility (it shall be noted that "low suspicion" outfalls were identified as outfalls that were blocked or inaccessible, and therefore flagged for follow-up). To enhance the town's ability to maintain its drainage system and assist DPW field operations, the towns existing GIS and field data was migrated into an on line mapping system. Previously, the town employed a desktop mapping solution that had been in use since the initial GPS locating and inspection of drainage features in 2007. This on-line system allows field crews to quickly identify drainage structures, views detailed cleaning histories and record any cleaning or maintenance performed at that time. The on-line system includes PeopleForms which standardized an inspection form for catch basin cleaning. These forms include line items for illicit discharge detection and allow operations managers the ability to track cleaning crews, identify areas of greatest need of maintenance and monitor connectivity and flow throughout the system.

Public outreach and educational programs have also continued this reporting year. Program highlights include a 30 second public service announcement on stormwater quality that aired on Wilmington Community Television (WCTV), posters and literature related to stormwater quality displayed at public institutions (e.g. Town Hall and Library), and inclusion of a stormwater quality brochure in residents water bill. The Town's Operations Manager also gave multiple public presentations to promote awareness of the Commonwealth's fertilizer regulations (Massachusetts Department of Agricultural Resources). This presentation was an effective tool to educate the Town's Parks and Grounds work crews, Town staff, and residents about the adverse impact excess phosphorus has on our most valued natural resource. In addition, crews from the Massachusetts Mosquito Control Project continue to perform outfall cleaning and maintenance (plus removal of vegetative debris and trash) to reduce the amounts of standing water, thus improving water quality. As mentioned in previous reports, the Town continues to be an active participant in the Northern Middlesex Stormwater Collaborative. Town staff and managers have been active participants in the training programs offered through the collaborative including Illicit Discharge Detection and Elimination, public service announcements and review of the recently promulgated EPA MS4 General Permit.

### PART III. SUMMARY OF MINIMUM CONTROL MEASURES

#### 1. Public Education and Outreach

| BMP ID | BMP Description      | Responsible Person/Dept. | Measurable Goal                                                                                                                                                                                                                                                                                                                                                                                                       | Progress on Goal – Permit Year 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Planned Activities for next reporting year.                                                                                                                                                                                                                                                                  |
|--------|----------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-1    | Educational Material | DPW                      | <p>Measurable goals for this BMP will be:</p> <p>1) procurement, development or modification of four brochures or fact sheets that include stormwater information, and</p> <p>2) posting of stormwater information on the Town's web site. During Years 2 through 5, distribute one of the brochures or fact sheets annually to property owners based on Assessors records and update the web site semi-annually.</p> | <p>The Town of Wilmington Department of Public Works has continued to update the DPW website with stormwater related information.</p> <p>Separate links on the website have been dedicated to Phase II stormwater information, illicit discharge education and reporting procedures and FAQ's.</p> <p>The website can be viewed at:<br/> <a href="http://www.wilmingtonma.gov">http://www.wilmingtonma.gov</a></p> <p>The website contains electronic copies of the Illicit Discharge Bylaw and Stormwater Bylaw, along with specifics on each program.</p> <p>The website also contains a link to our 30 second water quality PSA that aired on WCTV, and a link to the educational presentation on fertilizer regulations and usage.</p> <p>Water quality poster boards were available for viewing at Town Hall, and Wilmington Public Library.</p> <p>A water quality brochure was also distributed to residents (via postal mail) with their water bill.</p> | <p>The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making all required arrangements to ensure the Town complies with all applicable aspects of the new permit.</p> |

## 2. Public Involvement and Participation

| BMP ID | BMP Description       | Responsible Dept./Person      | Measurable Goal(s)                                                                                                                                                                                                                                                                                                                                                              | Progress on Goal(s) – Permit Year 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|--------|-----------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-1    | Stormwater Task Force | Various members of Town Staff | The individuals who will serve on this task force will be identified within the first two months of the permitting period. On a yearly basis, this task force will hold meetings every four months, will be responsible for the development of material, and will keep track of the status of the control measures and record keeping associated with programs being developed. | <p>The Town's "Community Development Technical Review Team" meets monthly and has been reviewing Stormwater Permits and Simple Stormwater Permits as required by the Town's Stormwater Bylaw for projects which trip the development thresholds.</p> <p>Members of this team include the Director of Planning and Conservation, the Assistant Director of Planning and Conservation, the Engineering Director, the Director of Public Works, the DPW Operations Manager, the Building Inspector, and representatives from Wilmington Public Safety.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

