

Municipality/Organization: Town of Pembroke, MA

EPA NPDES Permit Number: MAR041054

Massachusetts DEP Transmittal Number: W035403

Annual Report Number

& Reporting Period: Year 15: April 1, 2017 -March 31, 2018

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

Part I. General Information

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:



Printed Name: Edwin J. Thorne

Title: Town Administrator

Date:

4/25/18

Part II. Self-Assessment

The Town of Pembroke has completed the required self-assessment and has determined that our municipality is generally in compliance with the conditions of the permit. During Permit Year 10, the Town was approved funding for their Stormwater Management Program under 310 CMR 44.00 within the State's Clean Water State Revolving Fund (CWSRF-3708).

During Permit Year 11, the Town approved the SRF funding and began developing the program, which included mapping the MS4 system, public outreach, training and pollution prevention activities in municipal operations.

In Permit Year 12, the Town continued to develop the mapping of the MS4 system, conducted outfall inspections, and developed a web-based GIS through PeopleGIS.

During Permit Year 13 and 14, the Town continued to develop the mapping layers of the MS4 system, focusing primarily on pipe network connectivity, which will assist in developing drainage catchment areas. The Town is also working on upgrading the High School's parking lot drainage infrastructure which includes improvements on Learning Lane, they are expanding the detention basin to handle peak runoff and provide more infiltration. The Town is also working on a Corridor Project along Route 14 which will provide additional stormwater treatment and increase stormwater recharge.

During Permit Year 15, the Town continued to focus on upgrading drainage improvements at the High School parking lot and on Learning Lane by modifying the detention basin and infiltrating the stormwater versus letting it run off into the woods and cause erosion. As well as the corridor project on Route 14 which installed 50 new catch basins for the Town and a 10,000 gallon Eliminator system for stormwater storage.

See Part III for a more detailed status of BMPs.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
1a	Air stormwater messages on local cable channel	Department of Public Works	Air a message every two weeks	Stormwater messages were developed and have been aired on the local cable access channel in previous years. However, stormwater messages were not aired in Permit Year 15.	Air stormwater messages on the Town website.
1b	Distribute/post non-point source pollution posters	Department of Public Works	Post in all schools and town-owned buildings	Non-point source pollution posters have been displayed in town buildings during Permit Year 15.	Continue to display non-point source pollution posters in town buildings.
1c	Include stormwater info in Consumer Confidence Report	Department of Public Works	Distribute Consumer Confidence Report yearly to all residents	The Town included information on stormwater pollution prevention in the 2017 Consumer Confidence Report, which is distributed annually to all residents. Several of the water bodies in town are drinking water sources for surrounding towns, and preventing pollution discharges from stormwater outfalls is necessary to keep these sources clean.	Continue to include information on stormwater pollution prevention in the Town's Consumer Confidence Report, which is distributed annually to residents.
1d	Develop children's coloring book on Pembroke recycling	Board of Selectmen	Distribute coloring books outside of Board of Health office	The Town has developed an informative coloring book to educate children on the importance of recycling. This has been made available outside the Board of Health office.	Continue to make the coloring book on recycling available outside the Board of Health office.

