Stormwater Management Program (SWMP)

Town of Nahant

334 Nahant Road, Nahant, MA, 01908

EPA NPDES Permit Number: MAR041051

June 28, 2019

Prepared for:

Town of Nahant

Prepared by:

Stantec Consulting Services, Inc.
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STORMWATER MANAGEMENT PROGRAM (SWMP)
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CZM</td>
<td>Coastal Zone Management</td>
</tr>
<tr>
<td>DPW</td>
<td>Department of Public Works</td>
</tr>
<tr>
<td>IDDE</td>
<td>Illicit Discharge Detection and Elimination</td>
</tr>
<tr>
<td>MassDEP</td>
<td>Massachusetts Department of Environmental Protection</td>
</tr>
<tr>
<td>MCM</td>
<td>Minimum Control Measure</td>
</tr>
<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intent</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>SRP</td>
<td>Spill Response Plan</td>
</tr>
<tr>
<td>SSO</td>
<td>Sanitary Sewer Overflow</td>
</tr>
<tr>
<td>SWIM</td>
<td>Safer Waters in Massachusetts</td>
</tr>
<tr>
<td>SWMP</td>
<td>Stormwater Management Program</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plan</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
</tr>
<tr>
<td>US EPA, EPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
</tr>
</tbody>
</table>
1.0 CERTIFICATION

Authorized Representative: 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 of the Permit or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B of the Permit. 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 in Appendix A.

"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: Antonio Barletta
Signature: [Signature]
Date: 6/28/19
2.0 BACKGROUND

2.1 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.

2.2 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.

2.3 STORMWATER MANAGEMENT PROGRAM (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.
STORMWATER MANAGEMENT PROGRAM (SWMP)

Background

2.4 NAHANT SPECIFIC MS4 BACKGROUND

The Town of Nahant, located within an Urbanized Area as identified by the latest Decennial (2010) census and designated as a regulated community, has applied for coverage under NPDES General Permit for Stormwater Discharges.

The Town was permitted under the 2003 Small MS4 Permit. During that Permit term, the Town created a SWMP, addressed storm system mapping, and submitted Annual Reports. Beyond addressing minimum regulatory requirements, the Town developed additional mapping including storm drain manholes and catch basins.

The Town has completed many activities to address the education and outreach requirements of the 2003 Permit, including posting educational information on their website, providing information about nearby annual household hazardous waste collection days via its website and message signs, and providing information about proper pet waste disposal. In this Permit term, the Town will continue to distribute educational materials and will work to enhance the program.

The Town has demonstrated their commitment to public involvement and participation in the program by providing residents with access to the stormwater management plan.

The Town developed and administered an IDDE Program as part of the 2003 Permit, which included developing a stormwater map showing outfalls and receiving waters, reviewing the Town’s Stormwater By-Law, and dry weather screening and sampling for MS4 outfalls. The IDDE plan is one of the most demanding tasks in the 2016 Permit, and the Town will continue to advance efforts from the 2003 Permit term.

To properly manage and enforce construction site stormwater runoff, the Town developed Stormwater By-Laws which became effective in 2015. The Town will review these By-Laws to determine whether changes are needed to fully address new requirements.

The Town has an operations and maintenance program that already meets many of the Permit requirements for catch basin cleaning, street sweeping and management, winter road maintenance, and BMP maintenance.

The Town has demonstrated successful stormwater management through the adherence to the 2003 Permit. Although some updates and additions are necessary, the Town has a substantial stormwater management program ready for the new Permit.

The Town has been submitting an MS4 Annual Report to the US EPA since the 2003 Permit term. This yearly reporting requirement will continue, and as described in Section 8, residents will have an opportunity to review and comment on progress every year. In addition, this SWMP is not meant to be a static document, and as the Town’s efforts progress and evolve, so too will this program. The SWMP will be updated continuously and the most up to date version of this program will be made available to residents through the Town’s website.
STORMWATER MANAGEMENT PROGRAM (SWMP)

Small ms4 Authorization

3.0 SMALL MS4 AUTHORIZATION

A Notice of Intent (NOI) was submitted to EPA on October 2, 2018. The EPA requested additional information, and a response was provided April 2019. The NOI and follow-up response and can be found in Appendix B.

An Authorization to Discharge was granted on June 4, 2019 and the authorization letter can be found in Appendix C.
STORMWATER MANAGEMENT PROGRAM TEAM

The SWMP Team is responsible for MS4 program implementation.

4.1 SWMP TEAM COORDINATOR

Antonio Barletta, Town Administrator
Nahant Town Hall
334 Nahant Road
Nahant, MA, 01908
Phone: (781) 581-9927
aborletta@nahant.org

4.2 SWMP TEAM

Zach Taylor, DPW Superintendent
Flash Road
Nahant, MA 01908
Phone: (781) 581-0026
ztaylor@nahant.org

Tim Lowe, DPW General Foreman
Flash Road
Nahant, MA 01908
Phone: (781) 581-0026
tlowe@nahant.org
5.0 RECEIVING WATERS

Table 1 lists all receiving waters, pollutants causing impairments, and number of outfalls discharging to each waterbody segment in the Massachusetts Year 2014 Integrated List of Waters.

Table 1: Receiving Waters Listed in the Massachusetts Year 2014 Integrated List of Waters

<table>
<thead>
<tr>
<th>Waterbody Segment that Receives Flow from the MS4</th>
<th>Number of Outfalls into Receiving Water Segment</th>
<th>Pollutants Causing Impairments</th>
<th>Category 4a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Harbor (MA93-52)</td>
<td>5</td>
<td>Fecal Coliform</td>
<td>4a</td>
</tr>
<tr>
<td>Lynn Harbor (MA93-53)</td>
<td>6</td>
<td>Fecal Coliform</td>
<td>4a</td>
</tr>
<tr>
<td>Nahant Bay (MA93-24)</td>
<td>17</td>
<td>Fecal Coliform</td>
<td>4a</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>28</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Category 4a includes waters for which the required TMDL(s) have already been completed and approved by EPA

Table 2 lists the number of outfalls discharging to waterbodies not included in the Massachusetts Year 2014 Integrated List of Waters. This list primarily contains outfalls discharging to Nahant Harbor, as well as inland outfalls discharging to wetlands.

Table 2: Receiving Water Not Listed in the Massachusetts Year 2014 Integrated List of Waters

<table>
<thead>
<tr>
<th>Waterbody that Receives Flow from the MS4</th>
<th>Number of Outfalls into Receiving Water Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nahant Harbor</td>
<td>10</td>
</tr>
<tr>
<td>Tributary to Lowlands Marsh</td>
<td>7</td>
</tr>
<tr>
<td>Tributary to Kelly Green Marsh</td>
<td>1</td>
</tr>
<tr>
<td>Wetland Tributary to Thicket</td>
<td>3</td>
</tr>
<tr>
<td>Wetland Tributary to Nahant Harbor</td>
<td>1</td>
</tr>
<tr>
<td>Kelly Green Marsh</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>
STORMWATER MANAGEMENT PROGRAM (SWMP)

Special Eligibility Determinations

6.0 SPECIAL ELIGIBILITY DETERMINATIONS

6.1 ENDANGERED SPECIES

The results of U.S. Fish and Wildlife Service endangered species screening determination are required within one year of the permit effective date and are provided in Appendix B with the NOI. The Town certified eligibility according to USFWS Criterion B. In order to meet the documentation requirements for Criterion B, the NOI includes a copy of the IPaC Official Species List and the USFWS consultation letter dated September 28, 2018 for certifying under eligibility Criterion B.

The IPaC Official Species List indicates there is one (1) Threatened Species; the Northern Long-eared Bat (Myotis septentrionalis), that is potentially present at the permitted site. The USFWS consultation letter states that Permit activities may affect, but are not likely to adversely affect, certain species when specific conditions are met. The Town has reviewed the specific conditions and confirms they are met.

6.2 HISTORIC PROPERTIES

The results of the historic property screening investigations are required within one year of the permit effective date and are provided with the NOI in Appendix B. The Town certified eligibility for Criterion A because there is no MS4 work proposed, including construction, that would affect historic properties.
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

7.0 MINIMUM CONTROL MEASURES (MCM)

7.1 MCM 1: PUBLIC EDUCATION AND OUTREACH

The Permit requires that “The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that the pollutants in stormwater are reduced.”

The educational program shall include education and outreach efforts for the following four audiences:

1. Residents,
2. Businesses, institutions (churches, hospitals), and commercial facilities,
3. Developers (construction), and

The Town of Nahant does not contain any areas zoned for industrial use; therefore, the Industrial Facilities target audience is not applicable.

