



TOWN OF BURLINGTON

Board of Selectmen/Town Administrator's Office

John Petrin, Town Administrator

Betty McDonough, Office Manager

April 25, 2017

Glenda Velez – CIP

U.S. Environmental Protection Agency – Region 1

5 Post Office Square – OEP06-01

Boston, Massachusetts 02109-3912

RE: Municipality: Town of Burlington, Massachusetts

Reporting Year: Year 14, April 1, 2016 – March 31, 2017

EPA NPDES Permit: MAR041030

MassDEP Transmittal: W-035750

Dear Ms. Velez,

I am pleased to submit the 2016-2017 NPDES Small MS4 Annual Report for the Town of Burlington, detailing our efforts to promote and maintain clean water through the implementation of our Stormwater Management Program. This letter and the enclosed summary table constitute our annual self-assessment for compliance with the NPDES permit conditions and report on the status of BMPs and permit-related activities.

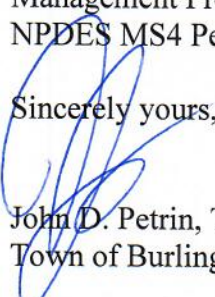
The Town of Burlington has continued to make significant progress toward achieving measurable goals in the management of stormwater during the past year, including preparing for the newly released 2016 permit, and evaluating and implementing appropriate best management practices (BMPs) to address stormwater issues and meet new requirements. While the enclosed summary table offers a complete analysis of activities, some highlights from the 14th permit year are listed below.

- The Town of Burlington's participation in the Northern Middlesex Stormwater Collaborative (NMSC), a group of local municipalities and the Northern Middlesex Council of Governments, working to coordinate and collaborate on regional stormwater issues, has continued to be extremely beneficial and productive. In addition to providing resources and support to member communities, NMSC has kept communities well informed and updated regarding legislative and regulatory-related updates during the busy period leading up to the new permit becoming effective. The Town has also benefitted from advocacy efforts and resources shared by the newer MA Statewide Municipal Stormwater Coalition and other regional stormwater coalitions.

- The Town's interdepartmental stormwater management committee has continued to meet regularly in the past year. The committee involves staff from all of the major departments involved in stormwater management, including Conservation, DPW, Engineering, Fire, Health, Planning and Recreation, and in the last year the School Department was added to the group. Efforts this year have focused on planning and preparing for the new permit requirements, including working on the Town's Notice of Intent, and starting to implement new best management practices as discussed in the attached Annual Report, as well as ensuring existing permit requirements are being met.
- Staff who are directly involved with development and construction permitting have continued to meet twice monthly to discuss upcoming development projects and permitting, and stormwater management continues to be an important component of the discussion. Applicants frequently attend these meetings and receive feedback and input leading to improved stormwater design and management in projects.
- The existing Erosion and Sedimentation Control Bylaw, approved and adopted in 2006 and administered by the Conservation and Planning Departments, continues to be successfully implemented. Any project disturbing equal to or more than 10,000 square feet of land is subject to review. Approximately 20 permits were issued in the last year, mostly demolitions and new single-family dwellings, but also 2 major commercial redevelopments, both of which made substantial improvements to stormwater management including water quality treatment and infiltration. Many smaller residential projects continue to be captured by the Board of Health's Stormwater and Runoff Management regulations, implemented early in 2015.
- The Town completed a major renovation of a sewer pump station at Lucaya Circle and associated slip lining of a lengthy sewer main with a history of breaks in recent years. The Engineering Division worked with the Conservation Commission to permit the project, with clear benefits to adjacent wetlands and a stream from repairing the main and avoiding future leaks or breaks. The Engineering Division also continued their annual stream cleaning program, focused on vactoring accumulated road sand along streams and adjacent to culverts, with cleaning by Skelton Road this past year.

If you have any questions or comments regarding the content of this annual report or our Stormwater Management Program, please contact Heather Charles Lis, Assistant Conservation Administrator / NPDES MS4 Permit Coordinator by calling 781-270-1655 or via email at hlis@burlington.org.

Sincerely yours,


John D. Petrin, Town Administrator
Town of Burlington, Massachusetts

CC: Frederick Civian, MA DEP

Municipality/Organization: Town of Burlington, Massachusetts
EPA NPDES Permit Number: MAR041030
MassDEP Transmittal Number: W-035750
Annual Report Number & Reporting Period: Year 14
April 1, 2016 – March 31, 2017

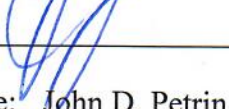
NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2017)

Part I. General Information

Contact Person: Heather Charles Lis **Title:** Asst. Conservation Administrator
Telephone #: 781-270-1655 **Email:** hlis@burlington.org
Mailing Address: 25 Center Street, Burlington, MA 01803

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: John D. Petrin
Title: Town Administrator
Date: 4/25/17

Part II. Self-Assessment

The Town of Burlington has conducted the annual self-assessment of its Stormwater Management Program and finds that it is in compliance with the requirements of the NPDES Small MS4 Permit issued in 2003. Evaluation of each minimum control measure follows, with general comments below and specific recommendations in Part III.

