

Stormwater Management Plan

MA MS4 General Permit Requirements

EPA NPDES Permit Number: MAR041151

*Prepared for:
Raynham, Massachusetts*

June 2019



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Environmental  Partners
GROUP

A partnership for engineering solutions

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Certification

Authorized Representative (Optional): All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B. If there is an authorized representative to sign MS4 reports, there must be a signed and dated written authorization.

The authorization letter is:

- Attached to this document (document name listed below)

- Publicly available at the website below

“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 gathered and evaluated 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.”

Printed Name

Signature _____

Date

Small MS4 Authorization

The NOI was submitted on

The NOI can be found at the following (document name or web address):

Authorization to Discharge was granted on

The Authorization Letter can be found (document name or web address):

FOR COMMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

VIA EMAIL

March 5, 2019

David D. Flaherty Jr.
Town Administrator

And;

Ed Buckley
Highway Superintendent
1555 King Philip Street
Raynham, MA. 02767
ebuckley@town.raynham.ma.us

Re: National Pollutant Discharge Elimination System Permit ID #: MAR041151, Town of Raynham

Dear Ed Buckley:

The 2016 NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts (MS4 General Permit) is a jointly issued EPA-MassDEP permit. Your Notice of Intent (NOI) for coverage under this MS4 General Permit has been reviewed by EPA and appears to be complete. You are hereby granted authorization by EPA and MassDEP to discharge stormwater from your MS4 in accordance with the applicable terms and conditions of the MS4 General Permit, including all relevant and applicable Appendices. This authorization to discharge expires at midnight on **June 30, 2022**.

For those permittees that certified Endangered Species Act eligibility under Criterion C in their NOI, this authorization letter also serves as EPA's concurrence with your determination that your discharges will have no effect on the listed species present in your action area, based on the information provided in your NOI.

As a reminder, your first annual report is due by **September 30, 2019** for the reporting period from May 1, 2018 through June 30, 2019.

Information about the permit and available resources can be found on our website: <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>. Should you have any questions regarding this permit please contact Newton Tedder at tedder.newton@epa.gov or (617) 918-1038.

Sincerely,



Thelma Murphy, Chief
Stormwater and Construction Permits Section
Office of Ecosystem Protection
United States Environmental Protection Agency, Region 1

and;



Lealdon Langley, Director
Wetlands and Wastewater Program
Bureau of Water Resources
Massachusetts Department of Environmental Protection

FOR COMMENT

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FOR COMMENT

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1. BACKGROUND

1.1 Stormwater Regulation

The Stormwater Phase II Final Rule was promulgated in 1999 and was the next step after the 1987 Phase I Rule in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Under the Phase II rule all MS4s with stormwater discharges from Census designated Urbanized Area are required to seek NPDES permit coverage for those stormwater discharges.

1.2 Permit Program Background

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule. The 2003 small MS4 permit covered "traditional" (i.e., cities and towns) and "non-traditional" (i.e., Federal and state agencies) MS4 Operators located in the states of Massachusetts and New Hampshire. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

1.3 Stormwater Management Plan (SWMP)

The SWMP describes and details the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP accurately describes the permittees plans and activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified, changed or

updated to meet permit conditions during the permit term. The main elements of the stormwater management program are (1) a public education program in order to affect public behavior causing stormwater pollution, (2) an opportunity for the public to participate and provide comments on the stormwater program, (3) a program to effectively find and eliminate illicit discharges within the MS4, (4) a program to effectively control construction site stormwater discharges to the MS4, (5) a program to ensure that stormwater from development projects entering the MS4 is adequately controlled by the construction of stormwater controls, and (6) a good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized. The hyperlinks provided in Appendix A offer additional information and supporting documents related to the MS4 Permit and the aforementioned minimum control measures.

1.4 Town Specific MS4 Background

The Town must give special consideration to and meet eligibility requirements for their discharges to be able to apply for coverage under the General Permit. Eligibility will be determined based on three categories: Endangered Species Act, National Historic Preservation Act, and Water Quality Impaired Waters. The Town must establish that discharges from its storm drain system do not adversely impact endangered species, critical habitats, and historic properties in order to be covered by the General Permit. Furthermore, the Town must identify all receiving waters that have been classified as Water Quality Impaired Waters by the MA DEP. The Town of Raynham and its surrounding water bodies are shown on *Figure 1: System Locus*. The Raynham Notice of Intent (NOI) for coverage under the Small MS4 General Permit was submitted to EPA and MassDEP on September 27, 2018. A copy of the NOI is provided in Appendix B.

2. SWMP COMPONENTS

2.1 *Parties Involved in Implementation*

Stormwater programs in the Town of Raynham are currently a responsibility of the Town Highway Superintendent, Ed Buckley. The Town has not yet created/staffed a dedicated stormwater management position or stormwater committee. The current staff involved in stormwater management are listed in the table below.

Name	Title	Department
Ed Buckley	Highway Superintendent	Highway Department
		Conservation Commission
		Town Clerk
		Building Department
		Health Department
		Planning Department
		Sewer Department
<i>Additional Members*</i>		

A draft schedule has been developed in effort to comply with the NPDES Permit requirements and timelines as currently established. The draft schedule is attached as Appendix C.

2.2 *Documentation Regarding Endangered Species*

In order to comply with part 1.9.1 of the NPDES Permit, the Town has attached documentation in Appendix D supporting Raynham’s eligibility determination of Criterion B with regard to federal Endangered and Threatened Species and Critical Habitat Protection. Criterion B states that, “under section 7 of the ESA, the consultation resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the stormwater discharges and MA MS4 General Permit Appendix C Page 3 of 7 discharge related activities are “not likely to adversely affect” listed species

or critical habitat (informal consultation). In this case, USFWS provided a letter in place of a concurrence letter for informal consultation.

The attachments in Appendix D include the aforementioned letter, as well as the results of the IPaC environmental review process. Using the IPaC environmental review process, two endangered species have been identified within Raynham's boundaries: the Northern Long-Eared Bat and the Plymouth Redbelly Turtle. Neither the Northern Long-eared Bat nor the Plymouth Redbelly Turtle's critical habitats are located within the Town. The MS4 Permit activities will not adversely affect these species within the MS4 area.

2.3 Documentation Regarding Historic Properties

The Town has attached documentation in Appendix E supporting their eligibility determination regarding Historic Properties, in compliance with part 1.9.2 of the Permit. This document, Appendix D of the Massachusetts General MS4 Permit, includes information supporting Raynham's determination as Criterion A, stating that the discharges do not have the potential to cause effects on historic properties.

Historic site considerations will be evaluated further as part of the design/permitting of new/retrofit BMPs proposed for implementation as part of MS4 compliance. Regarding the National Historic Preservation Act, under 36 CFR 800, this facility is an existing facility authorized by the previous Permit, and is not undertaking any activity involving subsurface land disturbance less than 1 acre. This MS4 Permit will have "no potential to cause effects," in accordance with 36 CFR 800.3(a)(1).

2.4 Documentation Regarding Discharges

Attached in Appendix F is the documentation for tracking any new or increased discharges granted by MassDEP in compliance with part 2.1.2 of the Permit. Increased discharges refer to increased pollutant loading(s) through the MS4 to waters of the US or to impaired waters listed in categories 5 or 4b on the Massachusetts Integrated Report of waters, pursuant to the Clean Water Act. The Permit states that "any authorization of an increased discharge by MassDEP shall be incorporated into the permittee's SWMP."

At this time, the Town of Raynham has no new and/or increased discharges. Raynham will document any new and/or increased discharges, including any newly located outfall beyond what was listed in the NOI, any new constructed outfall, or any new development increasing flow to existing MS4 outfall structures. These discharges will be documented on the form provided in Appendix F and will include project specific information regarding best management practices implemented for those discharges. A sample discharges form is provided in Appendix F.

2.5 Sanitary Sewer Overflow (SSO) Inventory

In the event of an overflow or bypass, a notification must be reported within 24 hours by phone to MassDEP, EPA, and other relevant parties. The verbal notification should be followed up with a written report following MassDEP's Sanitary Sewer Overflow (SSO)/Bypass notification form within 5 calendar days of the time you become aware of the overflow, bypass, or backup. Upon notification of any SSO or septic overflow, the Raynham Board of Health will take these appropriate measures to comply with Permit requirements.

As of December 2018, there are no known SSOs or septic overflows that discharge to the MS4. An inventory of all known locations where SSOs have discharged to the MS4 will be maintained by the Town, if any are found. This inventory shall include SSOs resulting from inadequate conveyance capacities, or where interconnectivity of the storm and sanitary sewer infrastructure allows for interconnection of flow between the systems. A sample inventory form is provided in Appendix G and includes the following information:

1. Location (approximate street crossing/address and receiving water, if any);
2. A clear statement of whether the discharge entered a surface water directly or entered the MS4;
3. Date(s) and time(s) of each known SSO occurrence (i.e., beginning and end of any known discharge);
4. Estimated volume(s) of the occurrence;
5. Description of the occurrence indicating known or suspected cause(s);
6. Mitigation and corrective measures completed with dates implemented; and
7. Mitigation and corrective measures planned with implementation schedules.

2.6 IDDE Program and Bylaws

The Town's IDDE plan will be developed during the first year of the new permit (i.e., by June 30, 2019). The IDDE program is detailed in section 3.3 of Minimum Control Measures. The Town's Stormwater Bylaw is provided in Appendix H.

2.7 Sediment and Erosion Control Procedures

Written procedures for the Town's site inspections and enforcement of sediment and erosion control procedures in accordance with part 2.3.5 of the Permit, Construction Site Stormwater Runoff Control, are detailed in sections 3.4 and 3.5 of Minimum Control Measures. This information includes the party responsible for site inspections and implementation of procedures.

2.8 Public Drinking Water Supply Sources Protection

The Town has developed practices in effort to avoid or minimize impacts to surface public drinking water supply sources. These efforts are detailed in Minimum Control Measures section 3.6, Good Housekeeping and Pollution Prevention. The Town plans to prioritize the enforcement of existing stormwater pollution prevention plans.

2.9 Activities to Monitor Discharges

The Town will identify any discharges within public drinking water supply source areas and give priority to outfall inspections and screening required of the Minimum Control Measures in section 3.0.

2.10 Annual Program Evaluation

To comply with part 4.1 of the Permit, the Town annually self-evaluates compliance with the terms and conditions of the Permit and submits each self-evaluation as part of the Fiscal Year annual report. The 2018 NPDES Phase II Small MS4 General Permit Annual Report is attached as Appendix I.

3. MINIMUM CONTROL MEASURES

In effort to reduce pollutants and comply with part 2.3 of the Permit, the Town focuses on the following minimum control measures. These sections describe the Town's practices to comply with each control measure, the responsible person(s) or party of each practice, and the goal(s) for each BMP of each control measure. The BMPs for each of the six minimum control measures are outlined in the forms provided in Appendix J.

3.1 *Public Education and Outreach*

The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area, further detailed in section 4.2. The ultimate objective of a public education program, permit part 2.3.2, is to increase knowledge and change behavior of the public so that the pollutants in stormwater are reduced.

The Town implemented a public education program as required by the 2003 permit and will continue that program and make the necessary adjustments to meet the additional requirements of the 2016 permit.

The program must include the education of the following four audiences: 1. residents, 2. businesses, institutions (churches, hospitals), and commercial facilities, 3. developers (construction), and 4. industrial facilities.

3.1.1 *Background*

The Town of Raynham has completed BMPs such as stormwater brochures, storm drain stencils, and classroom presentations to share information and increase awareness of stormwater issues. The Town has also developed a public education task force to create awareness through a small scholarship fund. Though these BMPs are already completed, the Town continues to make the materials available to local residents and businesses.

3.1.2 *Best Management Practices*

- I. Distribution of a minimum of two (2) educational messages over the permit term to the required audiences, as listed below.
 - A. Residents

1. Create stormwater website with hyperlinks to stormwater related bylaws.
 2. Keep outreach materials at Library and Town Hall and publish on stormwater website once developed, utilizing materials from the DEP, EPA, and local stormwater organizations.
 3. Distribute New Resident packets to residents within Wetland Protection Areas.
 4. Distribute pet waste control information to residents when they (re)apply for a pet license.
 5. Continue storm drain stenciling program
- B. Businesses, Institutions, and Commercial Facilities
1. Include stormwater information in permit materials.
 2. Make information available on stormwater website and at Town Hall.
 3. Distribute information to septic maintenance contractors.
- C. Developers (Construction)
1. Include stormwater information materials as appendix to building and site plan review permit applications.
 2. Make information available on stormwater website and at Town Hall.
 3. Distribute information to developers based on zoning and property use.
- D. Industrial Facilities
1. Distribute stormwater information to industrial groups based on zoning and property use.
 2. Make information available on stormwater website and at Town Hall.

3.2 Public Involvement and Participation

The objective of the public involvement and participation control measure, permit part 2.3.3., is for the Town to provide the public with opportunities to engage in activities that promote good stormwater practices. The public must also be given the chance to review the Stormwater Management Plan (SWMP) and its implementation.

3.2.1 Background

The Town of Raynham has formed a technical committee to focus on public involvement and participation efforts. The committee has implemented Illicit Discharge and Erosion and Sediment control bylaws. This committee also uses media and positive press coverage of stormwater meeting activities to educate and motivate residents to

comply. The task force also solicits resident reports of discharges, and there have been no reports this permit year. The Town hosts annual hazardous waste collection days (in partnership with Clean Harbors), and 152 residents participated in the last permit year.

3.2.2 *Best Management Practices*

- I. Public Review
 - A. Stormwater Management Plan Review (SWMP)
 1. Make SWMP available at least annually for public review.
 2. Create and use Stormwater Website to publish SWMP and annual reports. Website should contain a space for electronically soliciting public comments (e.g. stormwater specific e-mail, message board, etc.)
 - a) Make physical copy available at Town Hall, Library, Highway Department, etc.
- II. Public Participation
 - A. Participate in local stormwater groups/associations (e.g. Taunton River Watershed Alliance, etc.).
 - B. Maintain/Acquire membership with local stormwater/water quality committees (e.g. Southeastern Regional Services Group).
- III. Continue to host hazardous waste collection days.
- IV. Continue to hold Town clean-up days with various groups.

3.3 *Illicit Discharge Detection and Elimination (IDDE) Program*

The Town shall put an IDDE program, permit part 2.3.4, into place in order to find and eliminate non-stormwater discharge sources to its MS4 system. Procedures shall be implemented to fix any prevalent issues in the Town's storm sewer system. As identified in the Notice of Intent (NOI), attached in Appendix B, the following 55 outfall structures listed in the table below discharge within the Town of Raynham's MS4 area. These outfall structures are displayed on *Figure 2: MS4 Urbanized Areas*.

Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bassett Brook	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dam Lot Brook	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Forge River (MA62-37)	13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Johnson Pond (MA62097)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-native aquatic plants
Kings Pond (MA62101)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pine Swamp Brook	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Taunton River (MA62-01)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Pond East of Gushee Pond (41.937832, -71.01873)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Pond North of Taunton River (41.90395, -71.00596)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Pond West of Pine Swamp Brook (41.94432, -71.07085)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary to Dam Lot Brook (41.91181, -71.05407)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary to Lake Nippenicket (41.96847, -71.06039)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary to Taunton River (1) (41.89510, -70.99832)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary to Taunton River (2) (41.91549, -71.00499)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Tributary to Taunton River (3) (41.90709, -71.01386)	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands near Pine Swamp Brook (41.93039, -71.06295)	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands North of Pine Swamp Brook (41.94149, -71.06947)	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands North of Taunton River (41.90433, -71.02917)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands West of Hewitt Pond (41.95080, -71.04518)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands West of Lake Nippenicket (41.98134, -71.05934)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands West of Taunton River (41.91035, -71.00105)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.3.1 Background

As part of the IDDE program, the Town has completed connectivity, detention/retention pond, outfall, drain manhole and catch basin mapping. The bylaw developed for illicit discharges has been drafted and reviewed after being presented at Town Meeting. The Town is now operating with an approximately 92 percent sanitary sewer system. No illegal connections were detected during the last permit year. The Town plans to continue with the expansion of the sewer system in the coming years.

3.3.2 Best Management Practices

I. Legal Authority

A. The IDDE program shall include adequate legal authority to prohibit illicit discharges; investigate suspected illicit discharges; eliminate illicit discharges, including discharges from properties not owned by or controlled by the MS4 that discharge into the MS4 system; and implement appropriate enforcement procedures and actions. Adequate legal authority consists of an effective ordinance, by-law, or other regulatory mechanism (to be finalized this permit

year). For permittees authorized by the MS4-2003 permit, the ordinance, by-law, or other regulatory mechanism was a requirement of the MS4-2003 permit and was required to be effective by May 1, 2008. For new permittees the ordinance, by-law, or other regulatory mechanism shall be in place within 3 years of the permit effective date.

B. Finalize and implement IDDE Bylaw in Year 1 of the permit.

II. SSO Inventory

A. Develop SSO Inventory Database within 1 year of effective permit date that logs historical SSOs that have occurred in the last 5 years, as discussed in further detail in section 2.5.

1. Coordinate with Whitman Water/Sewer Division for tracking of any future SSOs from the eight (8) properties on their sewer system.

III. Storm Sewer System Map

A. Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit.

1. Make an electrical and physical copy of the map available to the public via the stormwater website and Town Hall.

2. Map/verify 10% of system per year during permit years 1-10.
 - a) Phase I will be focused on during Years 1 and 2, while Phase II will be focused on during Years 3 thru 10.

3. Integrate system map updates with planned utility expansion projects.

4. Cross reference drainage information to ensure mapping is as accurate as possible.

5. Map/verify country drainage – (e.g. scuppers), in addition to outfall pipes.

IV. Written IDDE Program Development

A. Develop and complete written IDDE program within 1 year of effective permit date. The IDDE program and permit attachments will be available within the Town Hall at 542 Liberty Street, Raynham, MA 02341.

1. The written plan will include but is not limited to the following:
 - a) Outline of responsibilities
 - b) Storm sewer map with locations of known outfalls, including information on relevant connectivity data gaps
 - c) Systematic procedure/protocol to detect and eliminate illicit Discharges
 - d) Assessment/ranking of catchments (based on complaints, past water quality data, adjacent failing septic/sewer systems, density, surrounding area, TMDL surface waters)
 - e) Tracking mechanism to evaluate and report on the overall effectiveness of the IDDE program.

V. Implement IDDE Program

A. Implement catchment investigations according to program and permit conditions within 15 months of effective permit date.

1. Finalize and enforce IDDE bylaw.
2. Implement stormwater management regulations.

3. Coordinate water quality monitoring through dry weather screening
 - a) The water quality monitoring practice should involve inspections for illicit discharge detection.
- VI. Employee Training
 - A. Coordinate annual stormwater training and incorporate with training required in Section 6.2.IV.B.
- VII. Dry Weather Screening
 - A. Conduct screening in accordance with outfall screening procedure and permit conditions, within 3 years of effective permit date.
 1. Screen 25% of outfalls per year during permit years 2-5.
- VIII. Conduct Wet Weather Screening
 - A. Conduct screening in accordance with outfall screening procedure and permit conditions and as determined by dry weather screening results, within 10 years of effective permit date.
 - B. To identify areas with higher potential for illicit connections, the permittee shall identify the presence of any of the following System Vulnerability Factors (SVFs):
 1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages;
 2. Common or twin-invert manholes serving storm and sanitary sewer alignments;
 3. Common trench construction serving both storm and sanitary sewer alignments;
 4. Crossings of storm and sanitary sewer alignments where the sanitary system is shallower than the storm drain system;
 5. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
 6. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints;
 7. Areas formerly served by combined sewer systems;
 8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
- IX. Conduct ongoing screening upon completion of the IDDE program.

3.4 Construction Site Stormwater Runoff Control

The Town must implement a program focused on controlling stormwater runoff from construction sites. The program shall minimize or eliminate erosion on site and maintain

the site so that the sediment is not transported in stormwater or allowed to discharge to a water of the U.S. through the permittee's MS4, as stated in part 2.3.5 of the Permit.

3.4.1 *Background*

The Town's bylaws for construction site runoff shall be reviewed by Town legal counsel and Town governing and advisory boards. Erosion and sedimentation control and drainage submittal requirements for site inspections were determined to be adequate, and all sites are subject to routine and impromptu inspections to enforce adequate erosion and sediment control.

3.4.2 *Best Management Practices*

- I. Site Inspection and Enforcement of Erosion and Sediment Control (ESC) Measures Procedures
 - A. Complete written procedures of site inspections and enforcement procedures within 1 year of effective date of the permit.
 1. Recommend standards and practices for town inspection procedures. Seek input from relevant town groups (e.g. Conservation Commission, Highway Department, Building Department, etc.)
 2. Develop inspection form that includes ESC measures and integrate them with existing Town forms.
- II. Site Plan Review Procedures
 - A. Complete written procedures of site plan review and begin implementation within 1 year of the effective date of the Permit.
 1. Include site plan review workflow chart with permit applications.
 2. Review current Town procedure regarding when a Construction General Permit (CGP) is needed.
- III. Erosion and Sediment Control Ordinance
 - A. Finalize and enforce requirements for construction operators to implement a sediment and erosion control program within 1 year of the effective date of the Permit.
 1. Set limit of 1 acre before project requires inspection by Town official.
 - a) Coordinate limits and requirements with fill/extraction permits.
 2. Update all Town forms with erosion and sediment control checklist.
 3. Enforce Soil and Erosion Control bylaw.
 4. Continue to monitor all construction activities within the Town of Raynham for erosion and sediment control issues.
- IV. Waste Control

- A. Continue to enforce requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes within 1 year of the effective date of the Permit.
 - 1. Incorporate into Town's general conditions for building permit and/or site plan review.
 - 2. Review and modify Town bylaw to meet new requirements.

3.5 Post Construction Stormwater Management in New Development and Redevelopment

The objective of an effective post construction stormwater management program, part 2.3.6 of the Permit, is to reduce the discharge of pollutants found in stormwater to the MS4 through the retention or treatment of stormwater after construction on new or redeveloped sites and to ensure proper maintenance of installed stormwater controls.

3.5.1 Background

The Town has reviewed bylaws and regulations on post-construction stormwater runoff to ensure they meet US EPA requirements and MA DEP Stormwater Management Policy Standard 3. This bylaw will be completed and adopted within 1 year of the effective permit date. The Town uses bond surety to ensure compliance with MS4 regulations, and conducts periodic assessments of post-construction BMPs to evaluate effectiveness of stormwater management techniques.

3.5.2 Best Management Practices

- I. Post-Construction Ordinance
 - A. The permittee shall modify and continue to enforce, as appropriate, an ordinance or other regulatory mechanism within two (2) years of the effective date of the permit.
- II. As-Built Plans For On-Site Stormwater Control
 - A. Require submission of electronic data for as-built drawings (e.g. PDF, AutoCAD, GIS) within 2 years of completed construction.
 - 1. O&M certification should include contact and contract information for contractors that perform O&M on the private BMPs.
- III. Inventory and Priority Ranking of MS4-Owned Properties That May Be Retrofitted with BMPs
 - A. Conduct detailed inventory of MS4 owned properties and rank for retrofit potential within 4 years of permit effective date.

1. Inventory Town parcels for existing stormwater BMPs and identify opportunities for GI/LID retrofits.
 - a) Include schools, parks, recreation facilities, police/fire/EMS, libraries, public works, and town administrative offices.
- IV. Allow Green Infrastructure
 - A. Within 4 years of permit effective date, develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
 1. Continue to review bylaws and applications in order to incorporate green infrastructure and low impact development language as needed.
 2. Educate the public on green infrastructure through existing BMP retrofits/demonstration projects.
- V. Street Design and Parking Lot Guidelines
 - A. Within 4 years of permit effective date, develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options
 1. Publish street design and parking lot guidelines on stormwater website.
- VI. Ensure any stormwater controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality.
 - A. Within 2 years of permit effective date, adopt, amend, or modify regulation mechanisms to meet permit requirements.
 1. Review rules and regulations and modify as needed. Include evaluation of subdivision/redevelopment requirements for long-term operations and management of private BMPs.
 2. Enforce Post-Construction Site Runoff Control Bylaw.

3.6 Good Housekeeping and Pollution Prevention for Permittee Owned Operations

The objective of this control measure, part 2.3.7 of the Permit, states that the permittee shall implement an operations and maintenance program for Town-owned operations that shall focus on preventing or reducing pollutant runoff and protecting water quality from Town operations.

3.6.1 Background

Annual street sweeping and continuous catch basin cleaning are part of the Town's program for pollution prevention. Thus permit year, the Town cleaned 80 percent of all

Town catch basins, and all streets were swept at least once, with major arteries swept twice. Employees attended hazmat training seminars when available and the Town will continue to identify and attend appropriate training sessions. The Town also provides records of material removed from catch basins and street sweepings, in order to improve the work order system for annual cleanings. This permit year, 652 tons of material was taken to the Taunton Landfill, operated by Waste Management.

3.6.2 *Best Management Practices*

- I. Create written O&M procedures for parks and open spaces, buildings and facilities, and vehicles and equipment within 2 years of permit effective date.
 - A. Develop standards of practice for O&M of each public facility and combine in Town O&M Manual.
- II. Inventory all permittee-owned parks and open spaces, buildings and facilities (including their storm drains), and vehicles and equipment within 2 years of permit effective date.
 - A. Develop a capital improvement plan that deals with flooding prevention measures and water quality improvements.
 1. Coordinate implementation with Section 5.2.II
- III. Establish and implement program for repair and rehabilitation of MS4 infrastructure within 2 years of permit effective date.
 - A. Inspect assets and assess condition to develop program
 - B. Review annual budget to set aside funding.
- IV. Stormwater Pollution Prevention Plan (SWPPP) for Maintenance Garages, Transfer Stations and Other Waste-Handling Facilities
 - A. Develop plan within 2 years of permit effective date.
 - B. Schedule annual employee training.
 1. Continue to look into workshop and speaking opportunities and seek formal training for all departments
 - C. Develop an asset management system to process complaints, permits, inspections, and maintenance.
 - D. Continue to implement recycling standards and requirements.
- V. Catch Basin Cleaning
 - A. Develop and maintain an annual cleaning schedule.
 - B. Develop electronic data collection system for tracking, inspection, and maintenance.
 1. Update catch basin cleaning services RFP requirements to require electronic data collection that is compatible with the Town's GIS and asset management system.
- VI. Street Sweeping Program
 - A. Continue to implement street sweeping program, sweeping streets a minimum of once annually in the spring.

- B. Include number of miles of streets cleaned per year, and volume or mass of material removed in each annual stormwater report (rural and uncurbed exceptions apply).
- VII. Road Salt use Optimization Program/Winter Road Maintenance
 - A. Continue working on salt reduction strategies.
 - 1. Continue to develop and implement winter road maintenance procedures including use and storage of salt and sand
 - 2. Continue to minimize the use of salts and ensure that snow is not disposed into water ways.
 - 3. Calibrate spreaders to reduce salt use.
- VIII. Inspections and maintenance of stormwater treatment structures.
 - A. Establish and implement inspection and maintenance procedures for annual inspections/maintenance.

4. WATER QUALITY BASED REQUIREMENTS

In compliance with the Clean Water Act (CWA), each state must administer a program to monitor and assess the quality of its surface water and ground water. Section 305(b) process of the CWA entails assessing each use for rivers, lakes, and coastal waters, and causes and sources of impairment are identified wherever possible. Section 303(d) of the CWA along with the regulations at 40 CFR 130.7 requires states to identify those water bodies that are not expected to meet surface water quality standards (SWQS) after the implementation of technology based controls, and prioritize them for the development of Total Maximum Daily Loads (TMDLs). A TMDL establishes the maximum amount of a pollutant that may be introduced into a water body and still ensure attainment and maintenance of water quality standards. The 303(d) *List of Impaired Waters* (303(d) List) lists each water body in one of the following five categories:

- 1) Unimpaired and not threatened for all designated uses;
- 2) Unimpaired for some uses and not assessed for others;
- 3) Insufficient information to make assessments for any uses;
- 4) Impaired or threatened for one or more uses, but not requiring the calculation of a TMDL; or
- 5) Impaired or threatened for one or more uses and requiring a TMDL.

Waters listed in Category 5 constitute the 303(d) List and are to be reviewed and approved by the EPA. An abbreviated version of *Table 1: Impaired Waters, TMDLs and Impairments* is shown below, and is also represented in Appendix B, the Notice of Intent. The MS4 area and Town watersheds are shown on *Figure 3: Town Watersheds*, and an overall map of the Town of Raynham's stormwater system is attached as *Figure 4: Stormwater System Map*.

Town of Raynham, Massachusetts			
Massachusetts Year 2014 Integrated List of Waters			
Impaired Waters			
Category	Name	Segment ID	Impairment Cause
4a - "TMDL is completed"	Taunton River	MA62-02	Fecal Coliform
	Lake Nippenicket	MA62131	Non-Natve Aquatic Plants Mercury in Fish Tissue
4c - "Water Requiring a TMDL"	Gushee Pond	MA62084	Non-Native Aquatic Plants*
	Johnson Pond	MA62097	Non-Native Aquatic Plants*
			*TMDL not required (Non-pollutant)

4.1 Background

These best management practices aim to improve and mitigate stormwater water quality impairments. This program will focus on watershed-wide requirements in the Taunton River Watershed located in Raynham, shown on *Figure 3*.