The Town may partner with Nahant S.W.I.M. (Safer Waters in Massachusetts) and the Massachusetts North Shore Coalition GREENSCAPES Program to implement the following BMPs.

7.1.1 2019 Rack Card

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP 1-01; BMP 1-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMP Description</td>
<td>Mailing 2019 rack card to all households. Environmentally friendly lawn care practices.</td>
</tr>
<tr>
<td>Targeted Audience</td>
<td>Residents and Businesses, Institutions, and Commercial Facilities</td>
</tr>
<tr>
<td>Responsible Department</td>
<td>Town Administrator/ Nahant SWIM</td>
</tr>
<tr>
<td>Measurable Goals</td>
<td>Number of mailings; resident testimonials</td>
</tr>
<tr>
<td>Message Date(s)</td>
<td>2019</td>
</tr>
</tbody>
</table>

7.1.2 2020 Rack Card

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP 1-02; BMP 1-04</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMP Description</td>
<td>Mailing 2020 rack card to all households. Topic TBD.</td>
</tr>
</tbody>
</table>
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

Targeted Audience: Residents and Businesses, Institutions, and Commercial Facilities
Responsible Department: Town Administrator/ Nahant SWIM
Measurable Goals: Number of mailings; resident testimonials
Message Date(s): 2020

7.1.3 Brochure to Developers 1

BMP Number: BMP 1-05
BMP Description: Distribute the Builder’s Guide to LID (brochure) developed by MassDEP or similar.
Targeted Audience: Developers (construction)
Responsible Department: DPW Operations
Measurable Goals: One distribution per year
Message Date(s): 2021

7.1.4 Brochure to Developers 2

BMP Number: BMP 1-06
BMP Description: Distribute the EPA Stormwater Pollution Prevention for Small Residential Construction Sites brochure or similar.
Targeted Audience: Developers (construction)
Responsible Department: DPW Operations
Measurable Goals: One distribution per year
Message Date(s): 2022

7.1.5 TMDL Requirements

The Town will implement the following BMPs in accordance with requirements related to the pathogen TMDL for Lynn Harbor and Nahant Bay:
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

- Provide an annual message to residents encouraging the proper management of pet waste, including noting any existing ordinances where appropriate. This will be handled by disseminating educational material to dog owners at the time of issuance or renewal of dog licenses. Education materials will describe the detrimental impacts of improper management of pet waste, requirements for waste collection and disposal, and penalties for non-compliance (BMP 1-07). Refer to Town of Nahant Police By-Laws Section 13. Control of Dogs (http://www.nahant.org/departments/dog_officer.shtml).

- Provide information to owners of septic systems about proper maintenance in any catchment that discharges to Lynn Harbor and Nahant Bay. There are still a couple of septic systems in Nahant, and the Town plans to send out letters and enforcement to address them (BMP-08).

7.1.6 Additional BMPs

The Town may implement the following additional Public Education and Outreach BMPs:

- Post stormwater education information on the Town’s webpage, including posting of EPA video “After the Storm”

- Conduct a workshop on organic lawn care to introduce organic lawn care practices that minimize application of pollutants

7.2 MCM 2: PUBLIC INVOLVEMENT AND PARTICIPATION

The Permit states that “The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee’s SWMP.”

Table 3 provides a summary of required BMPs related to public involvement and participation with the SWMP, with associated due dates. The table will be updated annually to track progress.

Table 3: MCM 2 Summary of Permit Requirements

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP</th>
<th>Date Due</th>
<th>Date Completed</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-01</td>
<td>SWMP Posted on website</td>
<td>July 1, 2019</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2-02</td>
<td>Annual SWMP Comments</td>
<td>July – Ongoing</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2-02</td>
<td>Public Participation</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>
7.2.1 Public Review of Stormwater Management Program and Annual Reports

**BMP Number**: BMP 2-01
**Location of SWMP**: http://www.nahant.org/community/stormwater.shtml#gpm1_2
**Measurable Goals**: Continue to make the SWMP and Annual Reports available to the public via the Town’s website.

7.2.2 Public Participation in SWMP Development

**BMP Number**: BMP 2-02
**BMP Description**: The Town will conduct an annual stormwater management plan informational meeting to allow the public to review and discuss the SWMP.
**Measurable Goals**: Meeting attendance and input received.

7.2.3 Public Participation in SWMP Implementation

The Town may implement the following additional Public Involvement and Participation BMPs to allow the public to participate in implementation of this SWMP:

- Household hazardous waste/used oil collection to allow the public to properly dispose of hazardous waste
- Conduct metal recycling day and white goods pickup to allow the public to properly dispose of recyclable goods
- Offer assistance with local organized cleanup activities such as providing tools and equipment

7.3 MCM 3: ILLICIT DISCHARGE DEECTION AND ELIMINATION (IDDE) PROGRAM

The Permit states that “the permittee shall implement an IDDE program to systematically find and eliminate illicit sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.”
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

Table 4 provides a summary of required BMPs related to the IDDE program with associated due dates. The table will be updated annually to track progress.

Table 4: MCM 3 Summary of Permit Requirements

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP Description</th>
<th>Date Due</th>
<th>Date Completed</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-01</td>
<td>SSO Inventory</td>
<td>July 1, 2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-02</td>
<td>Phase I System Mapping</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-02</td>
<td>Phase II System Mapping</td>
<td>July 1, 2028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-03</td>
<td>Written IDDE Plan</td>
<td>July 1, 2019</td>
<td>June 28, 2019</td>
<td></td>
</tr>
<tr>
<td>3-03</td>
<td>Assessment and Initial Priority Ranking of Outfalls/ Interconnections</td>
<td>July 1, 2019</td>
<td>June 28, 2019</td>
<td></td>
</tr>
<tr>
<td>3-03</td>
<td>Follow-up Ranking</td>
<td>July 1, 2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-03</td>
<td>Written Catchment Investigation Procedure</td>
<td>January 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-04</td>
<td>Catchment Investigations for Problem Outfalls</td>
<td>Begin by July 2020/ Finish by July 2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-04</td>
<td>Catchment Investigations with Potential Sewer Input</td>
<td>Begin after Problem Outfall Investigations/Finish by July 2025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-04</td>
<td>Catchment Investigations for High and Low Priority Outfalls</td>
<td>Begin after Problem Outfall Investigations/Finish by July 2028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-05</td>
<td>Training</td>
<td>Annually</td>
<td>Annual</td>
<td></td>
</tr>
<tr>
<td>3-06</td>
<td>Dry Weather Screening and Sampling</td>
<td>July 1, 2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-07</td>
<td>Wet Weather Sampling</td>
<td>Complete during Catchment Investigations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

Table 5: MCM 3 Implementation Schedule

<table>
<thead>
<tr>
<th>IDDE Program Requirement</th>
<th>Estimated Completion Date from July 1, 2018 (Effective Date of 2016 Permit)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Year</td>
<td>1.5 Years</td>
</tr>
<tr>
<td>Written IDDE Program</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SSO Inventory</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Written Catchment</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Investigation Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase I Mapping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase II Mapping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDDE Regulatory</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Mechanism or By-law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Weather Outfall</td>
<td></td>
<td></td>
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<tr>
<td>Screening</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Follow-up Ranking of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outfalls and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interconnections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catchment Investigations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Problem Outfalls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catchment Investigations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– all Problem, High and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Priority Outfalls</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

7.3.1 IDDE Legal Authority

The Town of Nahant passed and adopted a Stormwater By-Law on April 25, 2015, and it was approved by the Attorney General of Massachusetts on August 31, 2015. The By-Law is provided in Appendix D.


Department Responsible for Enforcement: Planning Board

The Town will review the Stormwater By-Law and update as needed to meet new requirements of the Permit. The Town will work through the Planning Board to adopt rules and regulations to effectuate the purposes of the By-Law to meet the required BMPs of MCM3.

7.3.2 Sanitary Sewer Overflow (SSO) Inventory

BMP Number: BMP 3-01
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

SSOs are discharges of untreated sanitary wastewater from a municipal sanitary sewer that can contaminate surface waters, cause serious water quality problems and property damage, and threaten public health. SSOs can be caused by blockages, line breaks, sewer defects that allow stormwater and groundwater to overload the system, power failures, improper sewer design, and vandalism.

The Permit requires that the Town of Nahant identify all known locations where SSOs have discharged to the MS4 within the previous five (5) years. This shall include SSOs resulting, during dry or wet weather, from inadequate conveyance capacities, or where interconnectivity of the storm and sanitary sewer infrastructure allows for communication of flow between the systems. Three (3) known SSOs occurred during the previous five years; from June 2014 through June 2019. All three SSOs occurred outside the Town of Nahant (in Lynn, MA) but were related to the Town of Nahant’s drainage system.