Public Education & Outreach

The identified goals for Public Education & Outreach have been reached. However, many of the printed educational materials were developed during the first permitting year and still need to be updated, a process which started in recent years with the assistance of the Northern Middlesex Stormwater Collaborative. In addition, in the past year the Town was invited to join the Mystic Stormwater Education Collaborative, a partnership between the Mystic River Watershed Association (MyRWA) and municipalities in the watershed. Work is underway by MyRWA to work with municipalities and create a multimedia education program about stormwater pollution, including outreach and educational materials. Town staff continued efforts to expand the Town's stormwater website this year. Two public service announcements (PSA) on stormwater pollution in local watersheds, which were developed by the NMSC, continue to run on the local cable television channel and are posted on the Town's website. Updated, targeted outreach should employ print (i.e. brochures and news articles), web-based, broadcast, and community-based (i.e. outings, meetings, and lectures) efforts.

Public Participation & Involvement

Public Participation & Involvement goals have been reached and the Students for Environmental Action remain active partners in our efforts. The Town of Burlington previously partnered with the Great American Rain Barrel Company to host a municipal rain barrel purchasing program, which was very successful. The program was started again in 2017, both in response to resident requests and with a goal of reaching new residents. Severe drought conditions throughout 2016 have raised community awareness of the need to conserve water. A program was started to make high efficiency lower flow shower heads and faucet aerators available to residents. Additional promotion of this program is needed at this point. Efforts to establish a "Stream Team" in Burlington have, thus far, gone unrealized. Coordination with local watershed associations (Ipswich River Watershed Association, Mystic River Watershed Association, and Shawsheen River Watershed Association) is vital to volunteer program success, and should be a priority going forward.

Illicit Discharge Detection & Elimination Program

Burlington's Illicit Discharges and Detection Bylaw, prohibiting illicit connections and providing authority for enforcement, was adopted in 2006. Burlington has a well-documented stormwater management system. Documentation consists of a GIS map and associated database, which were created in 2004 and have been periodically updated since. Field verification of this data should be implemented and updates to the database made on a more regular basis. Significant progress was made in 2016-2017 as Town staff secured funding from Town Meeting for an intern program to assist with mapping and screening outfalls. Work will begin in the summer of 2017. Dry weather sampling was conducted in 2004 and no illicit connections were detected. In future years, the Town plans to use the interns to conduct town-wide sampling as required by the new 2016 permit. The Board of Health and Department of Public Works staff have been trained in identifying and reporting illicit connections. Staff has evaluated the feasibility of reinstating an online reporting system for illicit discharges, and plans to implement this in the near future.

Construction Site Stormwater Runoff Control and Post-Construction Stormwater Management

Any project filing for a Wetlands Permit with the Conservation Commission undergoes extensive review for erosion control and post-construction stormwater management. New wetlands regulations were passed in 2014, which increased jurisdictional protection within 200 feet of many small streams.

Additionally, any project requiring Site Plan Review or a Special Permit from the Planning Board is reviewed for erosion control and stormwater management by Conservation Department staff. The Erosion & Sedimentation Control Bylaw, approved and adopted in 2006, authorizes jurisdiction of erosion control and stormwater management for any project disturbing equal to or greater than 10,000 square feet of land. These permitting regulations ensure that most development projects in town are reviewed for erosion control and stormwater management. The Stormwater and Runoff Management Regulations, adopted by the Board of Health in March 2015, have been implemented successfully in the past two years and have captured many other smaller construction projects. Conservation and Board of Health staff have worked more closely this year to coordinating regulatory review and ensure projects are not missed. Ultimately, officials will need to consider amending the Erosion & Sedimentation Control Bylaw to address requirements in the 2016 permit, and could evaluate including additional jurisdictional triggers, such as construction of a foundation, at that time.

Pollution Prevention & Good Housekeeping

Pollution prevention practices in Burlington are well-established and up-to-date, however additional documentation of existing procedures should be completed. Departments need to update this information as needed and identify where additional written documentation is needed. Pollution prevention training is provided to Department of Public Works, Recreation Maintenance, and Facilities staff. However, training should be better documented and periodically reviewed by the Stormwater Management Committee. Burlington's participation in the Northern Middlesex County of Governments (NMCOG) Stormwater Coalition provided an additional training opportunity for municipal staff this year, focused on Good Housekeeping and Pollution Prevention and IDDE permit requirements and best management practices/standard operating procedures. The Board of Health continues to hold regular hazardous waste collection days twice a year and offers mercury-containing products (thermometers, lamps, batteries, etc.) and cell phone recycling year round. The Board of Health also offers a Universal Waste and electronic waste collection days twice a year for businesses. The Fire Department, in conjunction with the Board of Health, accepts sharps from residents for disposal. The Police Department accepts unused and unwanted medications from residents for disposal. The Recreation Department has committed to utilizing only organic fertilizers in town. The Department of Public Works has employed a vegetation management plan to reduce the amount of pesticides used along the roadways and to prevent usage of pesticides near wetlands. Street sweeping and catch basin cleaning occurs yearly, with ongoing inspections and repairs of infrastructure.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|---|--|--|--|--|
| 1 - 1 | Develop brochure and/or fact sheet for homeowners | Final drafts - 1st year; review by SWMC; distribute 2nd year | <p>Extensive research was done to identify resource materials. Pamphlet for homeowners has been drafted and reviewed by SWMC. Edits were incorporated and a brochure was mailed to all residents in Town.</p> <p>In 2017 the Town joined with Mystic Stormwater Education Collaborative and work is underway to develop new, high quality, targeted brochures for residents.</p> | <p>This should be updated particularly since the new permit has been released and resent.</p> <p>Any new materials should be distributed and promoted in future years.</p> | <p>Completed - Brochure addresses:</p> <ul style="list-style-type: none"> - auto maintenance - yard work - herbicides and pesticides - landscaping - painting <p>Ongoing - The revision of brochures is currently underway and will be coordinated with electronic media updates and new materials from NMSC.</p> |