Though the water bodies listed in the table above (and in *Table 1: Impaired Waters, TMDLs and Impairments*) have impairments due to non-native aquatic plants, there is no TMDL required for this impairment. As there are no category 5 impaired waters in the Town of Raynham, the Town's water quality requirements are focused on watershed-wide requirements of the Taunton River Watershed. All Town outfalls are located within the Taunton River watershed, and therefore all outfalls are subject to these requirements.

The Taunton River watershed has a watershed-wide EPA approved TMDL requirement for pathogens. This impairment requires Raynham to follow the below requirements to mitigate pathogen discharges to the MS4. The Town should prioritize sampling all outfalls for bacteria and pathogens.

In addition to the Taunton River Watershed bacteria and pathogen requirements, all discharges in the Taunton River Watershed must also be tested for Nitrogen and the Town must adhere to requirements listed in part I of Appendix H of the Permit.

4.2 Permit Requirements

4.2.1 Public Education and Outreach

a. Bacteria

- Distribute an annual message that encourages the proper management of pet waste, including noting any existing ordinances where appropriate.
- Disseminate educational materials to dog owners at the time of issuance or renewal of dog license, or other appropriate time.
- Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria or pathogens.

b. Nitrogen

- Distribute an annual message in the spring (April/May) timeframe that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers.
- Distribute an annual message in the summer (June/July) timeframe encouraging the proper management of pet waste, including noting any existing ordinances where appropriate.
- Distribute an annual message in the fall (August/September/October) timeframe encouraging the proper disposal of leaf litter.

4.2.2 Stormwater Management in New Development and Redevelopment

a. Nitrogen

- Include a requirement that new development and redevelopment stormwater management BMPs be optimized for nitrogen removal.
- Retrofit inventory and priority ranking under 2.3.6.1.b shall include consideration of BMPs to reduce nitrogen discharges.

4.2.3 Good House Keeping and Pollution Prevention

a. Nitrogen

- Establish requirements for use of slow release fertilizers on permittee owned property currently using fertilizer, in addition to reducing and managing fertilizer use as provided in 2.3.7.1
- Establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces.
- Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year,

once in the spring (following winter activities such as sanding) and at least once in the fall (September 1 - December 1; following leaf fall).

4.2.4 Illicit Discharge

a. Bacteria

- Implement the illicit discharge program required by the Permit. Catchments draining to any water body impaired for any of the listed impairments shall be designated either Problem Catchments or HIGH priority in implementation of the IDDE program.

4.2.5 Additional Requirements (Nitrogen and Phosphorus)

a. Nitrogen

- Within four years of the permit effective date the permittee shall complete a Nitrogen Source Identification Report. The report shall include the following elements:
 - Calculation of total MS4 area draining to the water quality limited water segments or their tributaries, incorporating updated mapping of the MS4 and catchment delineations produced pursuant to part 2.3.4.6
 - All screening and monitoring results pursuant to part 2.3.4.7.d, targeting the receiving water segment(s)
 - Impervious area and DCIA for the target catchment
 - Identification, delineation, and prioritization of potential catchments with high nitrogen loading
 - Identification of potential retrofit opportunities or opportunities for the installation of structural BMPs during redevelopment
- The final Nitrogen Source Identification Report shall be submitted to EPA as part of the year 4 annual report.
- Within five years of the permit effective date, the permittee shall evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under permit part 2.3.6.d.ii. Or identified in the Nitrogen Source Identification Report that are within the drainage area of the impaired water or its tributaries.
- The permittee shall provide a listing of planned structural BMPs and a plan and schedule for implementation in the year 5 annual report.
- The permittee shall plan and install a minimum of one structural BMP as a demonstration project within the drainage area of the water quality limited water or its tributaries within six years of the permit effective date. The demonstration project shall be installed targeting a catchment with high nitrogen load potential.
- The permittee shall install the remainder of the structural BMPs in accordance with the plan and schedule provided in the year 5 annual report.

- Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the nitrogen removal by the BMP consistent with Attachment 1 to Appendix H. The permittee shall document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated nitrogen removed in mass per year by the BMP in each annual report.

At any time during the permit term, the Town may be relieved of additional requirements in Appendix H Parts I and III when in compliance with the Permit requirements.

TABLE 1

IMPAIRED WATERS, TMDLS AND IMPAIRMENTS

FOR COMMENT

Town of Raynham, Massachusetts
Massachusetts Year 2014 Integrated List of Waters
Impaired Waters

Category	Name	Segment ID	Description	Size	Units	Impairment Cause	EPA TMDL NO.
4a - "TMDL is completed"	Taunton River	MA62-02	Route 24 Bridge, Taunton/Raynham to Berkley Bridge, Dighton/Berkley.	0.287	Square Miles	Fecal Coliform	40310
	Lake Nippenicket	MA62131	Bridgewater/Raynham	375.001	ACRES	Non-Natve Aquatic Plants Mercury in Fish Tissue	33880
4c - "Water Requiring a TMDL"	Gushee Pond	MA62084	Raynham	26.775	ACRES	Non-Native Aquatic Plants*	N/A
	Johnson Pond	MA62097	Raynham	13.536	ACRES	Non-Native Aquatic Plants*	

*TMDL not required (Non-pollutant)

FOR COMMENT

FIGURE 1
SYSTEM LOCUS

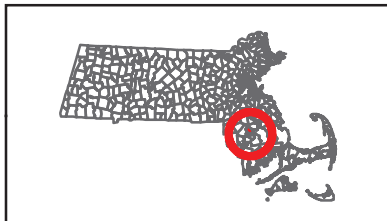
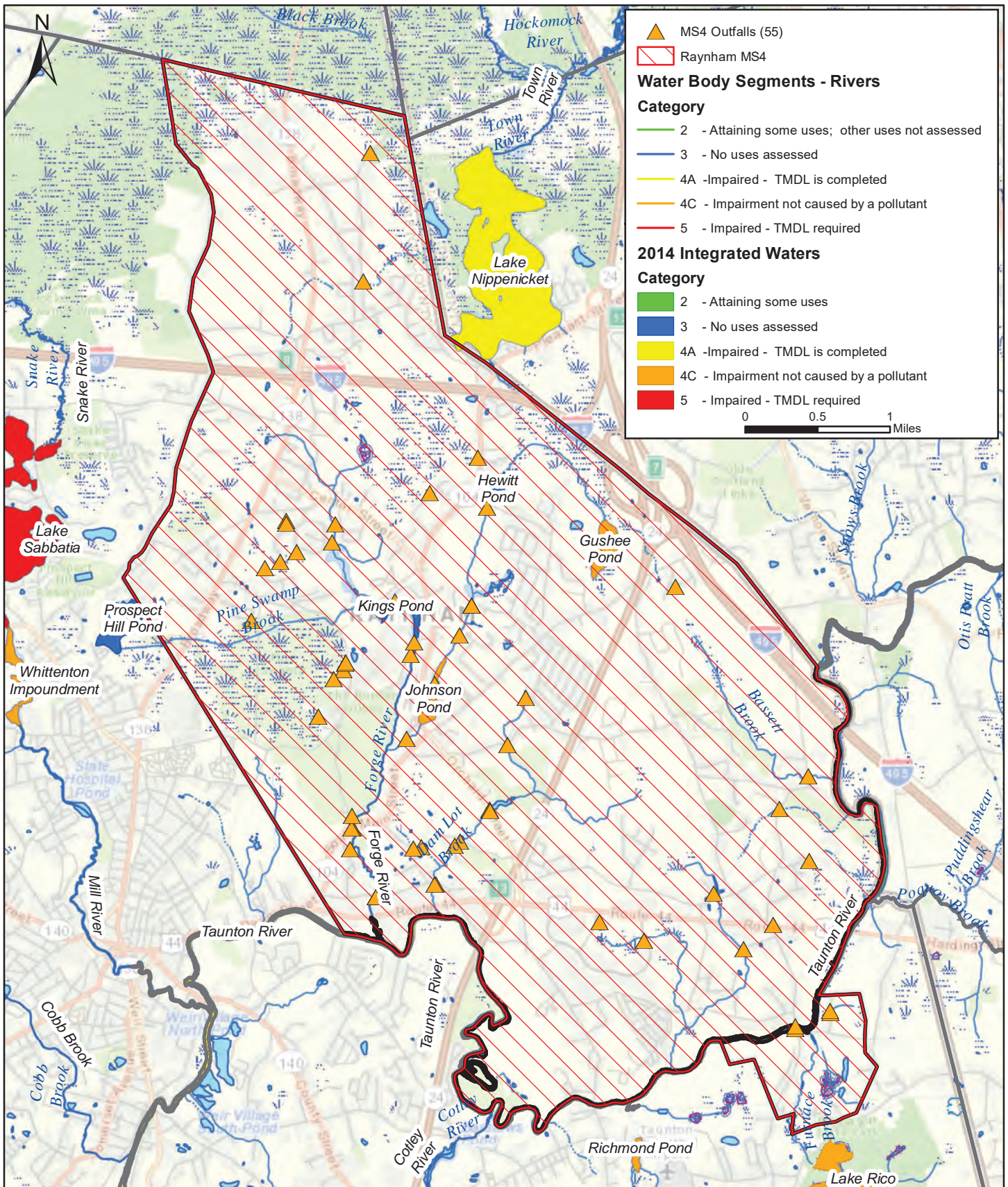
FOR COMMENT



FIGURE 2

MS4 URBANIZED AREAS

FOR COMMENT



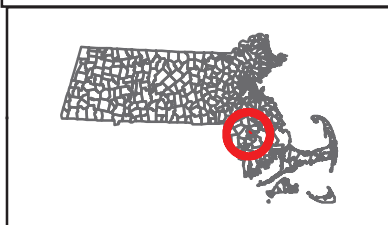
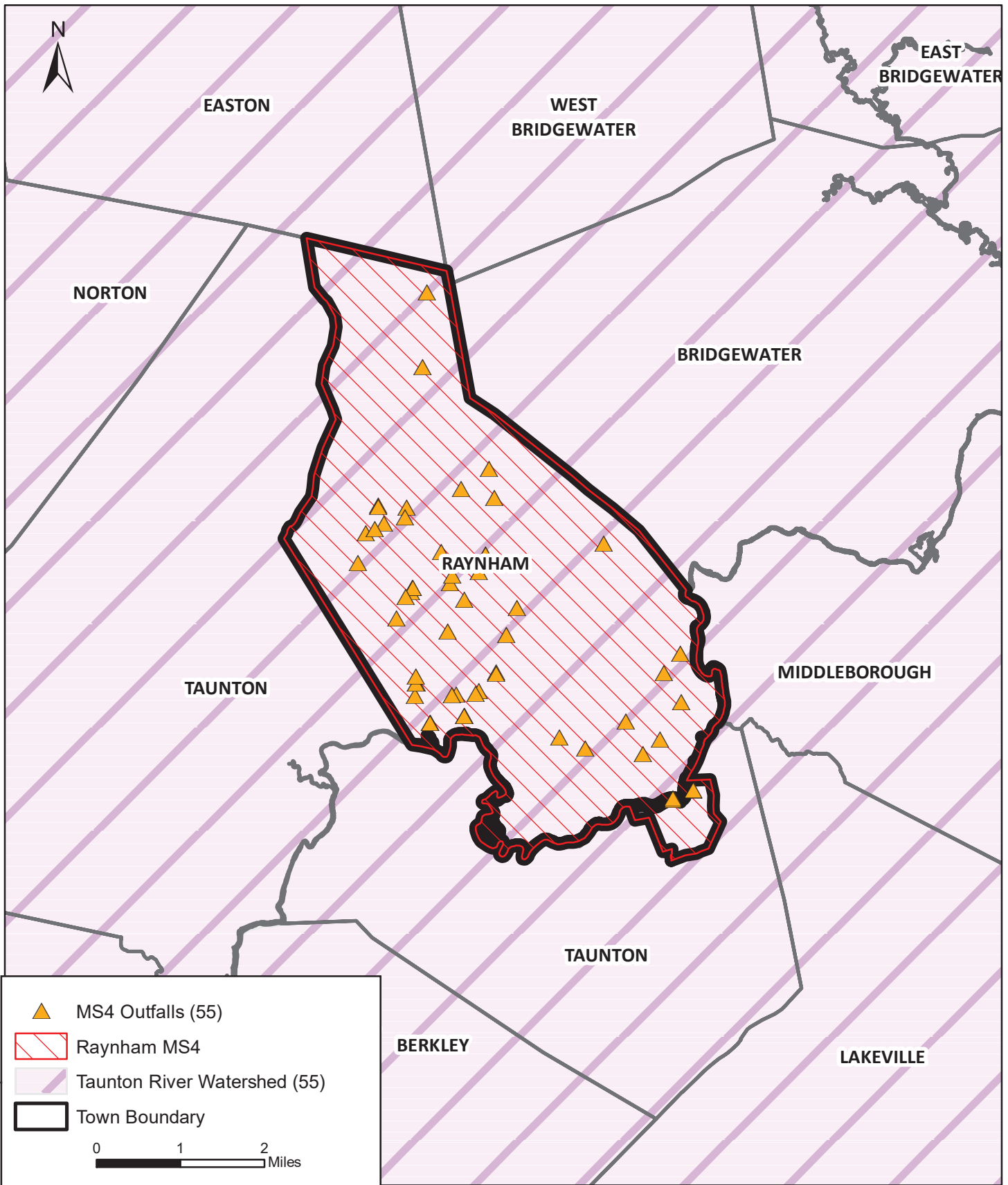
**Figure 2: MS4 Urbanized Areas
Raynham, Massachusetts
December 2018**