An SSO Inventory template has been included in Appendix E and will be updated annually and maintained as a part of the SWMP. The Inventory will include the following information, if available:

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.

Upon detection of an SSO, the Town will eliminate it as expeditiously as possible and take interim measures to minimize the discharge of pollutants to and from its MS4 until the SSO is eliminated. Upon becoming aware of an SSO to the MS4, the Town will provide oral notice to EPA, MassDEP, and others as applicable within 24 hours, and written notice to EPA and MassDEP within five (5) days of becoming aware of the SSO occurrence.

The applicable MassDEP contact is:

Northeast Region
(978) 694-3215
205B Lowell Street
Wilmington, MA 01887

24-hour Emergency Line
1-888-304-1133
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

The EPA contact is:

EPA New England
(617) 918-1510
5 Post Office Square
Boston, MA 02109

7.3.3 Map of Storm Sewer System

BMP Number BMP 3-02

The Permit includes the following requirements for MS4 mapping:

- Phase I (complete by year 2; June 30, 2020): Map 100% of outfalls and receiving waters, open channel conveyances, interconnections with other MS4s and other storm sewer systems, municipally-owned stormwater treatment structures, waterbodies identified by name and indication of all use impairments, and initial catchment delineations within 2 years of the permit's effective date. The Town has already completed some of the Phase I mapping requirements, including mapping outfalls and receiving waters. The Map is provided in the NOI in Appendix B. The Town does not have any interconnections with other MS4s or municipally-owned stormwater treatment structures.

- Phase II (completed by year 10; June 30; 2028): Map 100% of outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer system (if available), and municipal combined sewer system (if applicable) within 10 years of the permit's effective date. Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit. The Town has already completed some of the Phase II mapping requirements, including stormwater manholes and catch basins, and the municipal sanitary sewer system.

7.3.4 Written IDDE Program

BMP Number BMP 3-03

The Permit requires a written IDDE Plan to be developed by year 1 (June 30, 2019). The IDDE Plan must include the following elements:

- Outfall/interconnection inventory and initial ranking
- Written procedures for dry weather outfall screening and sampling
- Written procedures for catchment investigations (due January 1, 2020)
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

A draft IDDE Plan and Priority Ranking is included in Appendix F.

7.3.5 Implement IDDE Program

BMP Number  BMP 3-04

The Town will implement catchment investigations according to program and permit conditions.

7.3.6 Employee Training

BMP Number  BMP 3-05

The Town of Nahant will continue to provide annual stormwater training to employees, including IDDE implementation. Training records are provided in Appendix G.

7.3.7 Dry Weather Screening

BMP Number  BMP 3-06

The Town of Nahant will conduct dry weather screening in accordance with the outfall screening procedures identified in the IDDE Plan, and permit conditions.

Measurable Goals: Complete 3 years after effective date of permit.

7.3.8 Wet Weather Screening

BMP Number  BMP 3-07

The Town of Nahant will conduct wet weather screening in accordance with the outfall screening procedures identified in the IDDE Plan, and permit conditions.

Measurable Goals: Complete 10 years after effective date of permit

7.3.9 Ongoing Screening

BMP Number  BMP 3-08

The Town of Nahant will conduct dry weather and wet weather screening as necessary according to permit conditions.

Measurable Goals: Complete ongoing outfall screening upon completion of IDDE program
7.4 MCM 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Permit states that “the objective of an effective construction stormwater runoff control program is to minimize or eliminate erosion and maintain sediment on site so that it is not transported in stormwater and allowed to discharge to a water of the U.S. through the permittee’s MS4.”

The Town of Nahant passed and adopted a Stormwater By-Law on April 25, 2015, and it was approved by the Attorney General of Massachusetts on August 31, 2015. The Town Planning Board is responsible for enforcement. The Stormwater By-Law covers the topics of MCM 4 as summarized in Table 6. The Town will review the Stormwater By-Law and update as needed to meet new requirements of the Permit.

The Stormwater By-Law is provided in Appendix D.


Table 6: MCM 4 Summary of Permit Requirements

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP Description</th>
<th>Date Due</th>
<th>Date Completed</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-01</td>
<td>Site Inspection Procedures</td>
<td>June 30, 2019</td>
<td>April 25, 2015</td>
<td></td>
</tr>
<tr>
<td>4-02</td>
<td>Site Plan Review Procedures</td>
<td>June 30, 2019</td>
<td>April 25, 2015</td>
<td></td>
</tr>
<tr>
<td>4-03</td>
<td>Erosion and Sediment Control</td>
<td>June 30, 2019</td>
<td>April 25, 2015</td>
<td></td>
</tr>
<tr>
<td>4-04</td>
<td>Waste Control</td>
<td>June 30, 2019</td>
<td>April 25, 2015</td>
<td></td>
</tr>
</tbody>
</table>

7.4.1 Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures

BMP Number: BMP 4-01

Description: Complete written procedures of site inspections and enforcement procedures. The procedures shall clearly define who is responsible for site inspections as well as who has authority to implement enforcement procedures. The program shall provide that the permittee may, to the extent authorized by law, impose sanctions to ensure compliance with the local program. Site inspection and enforcement procedures are documented in the SWMP in the By-Law provided in Appendix D. The By-Law is enforced by the Planning Board.

Responsible Department/Parties: Planning Board and Conservation Commission
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

Measurable Goals: Complete within 1 year of the effective date of permit. The Town adopted the By-Law in 2015.

7.4.2 Site Plan Review Procedures

BMP Number BMP 4-02

Description: Complete written procedures of site plan review and begin implementation. The site plan review procedure will include a pre-construction review by the permittee of the site design, the planned operations at the construction site, planned BMPs during the construction phase, and the planned BMPs to be used to manage runoff created after development. The review procedure will incorporate procedures for the consideration of potential water quality impacts, and procedures for the receipt and consideration of information submitted by the public. The site plan review procedure will also include evaluation of opportunities for use of low impact design and green infrastructure. When the opportunity exists, project proponents will be encouraged to incorporate these practices into the site design. The procedures for site inspections will include the requirement that inspections occur during construction of BMPs as well as after construction of BMPs to ensure they are working as described in the approved plans, clearly defined procedures for inspections including qualifications necessary to perform the inspections, the use of mandated inspection forms if appropriate, and procedure for tracking the number of site reviews, inspections, and enforcement actions.

Responsible Department/Parties: Planning Board and Conservation Commission

Measurable Goals: Complete within 1 year of the effective date of permit. The Town adopted the By-Law in 2015.

7.4.3 Erosion and Sediment Control

BMP Number BMP 4-03

Description: Adoption of requirements for construction site operators performing land disturbance activities within the MS4 jurisdiction that result in stormwater discharges to the MS4 to implement a sediment and erosion control program. The program will include BMPs appropriate for the conditions at the construction site.

Responsible Department/Parties: Planning Board and Conservation Commission

Measurable Goals: Complete within 1 year of the effective date of permit. The Town adopted the By-Law in 2015.

7.4.4 Waste Control

BMP Number BMP 4-04
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

Description: Adoption of requirements to control wastes, including but not limited to: discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes, which may not be discharged to the MS4.

Responsible Department/Parties: Planning Board and Conservation Commission

Measurable Goals: Complete within 1 year of the effective date of permit. The Town adopted the By-Law in 2015.

7.5 MCM 5: POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

The Permit states that “the objective of an effective post construction stormwater management program 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.”

The Town of Nahant passed and adopted a Stormwater By-Law on April 25, 2015, and it was approved by the Attorney General of Massachusetts on August 31, 2015. The Town Planning Board is responsible for enforcement. The Stormwater By-Law is provided in Appendix D.


The Town will review the Stormwater By-Law and update as needed to meet new requirements of the Permit. The Town will work through the Planning Board to adopt rules and regulations to effectuate the purposes of the By-Law to meet the required BMPs of MCM5.

Table 7: MCM 5 Summary of Permit Requirements

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP Description</th>
<th>Date Due</th>
<th>Date Completed</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-01</td>
<td>Post-Construction Regulations Update</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-02</td>
<td>List of Retrofit Opportunities</td>
<td>July 1, 2022; annually report progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-03</td>
<td>GI Design Opportunities Report</td>
<td>July 1, 2022; annually report progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-04</td>
<td>Street Design Assessment Report</td>
<td>July 1, 2022; annually report progress</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

7.5.1 **Stormwater Controls and Management Practices Compliance**

BMP Number BMP 5-01

BMP Description: 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. Establish procedures to require submission of as-built drawings for completed projects; and ensure long term operation and maintenance will be a part of the SWMP.

Measurable Goals: Consists of adoption, amendment, or modification of a regulatory mechanism to meet requirements. Complete 2 years after effective date of permit.

