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Municipality/Organization: Town of Rockland, MA

EPA NPDES Permit Number: MA041058

Massachusetts DEP Transmittal Number: W036804

**Annual Report Number
& Reporting Period: No. 14: April 1, 2016 -March 31, 2017**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **John Loughlin** Title: **Superintendent Sewer Department**

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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: **John Loughlin**

Title: **Superintendent Sewer Department**

Date: **April 27, 2017**

Part II. Self-Assessment

In general, the Town of Rockland's stormwater management activities for the fourteenth year of the General Permit (April 2016 through March 2017) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted in July 2003. The Town had developed a Stormwater Management Plan with program priorities for 2003-2008 including:

1. Achieving regulatory compliance, particularly EPA and DEP Phase II NPDES permit requirements;
2. Incorporating storm water protection measures into municipal activities;
3. Focusing activities on target pollution reduction (e.g. Section 303.d. waters and protecting the Town's water supply);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program focuses on the protection of the local water supply and addressing the State's Section 303.d waters located within the Town. To this end, staff will continue to develop and improve the Program activities to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various Town departments. Program priorities will also focus on increased efforts to reduce target pollutants and restore local water bodies.

The Town is committed to working with local watershed associations (i.e., North and South River Watershed Association) to advance their goals and objectives. Another high priority of staff will be to keep abreast of the latest technology and approaches to achieve storm water management. Program activities will also strive to encourage environmental stewardship and continue to build on partnerships with other agencies, neighboring towns, and the community for active participation in accomplishing the Program mission.

During Permit Year 14, the Town continued with control measures that were initiated during the previous permit years, including improving local good housekeeping programs. A total of 92 catch basins were rebuilt and 180 cleaned. The Town also continues to maintain flow in its streams and ditches by clearing downed trees, brush, rubbish and other debris in various locations throughout the Town and blockages were cleared from approximately 2,500 linear feet.

The Town appropriated funds for the George Street and Crescent Street improvements at the May 2, 2016 Town Meeting. The Town focused efforts on addressing drainage upgrades in an area recently prone to flooding and conducted an inventory of stormwater

structures and connectivity design at the intersection of George Street and Crescent Street, which ultimately leads to an outfall off of Market Street (243-O). A total of 1,408 linear feet of drain pipe was replaced and 6 catch basins. The Town has proposed additional drainage improvement plans, and intends to acquire the funds at Town Meeting to be held on May 2, 2017. For Permit Year 15, the Town is also looking into acquiring funds from the MWWA Grant Program for culverts and headwalls.

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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
1 Revised	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Continued updates with North and South River Watershed Association (NSRWA).	Continued updating, seek alternative funding opportunities (such as 604b and 319 grants)
2 Revised	Develop Brochures	DPW	Quarterly Mailings	Water department mailings and water quality updates. The Town reinforces to residents the importance of maintaining waterways in its annual Town Report	Continue mailings
3 Revised	Web Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	NSRWA information transfer and publication of data, local Web updates	NSRWA information transfer and publication of data, local Web updates

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
4 Revised	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling of Priority Water Bodies	Submitted request for funds at May 1, 2017 Town Meeting to perform additional outfall testing.	Conduct sampling in accordance with updated EPA Permit and in order of catchment ranking as stipulated in updated IDDE Plan
5 Revised	Community Cleanup Days	DPW	Annually	Community cleanup day was held on April 23 rd , 2016 and Rail Trail cleanup Day to be held on April 29 th , 2017	Scheduled for Spring 2017

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Awaiting EPA Permit Update prior to completing further sampling	Awaiting EPA Permit Update prior to completing further sampling
Revised					
6	Catch Basin/Outfall and Receiving Water Mapping	DPW	GIS Mapping	Up to 80% of Town mapped with connectivity. Submitted request for funds at May 1, 2017 Town Meeting to complete connectivity mapping.	Update MS4 Map in accordance with updated EPA Permit – i.e., catch basins, outfalls, connectivity
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Reviewed regulations and identify areas for revisions. No revisions proposed during this Permit Year	Review regulations and identify areas for revisions
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements
Revised					
9	Misconnection/Illegal Dumping and Correction	DPW, BOH	Connectivity Mapping, Bylaw Enforcement and Fines	No illegal connections identified during Permit Year 14	Continue local bylaw enforcement
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	No revisions proposed during this permit year	Review regulations and identify areas for revisions
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements
Revised					
10	Improved As-Built Review	DPW, Planning Board	Electronic As-Built Submittals on Town GIS System	Continued local bylaw enforcement	Develop protocol for submitting as-builts electronically and incorporating those files into the Town's GIS system
Revised					
19	Dam Inspections	DPW	Phase I ODS Report	A structural assessment of the Town's dam completed in August 2006	Address report findings and conclusions
Revised					