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| 1 - 2 | Develop brochure and/or fact sheet for businesses | Draft within 2nd year; review by SWMC; distribute 3rd year | <p>Draft brochure for business sector was finalized. Brochure was formatted, printed, addressed and mailed to all businesses in Burlington.</p> <p>In 2017 the Town joined with Mystic Stormwater Education Collaborative and work is underway to develop new, high quality, targeted brochures for businesses.</p> | <p>This should be updated particularly since the new permit has been released, reviewed by BOH staff for food service facilities, and resent.</p> <p>Any new materials should be distributed and promoted in future years.</p> | <p>Completed - Brochure addresses:</p> <ul style="list-style-type: none"> - general best practices for all - landscape contractors - food service facilities - automotive repair shops <p>Ongoing - The revision of brochures is currently underway and will be coordinated with electronic media updates and new materials from NMSC.</p> |
| 1 - 3 | Collect/assemble educational materials for school use | Discuss with schools and collect materials | <p>Efforts were made to identify educational materials for school use during 1st and 2nd permit years. Additional efforts were made to research appropriate curriculum for inclusion at town schools.</p> | <p>Efforts should be made to work with all schools to incorporate Project Wet or similar curriculum into existing framework.</p> | <p>Ongoing - Water pollution is discussed as part of the water cycle in grade 2 classes. The high school environmental education teacher covers water quality and pollution with students. Additional efforts should be made to incorporate water pollution curriculum (such as Project Wet) in other grades.</p> |
| 1 - 4 | Place educational materials for BMPs 1-3 in library | If suitable materials are found, discuss with library and place materials in library. | <p>Materials were identified and used for a "Stormwater Display" at the library.</p> | <p>Set up "Stormwater Display" again once the new permit is effective.</p> | <p>Completed - The Burlington Public Library featured a "Stormwater Display" during the month of April 2013 and April 2014 as well. The display featured a rain barrel, a catch basin cover, books, periodicals, worksheets, and activities relating to water quality.</p> |

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| 1 - 5 | Add storm water information and links to Town web site | Convert materials to pdf format in 4th year; develop web page 5th year | Website was created in year 5, with customized materials for various audiences. However, the Town website subsequently underwent a redevelopment and the Stormwater pages were scaled back. In the last year, the website content continued to be expanded. | Promote updated stormwater website. Link to other department pages. Continue to update or add relevant content to website. Research and link to LID planning tools. | Completed - Researched, developed, and customized extensive materials for public education on the subject of storm water pollution prevention for businesses and homeowners. New Stormwater and Runoff Management Regulations are on BOH website. A rain garden fact sheet has been developed and is on the Conservation website. A new swimming pool & spa discharge brochure is on the Conservation website. |
| 1 - 6 | Publicize SWMC meetings for public education opportunities | Conduct at least 4 public meetings in 5 years | Annual meetings are usually held either in the spring or fall each year. Press releases are issued to local papers. | Will continue. Meeting will be held when new NPDES permit is issued. | Ongoing Original 5 year permit committed to conducting 4 public meetings over the 5 year term. We have met that commitment. Public Meeting March 2011 Held to discuss the pending new stormwater regulations. Purpose of meeting was to educate Town board members and the public of pending NPDES regulations. This will be repeated when the revised permit is issued. |

1a. Public Education and Outreach - Additions

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| 1-7 | Public Education Outings | Conduct public education outings with a focus on the subjects of water quality, stormwater, and watershed science | The Conservation Department held regular outings, including Vernal Pool ID workshops, Canoe Trip on the Shawsheen, Drinking Water Reservoir Clean Up, and others. | Will continue | <i>Ongoing</i> Periodic nature walks were implemented to increase public awareness of the importance of protecting natural resources. Nature walks for public education are planned to continue indefinitely. |
| 1-8 | Municipal Employee Education | Hold regular meetings to discuss stormwater management, conduct trainings, organize educational outings | <p>Development/ Permitting meetings are held periodically during which projects are reviewed for permit compliance, including stormwater issues.</p> <p>Stormwater meetings are held periodically, during which stormwater management is reviewed and LID opportunities discussed.</p> <p>Stormwater workshops and conference announcements are shared with Department Heads.</p> | Will continue | <p><i>Completed & Ongoing</i> A tour of the Lexington DPW facility was arranged. Another tour will be offered in the future..</p> <p>The Wetlands 101 training, offered to DPW staff, should occur yearly prior to the start of construction season and should be offered to both DPW and Recreation Maintenance staff.</p> <p>A new Stormwater Committee, comprised of staff from Conservation, DPW, Engineering, Fire, Health, Planning, Recreation and Schools, is meeting regularly to prepare for the re-issuance of the NPDES permit, and will assist in disseminating information to applicable employees.</p> |
| 1-9 | Create Water Quality Activity Kit at the Library | Kit available to children | A water kit is available to children to use while at the Library | Will continue | <i>Completed</i> – There is a water activity kit available to visitors, which will remain a permanent part of the Library’s offerings. |