7.5.2 **List of Municipal Retrofit Opportunities**

BMP Number BMP 5-02

BMP Description: Identify at least five (5) permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas, and update annually.

Measurable Goal: Complete 4 years after effective date of permit and report annually on retrofitted properties.

7.5.3 **Green Infrastructure Report**

BMP Number BMP 5-03

BMP Description: Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist.

Measurable Goal: Complete 4 years after effective date of permit and implement recommendations of report.

7.5.4 **Street Design and Parking Lot Guidelines Report**

BMP Number BMP 5-04

BMP Description: Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to facility design standards for streets and parking lots can be modified to support low impact design options.

Measurable Goal: Complete 4 years after effective date of permit and implement recommendations of report.
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

7.6  MCM 6: GOOD HOUSEKEEPING AND POLLUTION PREVENTION FOR PERMITTEE OWNED OPERATIONS

The Permit states that “the permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.”

Table 8: MCM 6 Summary of Permit Requirements

<table>
<thead>
<tr>
<th>BMP Number</th>
<th>BMP Description</th>
<th>Date Due</th>
<th>Date Completed</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-01</td>
<td>Written O&amp;M Procedures</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-01</td>
<td>Written Property Inventory</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-02</td>
<td>Infrastructure O&amp;M Procedures</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-03</td>
<td>SWPPPs</td>
<td>July 1, 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-04</td>
<td>Catch Basin Cleaning Program</td>
<td>July 1, 2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-05</td>
<td>Street Sweeping Procedures</td>
<td>July 1, 2019</td>
<td></td>
<td>Documented in SWMP 6/28/2019</td>
</tr>
<tr>
<td>6-06</td>
<td>Winter Road Maintenance Program</td>
<td>July 1, 2019</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Stormwater Treatment Structures Inspection and</td>
<td>July 1, 2019</td>
<td></td>
<td>Not Applicable¹</td>
</tr>
<tr>
<td></td>
<td>Maintenance Procedures</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Employee Training</td>
<td>Annual</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Site Inspections</td>
<td>Quarterly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ The Town does not own any stormwater treatment structures

7.6.1  Inventory and Operations and Maintenance Procedures

BMP Number  BMP 6-01

Description: Inventory all permittee-owned facilities and create written O&M procedures for municipal activities at these facilities. Facility categories include the following:

- Parks and open spaces,
  - Continue regular testing of local beaches for enterococci
  - Formalize O&M for Bear Pond ditch maintenance program, including develop, implement, and track maintenance
- Buildings and facilities,
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

- Complete Spill Response Plan (SRP) for Flash Road Facility including training and annual review
  - Vehicles and equipment
    - Develop Vehicle & Equipment Maintenance Program and incorporate into employee training manual
    - Develop Vehicle & Equipment Cleaning Policy and incorporate into employee training manual

Responsible Department/Parties: DPW Operations

Measurable Goals: Inventory and written document completed and implemented within 2 years after effective permit date.

7.6.2 Infrastructure Operations and Maintenance Procedures

BMP Number  BMP 6-02

Description: Establish and implement program for repair and rehabilitation of MS4 infrastructure.

Responsible Department/Parties: Engineering

Measurable Goals: Complete 2 years after effective date of permit.

7.6.3 Stormwater Pollution Prevention Plan (SWPPP)

BMP Number  BMP 6-03

BMP Description: Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities.

Measurable Goal: Complete and implement two (2) years after effective date of permit.

7.6.4 Catch Basin Cleaning Program

BMP Number  BMP 6-04

BMP Description: Continue annual catch basin cleaning contract; and establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule.

Measurable Goal: Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually. The Town hires a Contractor to clean catch basins every other year. Individual catch basins are cleaned as needed by the Town Department of Public Works.

7.6.5 Street Sweeping Program

BMP Number  BMP 6-05
STORMWATER MANAGEMENT PROGRAM (SWMP)

Minimum Control Measures (MCM)

BMP Description: Sweep all streets and permittee-owned parking lots in accordance with permit conditions.

Measurable Goal: Sweep all streets and permittee-owned parking lots once per year in the spring. *The Town hires a Contractor to sweep streets once per month, or more if needed based on large rain events.*

7.6.6 **Winter Road Maintenance Program**

BMP Number BMP 6-06

BMP Description: Establish and implement a program to minimize the use of road salt.

Measurable Goal: Implement salt use optimization during deicing season. *The Town utilizes salt spreaders, which have ground speed controls that reduce the amount of salt relative to the speed of the vehicle (EZ Spread).*

7.6.7 **Stormwater Treatment Structures Inspection and Maintenance Procedures**

BMP Number BMP 6-07

BMP Description: Establish and implement inspection and maintenance procedures and frequencies.

Measurable Goal: Inspect and maintain treatment structures at least annually.

7.6.8 **Additional BMPs**

The Town will implement the following additional Good Housekeeping and Pollution Prevention BMPs:

- Develop formal training for DPW staff on spill containment equipment and water deployment
- Develop Policy to formalize the Town's landscape and lawn care policy
- Apply for funding from a Coastal Zone Management (CZM) Grant to conduct remediation activities in Thicket Watershed.
8.0 ANNUAL EVALUATION

8.1 YEAR 1 ANNUAL REPORT
Report Due Date: September 29, 2019
Document Name and/or Web Address:

8.2 YEAR 2 ANNUAL REPORT
Report Due Date: September 29, 2020
Document Name and/or Web Address:

8.3 YEAR 3 ANNUAL REPORT
Report Due Date: September 29, 2021
Document Name and/or Web Address:

8.4 YEAR 4 ANNUAL REPORT
Report Due Date: September 29, 2022
Document Name and/or Web Address:

8.5 YEAR 5 ANNUAL REPORT
Report Due Date: September 29, 2023
Document Name and/or Web Address:
9.0 TMDLS AND WATER QUALITY LIMITED WATERS

Table 9 summarizes TMDLs applicable to the Town of Nahant.

Table 9: Approved TMDLs: Bacteria/Pathogens

<table>
<thead>
<tr>
<th>Applicable Receiving Waterbodies</th>
<th>TMDL Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Harbor (MA93-52)</td>
<td>Fecal Coliform 50122</td>
</tr>
<tr>
<td>Lynn Harbor (MA93-53)</td>
<td>Fecal Coliform 50122</td>
</tr>
<tr>
<td>Nahant Bay (MA93-24)</td>
<td>Fecal Coliform 50121</td>
</tr>
</tbody>
</table>

9.1 ANNUAL REQUIREMENTS BEGINNING YEAR 1

The following annual requirements will be implemented in Year 1:

- MCM3: The outfalls discharging to these receiving waters are ranked as high priority for IDDE implementation in the initial outfall ranking (BMP 3-03).

- MCM1: Provide an annual message to residents encouraging the proper management of pet waste, including noting any existing ordinances where appropriate. This will be handled by disseminating educational material to dog owners at the time of issuance or renewal of dog licenses. Education materials will describe the detrimental impacts of improper management of pet waste, requirements for waste collection and disposal, and penalties for non-compliance (BMP 1-07). Refer to Town of Nahant Police By-Laws Section 13. Control of Dogs (http://www.nahant.org/departments/dog_officer.shtml).

- MCM1: Provide information to owners of septic systems about proper maintenance in any catchment that discharges to Lynn Harbor and Nahant Bay. There are still a couple of septic systems in Nahant, and the Town plans to send out letters and enforcement to address them (BMP-08).
10.0 REFERENCES


APPENDIX A
Letter Approving Authorized Representative
June 28, 2019

Antonio Barletta
Town Administrator
334 Nahant Road
Nahant, MA 01908

Dear Mr. Barletta,

Please accept this letter as authority to sign reports pertaining to the Town of Nahant’s Storm water Management Plan.

This authorization will remain in place as long as you hold the position as Town Administrator for the Town of Nahant.

Thank You,
Nahant Board of Selectmen

Richard J. Lombard, Chairman

Francis J. Barile, Vice Chairman

Joshua A. Antrim, Recording Secretary
APPENDIX B

Notice of Intent (October 2018)
Requested Additional Information (April 2019)
Hello,

Please see the attached documents regarding Nahant, MA NOI.