FIGURE 3

TOWN WATERSHEDS

FOR COMMENT



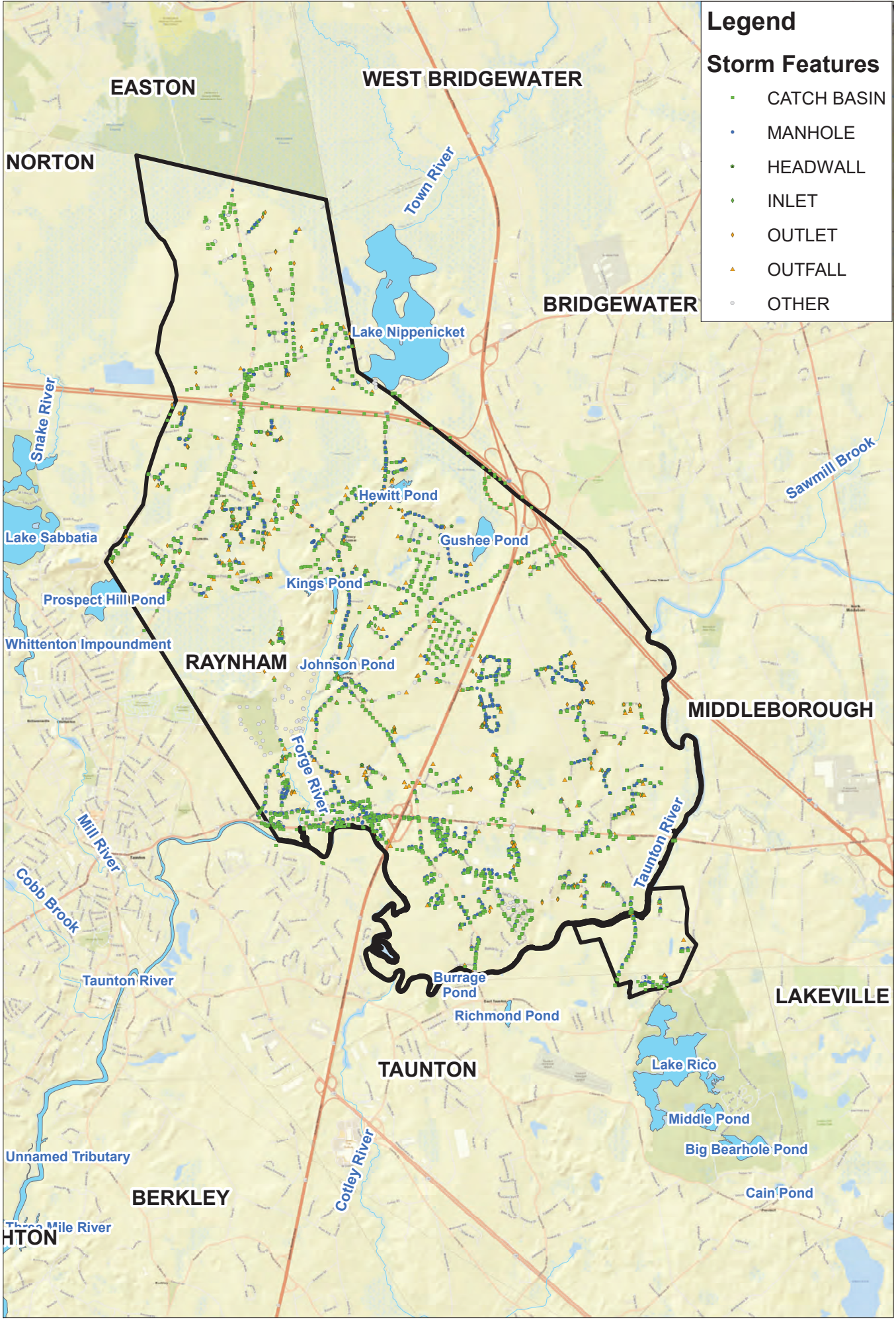
**Figure 3: Town Watersheds
Raynham, Massachusetts
December 2018**



FIGURE 4

STORMWATER SYSTEM MAP

FOR COMMENT



- Legend**
- Storm Features**
- CATCH BASIN
 - MANHOLE
 - HEADWALL
 - ◊ INLET
 - ◊ OUTLET
 - ▲ OUTFALL
 - OTHER



Figure 4: Stormwater System Raynham, MA

APPENDIX A

MA MS4 HYPERLINKS AND REFERENCES

FOR COMMENT

MA MS4 General Permit Hyperlinks

EPA MA MS4 Permit: <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>

DEP Permit Information:

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/stormwater.html#8>

Town Hyperlink: <https://www.town.raynham.ma.us/>

MCM 1: Public Education and Outreach

EPA's Stormwater Education Toolbox

MassDEP's Stormwater Outreach Materials

Other templates relevant to MCM 1 can be found here:

<https://www.epa.gov/npdes-permits/stormwater-tools-new-england#peo>

MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program

IDDE Program Template and SOPs

Other templates relevant to IDDE can be found here:

<https://www.epa.gov/npdes-permits/stormwater-tools-new-england#idde>

MCM 4: Construction Site Stormwater Runoff Control

Examples and templates relevant to MCM 4, including model ordinances and site inspection templates, can be found here:

<https://www.epa.gov/npdes-permits/stormwater-tools-new-england#csrc>

MCM 5: Post Construction Stormwater Management in New Development and Redevelopment

Examples and templates relevant to MCM 5, including model ordinances and bylaw review templates and guidance can be found here:

<https://www.epa.gov/npdes-permits/stormwater-tools-new-england#pcsm>

MCM 6: Good House Keeping and Pollution Prevention for Permittee Owned Operations

Examples and templates relevant to MCM 6, including SOP templates for catch basin cleaning, street sweeping, vehicle maintenance, parks and open space management, winter deicing, and Stormwater Pollution Prevention Plans can be found here:

<https://www.epa.gov/npdes-permits/stormwatertools-new-england#gh>

APPENDIX B
NOTICE OF INTENT

FOR COMMENT

Notice of Intent (NOI) for coverage under Small MS4 General Permit Page 1 of 21

Part I: General Conditions

General Information

Name of Municipality or Organization: State:

EPA NPDES Permit Number (if applicable):

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Fax Number:

Other Information

Stormwater Management Program (SWMP) Location (web address or physical location, if already completed):

Eligibility Determination

Endangered Species Act (ESA) Determination Complete?

Eligibility Criteria (check all that apply): A B C

National Historic Preservation Act (NHPA) Determination Complete?

Eligibility Criteria (check all that apply): A B C

Check the box if your municipality or organization was covered under the 2003 MS4 General Permit

MS4 Infrastructure (if covered under the 2003 permit)

Estimated Percent of Outfall Map Complete? If 100% of 2003 requirements not met, enter an estimated date of completion (MM/DD/YY):

Web address where MS4 map is published:
If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission (see section V for submission options)

Regulatory Authorities (if covered under the 2003 permit)

Illicit Discharge Detection and Elimination (IDDE) Authority Adopted? Effective Date or Estimated Date of Adoption (MM/DD/YY):

Construction/Erosion and Sediment Control (ESC) Authority Adopted? Effective Date or Estimated Date of Adoption (MM/DD/YY):

Post- Construction Stormwater Management Adopted? Effective Date or Estimated Date of Adoption (MM/DD/YY):

Unnamed Wetlands North of Pine Swamp Brook (41.94149, -71.06947)	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unnamed Wetlands North of Taunton River (41.90433, -71.02917)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments	
Unnamed Wetlands West of Hewitt Pond (41.95080, -71.04518)	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Unnamed Wetlands West of Lake Nippenicket (41.98134, -71.05934)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Unnamed Wetlands West of Taunton River (41.91035, -71.00105)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
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Click to lengthen table

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

Identify the Best Management Practices (BMPs) that will be employed to address each of the six Minimum Control Measures (MCMs). For municipalities/organizations whose MS4 discharges into a receiving water with an approved Total Maximum Daily Load (TMDL) and an applicable waste load allocation (WLA), identify any additional BMPs employed to specifically support the achievement of the WLA in the TMDL section at the end of part III.

For each MCM, list each existing or proposed BMP by category and provide a brief description, responsible parties/departments, measurable goals, and the year the BMP will be employed (public education and outreach BMPs also requires a target audience). **Use the drop-down menus in each table or enter your own text to override the drop down menu.**

MCM 1: Public Education and Outreach

BMP Media/Category (enter your own text to override the drop down menu)	BMP Description	Targeted Audience	Responsible Department/Parties (enter your own text to override the drop down menu)	Measurable Goal	Beginning Year of BMP Implementation
Brochures/Pamphlets	Publish outreach materials; Distribute pet waste control information to residents when they (re)apply for a pet license; distribute information to septic maintenance contractors.	Residents	Highway Department, Conservation Commission/Town Clerk	Distribute at least two educational messages within the permit term (5 years)	2018
Brochures/Pamphlets	Include information in permit materials.	Businesses, Institutions and Commercial Facilities	Building Permitting and Enforcement	Distribute at least two educational messages within the permit term (5 years)	2018
Brochures/Pamphlets	Include information in permit materials; Review and Update application forms to meet the new requirements.	Developers (construction)	Building Permitting and Enforcement	Distribute at least two educational messages within the permit term (5 years)	2018
Brochures/Pamphlets	Distribute information to industrial groups based on zoning and property use.	Industrial Facilities	Planning Department and Health Department	Distribute at least two educational messages within the permit term (5 years)	2018

Web Page	Develop/maintain stormwater website; utilize existing Town social media or develop stormwater specific account for outreach	Residents	Conservation Commission	Distribute at least two educational messages within the permit term (5 years)	2018
Displays/Posters/Kiosks	Install educational boards/signs in parks, public open space, near wetlands, etc.; Evaluate for storm drain stenciling program	Residents	Highway Operations, Conservation Commission	Distribute at least two educational messages within the permit term (5 years)	2018
Web Page	Develop/maintain stormwater website; utilize existing Town social media or develop stormwater specific account for outreach	Businesses, Institutions and Commercial Facilities	Conservation Commission	Distribute at least two educational messages within the permit term (5 years)	2018
Web Page	Develop/maintain stormwater website; utilize existing Town social media or develop stormwater specific account for outreach	Developers (construction)	Conservation Commission	Distribute at least two educational messages within the permit term (5 years)	2018
Web Page	Develop/maintain stormwater website; utilize existing Town social media or develop stormwater specific account for outreach	Industrial Facilities	Conservation Commission	Distribute at least two educational messages within the permit term (5 years)	2018

FOR COMMENT

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 2: Public Involvement and Participation

BMP Categorization	Brief BMP Description (enter your own text to override the drop down menu)	Responsible Department/Parties (enter your own text to override the drop down menu)	Additional Description/ Measurable Goal	Beginning Year of BMP Imple- mentation
Public Review	SWMP Review	Highway Department	Allow annual review of stormwater management plan and posting of stormwater management plan on website	2019
Public Participation	SWMP Review	Highway Department	Allow public to comment on stormwater management plan annually	2019
Public Participation	Partnership - Advocacy Groups	Highway Department, Conservation Commission	Maintain/acquire membership with local stormwater groups (Southeastern Massachusetts Stormwater Collaborative, Taunton River Watershed Alliance).	2019
Public Review	Website	Highway Department	Publish contact on stormwater website for soliciting complaints, questions, etc.	2019
Public Participation	Household haz. waste/used oil collection	Highway Operations	Continue to host Town hazardous waste collection days with various groups.	2019
Public Participation	Stormwater Committee/Task Force	Highway Operations	Reestablish volunteer Stormwater Management Task Force for clean-ups, maintenance, etc.	2019
Public Participation	Stormwater Committee/Task Force	Conservation Commission	Continue to research the naming of streams.	2019

FOR COMMENT

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

BMP Categorization (enter your own text to override the drop down menu)	BMP Description	Responsible Department/Parties (enter your own text to override the drop down menu)	Measurable Goal (all text can be overwritten)	Beginning Year of BMP Implementation
SSO inventory	Develop SSO inventory in accordance of permit conditions	Sewer Department	Complete within 1 year of effective date of permit	2019
Storm sewer system map	Create map and update during IDDE program completion	Highway Operations, Consultant	Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit	2020
Written IDDE program	Create written IDDE program	Highway Operations, Consultant	Complete within 1 year of the effective date of permit and update as required	2019
Implement IDDE program	Implement catchment investigations according to program and permit conditions	Highway Operations, Consultant	Complete 10 years after effective date of permit	2018
Employee training	Train employees on IDDE implementation	Consultant	Train annually	2019
Conduct dry weather screening	Conduct in accordance with outfall screening procedure and permit conditions	Highway Operations, Consultant	Complete 3 years after effective date of permit	2018
Conduct wet weather screening	Conduct in accordance with outfall screening procedure	Highway Operations, Consultant	Complete 10 years after effective date of permit	2018
Ongoing screening	Conduct dry weather and wet weather screening (as necessary)	Highway Operations, Consultant	Complete ongoing outfall screening upon completion of IDDE program	2019
IDDE Ordinance/Bylaw	Adopt new stormwater management bylaw	Highway Operations	Complete a final draft of the stormwater management bylaw and adopt within 1 year of the effective date of permit	2019

FOR COMMENT

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 4: Construction Site Stormwater Runoff Control

BMP Categorization (enter your own text to override the drop down menu or entered text)	BMP Description	Responsible Department/Parties (enter your own text to override the drop down menu)	Measurable Goal (all text can be overwritten)	Beginning Year of BMP Implementation
Site inspection and enforcement of Erosion and Sediment Control (ESC) measures	Complete written procedures of site inspections and enforcement procedures	Highway Operations, Building Department, Planning Department, Conservation	Complete within 1 year of the effective date of permit	2019
Site plan review	Complete written procedures of site plan review and begin implementation	Building Department, Planning Department	Complete within 1 year of the effective date of permit	2019
Erosion and Sediment Control	Adoption of requirements for construction operators to implement a sediment and erosion control program	Building Department, Planning Department, Highway Department and Conserva	Complete within 1 year of the effective date of permit	2019
Waste Control	Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes	Building Department, Planning Department, Health Department, Highway Depar	Complete within 1 year of the effective date of permit	2019
Construction Ordinance/Bylaw	Adopt new stormwater management bylaw	Highway Operations	Complete a final draft of the stormwater management bylaw and adopt within 1 year of the effective date of permit	2019