## 2. Public Involvement and Participation (Continued)

| BMP ID | BMP Description         | Responsible Dept./Person               | Measurable Goal(s)                                                                                                                                                                                  | Progress on Goal(s) – Permit Year 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|--------|-------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-2    | Promote Public Programs | DPW/BoH/<br>Planning &<br>Conservation | The Town will hold a household hazardous waste day two times per year and will support community clean-up days by providing clean-up materials and will pick up and dispose of the waste collected. | <p>Due to budgetary constraints, the Town has not been able to fund two (2) Household Hazardous Waste Collection Days. The Town has held one (1) Hazardous Waste Day during the reporting period. As a compromise, the Town has reviewed alternatives and offers a relatively extensive recycling program. Mercury devices are collected 5 days a week year round, while white goods and Cathode Ray Tubes (CRTs) are collected by a private recycle company once a week. The DPW accepts waste oil from Wilmington Residents year round, Monday through Friday.</p> <p>The Town has supported community clean-up programs for local volunteer groups to perform stream and roadway clean-up and has provided materials and safety equipment at the expense of the Town, organized by the Office of Planning and Conservation.</p> <p>The Town's Operations Manager also gave multiple public presentations to promote awareness of the Commonwealth's fertilizer regulations (Massachusetts Department of Agricultural Resources). This presentation was an effective tool to educate the Town's Parks and Grounds work crews, staff, and residents about the adverse impact excess phosphorus has on our most valued natural resource.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description       | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Progress on Goal(s) – Permit Year 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Planned Activities for next reporting year.                                                                                                                                                                                                                                                                  |
|----------|-----------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-1      | Map Stormwater Assets | DPW                           | <p>Using GPS, the exact locations will be identified for outfalls. All information from field investigations will be attached to the database. During the first two years of this permit, this mapping will be updated on a quarterly basis to integrate all information into the database system from investigations. Following the first two years, this schedule will be revised based on the amount of data to be added, however, at a minimum, the database will be updated every six months. A Goal of completing mapping of 50 percent of surface water outfalls, major stormwater drainage structures, and receiving surface water bodies by the end of Year 5.</p> | <p>Approximately 100% of the Wilmington drain system, including catch basins, manholes and outfalls have been mapped and superimposed onto the Town's topographic map system. Pipe sizes and materials, direction of flow, and estimated age of the subsystem have also been included in the mapping. The Town drain system map can be viewed upon request at the Department of Public Works.</p> <p>As part of the Drainage System Master Plan, the Town has developed GIS mapping of the system's drainage structures and provided the Town with a more versatile electronic version of the storm drain system map.</p> <p>The Town has been actively using PeopleForms which standardizes inspection forms for items such as tracking catch basin cleaning. These forms include line items for illicit discharge detection and allow operations managers the ability to track cleaning crews, identify areas of greatest need of maintenance and monitor connectivity and flow throughout the system.</p> | <p>The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit.</p> |

| BMP ID | BMP Description                                     | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                          | Progress on Goal(s) – Permit Year 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|--------|-----------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-2    | Illicit Discharge Detection and Elimination Program | DPW/BOH                       | The goal is to identify a plan for completing dry weather sampling during the first year of the permit term. Subsequent years will include completing dry weather investigations of all outfalls along the Ipswich River and Maple Meadow Brook, and 50% of outfalls along other waterways. | <p>S E A Consultants and its subcontractors completed the mapping and illicit discharge detection and elimination program in spring/summer of Permit Year 4. All known and accessible outfalls were inspected which revealed 63 potential dry weather flows (DWF) of which 3 are highly suspected to be an illicit discharge. The 3 DWF's which were highly suspicious to be an illicit discharge were sampled along with 2 other outfalls identified by the Town for sampling.</p> <p>During routine catch basin inspection, five (5) separate suspected illicit discharges were investigated this reporting year. The sources appear to be foundation drains or sump pump connections, which are allowed by permit only. Letters were sent to each resident suspected of being the source of the illicit discharge notifying each of the permit process.</p> <p>The outfall sampling analysis did not reveal any conclusive indication of an illicit connection at neither High Suspicion nor Medium Suspicion Areas.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