Thank you,

Tony

Antonio Barletta
Town Administrator

Nahant Town Hall
334 Nahant Road
Nahant, MA 01908
Office: 781-581-0088
Mobile: 781-299-9682
### Part I: General Conditions

#### General Information

- **Name of Municipality or Organization:** Nahant
- **State:** MA
- **EPA NPDES Permit Number (if applicable):** MA-040989

#### Primary MS4 Program Manager Contact Information

- **Name:** Antonio Barletta
- **Title:** Town Administrator
- **Street Address Line 1:** Nahant Town Hall
- **Street Address Line 2:** 334 Nahant Road
- **City:** Nahant
- **State:** MA
- **Zip Code:** 01908
- **Email:** abarletta@nahant.org
- **Phone Number:** (781) 581-9927
- **Fax Number:** (781) 593-0340

### Other Information

- **Stormwater Management Program (SWMP) Location**
  - **(web address or physical location, if already completed):** www.nahant.org/documents/coastal_resources/storm_water_management/Nahant_SWMP_Nov_2003.pdf

### Eligibility Determination

- **Endangered Species Act (ESA) Determination Complete?** Yes
- **National Historic Preservation Act (NHPA) Determination Complete?** Yes

- **Eligibility Criteria**
  - (check all that apply):
  - [ ] A
  - [x] B
  - [x] C

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

### MS4 Infrastructure

- **Estimated Percent of Outfall Map Complete?**
  - (Part II, III, IV or V, Subpart B.3.(a.) of 2003 permit)
  - **100%**
  - If 100% of 2003 requirements not met, enter an estimated date of completion (MM/DD/YY):

- **Web address where MS4 map is published:**

### Regulatory Authorities

- **Illicit Discharge Detection and Elimination (IDDE) Authority Adopted?**
  - (Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit)
  - **Yes**
  - Effective Date or Estimated Date of Adoption (MM/DD/YY): 10/01/2013

- **Construction/Erosion and Sediment Control (ESC) Authority Adopted?**
  - (Part II, III, IV or V, Subpart B.4.(a.) of 2003 permit)
  - **Yes**
  - Effective Date or Estimated Date of Adoption (MM/DD/YY): 04/01/2015

- **Post-Construction Stormwater Management Adopted?**
  - (Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit)
  - **Yes**
  - Effective Date or Estimated Date of Adoption (MM/DD/YY): 04/01/2015
### Notice of Intent (NOI) for coverage under Small MS4 General Permit

#### Part II: Summary of Receiving Waters

Please list the waterbodies to which your MS4 discharges. For each waterbody, please report the number of outfalls discharging into it and, if applicable, the segment ID and any impairments.

*Massachusetts list of impaired waters: Massachusetts 2014 List of Impaired Waters* - [http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf](http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf)

<table>
<thead>
<tr>
<th>Waterbody that receives flow from the MS4 and segment ID if applicable</th>
<th>Number of outfalls into receiving water segment</th>
<th>Chloride</th>
<th>Chlorophyll-a</th>
<th>Dissolved Oxygen/DO Saturation</th>
<th>Nitrogen</th>
<th>Oil &amp; Grease/PAH</th>
<th>Phosphorus</th>
<th>Solids/TSS/Turbidity</th>
<th>E. coli</th>
<th>Enterococcus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Harbor</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nahant Bay</td>
<td>15</td>
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<td>Massachusetts Bay</td>
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<tr>
<td>Nahant Harbor</td>
<td>10</td>
<td></td>
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<tr>
<td>Broad Sound</td>
<td>2</td>
<td></td>
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<tr>
<td>Tributary to Lowlands Marsh</td>
<td>7</td>
<td></td>
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<tr>
<td>Tributary to Kelly Green Marsh</td>
<td>1</td>
<td></td>
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<tr>
<td>Wetland tributary to Thicket</td>
<td>3</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Wetland tributary to Nahant Harbor</td>
<td>1</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Kelly Green Marsh</td>
<td>4</td>
<td></td>
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</tr>
</tbody>
</table>

[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**

<table>
<thead>
<tr>
<th>BMP Media/Category (enter your own text to override the drop down menu)</th>
<th>BMP Description</th>
<th>Targeted Audience</th>
<th>Responsible Department/Parties (enter your own text to override the drop down menu)</th>
<th>Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Page</td>
<td>stormwater educational information</td>
<td>Residents</td>
<td>Town Administrator and webmaster</td>
<td>post stormwater info to inform the public</td>
<td>2017</td>
</tr>
<tr>
<td>Web Page</td>
<td>hazardous waste pollution prevention</td>
<td>Residents</td>
<td>Town Administrator and webmaster</td>
<td>hazardous waste collection program</td>
<td>2017</td>
</tr>
<tr>
<td>Web Page and town hall posting</td>
<td>pet waste stations pick up &amp; disposal of pet waste</td>
<td>Residents</td>
<td>Animal Control/Town Clerk /DPW</td>
<td>reduce pet waste as pollution source to wetlands/waterways</td>
<td>2017</td>
</tr>
<tr>
<td>Web page and flyer postings</td>
<td>General pollution prevention</td>
<td>Businesses, Institutions and Commercial Facilities</td>
<td>Town Administrator and webmaster</td>
<td>General pollution Prevention</td>
<td>2017</td>
</tr>
<tr>
<td>Newspaper Articles/Press Releases and posts</td>
<td>water conservation measures</td>
<td>Residents</td>
<td>Board of Selectmen/DPW</td>
<td>leak detection and water efficiency</td>
<td>2017</td>
</tr>
<tr>
<td>Web Page/Video</td>
<td>posting of EPA video &quot;After the Storm&quot;</td>
<td>residents</td>
<td>Town Administrator and webmaster</td>
<td>pollution prevention and source reduction</td>
<td>2017</td>
</tr>
<tr>
<td>Annual letter</td>
<td>offer assistance with local cleanup activities</td>
<td>residents/beach associations/civic groups</td>
<td>DPW and Conservation Commission</td>
<td>provide tools/ equipment for organized clean ups</td>
<td>2017</td>
</tr>
</tbody>
</table>
# Notice of Intent (NOI) for coverage under Small MS4 General Permit

## Part III: Stormwater Management Program Summary (continued)

### MCM 2: Public Involvement and Participation

<table>
<thead>
<tr>
<th>BMP Categorization</th>
<th>Brief BMP Description</th>
<th>Responsible Department/Parties</th>
<th>Additional Description/Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Review</td>
<td>SWMP Review</td>
<td>Town Administrator/web master</td>
<td>Allow annual review of stormwater management plan and posting of stormwater management plan on website</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>Household haz. waste/used oil collection</td>
<td>DPW / web master</td>
<td>Allow public to properly dispose of hazardous waste</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>distribute rain gauges</td>
<td>Board of Selectmen/DPW</td>
<td>water conservation practices</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>conduct metal recycling day &amp; white goods pick up</td>
<td>DPW/webmaster</td>
<td>Allow public to properly dispose of recyclable goods</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>conduct workshop on organic lawn care</td>
<td>Town Administrator/Open Space Committee/Garden Club</td>
<td>introduce organic lawn care practices that minimizes application of pollutants</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>Public Meeting - Stormwater- conduct stormwater management plan in</td>
<td>Town Administrator/web master</td>
<td>allow public to review and discuss SWMP</td>
<td>2017</td>
</tr>
<tr>
<td>Public Participation</td>
<td>Post annual report and advertise comment period</td>
<td>Town Administrator</td>
<td>allow public to review and comment on annual report</td>
<td>2017</td>
</tr>
</tbody>
</table>

...
### Nahant

**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)**

<table>
<thead>
<tr>
<th>BMP Categorization</th>
<th>BMP Description</th>
<th>Responsible Department/Parties</th>
<th>Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSO Inventory</td>
<td>Develop SSO inventory in accordance of permit conditions</td>
<td>Town Administrator/Town Clerk/Planning Board and DPW</td>
<td>Complete within 1 year of effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Storm Sewer Map</td>
<td>Create map and update during IDDE program completion</td>
<td>Town Administrator/Town Clerk/Planning Board and DPW</td>
<td>Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Written IDDE program- NOTE: incorporated into the current town bylaw</td>
<td>Create written IDDE program</td>
<td>Engineering</td>
<td>Complete within 1 year of the effective date of permit and update as required</td>
<td>2018</td>
</tr>
<tr>
<td>Implement IDDE program</td>
<td>Implement catchment investigations according to program and permit conditions</td>
<td>Engineering</td>
<td>Complete 10 years after effective date of permit</td>
<td>2019</td>
</tr>
<tr>
<td>Employee training</td>
<td>Train employees on IDDE implementation</td>
<td>Engineering</td>
<td>Train annually</td>
<td>2019</td>
</tr>
<tr>
<td>Conduct dry weather screening</td>
<td>Conduct in accordance with outfall screening procedure and permit conditions</td>
<td>Engineering</td>
<td>Complete 3 years after effective date of permit</td>
<td>2019</td>
</tr>
<tr>
<td>Conduct wet weather screening</td>
<td>Conduct in accordance with outfall screening procedure</td>
<td>Engineering</td>
<td>Complete 10 years after effective date of permit</td>
<td>2019</td>
</tr>
<tr>
<td>Ongoing screening</td>
<td>Conduct dry weather and wet weather screening (as necessary)</td>
<td>Engineering</td>
<td>Complete ongoing outfall screening upon completion of IDDE program</td>
<td>2020</td>
</tr>
</tbody>
</table>
### 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**