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| 1-10 | Increase usage of broadcast media for public education on stormwater issues | PSA run on BCAT, lobby video | <p>Two stormwater education videos were created to run in the Town Hall Annex lobby. One is on permeable pavement and one details creating a rain garden.</p> <p>BCAT is running EPA's "After the Storm" periodically.</p> <p>The Northern Middlesex Stormwater Coalition produced two new PSAs on stormwater pollution in local watersheds.</p> | Will continue | <p>Completed – Porous pavement and rain garden videos were on rotation in the Town Hall Annex lobby until this past year when the audiovisual equipment failed. Explore other possibilities for sharing this information.</p> <p>Ongoing BCAT periodically broadcasts "After the Storm" and PSAs on stormwater pollution in local watersheds. These PSAs are also posted on the Town's website.</p> |
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2. Public Involvement and Participation

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|--|---|---|---|--|
| 2 - 1 | Document existing public involvement opportunities | Summarize in 1st annual report | No activity | None | <i>Not continued</i> - Summary of existing public involvement opportunities (BMP 2-1) is not useful, since these opportunities are now being created under the EPA permit (i.e., Annual SWMC meeting, hearings on new bylaws, etc.). This BMP will not be continued. |
| 2 - 2 | Publicize participation opportunities with Shawsheen, Mystic River, and Ipswich Watershed Associations | Monitor publicity generated in local newspapers during permit term. Provide assistance to ensure publicity if needed. | Communication and collaboration has been established with SRWA, MyRWA, and IRWA. Events and outings are cross publicized. | Continue monitoring for publicity of appropriate events. Evaluate feasibility of reconvening the Burlington Conservation Stewards. | <i>Ongoing</i> - Activities of the Shawsheen, Mystic River, and Ipswich Watershed Associations were shared with the Burlington Conservation Stewards in the past, however this group has not been active recently. |
| 2 - 3 | Plan and implement projects with High School environmental group | Develop plan and implement projects during 4th and 5th years of permit | Students continue to participate in the storm drain marking/stenciling efforts, but little else has resulted from this collaboration. | Additional streets shall be targeted for stormwater catch basin marking during subsequent permit years. Additional projects should be discussed with the students and developed with school's science coordinator/staff. | <i>Ongoing</i> - New aluminum storm drain markers have been installed in two neighborhoods and will remain in place longer than spray paint stencils. |

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| 2 - 4 | Publicize SWMC meetings for opportunities for public involvement | Maintain copies of publicity in file over 5 year permit term | Press releases were issued to local newspapers. | Press releases will continue to be issued. | <i>Ongoing</i> - will publicize meetings when held. |
| 2 - 5 | Issue press releases when storm water materials in library | Maintain copies of publicity in file over 5 year permit term | Press releases have been issued for "Stormwater Awareness Month" and resulted in modest coverage. | Press releases shall continue to be sent for "Stormwater Awareness Month" as well as highlight other offerings in the collection, such as the permanent water quality kit. | <i>Ongoing</i> - Press releases are drafted announcing the stormwater display for the month of April in the Burlington Public Library. |

2a. Public Involvement and Participation - Additions

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| 2-6 | Collaborate on watershed based stormwater improvement projects | Partner with regional groups on water quality improvement projects. | MyRWA led regional effort to identify retrofit BMPs in the Aberjona River Watershed. Sites selected in Burlington were analyzed and a final recommendation was made. | Participate in additional opportunities as they become available. | The intersection of Burlington Mall Road and Stony Brook Road was selected and a retrofit BMP was designed by the Bioengineering Group. Although designed to serve as a model for the Burlington Mall Road median redevelopment / adoption project, this design was not constructed. |
| 2-7 | Establish a "Stream Team" | Interested residents identified and organized, involved in sampling water, organizing clean up events, and leading outings | IRWA was contacted to assist in forming and training a stream team | Continue to identify interested residents and host trainings. | <i>Ongoing</i> - IRWA, MyRWA, or SRWA collaboration is necessary. Previous attempts to establish a Stream Team have not been successful. Clean-up events have occurred occasionally and will continue. However, sampling needs will not be adequately met with volunteer efforts. |