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	No revisions proposed during this permit year	Review regulations and identify areas for revisions
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements

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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15 (if applicable)
11 Revised	Improved Street Sweepings	DPW		Semi-annual Collections, all roads were swept as needed. Approximately 60 miles of roadway sweeping, with high visibility and high traffic areas swept 2 times.	Semi-annual Collections
12 Revised	Improved Catch Basin Cleanings	DPW		Semi-annual Collections, 92 catch basins were rebuilt and 180 catch basins were cleaned. Lines on Johnson Terrace and Nevis Circle were jetted.	Semi-annual Collections Work with Highway Department to establish numbering system
13 Revised	Household Hazardous Waste Days	DPW		Annual Collection, held on April 30 2016.	Annual Collection scheduled for April 29, 2017.
14 Revised	Drain Stenciling	DPW	Aquifer Protection Area	Stenciled all catch basins at the Wastewater Treatment Plant during Permit Year 12	Stencil drains in Aquifer Protection Area
18 Revised	Employee Training	DPW	Seminar Attendance	Sewer Superintendent and Highway Superintendent attended MS4 Permit training sponsored by CEI.	Will continue to attend training seminar throughout the next permit year New Highway Department Superintendent will attend training seminars

6a. Additions

6-1	HHHW drop off locations/days	Department of Public Works	Number of drop off locations	Participation in the South Shore Recycling Cooperative, where 14 local communities open up their local HHHW collection days to members of the cooperative.	Continue to participate in the South Shore Recycling Cooperative
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6-2	Cleaning of Town Streams and Brooks	DPW	Linear Feet of Streams and Brooks Cleaned	Hired contractor to remove debris from streams and brooks	Continue as necessary
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Part IV. Summary of Information Collected and Analyzed

Permit Year 1 Activities and Information

During Permit Year 1, the Town reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they appeared to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. Minor revisions may be required for informing local project proponents of the Phase II one-acre NPDES requirement. The Town also received a project approval certificate from the Massachusetts Water Abatement Trust State Revolving Fund for \$250,000 during the previous period.

Permit Year 2 Activities and Information

During Permit Year 2, an outfall inspection program revealed that of the estimated 206 outfall pipe locations, 60 locations estimated to be on public property were observed to have dry weather flow in November 2004. These locations were field screened for the following:

1. pH;
2. Temperature;
3. Total Dissolved Solids;
4. Specific Conductance; and
5. Turbidity.

Based on the field data, 31 of the outfall locations were resampled for the following in December 2004:

1. E-coli;
2. Total Phosphorous,
3. Dissolved Phosphorous,
4. Ammonia,
5. Surfactants, and
6. Total Suspended Solids.

Of these samples, 8 locations had elevated levels of e-coli above the State's Secondary Maximum Contaminant level of 126 (colonies/100 mL). Elevated levels ranged from 160 to 520 colonies/100 mL. Elevated levels of e-coli may be representative of warm blooded animals (such as humans) or cold blooded animals. Following the wet weather testing and further discussions with the Town, additional testing of Fecal Coliform bacteria or Fecal Strep may be recommended to ascertain potential sources.

In April 2004, Photogrammetric Technology Inc. (PTI) conducted aerial photography of the Town. The 660 scale color aerial

photography was supplemented by ground control appropriate for ASPRS Class I standards for large scale mapping and National Map Accuracy Standards. Planimetric data was developed on the Massachusetts State Plane coordinate system of 1983 (U.S. Survey in feet) and the National Geodetic Vertical Datum (NGVD) of 1988. Project deliverables included:

- Three (3) copies of a Ground Control Survey Report.
- Three (3) copies of an Analytical Aerial Triangulation Report.
- One (1) set of 500-scale planimetric drawings (to be replaced in the future by 100 scale mapping).

All digitized data was in AutoCAD 2000 and ArcView 8.3 format. The features layered included the following:

- Edge of Pavement
- Unpaved Roads
- Road Centerline
- Driveway
- Parking
- Bridges
- Buildings
- Buildings under Construction
- Mobile Homes and Trailers
- Pools
- Hydrographic Features (Lakes, Ponds, Rivers, Streams, Swamps)
- Drainage Ditches
- Airports
- Railroads
- Transmission Pylons
- Transformer Stations

- Property Fences and Walls
- Woodlands and Treelines (by linetype not scalloped)
- Utility Features (Poles, Manholes, Catch Basins, Hydrants, Vaults).

Topographic Features (Index Contour, Intermediate Contour, Spot Elevations) are in production and the data has been developed in both AutoCAD and ArcInfo format. The next stage will be overlay of assessor map information

The Town continued to provide updates to the public through water bill mailings and postings on the local WEB site, and continued to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town took part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA), and continued to improve its good housekeeping programs.