| BMP ID # | BMP Description                                                        | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                                                                                | Progress on Goal(s) – Permit Year 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-3      | Conduct Illicit Discharge Education Program                            | DPW                           | See BMP 1-1 and BMP 6-1                                                                                                                                                                                                                                                                                                                           | See BMP 1-1, BMP 3-2 and BMP 6-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | See BMP 1-1, BMP 3-2 and BMP 6-1                                                                                                                                                                                                                                                                      |
| 3-4      | Proposed by-law to prohibit illicit discharges and illegal connections | DPW                           | The draft bylaw will be developed by the end of Year 2 of the permit period, and the final bylaw will be prepared by the end of Year 3. The bylaw will be presented to Town Meeting in Year 4. If it is not approved, it will be revised, if appropriate, and presented to Town Meetings in Year 5.                                               | <p>In order to allow this by-law to advance, the Town has determined that a comprehensive by-law addressing all facets of the NPDES permit requirements was not feasible, and has generated separate by-laws to address respective minimum control measures. The Draft by-law to prohibit illicit discharges and illegal connections was developed and presented as an article on the Town Warrant for the May 2007 Town Meeting. The by-law passed at Town Meeting in May of 2007.</p> <p>The Wilmington Health Department has amended their environmental regulations to include a specific “illicit discharge” regulation which includes a \$300 per day fine. A copy of the Health Department Regulation was included in Year 5’s annual report.</p> <p>The Town has instructed their catch basin cleaner to inspect structures and identify an illicit connections or dry weather flow during catch basin cleaning activities.</p> <p>The Town has standardized the inspection form to include Illicit Discharge Detection and trained pertinent staff for identifying potential illicit connections and discharges.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town’s Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |
| 3-5      | Enforce illicit discharges and illegal connections By-law              | DPW                           | The draft changes to regulations and policies will be developed by the end of Year 2 of the permit period. The final changes will be prepared by the end of Year 3. Adoption of the new regulations and policies will be dependent upon approval of the bylaw. Regulations will be proposed for adoption within one year of approval of the bylaw | <p>The Town will continue to investigate the potential DWF in upstream manholes in order to trace the illicit discharges to the sources. This will be done in response to complaints as well as being pro-active relying on inspections by our Town catch basin cleaner operator.</p> <p>See BMP 3-4 above.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | See BMP 3-4 above.                                                                                                                                                                                                                                                                                    |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description                  | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                                                                  | Progress on Goal(s) – Permit Year 13                                                                                                                                                                                                                                                                                                                                                                           | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|----------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4-1      | Revise Site Plan Review Bylaw    | Planning                      | Draft changes to the bylaw will be developed by the end of Year 2 of the permit period. The proposed changes will be presented to Town Meeting in Year 4. . If they are not approved, they will be revised, if appropriate, and presented to Town Meeting in Year 5.                                                                | The Stormwater Bylaw was passed at Town Meeting on May 2, 2009.                                                                                                                                                                                                                                                                                                                                                | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |
| 4-2      | Improve Site Plan Review Process | DPW                           | The revised process will be developed with departments involved in the Construction Site Plan Review Process. A checklist or similar tracking tool will be developed during the first year of the permitting period. This tool will be adopted during the second year of the permitting period and employed as described thereafter | <p>A site plan review checklist has been developed and was presented in Year 5's annual report. A similar checklist has been incorporated into the current site plan review process.</p> <p>A Stormwater Checklist has been created and is used in Stormwater Permitting to assure adherence to the Bylaw. The checklist is available online at the DPW's website and the Planning / Conservation website.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