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| 2-8 | Hand Stream Cleaning Program | Continue summer stream cleaning program | This program has been in place for 27 years with plans to continue indefinitely. | Incorporate an element of water quality monitoring into the stream cleaning program. | <i>Ongoing</i> – This well-established program is for hand-cleaning Burlington’s streams. Two to four summer workers walk the streams removing trash, debris, and obstructions from the stream channels. |
| 2-9 | Water Conservation Initiatives | Host purchasing or donation programs for rain barrels, low flow shower heads, and similar devices. | In 2017, the Town partnered again with the Great American Rain Barrel Company to host another municipal rain barrel purchasing program for residents. | Continue programs, and research additional options. Hold another rain barrel program in a few years. | <i>Completed</i> – Annual rain barrel purchasing program has been held for several years. High efficiency lower flow shower heads and faucet aerators have been made available to residents. <i>Ongoing</i> – Coordinate and continue these programs in future years. |

3. Illicit Discharge Detection and Elimination Program

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|--|--|--|--|---|
| 3 - 1 | Map storm water system and outfall locations | Complete map and outfall database by end of 2nd permit year | The GIS mapping and outfall database is now complete. The Town has initiated a Stormwater Intern Program, including securing funding and hired two interns from a local college for the summer of 2017, with intern responsibilities including verifying mapping and updating as needed. | Stormwater interns will start conducting field work. | <i>Completed 2004-</i> during 2nd permit year. Work left on mapping such as corrections to flow direction and the addition of some outfall locations was finished. In 2010, newly identified outfalls were added to maps and database. <i>Ongoing</i> - any newly identified outfalls to be added to map and database. |
| 3 - 2 | Finish map database and assign names for tributaries that discharge into named waterbodies | Finalize database in 2nd year; submit revised waterbodies list to EPA / DEP as permit modification if needed; and update mapping database in 3rd and 5th years from manual checking selected data. | Completed - GIS mapping and outfall database is 100 percent complete. In 2016, Town staff reviewed the sub-basins map and updated some names and boundaries slightly based on field knowledge and current data from MassGIS. | Submit information as needed to EPA. | <i>Completed</i> - GIS mapping and outfall database is 100 percent complete during 2nd permit year. <i>Ongoing</i> - This database continues to be updated yearly, and will assist with future stormwater planning and maintenance efforts. |

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| 3 - 3 | Develop sampling and analysis plan for dry weather flows | Plan completed in year 1 | Completed. Stormwater Intern Program has started, with intern responsibilities including sampling in future years. | Stormwater interns will start sampling in future years. Determine feasibility of using a consultant for detailed analysis or investigations. | Completed - A plan was developed during 1st permit year to sample 5 locations of dry weather flows detected during the mapping field verification. Two samples were collected from each location. |
| 3 - 4 | Visually inspect outfalls for dry weather flows | Selective inspection 1st & 2nd year; spot inspection years 3-5, inspection records in program file | Town-wide inspection for first year was completed. Stormwater Intern Program has started, with intern responsibilities including visually inspecting outfalls for flows and screening for indicators of potential illicit discharges. | Stormwater interns will start conducting field work. | Completed - A field check of the entire town was completed as part of field verification to support the mapping activity. Five (5) outfalls were identified as having dry weather flows. |
| 3 - 5 | Conduct sampling at outfalls with dry weather flows | Conduct sampling - selected outfalls in 1st year; selected additional sampling in years 3 & 5 if needed; results in program file | Sampling and analysis activities were completed at 5 outfall locations during 1st permit year. Stormwater Intern Program has started, with intern responsibilities including sampling in future years. | Additional sampling will be done as needed. Stormwater interns will start sampling in future years. | Completed - Each outfall location was sampled for bacteria, ammonia, surfactants, conductivity, and fluorides. Since no flowing water was occurring at 4 of 5 sites, samples of standing water at the mouth of pipe were taken. Based on these results, no illicit connections are believed to exist at these locations. |

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| 3 - 6 | Develop training materials for DPW / others for illicit discharge | Develop training materials in subsequent year | <p>Coordination with the Town environmental engineer has been established and training materials are to be developed.</p> <p>In 2017, several key DPW staff attended a training organized by the NMSC on IDDE and Good Housekeeping and Pollution Prevention practices.</p> | Develop training materials in subsequent year and continue to attend future external group trainings. | <p><i>Ongoing</i> - DPW employees are trained to recognize and report illicit discharges. This training needs to be formalized and documented.</p> <p><i>Ongoing</i> - Training will be offered through the Northern Middlesex Stormwater Collaborative (NMSC).</p> |
| 3 - 7 | Review current bylaws / regulations relevant to illicit discharge - Burlington and other towns | Review was completed in 1st year | Complete | None | <p><i>Completed</i> - Extensive effort was made during the 1st permit year to identify bylaws in use by others districts (nationwide). Bylaws have been obtained that will serve as a model for Burlington's adoption and implementation of an illicit discharge bylaw. A review of these bylaws has been completed.</p> |