FOR COMMENT

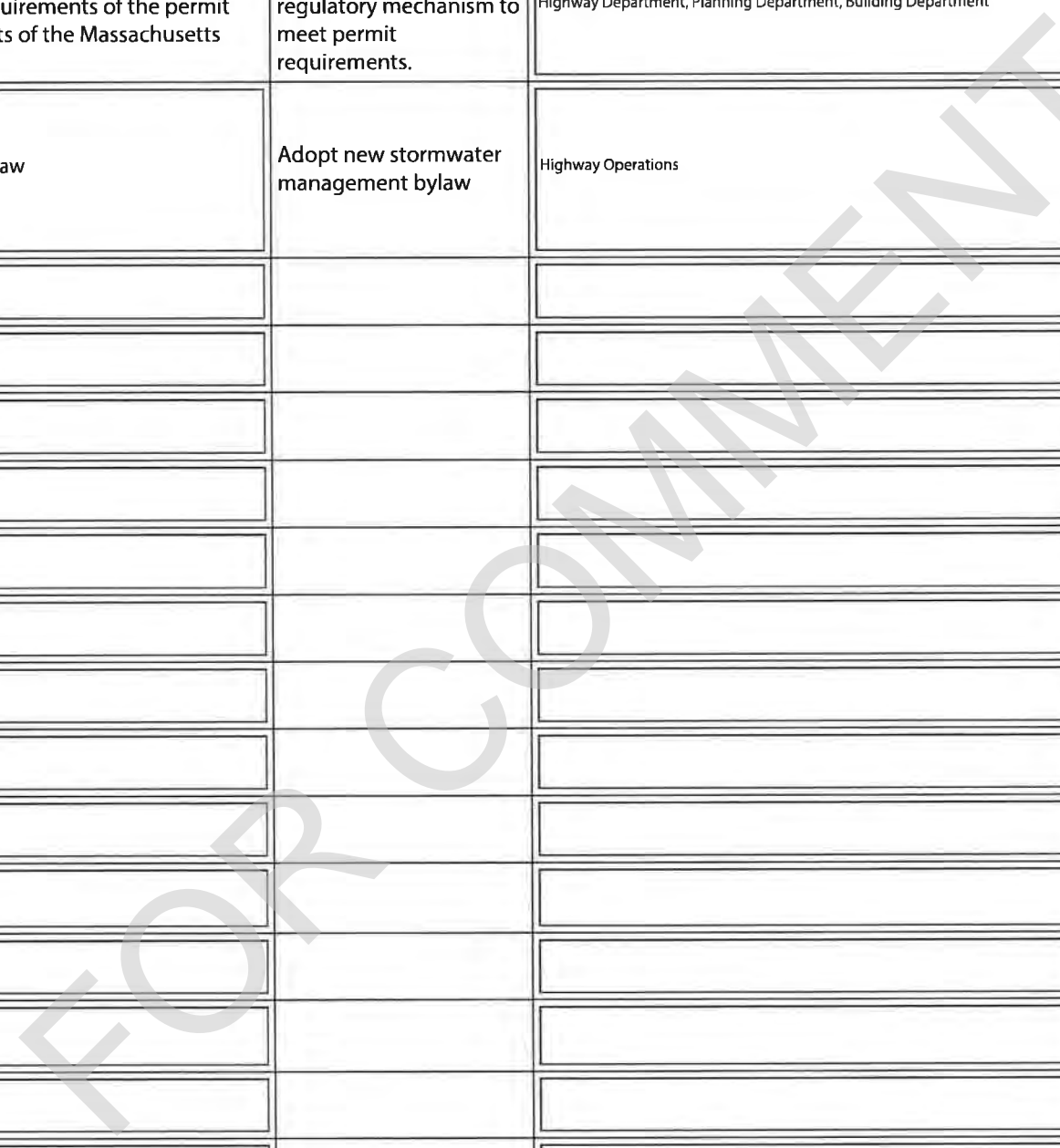
Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

BMP Categorization (enter your own text to override the drop down menu or entered text)	BMP Description	Responsible Department/Parties (enter your own text to override the drop down menu)	Measurable Goal (all text can be overwritten)	Beginning Year of BMP Implementation
As-built plans for on-site stormwater control	The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP	Highway Department, Planning Department, Building Department	Require submission of as-built plans for completed projects	2018
Target properties to reduce impervious areas	Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually	Highway Department	Complete 4 years after effective date of permit and report annually on retrofitted properties	2021
Allow green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	Highway Department, Planning Department, Building Department	Complete 4 years after effective date of permit and implement recommendations of report	2021
Street design and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.	Highway Department, Planning Department	Complete 4 years after effective date of permit and implement recommendations of report	2021

Ensure any stormwater controls or management practices for new development and redevelopment meet the retention or treatment requirements of the permit and all applicable requirements of the Massachusetts Stormwater Handbook	Adoption, amendment, or modification of a regulatory mechanism to meet permit requirements.	Highway Department, Planning Department, Building Department	Complete 2 years after effective date of permit	2020
Post-Construction Ordinance/Bylaw	Adopt new stormwater management bylaw	Highway Operations	Complete a final draft of the stormwater management bylaw and adopt within 1 year of the effective date of permit	2019



FOR COMMENT

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 6: Municipal Good Housekeeping and Pollution Prevention

BMP Categorization (enter your own text to override the drop down menu or entered text)	BMP Description	Responsible Department/Parties (enter your own text to override the drop down menu)	Measurable Goal (all text can be overwritten)	Beginning Year of BMP Implementation
O&M procedures	Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment	Highway Operations	Complete and implement 2 years after effective date of permit	2020
Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment	Create inventory	Highway Operations	Complete 2 years after effective date of permit and implement annually	2020
Infrastructure O&M	Establish and implement program for repair and rehabilitation of MS4 infrastructure	Highway Operations	Complete 2 years after effective date of permit	2020
Stormwater Pollution Prevention Plan (SWPPP)	Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities	Highway Operations	Complete and implement 2 years after effective date of permit	2020
Catch basin cleaning	Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule	Highway Operations	Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually	2019
Street sweeping program	Sweep all streets and permittee-owned parking lots in accordance with permit conditions	Highway Operations	Sweep all streets and permittee-owned parking lots once per year in the spring	2019
Road salt use optimization program	Establish and implement a program to minimize the use of road salt	Highway Operations	Implement salt use optimization during deicing season	2019

Inspections and maintenance of stormwater treatment structures	Establish and implement inspection and maintenance procedures and frequencies	Highway Operations	Inspect and maintain treatment structures at least annually	2019
Installation of BMP Retrofits for Water Quality	Coordinate annual meeting with Plymouth County Mosquito Control Project	Highway Operations	Discuss potential stormwater impacts from mosquito control applications and potential BMP retrofits that can minimize standing water in catch basins	2019
Stormwater Collaboration	Coordinate annual meeting with Massachusetts Department of Transportation	District 5	Discuss stormwater system interconnections, common receiving waters, and opportunities for collaboration	2019

FOR COMMENT

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 2.2.2 that you have identified as not applicable to your MS4 because you do not discharge to the impaired water body or a tributary to an impaired water body due to nitrogen or phosphorus. Provide all supporting documentation below or attach additional documents if necessary. Also, provide any additional information about your MS4 program below.

Attachments:

Figure: MS4 Outfalls

USFWS Correspondence

The outfalls included in Part II: Summary of Receiving Waters were selected based on a 100 foot distance from any waters of the U.S. Coordinates listed under unnamed water segments are based on the NAD 1983 StatePlane Massachusetts FIPS 2001 (US Feet) Coordinate System, and are listed as latitude/longitude in decimal degrees.

Regarding the ESA section 7 consultation, I agree that the MS4 Permit will not adversely affect the Northern Long-eared Bat, nor the Plymouth Redbelly Turtle.

Regarding the National Historic Preservation Act, under 36 CFR 800, this facility is an existing facility authorized by the previous Permit, and is not undertaking any activity involving subsurface land disturbance less than 1 acre. This MS4 Permit will have "no potential to cause effects," in accordance with 36 CFR 800.3(a)(1).

FOR COMMENT

Part V: 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, I certify that 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.

Name:

Title:

Signature:

Date:

[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Note: When prompted during signing, save the document under a new file name

FOR COMMENT

APPENDIX C
PERMIT SCHEDULE

FOR COMMENT

**MS4 Permit
Draft Schedule
Town of Raynham,
Massachusetts December 5, 2018**

July 2018 – MS4 Permit effective date to coincide with start of FY18

- **September 29, 2018** – Submit Updated NOI (within 90 days of effective date)

July 2019 – Items due within 1 year of effective date

- Submit Updated Stormwater Management Plan
- Additional Mapping – update stormwater system GIS for connectivity (as needed)
- Written IDDE Plan, identify catchments contributing to high priority areas such as contributing to public water supplies, public bathing beaches, or Inventory Town Facilities
- Develop O&M for Town Facilities – Highway facilities, Parks/Recreation, Town Hall, Schools
- Evaluate street sweeping and catch basin cleaning frequency
- Education/Outreach – Two educational messages to each of the 4 audiences over 5 years
- Additional Education/Outreach (x2 for Impaired Water Requirements)*
 - Bacteria and Pathogens: Targeting Dog Waste/Septic Systems – Taunton River Watershed
 - Nitrogen: Targeting fertilizer, grass clippings, dog waste, and leaf litter – Taunton River Watershed
- Public Participation
- Annual Training

July 2020 – Items due within 2 years of effective date

- SWPPP for Appropriate Facilities
- SPCC Plan where appropriate
- Parks Maintenance Plan
- Ongoing Outfall Sampling (wet & dry) / Inspections / Update Mapping
- Continue to evaluate street sweeping and catch basin cleaning frequency.
- Education/Outreach – Two educational messages to each of the 4 audiences over 5 years
- Additional Education/Outreach (x2 for Impaired Water Requirements)*
 - Bacteria and Pathogens: Targeting Dog Waste/Septic Systems - South Coastal Watershed
 - Nitrogen: Targeting fertilizer, grass clippings, dog waste, and leaf litter – Taunton River Watershed
- Public Participation
- Annual Training

July 2021 – Items due within 3 years of effective date



- Revisions to Stormwater Bylaw - Construction Site Stormwater Runoff Control
- Draft regulations to promote green infrastructure – Post-Construction Management
- Ongoing Outfall Sampling (wet & dry) / Inspections / Update Mapping
- Continue to evaluate street sweeping and catch basin cleaning frequency.
- Education/Outreach – Two educational messages to each of the 4 audiences over 5 years
- Additional Education/Outreach (x2 for Impaired Water Requirements)*
 - Bacteria and Pathogens: Targeting Dog Waste/Septic Systems - South Coastal Watershed
 - Nitrogen: Targeting fertilizer, grass clippings, dog waste, and leaf litter – Taunton River Watershed
- Public Participation
- Annual Training

July 2022 – Items due within 4 years of effective date

- Revisions to Stormwater Bylaw - Construction Site Stormwater Runoff Control
- Draft regulations to reduce impervious cover – Post-Construction Management
- Ongoing Outfall Sampling (wet & dry) / Inspections / Update Mapping
- Education/Outreach – Two educational messages to each of the 4 audiences over 5 years
- Continue to evaluate street sweeping and catch basin cleaning frequency.
- Nitrogen Source Identification Report*
- Additional Education/Outreach (x2 for Impaired Water Requirements)*
 - Bacteria and Pathogens: Targeting Dog Waste/Septic Systems - South Coastal Watershed
 - Nitrogen: Targeting fertilizer, grass clippings, dog waste, and leaf litter – Taunton River Watershed
- Public Participation
- Annual Training

July 2023 – Permit Length (5 years)

- Inventory/Priority Ranking of LID retrofits on Town-Owned Property – Post-Construction Management
- Ongoing Outfall Sampling (wet & dry) / Inspections / Update Mapping
- Education/Outreach – Two educational messages to each of the 4 audiences over 5 years
- Continue to evaluate street sweeping and catch basin cleaning frequency.
- Evaluate all Properties for BMPs –Nitrogen removal*
- Plan and Scheduled for BMPs - Nitrogen removal*
- Additional Education/Outreach (x2 for Impaired Water Requirements)*
 - Bacteria and Pathogens: Targeting Dog Waste/Septic Systems - South Coastal Watershed
 - Nitrogen: Targeting fertilizer, grass clippings, dog waste, and leaf litter – Taunton River Watershed



- Public Participation
- Annual Training

FOR COMMENT



APPENDIX D

ENDANGERED SPECIES AND CRITICAL HABITATS PROTECTION DOCUMENTS

FOR COMMENT



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial St, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

September 24, 2018

To whom it may concern:

The U.S. Fish and Wildlife Service (USFWS) reviewed the stormwater discharge activities associated with the 2016 National Pollutant Discharge and Elimination System (NPDES) Massachusetts (MA) Small Municipal Separate Storm Sewer System (MS4) general permit (MA MS4 General Permit) issued by the Environmental Protection Agency (EPA). We determined those activities may affect, but are not likely to adversely affect, certain species listed under the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) when specific conditions are met. When these conditions are met, we do not need to review individual projects. These comments are provided in accordance with section 7 of the ESA and complement existing 2016 MA MS4 General Permit Appendix C Guidance. We understand the applicant is acting as a non-Federal representative of the EPA for the purpose of consultation under section 7. **This letter provides additional guidance for meeting Criterion B and should be submitted as part of your application package to the EPA.**

If the USFWS Information for Planning and Consultation website (<https://ecos.fws.gov/ipac/>) indicates your MA MS4 General Permit project action area may contain one or more of the following federally listed endangered species: roseate tern (*Sterna dougallii*), northern red-bellied cooter (*Pseudemys rubriventris*), dwarf wedgemussel (*Alasmidonta heterodon*), rusty patched bumble bee (*Bombus affinis*), northeastern bulrush (*Scirpus ancistrochaetus*), or American chaffseed (*Schwalbea americana*); threatened species: piping plover (*Charadrius melodus*), bog turtle (*Glyptemys muhlenbergii*), Puritan tiger beetle (*Cicindela puritana*), northeastern beach tiger beetle (*Cicindela dorsalis*), or red knot (*Calidris canutus rufa*); or their federally designated critical habitat; and the specific conditions listed below are met, you may submit this letter to complete the **MA MS4 General Permit Appendix C: Step 4** in place of a concurrence letter for informal consultation as documentation of ESA eligibility for **USFWS Criterion B**.

In addition, this letter also satisfies the requirement in the **MA MS4 General Permit Appendix C: Step 2 (3)** to contact the USFWS and obtain a concurrence letter, if you have not yet done so. If your project action area includes one or more of the above-listed species *and* one or more of the

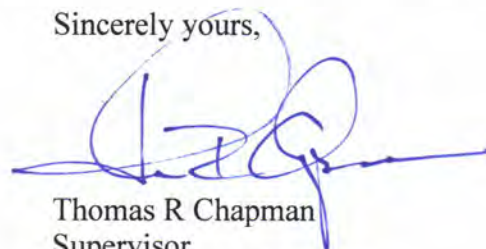
species listed under **Criterion C**,¹ you may still use this letter to certify under **Criterion B**. All existing guidance regarding requirements for certifying eligibility according to the USFWS Criterion A, B, or C for coverage by the 2016 MS4 Permit (see MA MS4 General Permit Appendix C – Endangered Species Guidance) remains unchanged.

We have determined that proposed stormwater discharge activities covered under the 2016 MS4 Permit *may affect, but are not likely to adversely affect*, the above-listed species and the species' critical habitat when the following are true:

1. all stormwater discharges are pre-existing or previously permitted by EPA;
2. any planned operations and maintenance work covered by this permit will only affect previously disturbed areas where stormwater controls are already installed. In these situations the chance of encountering any of the subject species is discountable;
3. the project implements EPA MS4 Best Management Practices (BMPs) and meets Clean Water Act and Massachusetts Water Quality Standards. Although permitted discharges may reach the environment used by these species, BMPs reduce pollutants to the extent that discharges are not known to have measurable impacts on these species or their habitat;
4. no new construction or structural BMPs are proposed under this permit at this time; and
5. you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the Notice of Intent (NOI), you will re-initiate consultation with the USFWS as necessary (see **MA MS4 General Permit Appendix C: Step 2 (5)**).