| BMP ID # | BMP Description                                                                         | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                                                                                                                         | Progress on Goal(s) – Permit Year 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4-3      | Develop Procedures for receipt and consideration of information submitted by the public | Planning                      | This program will be developed with departments involved in the Construction Site Plan Review Process. The review of existing procedures will be completed by the end of Year 2. If revisions to the procedures are deemed necessary, they will be drafted by the end of Year 3 and adopted during Year 4. | <p>The CWRMP's local media publicity and public meetings have helped to provide the public with a public input forum. Furthermore, the Town has received a grant from EPA through the Department of Conservation and Recreation for an LID techniques demonstration project at Silver Lake. Several public hearings were held at Wilmington Town Hall to publicize this innovative project.</p> <p>Meetings include the televised presentation to the Board of Selectmen, Conservation Hearings, and several "Informational Meetings" for the abutting residents.</p> <p>The DPW dedicated phone number and email address is advertised on the Town website to be contacted for stormwater questions.</p> <p>See also BMP's 1-1 and 2-1.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |
| 4-4      | Develop site inspection and enforcement of control measures program                     | DPW                           | The program will be developed by the end of Year 2, and will be implemented in Years 3, 4 and 5.                                                                                                                                                                                                           | <p>See BMP 3-4 above. Current inspection and enforcement control measures are being exercised by the Engineering Division, the Health Department, and the Conservation Commission.</p> <p>There is now a permitting process to connect sump pumps and other non-illicit connections to the MS4.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                          | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

## 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 13                                                                                                                                                                                                                                                                                                                                                                                                                                       |     | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5-1      | Develop Post-construction runoff bylaw, regulations and guidance | Planning                      | A draft of the post-construction runoff bylaw will be completed by the end of Year 2. The final bylaw will be developed for inclusion on the Town Meeting warrant for Year 3. If the article does not pass, it will be revised as appropriate, and presented at Town Meeting in Years 4 and 5. The associated regulations and guidance will be developed in Year 3. If and when the bylaw is approved, a public meeting will be held to solicit input from municipal departments and the public on the regulations and guidance. If necessary, the regulations and guidance will be modified, and they will be presented for a vote at a public hearing of the Planning Board.                                                                     | See BMP 3-4 and 4-1 above. Post-construction runoff is covered in the Stormwater Bylaw, and was passed on May 2, 2009.                                                                                                                                                                                                                                                                                                                                                     | May | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |
| 5-2      | Develop Post-construction monitoring program                     | Planning                      | The post-construction monitoring program will be developed during Years 3 and 4, and implemented in Year 5, provided the bylaw is approved by Town Meeting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Efforts include inspections on an as-needed basis and the involvement of enforcement power of the Health Department and Conservation Dept.                                                                                                                                                                                                                                                                                                                                 |     | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |
| 5-3      | Ensure adequate long-term operation and maintenance of BMPs      | DPW                           | A draft procedure for evaluation of BMPs for operation and maintenance issues will be developed by the end of Year 2 of the permitting period, and the final procedure will be prepared by the end of Year 3. This effort will be coordinated with the revisions to the procedure for joint board's review of construction projects. During Year 2, the DPW and Planning Board will investigate potential funding mechanisms, develop a draft warrant article, and hold a public meeting to solicit input from the community. During Year 3, the draft article will be revised if necessary and presented to Town Meeting. If it is not approved, it will be revised, if appropriate, and presented to Town Meeting in Years 4 and 5, if necessary | See BMP 3-4 above.<br><br>The Drainage System Master Plan includes long term operation and maintenance recommendations based on inspections within the high and medium priority areas. Recommendations include catch basin cleaning, street sweeping, periodic inspections and targeted maintenance at outfalls, detention basins and culverts. This past reporting year, close to 100% of Town catch basins were cleaned and this was done internally by in-house forces. |     | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