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| 3 - 8 | Develop bylaw to prohibit illicit discharge | Develop draft bylaw in 3rd year and brought to Town Meeting in 4th year for approval | Illicit discharge bylaw was adopted in 2006 | Review the process for addressing illicit discharges and coordinating between appropriate departments. | Completed - Comments by Town Boards and Committees have been incorporated. Meetings and public hearings were held with various Town Departments to arrive at a consensus on implementation logistics for a new bylaw. Review by Town Counsel was completed. Town meeting approved bylaw in 4th permit year at the September 2006 Town Meeting. Approval of this bylaw was subsequently obtained by the State Attorney General. |
| 3 - 9 | Develop illicit discharge and detection plan | Plan is currently being drafted. | Coordination with the Department of Public Works, the Health Department, and the Conservation Department is ongoing. | Final plan to be completed in conjunction with the Stormwater Management Plan. Assess whether to use contractor for plan development. | Ongoing - Illicit Discharge Detection & Elimination Plan is being drafted. The implementation of the Vegetation Management Plan will minimize pesticide application to only approved areas, limits pesticide application in sensitive areas, and requires that precautions be taken to limit excess pesticide runoff and discharge into our stormwater system. |
| 3 - 10 | Train DPW personnel to recognize illicit discharges | Train DPW / others in next year (which is after BMP 3-9 completed). | No activity scheduled for this reporting period. | Hold training sessions when IDDE program is completed. | Ongoing - training was implemented for outfall inspectors. Additional training though NMSC will be offered as an illicit discharge and detection plan is completed. |

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| 3 - 11 | Implement illicit discharge detection plan | Plan will be implemented once completed. | Also, on-line reporting of illegal dumping activities through web installed on Stormwater Web site 2012 - The online form was taken down when the Town website was redeveloped. In 2017, a new online form was created and reinstated on the Town website, and departments agreed on how to handle reports, starting with an investigation by DPW. | Plan to be reviewed for consistency with new NPDES permit requirements and updated as needed. Evaluate whether to hire consultant to assist with new, detailed IDDE plan. Online form for reporting illicit discharges will remain active. | <i>Ongoing</i> - Some outfalls are visually inspected yearly for contaminated water flows and sediment buildup. |
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3. Illicit Discharge Detection and Elimination Program - Additions

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| 3 - 12 | Develop an inventory of all identified sanitary sewer overflows (SSOs) | Review draft permit requirements & collect information. | Draft permit requirements were reviewed with DPW and Engineering staff, and information was collected and assembled into an inventory. | Ensure that process is in place to update inventory as needed. | Three SSOs were identified from the past 5 years. Mitigation and corrective measures have been implemented or are underway for each SSO. |
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4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|---|--|--|-------------------------------------|---|
| 4 - 1 | Collect and summarize other towns' sedimentation and erosion control bylaws | Sample bylaws collected, will be put in file for review. | Other districts' bylaws were found and reviewed. | None | <i>Completed</i> - Extensive effort was made to identify other districts' bylaws as a model has been completed. Review of these bylaws has been completed. |
| 4 - 2 | Summarize existing bylaws and regs within Burlington for evaluating stormwater impacts | Summary memo to file (completed in 1st year) | Not completed | None scheduled | <i>Not continued</i> - The MA State Wetlands Protection Act and Burlington's Bylaw Articles XIV (Wetlands Protection) are the main regulations that offer evaluation of storm water impacts. These regulations are well known to Town residents. An additional summary memo would not provide any significant additional value. |
| 4 - 3 | Conduct meetings with various stakeholders in Town to obtain input regarding erosion bylaw implementation | Notes summarizing the results of these meetings (completed in 1st or 2nd year) in the form of minutes of meeting taken during Annual SWMC meeting. | Discussions were held with various stakeholders in Town. Numerous public meetings were held. | None | <i>Completed</i> |

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| 4 - 4 | Develop sedimentation and erosion control bylaw and obtain final approval | Developed draft bylaw and brought to Town Meeting for approval | <p>Draft erosion bylaw was presented to Planning Board, Board of Health, Conservation Commission, Board of Selectmen, and Town Bylaw Review Committee in public meetings. Draft bylaw has also been reviewed by Town Counsel. Comments were incorporated.</p> <p>Presentation was made to September 2006 Town Meeting.</p> <p>Procedures, standard conditions and logistics were developed during 2007 / 2008 permit year.</p> <p>Bylaw is fully operational at this time.</p> | <p>Development of regulations to support bylaw.</p> <p>The Sedimentation and Erosion Control Bylaw should be reviewed and updated as needed to support the 2016 NPDES permit requirements.</p> | <p>Completed - Comments by Town Boards and Committees have been incorporated. Meetings and public hearings were held with various Town Departments to arrive at a consensus on implementation logistics for a new bylaw. Review by Town Counsel was completed. Town meeting approved bylaw in 4th permit year at the September 2006 Town Meeting. Approval of this bylaw was subsequently obtained by the State Attorney General.</p> <p>Procedures, standard bmp permit conditions and logistics were developed during 2007 / 2008 permit year. Bylaw is fully operational at this time.</p> <p>Bylaw developed is relatively unique in Commonwealth. It features joint authority by Planning Board and Conservation Commission, and levels of permit / enforcement applicability based on size of land disturbance area proposed.</p> |
| 4 - 5 | Develop site inspection checklists to support bylaw implementation | Draft checklists completed in 5th year | Checklist and database of projects with inspection information are complete. | Continue to use checklist and project database. | <p>Completed - a site inspection checklist is available to support the implementation and enforcement of sedimentation and erosion control permits.</p> |