Permit Year 3 Activities and Information

During the Permit Year 3, the Town continued its review of local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they continue to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. The Town also continued its long range GIS mapping of its storm drainage system and increased its public awareness efforts. Work was conducted under Massachusetts Water Abatement Trust State Revolving Funds.

The Town will continue to provide updates to the public through water bill mailings and postings on the local website, and continued to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town took part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA), and continued to improve its good housekeeping programs. An employee training seminar was conducted by the PCHA during the Summer 2005.

Permit Year 4 Activities and Information

During the Permit Year 4, the Town continued its review of local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they continue to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. The Town also continued its long range GIS mapping of its storm drainage system and increased its public awareness efforts. The Town also closed its expenditures from the Massachusetts Water Abatement Trust State Revolving Fund for its \$250,000 project and is currently seeking alternative funding sources from Town Meeting.

The Town continued to provide updates to the public through water bill mailings and postings on the local website, and continued to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town took part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA), and continued to improve its good housekeeping programs. An employee training seminar was conducted by the PCHA during the Summer of 2006.

An assessment of the Town's drainage structures began with inspections of local dams in August 2006. The work was conducted to meet the requirements of the Massachusetts Office of Dam Safety (ODS).

Permit Years 5 and 6 Activities and Information

During the Permit Years 5 and 6, the Town continued its review of local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they continue to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. The Town also continued its long range GIS mapping of its storm drainage system and increased its public awareness efforts.

The Town continued to provide updates to the public through water bill mailings and postings on the local website, and continued to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town has taken part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA), and will continue to improve its good housekeeping programs. An employee training seminar was conducted by the PCHA during the Summer 2007 & 2008.

Permit Years 7 through 14 Activities and Information

During the Permit Years 7 through 14, the Town continued its review of local, state and federal bylaws relative to stormwater and

aquifer protection, and determined that they continue to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. The Town also continued its long range GIS mapping of its storm drainage system and increased its public awareness efforts through the distribution of flyers. The Town is currently seeking an annual appropriation through Town Meeting to meet the new requirements of the draft EPA Stormwater General Permit.

During Permit Year 10, the Town expanded its connectivity mapping to areas that were lacking information. The Town is 80% complete with GIS-mapped drain pipe connectivity. The new connectivity was completed on Town Maps 34, 35, 39, 40, 46, 50, 53, 58 and 63. During this event, 6 additional outfalls were found, bringing the outfall structure total in Rockland to 222. These outfalls will be field located with a GPS unit and inventoried for pipe-specific information during one of the next field events.

Additional sampling was also conducted, the sampling occurred at 13 historically monitored locations. 3 of the 13 samples had elevated e.Coli results, and will be further evaluated for illicit discharges or connections.

The Town has also taken part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA), and will continue to improve its good housekeeping programs and coordinate its efforts with the Plymouth County Mosquito Control Project.

During Permit Year 12, the Town removed blockages, brush and other obstructions from approximately 3,000 linear feet of ditches and streams. The town has also rebuilt 20 catch basins and stenciled the catch basins at the Wastewater Treatment Plant.

During Permit Year 13, the Town continued with control measures that were initiated during the previous permit years, including improving local good housekeeping programs. The Town also continues to maintain flow in its streams and ditches by clearing downed tree, brush, rubbish and other debris in various locations throughout the Town.

The Town also focused efforts on addressing drainage upgrades in an area recently prone to flooding and conducted an inventory of stormwater structures and connectivity design at the intersection of George Street and Crescent Street, which ultimately leads to an outfall off of Market Street (243-O). The Town proposed drainage improvement plans that were carried out in Permit Year 14.

During Permit Year 14, the Town completed all drainage improvements at George Street and Crescent Street, which included replacement of a total of 1,408 linear feet of piping and 6 catch basins. In January 2016, the Town began investigation on the drainage system on Belmont Street due to an observed unmarked clay pipe found running south to north through the 71 Belmont Street parcel and groundwater was observed flowing into a foundation pit and drainage culvert nearby.

Town continued with control measures that were initiated during the previous permit years, including improving local good

housekeeping programs. A total of 92 catch basins were rebuilt and 180 cleaned. The Town also continues to maintain flow in its streams and ditches by clearing downed trees, brush, rubbish and other debris in various locations throughout the Town and blockages were cleared from approximately 2,500 linear feet.

The Town has proposed additional drainage improvement plans, and intends to acquire the funds at Town Meeting to be held on May 2, 2017. For Permit Year 15, the Town is also looking into acquiring funds from the MWWA Grant Program for culverts and headwalls.