If the above criteria are met, further consultation with the USFWS under section 7 of the ESA is not required at this time; however, if the proposed action changes in any way such that it may affect a listed species in a manner not previously analyzed or if new information reveals the presence of additional listed species that may be affected by the project, the applicant or the EPA should contact us immediately and suspend activities that may affect those species until the appropriate level of consultation is completed with our office. Thank you for your cooperation, and please contact David Simmons of this office at (603) 227-6425 if you have questions or need further assistance.

Sincerely yours,



Thomas R Chapman
Supervisor
New England Field Office

¹ Criterion C includes guidance for project action areas that may contain species for which EPA has already made a determination. These species include the northern long-eared bat (*Myotis septentrionalis*), sandplain gerardia (*Agalinis acuta*), small whorled pogonia (*Isotria medeoloides*), and/or American burying beetle (*Nicrophorus americanus*) (MA MS4 General Permit Appendix C: Step 3 – Determine if You Can Meet Eligibility USFWS Criterion C).

1900 Crown Colony Drive, Suite 402
Quincy, MA 02169

August 15, 2018

To: U.S. Fish and Wildlife Service
New England Field Office
70 Commercial St., Suite 300
Concord, NH 03301

RE: Project Review Request, Raynham MS4, Raynham, MA, 05E1NE00-2018-SLI-2433

We have reviewed the referenced project using the Environmental Protection Agency's (EPA) project review process for our Municipal Separate Storm Sewer System (MS4) and have followed all guidance and instructions in completing the review. We completed our review on July 18, 2018, and are submitting our project package in accordance with the instructions for further review. The U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) species list indicated these species may be present in the project area: Northern Long-eared Bat *Myotis septentrionalis*, and the Plymouth Redbelly Turtle *Pseudemys rubriventris bangsi*. We are submitting this letter as a non-Federal representative of the EPA pursuant to the requirements of the EPA's process for NPDES/MS4 permits.

Our proposed action consists of stormwater management projects including the evaluation for best management practices (BMPs) to reduce pollutant discharges and general pollutant load reduction through MS4 Permit implementation and enforcement. The Town of Raynham will be continuing stormwater maintenance and activities listed in the Year 15 NPDES PII Small MS4 General Permit Annual Report, which is included in the attachments. Planned activities within the MS4 area will not pose a disturbance to the habitats of the aforementioned species.

The location action area is identified on the enclosed map. This USGS topographic quadrangle displays the entirety of the Raynham MS4 project area. The MS4 area is designated using both the 2000 and 2010 U.S. census urbanized area.

Permit implementation will begin in the fall of 2018 and the permit has an expiration date of June 30, 2022.

This is a request for review by the Service pursuant to section 7 of the Endangered Species Act. We determined that the project may affect, but is not likely to adversely affect the above listed species, because:


- This project does not involve tree cutting or manipulating a structure that could be used by the Northern Long-eared Bat. For a variety of reasons, this project would have no effect on the Northern Long-eared Bat and no additional explanation is needed in this letter.
- Although discharges from the Raynham MS4 may reach the habitat of the Plymouth Redbelly Turtle, the project implements activities that would diminish pollutants to the extent that discharge is not known to adversely affect the Plymouth Redbelly Turtle.

The enclosed project package provides the information about the species and/or critical habitat

considered in our review, and we identified our determinations for the resources that may be affected by the project. We request you concur with our determination that the project may affect, but is not likely to adversely affect the species described above.

For additional information, please contact Eric Kelley at the address listed above, by phone at 617-657-0282, or eak@envpartners.com.

Sincerely,



Environmental Partners Group, Inc.
Eric A. Kelley, P.E.
Project Manager
P: (617) 657-0282
E: eak@envpartners.com

Enclosures:

- 1) IPaC Report
- 2) Year 15 NPDES PII Small MS4 General Permit Annual Report – Town of Raynham, MA
- 3) USGS Topographic Quadrangle – Town of Raynham, MA



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

Consultation Code: 05E1NE00-2018-SLI-2433

Event Code: 05E1NE00-2018-E-05649

Project Name: Raynham

July 18, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

FOR COMMENT

Project Summary

Consultation Code: 05E1NE00-2018-SLI-2433

Event Code: 05E1NE00-2018-E-05649

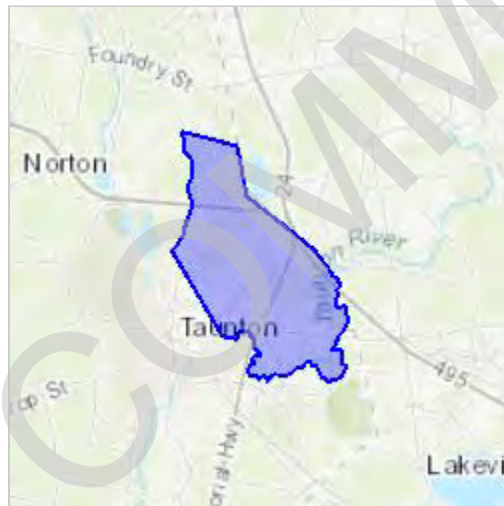
Project Name: Raynham

Project Type: ** OTHER **

Project Description: Stormwater MS4

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/41.9368569693905N71.04906439991947W>



Counties: Bristol, MA | Plymouth, MA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Reptiles

NAME	STATUS
Plymouth Redbelly Turtle <i>Pseudemys rubriventris bangsi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/451	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX E

MA MS4 GENERAL PERMIT - APPENDIX D - HISTORIC PROPERTIES DOCUMENTS

FOR COMMENT

Appendix D National Historic Preservation Act Guidance

Background

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of Federal “undertakings” on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program of a federal agency including those carried out by or on behalf of a federal agency, those carried out with federal financial assistance, and those requiring a federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA’s issuance of a National Pollutant Discharge Elimination System (NPDES) General Permit is a federal undertaking within the meaning of the NHPA regulations and EPA has determined that the activities to be carried out under the general permit require review and consideration, in order to be in compliance with the federal historic preservation laws and regulations. Although individual submissions for authorization under the general permit do not constitute separate federal undertakings, the screening processes provides an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit. To address any issues relating to historic properties in connection with the issuance of this permit, EPA has included a screening process for applicants to identify whether properties listed or eligible for listing on the National Register of Historic Places are within the path of their discharges or discharge-related activities (including treatment systems or any BMPs relating to the discharge or treatment process) covered by this permit.

Applicants seeking authorization under this general permit must comply with applicable, State, Tribal, and local laws concerning the protection of historic properties and places and may be required to coordinate with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO) and others regarding effects of their discharges on historic properties.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a federal undertaking has no potential to have an effect on historic properties fulfills an agency’s obligations under NHPA. EPA has reason to believe that the vast majority of activities authorized under this general permit will have no potential effects on historic properties. This permit typically authorizes discharges from existing facilities and requires control of the pollutants discharged from the facility. EPA does not anticipate effects on historic properties from the pollutants in the authorized discharges. Thus, to the extent EPA’s issuance of this general permit authorizes discharges of such constituents, confined to existing channels, outfalls or natural drainage areas, the permitting action does not have the potential to cause effects on historical properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit authorization. These existing dischargers should have already addressed NHPA issues in the previous general permit as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from

the applicable SHPO or THPO regarding methods of mitigating potential impacts. To the extent this permit authorizes renewal of prior coverage without relevant changes in operations the discharge has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties the applicant undertakes the construction and/or installation of control measures that involve subsurface disturbance that involves less than 1 acre of land. (Ground disturbances of 1 acre or more require coverage under the Construction General Permit.) Where there is disturbance of land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if the applicant is establishing new or altering existing control measures to manage their discharge that will involve subsurface ground disturbance of less than 1 acre, they will need to ensure (1) that historic properties will not be impacted by their activities or (2) that they are in compliance with a written agreement with the SHPO, THPO, or other tribal representative that outlines all measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Subsurface Disturbance

The type of control measures that are presumptively expected to cause subsurface ground disturbance include:

- Dikes
- Berms
- Catch basins, drainage inlets
- Ponds, bioretention areas
- Ditches, trenches, channels, swales
- Culverts, pipes
- Land manipulation; contouring, sloping, and grading
- Perimeter Drains
- Installation of manufactured treatment devices

EPA cautions applicants that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Certification

Upon completion of this screening process the applicant shall certify eligibility for this permit using one of the following criteria on their Notice of Intent for permit coverage:

Criterion A: The discharges do not have the potential to cause effects on historic properties.

Criterion B: A historic survey was conducted. The survey concluded that no historic properties are present. Discharges do not have the potential to cause effects on historic properties.

Criterion C: The discharges and discharge related activities have the potential to have an effect on historic properties, and the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representative that outlines measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Authorization under the general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criteria listed above. Small MS4s that cannot meet any of the eligibility criteria in above must apply for an individual permit.

Screening Process

Applicants or their consultant need to answer the questions and follow the appropriate procedures below to assist EPA in compliance with 36 CFR 800.

Question 1: Is the facility an existing facility authorized by the previous permit or a new facility and the applicant is not undertaking any activity involving subsurface land disturbance less than an acre?

YES - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion A on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has "no potential to cause effects" (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

NO- Go to Question 2.

Question 2: Is the property listed in the National Register of Historic Places or have prior surveys or disturbances revealed the existence of a historic property or artifacts?

NO - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion B on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has "no potential to cause effects" (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

YES - The applicant or their consultant should prepare a complete information submittal to the SHPO. The submittal consists of:

- Completed Project Notification Form- forms available at <http://www.sec.state.ma.us/mhc/mhcform/formidx.htm>;

- USGS map section with the actual project boundaries clearly indicated; and
- Scaled project plans showing existing and proposed conditions.

(1) Please note that the SHPO does not accept email for review. Please mail a paper copy of your submittal (Certified Mail, Return Receipt Requested) or deliver a paper copy of your submittal (and obtain a receipt) to:

State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Blvd.
Boston MA 02125.

(2) Provide a copy of your submittal and the proof of MHC delivery showing the date MHC received your submittal to:

NPDES Permit Branch Chief
US EPA Region 1 (OEP06-1)
5 Post Office Square, Suite 100
Boston MA 02109-3912.

The SHPO will comment within thirty (30) days of receipt of complete submittals, and may ask for additional information. Consultation, as appropriate, will include EPA, the SHPO and other consulting parties (which includes the applicant). The steps in the federal regulations (36 CFR 800.2 to 800.6, etc.) will proceed as necessary to conclude the Section 106 review for the undertaking. **The applicant should certify eligibility for this permit using Criterion C on their Notice of Intent for permit coverage.**

APPENDIX F

NEW OR INCREASED DISCHARGES

FOR COMMENT

New or Increased Discharges
Raynham, MA

Location	Description	Proposed Use	Area	Contributing Area to MS4	BMP
**Example Street	Housing Community	Residence	27 acres	9 acres	Stormceptor unit and detention pond

**Example of what would be written for a new or increased discharge

FOR COMMENT

APPENDIX G
SSO INVENTORY

FOR COMMENT

Sanitary Sewer Overflow (SSO) Inventory

Raynham, MA

Location	Discharge Location	Is Discharge Entering MS4? (Y/N)	Date/Time of SSO Occurrence	Estimated Volume of SSO Occurrence	Known/Suspected Cause	Mitigation Measures Completed	Mitigation Implementation Date	Mitigation Measures Planned	Mitigation Implementation Schedule
1 Example Rd	Enters into Example Pond	Yes	August 4, 2016 9:00 AM - August 5, 2016 3:00 PM	1,200 gallons	Illicit resident connection	Illicit connection removed	August 8, 2016		

*The SSO occurrence listed above is an example

FOR COMMENT

APPENDIX H

CURRENT STORMWATER BYLAW

FOR COMMENT

RAYNHAM'S STORMWATER BY-LAW

ILLICIT CONNECTIONS AND DISCHARGES TO THE STORM DRAIN SYSTEM

SECTION 1. PURPOSE and AUTHORITY

1. Purpose

The purpose of this By-Law is to regulate illicit connections and discharges to the **storm drain system**, which is necessary for the protection of Raynham's water bodies and groundwater, and to safeguard the public health, safety, welfare and the environment.

The objectives of this By-Law are:

- A. To prevent pollutants from entering Raynham's municipal separate storm sewer system (MS4);
- B. To prohibit illicit connections and unauthorized discharges to the MS4;
- C. To require the removal of all such illicit connections;
- D. To comply with state and federal statutes and regulations relating to stormwater discharges; and
- E. To establish the legal authority to ensure compliance with the provisions of this by-law through inspection, monitoring, and enforcement.
- F. To prevent contamination of drinking water supplies.

2. Authority

The Board of Health and Highway Department shall administer, implement and enforce this by-law. Any powers granted to or duties imposed upon the Board of Health or the Highway Department may be delegated in writing to employees or agents by the Board of Health or the Highway Department.

SECTION 2. DEFINITIONS

For the purposes of this by-law, the following shall mean:

Authorized Enforcement Agency: The Board of Health or the Highway Department, its employees or agents designated to enforce this by-law.

Best Management Practice (BMP): An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff.

Clean Water Act: The Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*) as hereafter amended.

Discharge of Pollutants: The addition from any source of any pollutant or combination of pollutants into **storm drain systems** or into the waters of the United States or Commonwealth from any source.

RAYNHAM'S STORMWATER BY-LAW

Groundwater: All water beneath the surface of the ground.

Illegal Discharge: Any direct or indirect non-stormwater discharge to **storm drain systems**, except as specifically exempted in Section 6. The term does not include a discharge in compliance with an NPDES Storm Water Discharge Permit or resulting from fire fighting activities exempted pursuant to Section 6, subsection 4, of this ordinance.

Illicit Connection: Any surface or subsurface drain or conveyance, which allows an illegal discharge into **storm drain systems**. Illicit connections include conveyances which allow a non-stormwater discharge to **storm drain systems** including sewage, processed wastewater or wash water and any connections from indoor drains sinks, or toilets, regardless of whether said connection was previously allowed, permitted, or approved before the effective date of this ordinance.

Impervious Surface: Any material or structure on or above the ground that prevents water from infiltrating the underlying soil.

Municipal separate storm sewer system (MS4) or municipal storm drain system: The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the Town of Raynham.

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: A permit issued by the United States Environmental Protection Agency or jointly with the State that authorizes the discharge of pollutants to waters of the United States.

Non-Stormwater Discharge: Any discharge to the **storm drain systems** not composed entirely of stormwater.