## 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 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|-----------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6-1      | Educate Municipal Employees | DPW                           | General stormwater training sessions will be held by the Department of Public Works on an annual basis. The goal will be for 90% of municipal employees with storm water management responsibilities to attend at least one session over the permit period. Department specific training sessions will be held annually, with a goal of 50% of personnel responsible for storm water management attending 90% of the sessions. | <p>Ongoing DPW staff training has taken place throughout the permit period including discussions on old and new erosion control efforts and reporting suspicious connections with the Town's catch basin cleaning truck operator.</p> <p>In-field training is also being performed as more and more infiltration and treatment chambers are being installed by in-house forces for Town drainage projects.</p> <p>Town staff and managers have been active participants in the training programs offered through the collaborative.</p> <p>The Town's Operations Manager held a workshop/presentation to promote awareness of the Commonwealth's fertilizer regulations (Massachusetts Department of Agricultural Resources). This presentation was an effective tool to educate the Town's Parks and Grounds work crews, and municipal staff, about the adverse impact excess phosphorus has on our most valued natural resource.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

| BMP ID # | BMP Description                                          | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                               | Progress on Goal(s) – Permit Year 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Planned Activities for next reporting year.                                                                                                                                                                                                                                                           |
|----------|----------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6-2      | Develop and adhere to operation and maintenance schedule | DPW                           | The Municipal Operation and Maintenance Schedule will be created and implemented within the first two years of the permit period | <p>The Town owns one vacuum street sweeper and a mechanical sweeper. This additional equipment has enabled the Town to increase its street sweeping and catch basin cleaning schedule, and helps the Town achieve spring cleaning by the end of May. Each catch basin in Wilmington is cleaned at least every three years, and high-load areas are cleaned multiple times every year. The Town did well again this reporting year, as nearly every catch basin in Town was cleaned at least once.</p> <p>The Town of Wilmington is part of the Mosquito Control Project, which performs routine stream maintenance throughout the year. Furthermore, a summer crew was hired last year to perform stream cleaning activities throughout the Town.</p> <p>The Town is also making great use of the relatively new vacuum street sweeper and vector truck. Acquisition of these pieces of equipment have helped to further adhere to seasonal cleanups and thus reduction of TSS from stormwater.</p> | The EPA has issued the new MS4 General Permit that will be effective starting July 2017. The Town's Engineering Division is currently in the process of reviewing the general permit, and making the required arrangements to ensure the Town complies with all applicable aspects of the new permit. |

## 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 11 | Planned Activities – Permit Year 12 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------|--------------------------------------|-------------------------------------|
| 1-1      | Educational Material                                                                                                                            | DPW                           | See BMP 1-1        | See BMP 1-1                          | See BMP 1-1                         |
| 3-3,4,5  | Conduct Illicit Discharge Education Program, Propose & Enforce Illicit Discharge By-Law                                                         | DPW                           | See BMP 3-4        | See BMP 3-4                          | See BMP 3-4                         |
| 5-1,2,3  | Develop Post-Construction Runoff By-Law, Regulations & Guidance, Develop Post-Construction Monitoring Program, & Ensure Long-Term O&M of BMP's. | DPW                           | See BMP 5-1        | See BMP 5-1                          | See BMP 5-1                         |

### 7b. WLA Assessment

A relatively small portion of Wilmington lies within the Shawsheen River basin, for which the TMDL has been developed. The majority of the Stormwater Drainage System has already been mapped within the Shawsheen River Basin, and GIS locations for all known Town outfalls have been obtained during the development of the Town's Comprehensive Water Resource Management Plan (CWRMP) by SEA Consultants / Kleinfelder. The recommendations of the Drainage Master Plan target high priority areas, in conjunction with standards of the Massachusetts Stormwater Management Guidelines.

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

As presented in BMP ID#3-1 of this report, approximately 100% of the MS4 for the Town of Wilmington has been mapped and labeled for pipe material, size, and approximate age of the sub-system. In conjunction with the Drainage System Master Plan, potential illicit discharges discovered as a result of outfall inspections have been ranked in terms of degree of suspicion. Water quality testing has been performed on outfalls indicated in the above report and does not conclusively indicate illicit connections. Follow up inspections and testing of potential illicit discharges is recommended under the Drainage System Master Plan. Copies of outfall inspection reports and data collected to date can be provided upon request.