4a. Construction Site Stormwater Runoff Control - Additions

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|-----|--|-----------------------------------|--|---|---|
| 4-6 | Develop Board of Health regulations for stormwater and runoff management | Develop and implement regulations | BOH has developed and adopted new Stormwater and Runoff Management Regulations, effective in March 2015. | Continue to implement regulations for construction sites. | <i>Ongoing</i> - Implementation of new regulations and coordination between Town staff. |
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5. Post Construction Stormwater Management

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|--|--|--|-------------------------------------|---|
| 5 - 1 | Collect and summarize other towns' sedimentation and erosion control bylaws for post construction control | Sample bylaws collected, will be put in file for review. | Other districts' bylaws were found and reviewed. | None | <i>Completed</i> - Extensive effort was made to identify other districts' bylaws as a model has been completed. Review of these bylaws has been completed. |
| 5 - 2 | Summarize existing bylaws and regulations within Burlington for evaluation of stormwater impacts for post construction control | Summary memo to file (completed in 1st year to be done with BMP 4-2) | Not completed | None scheduled | <i>Not continued</i> - The MA State Wetlands Protection Act and Burlington's Bylaw Articles XIV (Wetlands Protection) are the main regulations that offer evaluation of storm water impacts. These regulations are well known to Town residents. An additional summary memo would not provide any significant additional value. |
| 5 - 3 | Conduct meetings with various stakeholders in Town to solicit input on implementing bylaw for post construction control | Notes summarizing the results of these meetings (completed in 1st or 2nd year) in the form of minutes of meeting taken during Annual SWMC meeting. | Discussions were held with various stakeholders in Town. Numerous public meetings were held. | None | <i>Completed</i> |

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| 5 - 4 | Develop draft sedimentation and erosion control bylaw and obtain final approval for post construction control | Developed draft bylaw and brought to Town Meeting in 4th year for approval | <p>Draft erosion bylaw was presented to Planning Board, Board of Health, Conservation Commission, Board of Selectmen, and Town Bylaw Review Committee in public meetings. Draft bylaw has also been reviewed by Town Counsel. Comments were incorporated.</p> <p>Presentation was made to September 2006 Town Meeting.</p> <p>Procedures, standard conditions and logistics were developed during 2007 / 2008 permit year.</p> <p>Bylaw is fully operational at this time.</p> | Development of regulations to support bylaw. | <p>Completed - Comments by Town Boards and Committees have been incorporated. Meetings and public hearings were held with various Town Departments to arrive at a consensus on implementation logistics for a new bylaw. Review by Town Counsel was completed. Town meeting approved bylaw in 4th permit year at the September 2006 Town Meeting. Approval of this bylaw was subsequently obtained by the State Attorney General.</p> <p>Procedures, standard bmp permit conditions and logistics were developed during 2007 / 2008 permit year. Bylaw is fully operational at this time.</p> <p>Bylaw developed is relatively unique in Commonwealth. It features joint authority by Planning Board and Conservation Commission, and levels of permit / enforcement applicability based on size of land disturbance area proposed.</p> |
| 5 - 5 | Develop site inspection checklists to support bylaw implementation for post construction control | Draft checklists completed in 5th year | Checklist and database of projects with inspection information are complete. | Continue to use checklist and project database. | Completed - a site inspection checklist is available to support the implementation and enforcement of sedimentation and erosion control permits. |

5a. Post Construction Stormwater Management – Additions

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|-----|--|-----------------------------------|---|--|---|
| 5-6 | Develop Board of Health regulations for stormwater and runoff management | Develop and implement regulations | BOH has developed and adopted new Stormwater and Runoff Management Regulations, effective March 13, 2015. | Continue to implement regulations for post-construction stormwater management. | <i>Ongoing</i> – Implementation of new regulations and coordination between Town staff. |
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6. Pollution Prevention and Good Housekeeping

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|--|--|--|--|--|
| 6 - 1 | Summarize existing procedures within Burlington for preventing pollution from parks/open space, fleet, storage yards, roads/parking lots, and storm sewer maintenance activities | Summary memo to file to be completed. | Most existing procedures have been identified and collected. Recreation Department documented their waste oil procedure. | Applicable departments need to continue to identify where additional data is needed, and where updates are needed. | <i>Completed</i> - after interviewing various town personnel, existing written procedures were found to be non-existent. However, best practices were being followed in many instances. |
| 6 - 2 | Summarize existing Town of Burlington programs for preventing pollution (including Recycling, Hazardous Waste Collection, mercury recycling, activities of stream cleaning committee, and stream cleaning program) | Summary memo to file. | Materials have been assembled for this activity. | This information should be updated as needed, and promoted to the public where applicable. | <i>Completed</i> - existing programs were identified and found to be documented in Annual Report and reported to the public in various public meeting forums of the Conservation Commission and Board of Health. No further documentation is needed. |
| 6 - 3 | Develop and promulgate procedures (as needed) for controlling pollutant discharges from the maintenance of parks and open space | Procedures to be developed in 5th permit year followed by implementation | Procedures were developed. | This information should be summarized and updated as needed. Recreation needs to identify where additional data is needed. | <i>Completed</i> - Procedures were drafted, reviewed, and finalized based on input from all relevant town departments. |