<table>
<thead>
<tr>
<th>BMP Categorization</th>
<th>BMP Description</th>
<th>Responsible Department/Parties</th>
<th>Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site inspection and enforcement of Erosion and Sediment Control (ESC) measures</td>
<td>Complete written procedures of site inspections and enforcement procedures</td>
<td>Conservation Commission</td>
<td>Complete within 1 year of the effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Site plan review</td>
<td>Complete written procedures of site plan review and begin implementation</td>
<td>Planning Board and Conservation Commission</td>
<td>Complete within 1 year of the effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Erosion and Sediment Control</td>
<td>Adoption of requirements for construction operators to implement a sediment and erosion control program</td>
<td>Conservation Commission</td>
<td>Complete within 1 year of the effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Waste Control</td>
<td>Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes</td>
<td>Conservation Commission</td>
<td>Complete within 1 year of the effective date of permit</td>
<td>2018</td>
</tr>
</tbody>
</table>
## 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**

<table>
<thead>
<tr>
<th>BMP Categorization</th>
<th>BMP Description</th>
<th>Responsible Department/Parties</th>
<th>Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>As-built plans for on-site stormwater control</td>
<td>The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP</td>
<td>Planning Board and Conservation Commission</td>
<td>Require submission of as-built plans for completed projects</td>
<td>2017</td>
</tr>
<tr>
<td>Target properties to reduce impervious areas</td>
<td>Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually</td>
<td>Planning Board</td>
<td>Complete 4 years after effective date of permit and report annually on retrofitted properties</td>
<td>2020</td>
</tr>
<tr>
<td>Allow green infrastructure</td>
<td>Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist</td>
<td>Planning Board and Conservation Commission</td>
<td>Complete 4 years after effective date of permit and implement recommendations of report</td>
<td>2020</td>
</tr>
<tr>
<td>Street design and parking lot guidelines</td>
<td>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.</td>
<td>Planning Board</td>
<td>Complete 4 years after effective date of permit and implement recommendations of report</td>
<td>2020</td>
</tr>
<tr>
<td>Post-Construction Ordinance/Bylaw</td>
<td>Adoption, amendment, or modification of a regulatory mechanism to meet permit requirements</td>
<td>Conservation Committee</td>
<td>Complete 2 years after effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>----------------------------------</td>
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<tr>
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<td></td>
<td>Passed at 2015 town meeting</td>
<td>2015</td>
</tr>
</tbody>
</table>
### 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**

<table>
<thead>
<tr>
<th>BMP Categorization</th>
<th>BMP Description</th>
<th>Responsible Department/Parties</th>
<th>Measurable Goal</th>
<th>Beginning Year of BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>O&amp;M procedures for landscape/lawn care</td>
<td>Create written O&amp;M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment</td>
<td>DPW Operations</td>
<td>Complete and implement 2 years after effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment</td>
<td>Create inventory</td>
<td>Engineering</td>
<td>Complete 2 years after effective date of permit and implement annually</td>
<td>2018</td>
</tr>
<tr>
<td>Infrastructure O&amp;M</td>
<td>Establish and implement program for repair and rehabilitation of MS4 infrastructure</td>
<td>Engineering</td>
<td>Complete 2 years after effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Stormwater Pollution Prevention Plan (SWPPP)</td>
<td>Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities</td>
<td>Engineering</td>
<td>Complete and implement 2 years after effective date of permit</td>
<td>2018</td>
</tr>
<tr>
<td>Catch basin cleaning</td>
<td>Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule</td>
<td>DPW Operations</td>
<td>Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually</td>
<td>2017</td>
</tr>
<tr>
<td>Street sweeping program</td>
<td>Sweep all streets and permittee-owned parking lots in accordance with permit conditions</td>
<td>DPW Operations</td>
<td>Sweep all streets and permittee-owned parking lots once per year in the spring</td>
<td>2017</td>
</tr>
<tr>
<td>Road salt use optimization program</td>
<td>Establish and implement a program to minimize the use of road salt</td>
<td>DPW Operations</td>
<td>Implement salt use optimization during deicing season</td>
<td>2017</td>
</tr>
<tr>
<td>Task Description</td>
<td>Responsible Party</td>
<td>Due Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Inspections and maintenance of stormwater treatment structures</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish and implement inspection and maintenance procedures and frequencies</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O&amp;M Program (Public BMP Maintenance)</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Vehicle &amp; Equipment Maintenance Program</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O&amp;M Program (Vehicle Washing)</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop vehicle &amp; equipment Cleaning Policy</td>
<td>DPW Operations</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O&amp;M Program (General)</td>
<td>DPW/Fire Department</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>develop formal training for DPW staff</td>
<td>DPW/Fire Department</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping/Lawn Care</td>
<td>Golf Course Committee</td>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Policy</td>
<td>Golf Course Committee</td>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spill Response Plan for Town Facility</td>
<td>DPW Operations</td>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>complete SPR for Flash Road Facility</td>
<td>DPW Operations</td>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollution Remediation</td>
<td>Town Administrator/Audubon</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apply for funding to conduct remediation activities in Thicket Watershed</td>
<td>Town Administrator/Audubon</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O&amp;M Program (General)</td>
<td>DPW Operations</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>formalize O&amp;M for Bear Pond ditch maint. program</td>
<td>DPW Operations</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Monitoring/Testing</td>
<td>Board of Health</td>
<td>annual</td>
<td></td>
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</tr>
<tr>
<td>continue regular testing of local Beaches for enterococci</td>
<td>Board of Health</td>
<td>annual</td>
<td></td>
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</tbody>
</table>
### Notice of Intent (NOI) for coverage under Small MS4 General Permit

**Part III: Stormwater Management Program Summary (continued)**

**Actions for Meeting Total Maximum Daily Load (TMDL) Requirements**

Use the drop-down menus to select the applicable TMDL, action description to meet the TMDL requirements, and the responsible department/parties. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

<table>
<thead>
<tr>
<th>Applicable TMDL</th>
<th>Action Description</th>
<th>Responsible Department/Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Harbor (Fecal Coliform 50122)</td>
<td>Adhere to requirements in part A.III of Appendix F</td>
<td>DPW Operations</td>
</tr>
<tr>
<td>Nahant Bay (Fecal Coliform 50121)</td>
<td>Adhere to requirements in part A.III of Appendix F</td>
<td>DPW Operations</td>
</tr>
</tbody>
</table>
Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

Actions for Meeting Requirements Related to Water Quality Limited Waters

Use the drop-down menus to select the pollutant causing the water quality limitation and enter the waterbody ID(s) experiencing excursions above water quality standards for that pollutant. In addition, if you are subject to additional requirements due to a downstream nutrient impairment (see Part 2.2.2 of the permit) select the pollutant of concern and indicate applicable waterbody IDs or write "all waterbodies" if applicable. Choose the action description from the dropdown menu and indicate the responsible party. If no options are applicable, or more than one, enter your own text to override drop-down menus.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Waterbody ID(s)</th>
<th>Action Description</th>
<th>Responsible Department/Parties (enter your own text to override the drop down menu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal Coliform</td>
<td>Lynn Harbor and Nahant Bay</td>
<td>Adhere to requirements in part III of Appendix H</td>
<td>Health Department and DPW</td>
</tr>
</tbody>
</table>


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

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.

Based on the 2014 Massachusetts Year 2014 Integrated List of Waters, there are no receiving waters listed as impaired due to nitrogen or phosphorous mapped within Nahant.
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: Antonio Barletta
Title: Town Administrator

Signature:安东尼奥·巴莱塔
Date: 09/28/18

Note: When prompted during signing, save the document under a new file name.
ADDENDA TO 2018 NOTICE OF INTENT (NOI) FOR TOWN OF NAHANT

EPA NPDES SMALL MS4 PERMIT MA041051

Stantec prepared the MS4 Notice of Intent on behalf of the Town of Nahant relying on the following information:

- NPDES PII Small General Permit Annual Report for the reporting period between April 1, 2017 and March 31, 2018; and

Part I: General Conditions

Eligibility Determinations

The NOI requires Permit Eligibility Documentation for the Endangered Species Act and National Historic Preservation Act (NHPA).