Person: Any individual, partnership, association, firm, company, trust, corporation, and, any agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

Pollutant: Any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heated effluent, or other matter whether originating at a point or nonpoint source, that is or may be introduced into any sewage treatment works or waters of the Commonwealth. Pollutants shall include:

- (1) paints, varnishes, and solvents;
- (2) oil and other automotive fluids;

RAYNHAM'S STORMWATER BY-LAW

- (3) non-hazardous liquid and solid wastes and yard wastes;
- (4) refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnances, accumulations and floatables;
- (5) pesticides, herbicides, and fertilizers;
- (6) hazardous materials and wastes; sewage, fecal coliform and pathogens;
- (7) dissolved and particulate metals;
- (8) animal wastes;
- (9) rock; sand; salt, soils;
- (10) construction wastes and residues;
- (11) and noxious or offensive matter of any kind.

Process Wastewater: means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any material, intermediate product, finished product, or waste product.

Recharge: The process by which groundwater is replenished by precipitation through the percolation of runoff and surface water through the soil.

Stormwater: Runoff from precipitation or snow melt.

Storm Drain System: The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system on public or private ways within the Town of Raynham.

Toxic or Hazardous Material or Waste: Any material, which because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment. Toxic or hazardous materials include any synthetic organic chemical, petroleum product, heavy metal, radioactive or infectious waste, acid and alkali, and any substance defined as Toxic or Hazardous under G.L. Ch.21C and Ch.21E, and the regulations at 310 CMR 30.000 and 310 CMR 40.0000.

Uncontaminated: Water containing no pollutants.

Watercourses: A natural or man-made channel through which water flows or a stream of water, including a river, brook or underground stream.

RAYNHAM'S STORMWATER BY-LAW

Waters of the Commonwealth: All waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, costal waters, and groundwater.

Wastewater: Any sanitary waste, sludge, or septic tank or cesspool overflow, and water that during manufacturing, cleaning or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product.

SECTION 3. APPLICABILITY

This by-law shall apply to flows entering the municipally owned storm water and drainage system **on public or private ways within the Town of Raynham.**

SECTION 4. REGULATIONS

The Board of Health or the Highway Department may promulgate rules, regulations and a permitting process to effectuate the purposes of this by-law. Failure by the Board of Health or the Highway Department to promulgate such rules and regulations shall not have the effect of suspending or invalidating this by-law.

1. Remediation of Illicit Connections

A) If an illicit connection is found to be from a septic system or other septic waste sources, remediation must commence within 48 hours and be completed in 7 days.

B) If an illicit connection is found to be from a gray water source such as washing machine water, a sink or a similar discharge, remediation must begin within 48 hours and be completed within 7 days.

C) If an illicit connection is found to be from a sump pump or similar discharge, the property owner must eliminate the connection, acquire the proper permit, conform to other requirements stated herein, and remediation completed in 90 days.

D) A control manhole shall be installed at the property line before water is discharged into a catch basin or waterway. The manhole will also have a Tee connector installed vertically to act as an oil water separator. A light weight cover shall be provided to allow access for inspection purposes.

All cost associated with corrective measures are the sole responsibility of the homeowner.

SECTION 5. PROHIBITED ACTIVITIES

1. Illegal Discharges

RAYNHAM'S STORMWATER BY-LAW

No person shall dump, discharge, cause or allow to be discharged any pollutant or non-stormwater discharge into **storm drain systems**, watercourse, or into the waters of the Commonwealth.

2. Illicit Connections

No person shall construct, use, allow, maintain or continue any illicit connection to **storm drain systems**, regardless of whether the connection was permissible under applicable law, regulation or custom at the time of connection.

3. Obstruction of Storm Drain Systems

No person shall obstruct or interfere with the normal flow of stormwater into or out of **storm drain systems** without prior approval from the Board of Health or the Highway Department or its designated agent.

4. Exemptions

This by-law shall not apply to any of the following non-stormwater discharges or flows provided that the source is not a significant contributor of a pollutant to **storm drain systems**:

- A. **Municipal** waterline flushing;
- B. Discharges from landscape irrigation or lawn watering;
- C. Water from individual residential car washing and temporary fund-raising car wash events;
- D. Discharges from dechlorinated swimming pool water provided it is allowed to stand for one week prior to draining, or tested for chlorine levels with a pool test kit prior to draining (less than one parts per million chlorine), and the pool is drained in such a way as not to cause a nuisance;
- E. Discharges from street sweepers of minor amounts of water during operations;
- F. Discharges or flows resulting from fire fighting activities;
- G. Non-stormwater discharges permitted under a NPDES permit, waiver, or waste discharge order administered under the authority of the United States Environmental Protection Agency, provided that the discharge is in full compliance with the requirements of the permit, waiver, or order and applicable laws and regulations.

5. Exemptions with Permit from Board of Health or the Department of Public Works

This by-law shall not apply to any of the following non-stormwater discharges or flows provided that the source is not a significant contributor of a pollutant to storm drain systems, provided that a permit is approved by the Board of Health or the Highway Department:

RAYNHAM'S STORMWATER BY-LAW

- A. Flows from potable water sources;
- B. Springs;
- C. Natural flows from riparian habitats and wetlands;
- D. Diverted stream flows;
- E. Rising groundwater;
- F. Uncontaminated groundwater infiltration as defined in 40 CFR 35.2005(20), or uncontaminated pumped groundwater;
- G. Uncontaminated groundwater discharge from a sump pump, with approved spill containment area for oil tanks, a containment area surrounding sump pump basins and a permit from the Board of Health or the Department of Public Works, in accordance with Section 5;
- H. Water from exterior foundation drains, footing drains (not including active groundwater dewatering systems, such as dewatering excavations for foundation or pipelines), crawl space pumps, or air conditioning condensation;
- I. Dye testing, provided verbal notification is given to the Board of Health or the Highway Department prior to the time of the test.

The Board of Health or the Highway Department shall develop criteria for issuing permits under this section, based on the need to maintain capacity of the storm drain system and to protect public health, safety, welfare or the environment.

SECTION 6. SUSPENSION OF STORM DRAINAGE SYSTEM ACCESS

1. The Board of Health or the Highway Department may suspend **storm drain system** access to any person or property without prior written notice when such suspension is necessary to stop an actual or threatened illegal discharge that presents or may present imminent risk of harm to the public health, safety, welfare or the environment. In the event any person fails to comply with an emergency suspension order, the Authorized Enforcement Agency may take all reasonable steps to prevent or minimize harm to the public health, safety, welfare or the environment.
2. Any person discharging to a municipal storm drain system in violation of this By-Law may have their **storm drain system** access terminated if such termination would abate or reduce an illicit discharge. The Board of Health or the Highway Department will notify a violator of the proposed termination of **storm drain system** access. The violator may petition the Board of Health or the Department for reconsideration and hearing. A person commits an offense if the person reinstates **storm drain system** access to premises terminated pursuant to this section, without prior approval from the Board of Health or the Highway Department.

RAYNHAM'S STORMWATER BY-LAW

SECTION 7. NOTIFICATION OF SPILLS

Notwithstanding any other requirements of local, state or federal law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials at that facility operation which is resulting or may result in illegal discharge of pollutants that person shall take all necessary steps to ensure containment, and cleanup of the release. In the event of a release of oil or hazardous materials, the person shall immediately notify the municipal fire and police departments, Department and Board of Health. In the event of a release of non-hazardous material, said person shall notify the Authorized Enforcement Agency no later than the next business day.

Written confirmation of all telephone, facsimile or in person notifications shall be provided to the Authorized Enforcement Agency within three business days thereafter. If the discharge of prohibited materials is from a commercial or industrial facility, the facility owner or operator of the facility shall retain on-site a written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

SECTION 8. ENFORCEMENT

1. Regulatory Controls

The Board of Health, the Highway Department or its authorized agent shall enforce this by-law, and the regulations promulgated thereunder, as well as the terms and conditions of all permits, notices, and orders, and may pursue all civil and criminal remedies for such violations.

2. Civil Relief

If anyone violates the provisions of this by-law, regulations, permit, notice, or order issued thereunder, the Board of Health or the Highway Department shall issue a stop work order to restrain the person from activities which would create further violations or compelling the person to abate or remediate the violation.

3. Orders

The Board of Health or the Highway Department may issue a written order to enforce the provisions of this by-law or the regulations thereunder, which may include: **(a)** elimination of illicit connections or discharges to the storm drainage system; **(b)** termination of access to the storm drainage system; **(c)** performance of monitoring, analysis, and reporting; **(d)** cessation of unlawful discharges, practices, or operations; and **(e)** remediation of contamination in connection therewith. If the Board of Health or the Department determines that abatement or remediation of contamination is required, the order shall set forth a deadline for

RAYNHAM'S STORMWATER BY-LAW

completion of the abatement or remediation. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the town may, at its option, undertake such work, and expenses thereof shall be charged to the violator or property owner. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be notified of the costs incurred by the town, including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Board of Health or the Department within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of the Board of Health or the Department affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. Chapter 59, § 57 after the thirty-first (30) days at which the costs first become due.

4. Criminal and Civil Penalties

Any person who violates any provision of this by-law, valid regulation, or the terms or conditions in any permit or order prescribed or issued thereunder, shall be subject to a fine not to exceed \$300.00 for each day such violation occurs or continues or subject to a civil penalty, which may be assessed in an action brought on behalf of the town in any court of competent jurisdiction.

5. Non-Criminal Disposition

As an alternative to criminal prosecution or civil action, the Town of Raynham may elect to utilize the non-criminal disposition procedure set forth in G.L. Chapter 40, §21D. The Board of Health or the Highway Department shall be the enforcing entity. The penalty for the 1st violation shall be up to \$100. The penalty for the 2nd violation shall be up to \$200. The penalty for the 3rd and subsequent violations shall be \$ 300.00. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

6. Entry to Perform Duties under this By-Law

To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Board of Health, the Highway Department, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this by-law and regulations and may make or cause to be made such examinations, surveys or sampling as the Board of Health or the Highway Department deems reasonably necessary.

7. Appeals

RAYNHAM'S STORMWATER BY-LAW

The decisions or orders of the Board of Health or the Highway Department shall be final. Further relief shall be to a court of competent jurisdiction.

8. Remedies Not Exclusive

The remedies listed in this by-law are not exclusive of any other remedies available under any applicable federal, state or local law.

SECTION 9. SEVERABILITY

If any provision, paragraph, sentence, or clause, of this by-law shall be held invalid for any reason, all other provisions shall continue in full force and effect.

SECTION 10. TRANSITIONAL PROVISIONS

Residential property owners comply with this by-law on a schedule set forth in the Board of Health or the Highway Department compliance order, but such property owners shall in no case have more than six months from the effective date of the by-law to comply with its provisions, unless good cause is shown for the failure to comply with the by-law during that period.

FOR COMMENT

APPENDIX I

2018 ANNUAL REPORT SELF EVALUATION

ANNUAL EVALUATION FOR YEARS 1 -5+

FOR COMMENT

Municipality/Organization: Town of Raynham, MA

EPA NPDES Permit Number: MAR 041151

MassDEP Transmittal Number: W-XZ 809 45

Annual Report Number Year 15

& Reporting Period: April 1, 2017 – March 31, 2018

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

Part I. General Information

Contact Person: David Flaherty

Title: Interim Town Administrator

Telephone #: 508.824.2707

Email: dflaherty@town.raynham.ma.us

Mailing Address: 558 South Main Street, Raynham, MA 02767

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: David Flaherty

Title: Interim Town Administrator

Date: 6/7/2018

Part II. Self-Assessment

The Town of Raynham, MA has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions except for the following provisions:

Section 1.1 Public Outreach –No classroom presentations made (no conservation agent to conduct them at this time)

Section 2.2 Illicit Discharge Detection & Elimination By-law has not been accepted as a Town by-law as of this date. However, the Town has continued to enforce health regulations preventing illegal discharges to the Town’s stormwater system. Approximately 90% of the town’s residents are already sewered or have town sewer available.

Part III. Summary of Minimum Control Measures

STORMWATER REPORT

Part III Summary of Minimum Control Measures

1. Public Education and Outreach

<u>BMP ID#</u>	<u>BMP Description</u>	<u>Responsible Dept./Person</u>	<u>Measurable Goal(s)</u>	<u>Progress on Goal(s) Permit Year 15</u>
1.1	Introduce topic to students as appropriate	Public Education task force	Classroom presentations	No presentations made this year.
1.2	Design & Distribute Brochure	Town Administrator	Raise public awareness pollution of stormwater	Completed in year 2
1.3	Stencil storm drains	Highway Department/ Highway Superintendent	Identify MS4 for public	Completed in year 4

1.4	Create Public Education Task Force	Raynham Board of Selectmen/Town Administrator	Board of Selectmen appoints Task Force	Completed in year 1
1.5.	Create awareness with education incentives	North & Center Water District Supts.	Create scholarship fund	Small scholarship fund created

2. Public Involvement and Participation

<u>BMP ID#</u>	<u>BMP Description</u>	<u>Responsible Dept./Person</u>	<u>Measurable Goal(s)</u>	<u>Progress on Goal(s) Permit Year 15</u>
2.1	Form Technical Comm.	Town Administrator/ Board of Selectmen	Board of Selectmen vote to form committee	Completed in year 1
2.2	Tech.Comm.drafts by-law	Technical Committee	Illicit Discharge and E & S bylaws presented to Town	Draft By-Law ready
2.3	Use media to educate and motivate residents to comply	Technical Committee employees of town agencies	Positive press coverage of storm water meeting activities	Occasional announcements made at Selectmen/Health and Conservation meetings
2.4	Solicit residents to report discharges	Task Force	Residents report	<u>No</u> incidents reported this year

2.5	Provide public notice of all meetings/hearings	Technical Committee	Public attends Meeting & Hearings	No meetings held this year.
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2A Additions

2.6	HHW Collection	Highway Supt	Hold one Town-wide event annually	Town-wide event held on June 3, 2017 (by Clean Harbors) 152 residents participated
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3. Illicit Discharge Detection and Elimination

<u>BMP ID#</u>	<u>BMP Description</u>	<u>Responsible Dept./Person</u>	<u>Measurable Goal(s)</u>	<u>Progress on Goal(s) Permit year 15</u>
3.1	Map MS4 Outfalls	Highway & Planning Dept	Produce Maps of MS4	Initial mapping completed in Year 7, Updates for pipe connectivity made in Year 15 (field verification & as-built reviews)
3.2	Dry weather screening during routine catch basin cleaning	Highway Dept. Superintendent/Employees	Monitor MS4	Highway Dept. checked catch basins for dry weather flows (none found)
3.3	Inspections during routine detention/retention basin mowing	Highway Supt.	Monitor MS4	Highway Dept. inspected detention basins for dry weather flows (none found)
3.4	Illicit Discharge By Law enforcement.	Highway Supt.	Violations caught or discouraged	No illegal discharge events