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

##### **Programmatic**

|                                                  |       |        |
|--------------------------------------------------|-------|--------|
| Stormwater management position created / staffed | (y/n) | No     |
| Annual program budget / expenditures             | (\$)  | \$0.00 |

##### **Education, Involvement, and Training**

|                                                                         |               |                                             |
|-------------------------------------------------------------------------|---------------|---------------------------------------------|
| Estimated number of residents reached by education program(s)           | (# or %)      | 95%                                         |
| Stormwater management committee established                             | (y/n)         | Yes                                         |
| Stream teams established or supported                                   | (# or y/n)    | Yes                                         |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | (y/n or mi.)  | N/A                                         |
| Household Hazardous Waste Collection Days                               |               |                                             |
| • Days sponsored                                                        | (#)           | 1 (5/14/2016)                               |
| • Community Participation                                               | (%)           | Unknown                                     |
| • Material Collected                                                    | (tons or gal) | 97 carloads<br>131 half load<br>113 ¼ loads |
| School curricula implemented                                            | (y/n)         | No                                          |

## Construction

|                                                                                                   |            |      |
|---------------------------------------------------------------------------------------------------|------------|------|
| Number of construction starts (>1-acre)                                                           | (#)        | 10±  |
| 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                                                        | (#)        | 1    |

## Post-Development Stormwater Management

|                                                                                                                            |          |                        |
|----------------------------------------------------------------------------------------------------------------------------|----------|------------------------|
| Estimated percentage of development / redevelopment projects adequately regulated for post-construction stormwater control | (%)      | 100%                   |
| Site Inspections Completed                                                                                                 | (# or %) | 100%                   |
| Estimated volume of stormwater recharged                                                                                   | (gpy)    | 30,000 gpy est.<br>+/- |

## Operations and Maintenance

|                                                                                                |                |                                                                        |
|------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------|
| Average frequency of catch basin cleaning (non-commercial / non-arterial streets)              | (times/yr)     | 0.75 (75% of system)                                                   |
| Average frequency of catch basin cleaning (commercial / arterial or other critical streets)    | (times/yr)     | 1                                                                      |
| Total number of structures cleaned                                                             | (#)            | 2,700                                                                  |
| Storm drain cleaned                                                                            | (LF or mi.)    | 300 LF                                                                 |
| Qty. of screenings / debris removed from storm sewer infrastructure                            | (lbs. or tons) | 400 tons                                                               |
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) |                | Out of Town<br>Landfill<br>Mix with<br>compost and<br>street sweepings |
| Cost of screenings disposal                                                                    | (\$)           |                                                                        |
|                                                                                                |                |                                                                        |
| Average frequency of street sweeping (non-commercial / non-arterial streets)                   | (times / yr)   | 1                                                                      |
| Average frequency of street sweeping (commercial / arterial or other critical streets)         | (times / yr)   | 1                                                                      |
| Qty of sand / debris collected by sweeping                                                     | (lbs. or tons) | 864 tons                                                               |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)                          | (location)     | Mix residuals                                                          |

|                                                                                    |                    |             |
|------------------------------------------------------------------------------------|--------------------|-------------|
| Cost of sweepings disposal                                                         | (\$)               | In-house    |
| Vacuum street sweepers purchased / leased                                          | (#)                | 1 (owned)   |
|                                                                                    |                    |             |
| Vacuum street sweepers specified in contracts                                      | (y/n)              | No contract |
| Reduction in application on public land of: (N/A – never used; “100%” elimination) |                    |             |
| • Fertilizers                                                                      | (lbs. or %)        | 0%          |
| • Herbicides                                                                       | (lbs. or %)        | 0%          |
| • Pesticides                                                                       | (lbs. or %)        | 30%         |
| Anti-/De-Icing products and ratios                                                 | %NaCl              | 85%         |
|                                                                                    | %CaCl <sub>2</sub> |             |
|                                                                                    | %MgCl <sub>2</sub> | 15%         |
|                                                                                    | %CMA               |             |
|                                                                                    | %Kac               |             |
|                                                                                    | %KCl               |             |
|                                                                                    | %Sand              | 0%          |
| Pre-wetting techniques utilized                                                    | (y/n)              | Yes         |
| Manual control spreaders used                                                      | (y/n)              | No          |
| Automatic or Zero-Velocity spreaders used                                          | (y/n)              | Yes         |
| Estimated net reduction in typical year salt application                           | (lbs. or %)        | 10%         |
| Salt pile(s) covered in storage shed(s)                                            | (y/n)              | Yes         |
| Storage shed(s) in design or under construction                                    | (y/n)              | N/A         |