For this part, the following were reviewed to determine the presence or absence of federally endangered species and habitat that may occur within the action area (points of discharge): The U.S. Fish and Wildlife Service’s IPaC process, the U.S. Fish and Wildlife Service New England Field Office Self Service Consultation process and the U.S. Fish Federal Critical Habitat portal. The IPaC results show the Roseate Tern (Endangered “E”), Northern long-eared bat (Threatened “T”), Piping Plover (T) and Red Knot (T) and a number of migratory bird species. The New England Field office consultation process for Essex County shows the Red Knot in all coastal towns, NLEB as statewide; the Piping Plover is not included as a threatened and/or endangered species within Nahant and the Roseate Tern is not included on the list as a federally endangered or threatened species. According to the Critical Habitat portal, there is no mapped critical federal habitat within the action area. According to the EPA’s Stormwater Management FAQ document dated September 14, 2018, if the municipality contains the NLEB, compliance with Criterion C can be determined. In sum, the Red Knot is the threatened species that could potentially occur within the action area, however the U.S.FWS notes that the Red knot is found along coastal beaches, rocky shores and sand and mud flats and is considered “migratory only, scattered along the coast in small numbers.” The continued existence and operation of storm drain outfalls, as opposed to new construction, will not result in a take of federally listed Red Knot.

As far as NHPA, the above reference EPA FAQ states that if there is no MS4 work proposed, including construction that would affect historic properties, then compliance with NHPA meets Criterion A in the Permit Eligibility Section.

Illicit Discharge Detection and Elimination (IDDE) Authority

After reviewing the current Town of Nahant bylaws during Permit Year 3, the Town decided not to develop an Illicit Discharge Detection and Elimination Plan because the current bylaws adequately protect the stormwater drainage system. The DPW will continue to conduct formal dry-weather screening of outfalls and track potential illicit connections.
To: Antonio Barletta abarletta@nahant.org
MS4 Operator: Town of Nahant
NPDES ID: MAR041051

Please provide corrected or additional information for the following:

Note: you do not need to resubmit your entire NOI form; please respond to the email you received from the EPA review team member as soon as possible, but within 30 days, with the requested information below.

2003 Information: The map could not be located at the link provided. Please provide a new link or attach a PDF of the map.

ESA eligibility: Based on the summarized IPaC results, the town should designate criterion B. Please attach correspondence with USFWS. This correspondence can be found at https://www.epa.gov/npdes-permits/small-ms4-noi-resources-list-ma-nh.

NHPA eligibility:

Receiving waters:

Public Education MCM: Please describe 2 messages to each of 4 audiences as required by the permit or indicate that one or more audiences are not present in your municipality (missing 1 for businesses, institutions, and commercial facilities; 2 for developers (construction); and 2 for industrial facilities)

Public Participation MCM:
IDDE MCM:

Construction MCM:

Post-construction MCM:

Good Housekeeping MCM:

TMDLs: Please confirm that the town will follow the North Coastal Pathogen TMDL for Lynn Harbor and Nahant Bay.

Impairments: Note: the requirements in part A.III of Appendix F should be followed for the fecal coliform impairments since there is a TMDL for the applicable waterbodies (instead of following part III of Appendix H).

Certification Information:
April 16, 2019

Michelle Vuto  
Stormwater & Construction Permits  
U.S. EPA Region 1  
5 Post Office Square—OEP06-4  
Boston, MA 02109-3912  
Sent via email to: Vuto.Michelle@epa.gov

Dear Ms. Vuto,

Attached please find a memorandum from the Town of Nahant’s MS4 consultant, Stantec, summarizing the Town’s response to EPA’s March 11, 2019 request for additional information on the Town’s MS4 NOI.

Please do not hesitate to contact me directly at abarletta@nahant.org with any additional questions on this matter.

Sincerely,

Antonio Barletta  
Town Administrator  
Town of Nahant
To: Antonio Barletta
   Town Administrator
   Town of Nahant

From: Jennifer Zoppo
   Stantec
   226 Causeway Street, 6th Floor
   Boston, MA 02114

File: Small MS4 NOI Information Requested

Date: April 16, 2019

Reference: Small MS4 NOI Information Requested

The intent of this memorandum is to provide a response to EPA’s request for information dated March 11, 2019.

1. 2003 Information: The map could not be located at the link provided. Please provide a new link or attach a PDF of the map.

   A pdf copy of the map is attached.

2. ESA eligibility: Based on the summarized IPaC results, the town should designate criterion B. Please attach correspondence with USFWS. This correspondence can be found at https://www.epa.gov/npdes-permits/small-ms4-noi-resources-list-ma-nh

   The Town agrees Criterion B is appropriate. In order to meet the documentation requirements for Criterion B, we have attached a copy of the IPaC Official Species List and the USFWS consultation letter dated September 28, 2018 for certifying under eligibility Criterion B. The letter states that Permit activities may affect, but are not likely to adversely affect, certain species when specific conditions are met. The Town has reviewed the specific conditions and confirms they are met.

3. Public Education MCM: Please describe 2 messages to each of 4 audiences as required by the permit or indicate that one or more audiences are not present in your municipality (missing 1 for businesses, institutions, and commercial facilities; 2 for developers (construction); and 2 for industrial facilities)

   The Town will employ the following BMPs for target audiences, in addition to those already listed in the NOI:

   - Businesses, Institutions, and Commercial Facilities:
     - Brochures/Pamphlets; The Town Administrator will be the responsible party to coordinate with Nahant SWIM on the 2019 rack card, ensuring it is sent to all businesses

   - Developers (Construction):
     - Brochures/Pamphlets; The Town Administrator will be the responsible party to distribute the Builder’s Guide to LID (brochure) developed by DEP (https://www.mass.gov/doc/builders-guide-to-low-impact-development-lid) or similar; 2019
     - Brochures/Pamphlets; The Town Administrator will be the responsible party to distribute the US EPA Stormwater Pollution Prevention for Small Residential Construction Sites brochure (https://www.epa.gov/sites/production/files/2015-12/documents/cgp_small_lot_swppp_brochure-508_0.pdf) or similar; 2020
Industrial Facilities: The Town of Nahant does not contain any areas zoned for industrial use, therefore, the Industrial Facilities target audience is not applicable.

4. TMDLs: Please confirm that the town will follow the North Coastal Pathogen TMDL for Lynn Harbor and Nahant Bay

The Town will follow the Final Pathogen TMDL for the North Coastal Watershed dated March 2012, with respect to Lynn Harbor (MA93-52 and MA93-53) and Nahant Bay (MA93-24).

5. Impairments: Note: the requirements in part A.III of Appendix F should be followed for the fecal coliform impairments since there is a TMDL for the applicable waterbodies (instead of following part III of Appendix H).

The Town confirms Part A.III of Appendix F will be followed for fecal coliform impairments. The mention of Appendix H was a transcription error.
In Reply Refer To: Consultation Code: 05E1NE00-2019-SLI-1405
Event Code: 05E1NE00-2019-E-03339
Project Name: Nahant, MA

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
Project Summary

Consultation Code: 05E1NE00-2019-SLI-1405

Event Code: 05E1NE00-2019-E-03339

Project Name: Nahant, MA

Project Type: ** OTHER **

Project Description: Town of Nahant MS4 Permit, Effective date of Permit July 1, 2018.

Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.43650565553672N70.93388303802077W

Counties: Essex, MA
Endangered Species Act Species

There is a total of 4 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 Fisheries, 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

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Long-eared Bat <em>Myotis septentrionalis</em></td>
<td>Threatened</td>
</tr>
</tbody>
</table>

No critical habitat has been designated for this species.

Species profile: [https://ecos.fws.gov/ecp/species/9045](https://ecos.fws.gov/ecp/species/9045)

### Birds

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piping Plover <em>Charadrius melodus</em></td>
<td>Threatened</td>
</tr>
</tbody>
</table>

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: [https://ecos.fws.gov/ecp/species/6039](https://ecos.fws.gov/ecp/species/6039)

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Knot <em>Calidris canutus rufa</em></td>
<td>Threatened</td>
</tr>
</tbody>
</table>

No critical habitat has been designated for this species.

Species profile: [https://ecos.fws.gov/ecp/species/1864](https://ecos.fws.gov/ecp/species/1864)

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roseate Tern <em>Sterna dougallii dougallii</em></td>
<td>Endangered</td>
</tr>
</tbody>
</table>


No critical habitat has been designated for this species.