3.5	Prvd.Insp. & tech. assist. to & ZBA Boards	Highway & Planning Board Dept/Hiway & P.B	Develop & enforce Management practices	On-going
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4. Construction Site Stormwater Runoff Control

<u>BMP IC#</u>	<u>BMP Description</u>	<u>Responsible Dept./Person</u>	<u>Measurable Goal(s)</u>	<u>Progress on Goal (s) Permit Year 15</u>
4.1	Devlp.by-law for construction along accepted ways	BOS & Hiway Dept.Town Adm& Hiway Supt.	Required permit & cash bond before excav. along town ways	Completed in Year 3. 54 such permits were issued during the year.
4.2	Conduct subdivision review & inspections	Hiway & Planning Dept/Hiway Supt.& Planning Board	Enforce const. of aprv.plans through subdivision cont.	Two subdivision reviewed for compliance during construction (Bassett Knoll & Whippoorwill)
4.3	Develp.P.B.& ZBA to address MS4 issues	Highway & Planning Dept./Hiway & P.B.Agents	Provide regulations addressing MS4 issues	Completed
4.4	Enforce by-laws & PB reg.	Highway & Planning Hiway Supt & P.B. Regs	Encourage proper management of MS4 issues	All new subdivisions and sites of greater than 1 acre were inspected for proper MS4

4.5	Conduct routine & impromptu inspections during construction	Highway Dept / Highway Supt. or designated agent	Discourage MS4 violations & encourage best Mgt.Practices	Highway employees conducted scheduled & unscheduled inspec.of all construction sites requiring stormwater control
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5. Post-Construction Stormwater Management in New Development and Redevelopment

<u>BMP ID#</u>	<u>BMP Description</u>	<u>Responsible Dept/Person</u>	<u>Measurable Goals</u>	<u>Progress on Goal (s) Permit Year 15</u>
5.1	Monitor,review & assess compliance with MS4 regs.	Hwy & Planning Board Depts/Hwy Supt & P.B. agents	Use bond surety to insure compliance with regulations	Fees for maintenance of MS4 in new developments collected-two subdivisions
5.2	Periodic assessment of BMP's for MS4	Hiway & Planning Board Depts/Hiway Supt. & P.B.agent	Ongoing evaluation of what is working and what is not	No review this year.
5.3	Provide tech support & BMP's to aprop. Boards agencies	Hiway, P.B & Tech.& Cmt/Hiway Supt. P.B.agents & Cmt member.	Ongoing assessment & use of improved BMP	Planning Board allows Low Impact Development techniques.
5.4	Required review & Comment B/4 bond reduction (or) return	Planning & Appeals Board Chairman each Board	Ensure compliance of BMP's of developing projects	Town Engineer/Hwy Supt. did final inspection of two projects before acceptance

6. Pollution Prevention and Good Housekeeping in Municipal Operations

<u>BMP ID #</u>	<u>BMP Description</u>	<u>Responsible Dept/Person</u>	<u>Measurable Goals</u>	<u>Progress on Goal(s) Permit Year 15</u>
6.1	Regular cleaning & inspections of catch basin	Hiway Dept./ Hiway Supt responsible Dept./Person Name	Regular assessment structure & removal of road soils	80% of catch basins cleaned & inspected annually
6.2	Regular Street sweeping	Hiway Dept/Hiway Supt.	Regular & periodic removal of road soils	All streets in Town swept at least once. Some major arteries twice. School & town lots also swept
6.3	Installation of deep sump basins	Hiway Dept/ Hiway Supt.	Collection of additional road soils from MS 4 systems	No deep sumps added during reporting period
6.4	Provide employee regds.train.hazs. mat. clean up & disposal	Hiway Dept/Hiway Supt.	Employees are trained in Hazmat	Employee maintained Hazmat certification (8 hours)
6.5	Provide work orders system	Hiway Dept/Hiway Supt & General Foreman	Provide records of mat. removed & work pref.on MS4	Work order system functioning well

Part IV. Summary of Information collected and Analyzed

The town is now operating with an approximately 92 percent sanitary sewer system. No illegal connections were detected during this reporting period. Further expansion of the sewer system is continuing.

All streets were swept of sand and salt at least once. Some of the Town's major arteries were swept twice.

Highway Department mowed and otherwise maintained all (100%) of the detention/retention basins in Town thanks to a fund established in 1988. Developers pay a \$500 per lot fee into a perpetual maintenance account established for the purpose of maintaining stormwater structures in subdivisions.

80% of catch basins were cleaned during reporting period out of 1800 total catch basins. These were checked for dry weather flows at the time of cleaning. 652.47 tons of material was taken to the Taunton Landfill operated by Waste Management.

All construction sites were inspected for adequate erosion and sediment control.

Annual Household Hazardous Waste Day was held at the Town's recycling and transfer station with Clean Harbors as the vendor. 152 residents brought household hazardous waste to this event in June of 2017.

There were no reports of illegal dumping/disposal into the Town's MS4 system.

30 bonds of \$2,000 each were collected for building lots on accepted roads to ensure adequate protection of the roadway and storm drainage.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2014 through March 31, 2015)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	(\$)	\$40,000 est.
Total program expenditures since beginning of permit coverage	(\$)	\$700,000 est.
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Stormwater Stabilization Account/General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	30%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1 Annually
▪ community participation **	(# or %)	152
▪ material collected **	(tons or gal)	Var.
School curricula implemented	(y/n)	

Legal/Regulatory

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

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	175
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	20%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	3
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	3
% of population on sewer	(%)	92%
% of population on septic systems	(%)	11%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	12
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	4 hwy/37 bldg
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-	(%)	100%
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construction stormwater control		
Site inspections (for proper BMP installation & operation) completed **	(# or %)	2
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	Every 2 years
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1x/year
Qty of structures cleaned **	(#)	1500
Qty. of storm drain cleaned **	(%, LF or mi.)	10%
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	652 ton (2 yrs)
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial Use

FOR COMMENT

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$20,000 est.
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$20/ea
• Disposal cost**	(\$)	\$0
Cleaning Equipment		
Clam shell truck(s) owned	(#)	1
Vacuum truck(s) owned/leased	(#)	0
Vacuum trucks specified in contracts	(y/n)	N
% Structures cleaned with clam shells **	(%)	99%
% Structures cleaned with vector **	(%)	1%

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	65 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Taunton Landfill- Beneficial Use
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$25,000 est.
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	n/a
• Disposal cost**	(\$)	\$0
Sweeping Equipment		
• Rotary brush street sweepers owned	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	n
% Roads swept with rotary brush sweepers **	%	100%
% Roads swept with vacuum sweepers **	%	0%

Reduction (since beginning of permit coverage) in application on public land of:
 (“N/A” = never used; “100%” = elimination)

▪ Fertilizers	(lbs. or %)	25%
▪ Herbicides	(lbs. or %)	25%
▪ Pesticides	(lbs. or %)	25%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Signs installed

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	95 5
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	20%
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	90%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	Y
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	n/a
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

Year 2 Annual Report

Document Name and/or Web Address:

Year 3 Annual Report

Document Name and/or Web Address:

Year 4 Annual Report

Document Name and/or Web Address:

Year 5 Annual Report

Document Name and/or Web Address:

Year X Annual Report

Document Name and/or Web Address:

APPENDIX J

MINIMUM CONTROL MEASURES BMPs

FOR COMMENT

Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures
CM #1 - Public Education and Outreach

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	Distribution of a minimum of two (2) educational messages over the permit term to each of the four (4) required audiences	Residents (1)	Highway Department, Conservation Commission/Town Clerk	Distribute at least two educational messages to each audience within the permit term	2018
		Businesses, Institutions, and Commercial Facilities (2)	Building Permitting and Enforcement		
		Developers (construction) (3)	Building Permitting and Enforcement		
		Industrial Facilities (4)	Planning Department and Health Department		

Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures
CM #2 - Public Involvement and Participation

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	Public Review	SWMP Review	Highway Department	Make SWMP available at least annually for public review	2019
R2	Public Participation	SWMP Review	Highway Department	Allow public to comment on stormwater management plan annually	2019
2A	Public Participation	Partnership - Advocacy Groups	Highway Department, Conservation Commission	Maintain/acquire membership with local stormwater groups (Southeastern Massachusetts Stormwater Collaborative, Taunton River Watershed)	2019
2B	Public Participation	Website	Highway Department	Publish contact on stormwater website for soliciting complaints, questions, etc.	2019
2C	Public Participation	Household Hazardous Waste	Highway Operations	Continue to host Town hazardous waste collection days with various groups	2019
2D	Public Participation	Stormwater Committee/Task Force	Highway Operations	Reestablish volunteer Stormwater Management Task Force for clean-ups	2019
2E	Public Participation	Stormwater Committee/Task Force	Conservation Commission	Continue to research the naming of streams	2019

**Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures**

CM #3 - Illicit Discharge Detection and Elimination (IDDE) Program

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	SSO Inventory	Develop SSO inventory in accordance with permit conditions	Sewer Department	Within 1 year of effective date develop inventory of historical SSOs that occurred within the MS4 in	2019
R2	Storm Sewer System Map	Create map and update during IDDE program completion	Highway Operations, Consultant	Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit	2020
R3	Written IDDE Program Development	Create written IDDE program	Highway Operations, Consultant	Complete within 1 year of the effective date of permit	2019
R4	Implement IDDE Program	Implement catchment investigations according to program and permit conditions	Highway Operations, Consultant	Implement catchment investigations according to program and permit conditions	2018
R5	Employee Training	Train employees on IDDE implementation	Consultant	Train annually	2019
R6	Conduct Dry Weather Screening	Conduct in accordance with outfall screening procedure and permit conditions	Highway Operations, Consultant	Conduct in accordance with outfall screening procedure and permit conditions	2018
R6	Conduct Wet Weather Screening	Conduct in accordance with outfall screening procedure	Highway Operations, Consultant	Conduct in accordance with outfall screening procedure and permit conditions	2018
R7	Ongoing Screening	Conduct dry weather and wet weather screening as necessary	Highway Operations, Consultant	Conduct in accordance with outfall screening procedure and permit conditions	2019
R8	IDDE Regulations	Comply with local bylaws, state and federal requirements	Highway Operations	Continue to eliminate illicit discharge violations	2019

Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures

CM #4 - Construction Site Stormwater Runoff Control

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	Site inspection and enforcement of Erosion and Sediment Control (ESC) measures	Complete written procedures of site inspections and enforcement procedures	Highway Operations, Building Department, Planning Department, Conservation Commission	Within 1 year of effective date of the permit, develop written/electronic SOP for inspection/enforcement of ESC measures	2018
R2	Site plan review	Complete written procedures of site plan review and begin implementation		Complete within 1 year of the effective date of the permit	2018
R3	Erosion and Sediment Control	Adoption of requirements for construction operators to implement a sediment and erosion control program		Complete within 1 year of the effective date of the permit	2018
R4	Waste Control	Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes		Complete within 1 year of the effective date of the permit	2018
R5	Construction Ordinance/Bylaw	Adopt new stormwater management bylaw		Complete a final draft of the stormwater management bylaw and adopt within 1 year of the effective date of permit	2019

Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures

CM #5 - Stormwater Management in New Development and Redevelopment

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	As-built plans for on-site stormwater control	The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP	Highway Department, Planning Department, Building Department	Require submission of as built plans for completed projects	2018
R2	Inventory and priority ranking of MS4-owned properties that may be retrofitted with BMPs	Conduct detailed inventory of MS4 owned properties and rank for retrofit potential	Highway Department	Complete 4 years after permit effective date	2021
R3	Allow green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	Highway Department, Planning Department, Building Department	Complete 4 years after permit effective date	2021
R4	Street design and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options	Highway Department, Planning Department	Complete 4 years after permit effective date	2021
R5	Ensure any stormwater controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality	Adoption, amendment or modification of a regulatory mechanism to meet permits requirements	Highway Department, Planning Department	Complete 2 years after permit effective date	2018
5A	Post-Construction Ordinance/Bylaw	Adopt new stormwater management bylaw	Highway Department	Complete 2 years after permit effective date	2019

**Town of Raynham, Massachusetts
MA MS4 General Permit - Control Measures**

CM #6 - Good House Keeping and Pollution Prevention for Permittee Owned Operations

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	O&M procedures	Create written O&M procedures for parks and open spaces, buildings and facilities, and vehicles and equipment	Highway Department	Complete within 2 years after permit effective date	2020
R2	Inventory all permittee-owned parks and open spaces, buildings and facilities (including their storm drains), and vehicles and equipment	Create inventory	Highway Department	Complete 2 years after permit effective date	2020
R3	Infrastructure O&M	Establish and implement program for repair and rehabilitation of MS4 infrastructure	Highway Department	Complete 2 years after permit effective date	2020
R4	Stormwater Pollution Prevention Plan (SWPPP)	Create Stormwater Pollution Prevention Plan (SWPPP) for maintenance garages, transfer stations and other waste-handling facilities	Highway Department	Complete 2 years after permit effective date	2020
R5	Catch Basin Cleaning	Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule	Highway Department	Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually	2020
R6	Street Sweeping Program	Sweep all streets and permittee-owned parking lots in accordance with permit conditions	Highway Department	Sweep all streets and permittee-owned parking lots once per year in the spring	2019
R7	Road Salt use optimization program	Establish and implement a program to minimize the use of road salt	Highway Department	Implement salt use optimization during deicing season	2018
R8	Inspections and maintenance of stormwater treatment structures	Establish and implement inspection and maintenance procedures and frequencies	Highway Department	Inspect and maintain treatment structures at least annually	2019
6A	Plymouth County Mosquito Control Project	Coordinate annual meeting	Highway Department	Contact annually	2019
6B	Massachusetts Department of Transportation	Coordinate annual meeting	District 5	Contact annually	2019

Town of Raynham, Massachusetts
MA MS4 General Permit - In State Water Quality Impairments

South Coastal and Taunton River Watershed - Bacteria and Pathogens TMDL

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	Public Education	Residents	Highway Department	Distribute annual message encouraging the proper management of pet waste	2018
R2	Illicit Discharge		Highway Department	Prioritize catchment areas	2018

FOR COMMENT

Town of Raynham, Massachusetts
MA MS4 General Permit - Water Quality Impairments
Taunton River Watershed - Nitrogen

BMP ID	BMP Categorization	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of Implementation
R1	Public Education and Outreach	Residential, Business, Commercial and Institution	Highway Department	Distribute required messages each year	2018
R2	Stormwater Management in New Development and Redevelopment			Incorporate TMDL into new stormwater regulations	2018
R3	Good House Keeping and Pollution Prevention for Permittee Owned Operations			Establish procedures for dealing with waste produced on permittee owned properties	2018
R4	Nitrogen Source Identification Report			Complete within 4 years of the permit effective date	2018
R5	Structural BMPs			Complete within 5 years of the permit effective date	2018