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| 6 - 4 | Develop and promulgate procedures (as needed) for controlling pollutant discharges from the maintenance of vehicle fleet | Procedures to be developed in 5th permit year followed by initial implementation | Procedures were developed | This information should be summarized and updated as needed. DPW, Recreation, Fire and Schools need to identify where additional data is needed. | Completed – Procedures were drafted, reviewed, and finalized based on input from all relevant town departments. |
| 6 - 5 | Develop and promulgate/ implement procedures (as needed) for controlling pollutant discharges from the maintenance of storage yards | Procedures to be developed in 5th permit year followed by initial implementation | Procedures were developed | This information should be summarized and updated as needed. DPW & Recreation need to identify where additional data is needed. | Completed – Procedures were drafted, reviewed, and finalized based on input from all relevant town departments. |
| 6 - 6 | Develop and promulgate procedures (as needed) for controlling pollutant discharges from the maintenance of streets and parking lots | Procedures to be developed in 5th permit year followed by initial implementation | Procedures were developed | This information should be summarized and updated as needed. DPW needs to identify where additional data is needed. | Completed – Procedures were drafted, reviewed, and finalized based on input from all relevant town departments. Ongoing – DPW is now doing more detailed documentation of street sweeping, including amount of material removed from catch basins. |
| 6 - 7 | Develop and promulgate procedures (as needed) for controlling pollutant discharges from the maintenance of storm sewer system | Procedures to be developed in 5th permit year followed by initial implementation | Procedures were developed | This information should be summarized and updated as needed. DPW needs to identify where additional data is needed. | Completed – Procedures were drafted, reviewed, and finalized based on input from all relevant town departments. Ongoing – DPW routinely repairs catch basins as needed, and documents repairs. |

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| 6 - 8 | Develop training materials for controlling pollutant discharges from operation and maintenance activities by town personnel | Training materials to be drafted. | No activity. Not scheduled for this reporting period. | Draft training materials in accordance with 2016 permit. | <i>Ongoing</i> - Rescheduled for completion next year. This may be provided though our membership in the Northern Middlesex Stormwater Collaborative. BOH staff to assist in developing training materials. |
| 6 - 9 | Finalize training materials and implement training sessions for controlling pollutant discharges from operation and maintenance activities by town personnel | Training materials to be finalized next year and training sessions implemented in subsequent year | In 2017, several key DPW staff attended a training organized by the NMSC on Good Housekeeping and Pollution Prevention practices and IDDE. | Finalize training materials and implement training sessions for controlling pollutant discharges from operation and maintenance activities by town personnel in accordance with 2016 permit. | <i>Ongoing</i> - Additional trainings may be provided though our membership in the Northern Middlesex Stormwater Collaborative. BOH staff to assist in conducting trainings. |

7. BMPs for Meeting TMDL

| BMP ID # | BMP Description | Measurable Goal | Progress Toward Achieving Goals | Activities for Next Reporting Cycle | Comments, Notes, and/or Summary of Results |
|----------|--|--|--|---|--|
| 7 - 1 | Continue street sweeping program | Priority to be given in both frequency and priority to Butterfield Pond, Vine Brook, Sandy Brook, and Long Meadow Brook to reduce turbidity (implemented in all permit years); budget available for review | Ongoing | Continue program | <i>Ongoing</i> - will continue |
| 7 - 2 | Implement illicit discharge & detection plan | Priority given to Long Meadow Brook and Sandy Brook areas which are impaired with pathogens and have TMDLs (to be implemented in 5th year). Records of activity to be placed in program file | Evaluated options for conducting outfall sampling (see below). Initiated discussions on completing IDDE plan. | Evaluate cost and feasibility of using consultant for IDDE plan update and development. Online reporting of illegal dumping activities will be added back to Town website very soon. | <i>Ongoing</i> - plan is not finished. |
| 7 - 3 | Implement Control Measures 6-3 to 6-7 to reduce pathogen load and other pollutants contributed by storm sewers to Vine Brook, Sandy Brook and Long Meadow Brook. (repeat from above) | Procedures drafted and implemented in 5th year | Procedures drafted and finalized | None. | <i>Completed</i> |

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| 7 - 4 | Develop surface water sampling plan (both source and in-stream) for fecal coliform on Vine Brook, Sandy Brook, and Long Meadow Brook (impaired streams) | Develop plan to meet requirements of new permit | The Town has initiated a Stormwater Intern Program, including securing funding and hired two interns from a local college for the summer of 2017, with intern responsibilities including sampling in future years. | Stormwater interns will start sampling in future years. | <i>Ongoing</i> - rescheduled for completion in conjunction with new NPDES permit. |
| 7 - 5 | Implement surface water sampling plan | Conduct sampling in next year | No activity | Plan for surface water sampling of impaired waters for coliform bacteria, as well as other testing parameters. | <i>Ongoing</i> - rescheduled for completion in conjunction with new NPDES permit. |