1a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
1e	Develop stormwater informational flyer to include with Water Bill mailing	Department of Public Works	Distribute stormwater informational flyer with Water Bill Mailing	The Town's DPW has developed an informative stormwater flyer to educate residents on the importance of the Stormwater Program and possible pollution sources. The flyer was developed and printed during Permit Year 12. In addition, through the Town's partnership with the North and South River Watershed Association's Greenscapes Program, a separate flyer was sent out on stormwater pollution prevention awareness, and is available on the Town's website.	Will continue to post link to flyers on Town's website for outreach.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
2a	Form Stormwater Advisory Committee	Department of Public Works	Hold Quarterly Meetings	During Permit Year 15, the Town held DPW Commissioner Meetings as needed 1-2 times per month, where drainage issues and stormwater pollution prevention are discussed.	Continue to hold DPW Commissioner Meetings and work to expand the existing Drainage Commission.
2b	Collect household hazardous waste from residents	Board of Selectmen	Hold household hazardous waste collection day once per year	During Year 15, the Town held a household hazardous waste collection day on October 15 th , 2017 and in April 15 th , 2017. The events were announced in the local press, on social media, on cable and at BOH and Selectmen meetings.	Continue to hold Household Hazardous Waste Collection Days.
2c	Implement annual, volunteer waterways clean-up day	Pembroke Watershed Association/Department of Public Works	Hold waterways clean-up day once per year beginning in the Spring of 2005 (Permit Year 3)	During Year 15, the Town held its annual volunteer waterways clean-up day on June 17, 2017.	Continue to hold a volunteer waterways clean-up day annually.
2d	Make SWMP available for public comment/review	Department of Public Works	Post SWMP in DPW office and Town library	Throughout Permit Year 15, copies of the Town's Stormwater Management Plan were made available for public review and comment at the Town Library and at the DPW office.	Continue to make copies of the Town's Stormwater Management Plan available for public review and comment at the Town Library and at the DPW office.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
3a	Map outfalls and receiving waters	Department of Public Works	Complete mapping by end of fifth permit year	In Year 15, the Town continued to add drainage for newly developed areas in town and add flow directions for storm drains. This included the incorporation of MassDOT’s MS4 data which the Town requested and received.	The Town will continue to update their storm drain mapping to include connectivity throughout their MS4.
3b	Develop an Illicit Discharge & Elimination Plan	Department of Public Works	Make recommendations for proposed plan	During Permit Year 5, the Town made a number of recommendations regarding items to be included in their Illicit Discharge Detection & Elimination Plan. During Permit Year 15, the Town continued updating their IDDE Plan to incorporate more recent EPA and DEP guidance as well as the Town’s mapping updates.	The Town will continue to update their IDDE Plan that they developed during Permit Year 5.
3c	Review existing bylaws and regulation	Department of Public Works/Stormwater Advisory Committee	Determine whether existing bylaws/regs are adequate	The Town reviewed their existing bylaws and regulations for requirements relating to illicit discharge detection and elimination during Permit Year 3. BMP Completed.	BMP Completed
3d	Develop/modify general illicit discharge bylaw	Department of Public Works/Stormwater Advisory Committee	If necessary, propose recommendations for bylaw updates	A general illicit discharge bylaw that meets USEPA requirements was developed during Permit Year 3. After having their attorneys review the general illicit discharge bylaw that was developed, the Town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5. BMP Completed.	BMP Completed
3e	Present bylaw for Town meeting action	Department of Public Works/Stormwater Advisory Committee	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted. This bylaw was enforced by the Town during Permit Year 15 and there were no violations.	The Town will continue to enforce the IDDE bylaw that they adopted during Permit Year 5.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
4a	Review existing bylaws and regulations	DPW/Planning/Zoning	Determine whether existing bylaws/regs are adequate	The Town reviewed the relevant sections of the Rules and Regulations Governing the Subdivision of Land, the Zoning Bylaws, and the Water Resource Protection Bylaw during Permit Year 3. BMP Completed.	BMP Completed.
4b	Develop/modify bylaws for construction site runoff	DPW/Planning/Zoning	If necessary, propose recommendations for bylaw updates	In Permit Year 4, the Town completed the development of a bylaw for the control of construction site runoff. After having their attorneys review the bylaw that was developed, the Town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5. BMP Completed.	BMP Completed.
4c	Present bylaw for Town meeting action	DPW/Planning/Zoning/Conservation	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted. This bylaw was enforced by the Town during Permit Year 15, and there were no violations.	The Town will continue to enforce the bylaw that they adopted.
4d	Review existing site inspection practices	DPW/Planning/Zoning	Determine whether existing practices are adequate	The Town reviewed their erosion/sedimentation control and drainage submittal requirements, as well as their site inspection practices, during Permit Year 4. BMP Completed.	BMP Completed.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
4e	Develop/modify site inspection practices	DPW/Planning/Zoning	If necessary, make recommendations for updating existing practices	During Permit Year 4, the Town completed review of their construction site inspection practices. The Town currently uses a consultant, Merrill Associates, who works for the Planning Board to oversee private developments. The DPW and the Conservation Commission also assist with internal site reviews. Any recommended changes to these site inspection practices were incorporated into the Town's Construction Site Runoff Control Bylaw which was adopted during Permit Year 5. Changes to the Town's site inspection practices were enforced under this bylaw during Permit Year 15. There were no construction runoff violations during Permit Year 15.	The Town will continue to enforce changes to their site inspection practices under their Construction Site Runoff Control Bylaw.

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
5a	Review existing bylaws and regulations	DPW/Planning/Zoning	Determine whether existing bylaws/regs are adequate	The Town evaluated regulations regarding the control of post-construction stormwater runoff, including the Rules and Regulations Governing the Subdivision of Land and the Zoning Bylaws during Permit Year 3. BMP Completed.	BMP Completed.
5b	Develop/modify bylaws for post-construction runoff	DPW/Planning/Zoning	If necessary, propose recommendations for bylaw updates	During Permit Year 4, the Town developed a post-construction site runoff control bylaw that meets USEPA requirements and considers MADEP Stormwater Management Policy Standard 3 (Recharge to Groundwater). After having their attorneys review the bylaw that was developed, the Town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5. BMP Completed.	BMP Completed.
5c	Present bylaw for Town meeting action	DPW/Planning/Zoning	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted. This bylaw was enforced by the Town during Permit Year 15, and there were no violations.	The Town will continue to enforce the bylaw that they adopted.
5d	Review existing site inspection practices	DPW/Planning/Zoning	Determine whether existing practices are adequate	During Permit Year 4, the Town completed review of their existing site inspection and maintenance practices. BMP Completed.	BMP Completed.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
5e	Develop/modify site inspection practices	DPW/Planning/Zoning	If necessary, make recommendations for updating existing practices	During Permit Year 4, the Town completed review of their post-construction site inspection and maintenance practices. Once construction is complete, the Town takes ownership of drainage infrastructure in new developments, and the DPW is responsible for the maintenance and operation of stormwater controls. Any recommended changes to these site inspection practices were incorporated into the Town's Post Construction Site Runoff Control Bylaw during Permit Year 5. Changes to the Town's site inspection practices were enforced under this bylaw during Permit Year 15.	The Town will continue to enforce changes to their site inspection practices under their Post Construction Site Runoff Control Bylaw.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
6a	Sweep streets and clean catch basins	Department of Public Works	Sweep all town-owned streets and clean all catch basins once per year	During Permit Year 15, the Pembroke Highway Department swept all of their roads. The Town cleans their catch basins on a continual basis. In Permit Year 15, 2038 catch basins were cleaned.	Attempt to sweep streets in Town at least once per year and clean catch basins on a continual basis.
6b	Maintain filtration system at North & Indian Head Rivers	Department of Public Works	Inspect baffle tank and leaching basin, and remove sediment	During Permit Year 15, the Town inspected the filtration system installed at the confluence of the North and Indian Head Rivers and removed sediment as needed. In Permit Year 15, it was found not to be in the need of cleaning.	Continue to inspect the filtration system at the confluence of the North and Indian Head Rivers and clean as needed.
6c	Train municipal employees at each facility	Department of Public Works	Target all applicable municipal facilities	During Permit Year 3, the Town examined existing practices at municipal facilities and trained employees at these facilities in construction methods to prevent soil erosion with Environmental Partners Group, Inc.	Continue to conduct follow-ups at municipal facilities to ensure that employees are following the required stormwater management practices.
6d	Implement items in EPA env. audit report for DPW facility	Department of Public Works	Ensure action items completed and BMPs followed	The Town made changes at the DPW Facility during Permit Year 1 to comply with the EPA Environmental Audit Report that was completed. These changes included developing a SPCC plan, which the Town continued to follow throughout Permit Year 15 with the exception of washing vehicles inside.	Adopt recommendations from the SWPPP for the Highway Garage.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16 (if applicable)
6e	Retrofit catch basins around Furnace and Oldham Ponds	Department of Public Works	Install vortex separators and new piping	PA Landers installed 50 Eliminators (Gas and Oil Separators) in the new catch basins along Route 14 (the Corridor Project) from the Hanson town line to beyond Furnace Lane, near the 10,000 gallon sediment tank that was installed.	Maintain and clean regularly those catch basins around Furnace Pond and Oldham Pond that were retrofitted with vortex oil/water separators.

6a. Additions

6f	Perform Stream Maintenance	Department of Public Works	Complete stream maintenance each year in coordination with the Plymouth County Mosquito Control Project	During Permit Year 15, the Town worked with crews from the Plymouth County Mosquito Control Project to remove blockages, brush and other obstructions from ditches and streams to prevent water overflows and stagnation that can result in mosquito production. This included 2,850 linear feet of stream and upland ditches.	The Town will continue to remove blockages, brush and other obstructions from ditches and streams in coordination with the Plymouth County Mosquito Control Project.
6g	Enhance Existing Storm Drainage Infrastructure	Department of Public Works	Incorporate BMPs wherever feasible into annual drainage improvement projects	The Town is working to improve High School Parking Lot and Learning Lane to expand the detention basin to handle peak runoff and provide more infiltration. The Town is also working on a Corridor Project on Route 14 which will provide additional stormwater treatment and increase stormwater recharge.	The Town will continue to assess drainage infrastructure needs and take advantage of opportunities to enhance their existing drainage system by retrofitting with BMPs.

Additional Information:

In Permit Year 12, the Town completed drafting an Operations and Maintenance Plan for its MS4 Infrastructure. In the future, the Town will be evaluating the plan for consistency with the upcoming new permit.

Town of Pembroke Annual Stormwater Report #15

In Permit Year 15, the Town completed drafting an updated IDDE Plan, as well as a draft Stormwater Management Plan and NOI for submittal under the new Permit this July.

Part IV. Summary of Information Collected and Analyzed

No additional information has been collected or analyzed outside of what was listed in Part III above.