Species profile: [https://ecos.fws.gov/ecp/species/2083](https://ecos.fws.gov/ecp/species/2083)
Critical habitats

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

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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).
APPENDIX C

Authorization to Discharge
VIA EMAIL

June 4, 2019

Antonio Barletta
Town Administrator

And;

Antonio Barletta
Town Administrator
Nahant Town Hall
334 Nahant Road
Nahant, MA. 01908
abarletta@nahant.org

Re: National Pollutant Discharge Elimination System Permit ID #: MAR041051, Town of Nahant

Dear Antonio Barletta:

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
GENERAL BYLAW

Town of Nahant

SECTION I. PURPOSE

Regulation of activities that result in the disturbance of land and the creation of storm water runoff is necessary for the protection of the Town of Nahant to safeguard the health, safety, and welfare of the general public and protect the natural resources of the Town of Nahant, including the water bodies and groundwater. The purpose of this Bylaw is to prevent or diminish these impacts by controlling runoff and preventing soil erosion and sedimentation resulting from site construction and development.

A. The harmful impacts of soil erosion and sedimentation are:

1. Impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater:

2. Contamination of drinking water supplies:

3. Alteration or destruction of aquatic and wildlife habitat;

4. Flooding; and

5. Overloading or clogging of municipal catch basins and storm drainage systems.

The objectives of this by-law are:

1. To require practices that eliminate soil erosion and sedimentation and control the volume and rate of storm water runoff resulting from land disturbance activities;

2. To ensure that soil erosion and sedimentation control measures and storm water runoff control practices are incorporated into the site planning and design process and are implemented and maintained;

3. To require practices to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

4. To require practices to control the flow of storm water from new and redeveloped sites into the Town of Nahant storm drainage system in order to prevent flooding and erosion;

5. To protect groundwater and surface water from degradation;

6. To promote groundwater recharge;

7. To prevent pollutants from entering the Town of Nahant municipal separate storm sewer system (MS4) and to minimize discharge of pollutants from the MS4;
8. to ensure adequate long-term operation and maintenance of structural storm water best management practices so that they work as designed;

9. to comply with state and federal statutes and regulations relating to storm water discharges; and

10. To establish the Town of Nahant legal authority to ensure compliance with the provisions of this by-law through inspection, monitoring, and enforcement;

11. To establish decision-making processes surrounding the land development activities that protect the integrity of the watershed and preserve the health of wetland and water resources:

12. to require that new development, redevelopment and all land conversion activities maintain the after-development runoff characteristics equal to or less that predevelopment runoff characteristics to provide recharge and to reduce flooding, stream bank erosion, siltation, nonpoint source pollution, property damage, and to maintain the integrity of stream, channels and aquatic habitats;

13. To establish construction/alteration and post-development storm water management standards and design criteria for the regulation and control of storm water runoff quality and quantity

14. To establish design criteria for measures to minimize nonpoint source pollution from storm water runoff which would otherwise degrade water quality;

15. To establish design and application criteria for the construction and to use of structural storm water control facilities that can be used to meet minimum construction/alteration and post-development storm water management, storm water site design practices or "low- impact development" practices, such as reducing impervious cover and the preservation of open space and other natural areas, to the maximum extent practicable;

16. To establish provisions for the long-term responsibility for and maintenance of structural storm water control facilities and nonstructural storm water management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety;

17. To establish provisions to ensure that there is an adequate funding mechanism, including surety, for the proper review, inspection, and long-term maintenance of storm water facilities implemented as part of this Bylaw; and

18. To establish administrative procedures and fees for the submission, review, approval, or disapproval of storm water management plans, and for the inspection of approved active projects and long-term follow-ups.

SECTION 2. DEFINITIONS

ABUTTER: The owner(s) of land abutting the activity.

AGRICULTURE: The normal maintenance or improvement of land agricultural or aquacultural use, as defined by the Massachusetts Wetlands Protection Act G.L. c. 131, § 40, and its implementing regulations.
APPLICANT: Any person, individual, partnership, association, firm, company, corporation, trust, authority, agency, department, or political subdivision of the Commonwealth or the Federal government to the extent permitted by law requesting a soil erosion and sediment control permit for proposed land-disturbance activity.

AUTHORIZED ENFORCEMENT AGENCY: The Planning Board 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 storm water runoff.

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC): A certified Specialist in soil erosion and sediment control. This certification program, sponsored by the Soil and Water Conservation Society in cooperation with the American Society of Agronomy, provides the public with evidence of professional qualifications.

CONSTRUCTION AND WASTE MATERIALS: Excess or discarded building or site materials, including but not limited to concrete truck washout, chemicals, litter and sanitary waste at a construction site that may adversely impact water quality.

CLEARING: Any activity that removes the vegetative surface cover.

DEVELOPMENT: The modification of land to accommodate a new use or expansion of use, usually involving construction.

DISTURBANCE OF LAND: Any action that causes a change in the position, location, or arrangement of soil, sand rock, gravel of similar earth material.

EROSION: The wearing away of the land surface by natural or artificial forces such as wind water, ice, gravity, or vehicle traffic and the subsequent detachment and transportation of soil particles.

ESTIMATED HABITAT OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS. Habitats delineated for state-protected rare wildlife and certified vernal pools for use with the Wetlands Protection Act Regulations (310 CMR 10.00) and the Forest Cutting Practices Act Regulations (304 CMR 11.00).

GRADING: Changing the level or shape of the ground surface.

GRUBBING: The act of clearing land surface by digging up roots and stumps.

IMPERVIOUS SURFACE: Any material or structure on or above the ground that prevents water in filtering the underlying soil. Impervious surface includes without limitation roads, paved parking lots, sidewalks, and roof tops.

LAND-DISTURBING ACTIVITY: Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material.

MASSACHUSETTS ENDANGERED SPECIES ACT: (G.L. c. 131A) and its implementing regulations at (321 CMR 10.00) which prohibit the "taking" of any rare plant or animal species listed as Endangered, Threatened, or of Special Concern.
MASSACHUSETTS STORM WATER MANAGEMENT POLICY. The Policy issued by the Department of Environmental Protection, and as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act G.L. c. 131 §. 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56. The Policy addresses storm water impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or municipal storm drain system: The system of conveyances designed or used for collecting or conveying storm water, 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 Nahant.

OPERATION AND MAINTENANCE PLAN: A plan setting up the functional, financial and organizational mechanisms for the ongoing operation and maintenance of a storm water management system to insure that it continues to function as designed.

OUTFALL: The point at which storm water flows out from a point source discernable, confined and discrete conveyance into waters of the Commonwealth.

OUTSTANDING RESOURCE WATERS (ORWs): Waters designated by Massachusetts Department of Environmental Protection as ORWs. These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards (314 CMR 4.00) and the Massachusetts Storm water Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated.

OWNER: A person with a legal or equitable interest in property.

PERSON: An individual partnership, association, firm, company, trust, corporation, 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.

POINT SOURCE: Any discernable confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.

PRE-CONSTRUCTION: All activity in preparation for construction.

PRIORITY HABITAT OF RARE SPECIES: Habitats delineated for rare plant and animal populations protected pursuant to the Massachusetts Endangered Species Act and its regulations.

REDEVELOPMENT: Development, rehabilitation, expansion, demolition or phased projects that disturb the ground surface or increase the impervious area on previously developed sites.

RUNOFF: Rainfall, snowmelt, or irrigation water flowing over the ground surface.

SEDIMENT: Mineral or organic soil material that is transported by wind or water, from its origin to another location; the product of erosion processes.
SEDIMENTATION: The process or act of deposition of sediment.

SITE: Any lot or parcel of land or area of property where land-disturbing activities are, were, or will be performed.

SLOPE: The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.

SOIL: Any earth, sand, rock, gravel, or similar material.

STABILIZATION: The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or retard erosion.

STORMWATER: Storm water runoff, snow melt runoff, and surface water runoff and drainage.

STORMWATER MANAGEMENT PLAN: A plan required as part of the application for a Storm water Management Permit. See Section 7. A document containing narrative, drawings and details developed by a qualified professional engineer (PE) or a Certified Professional in Erosion and Sedimentation Control (CPESC), which includes best management practices, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction and construction related land disturbance activities.

STRIP: Any activity which removes the vegetative ground surface cover, including tree removal, clearing, grubbing, and storage or removal of topsoil.

TSS: Total Suspended Solids.

VERNAL POOLS: Temporary bodies of freshwater which provide critical habitat for a number of vertebrate and invertebrate wildlife species.

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

WETLAND RESOURCE AREA. Areas specified in the Massachusetts Wetlands Protection Act G.L. c. 131, § 40 and in the Town of Nahant wetland bylaw/ordinance.

SECTION 3. AUTHORITY

This bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34

Nothing in this Bylaw is intended to replace the requirements of any other bylaw that has been made or may be adopted by the Town of Nahant.

SECTION 4. APPLICABILITY

This bylaw shall apply to all activities that result in disturbance of one or more acres of land that drains to the municipal separate storm sewer system. Except as authorized by the Planning Board In a Storm water Management Permit or as otherwise provided in this bylaw, no person shall perform any activity that results in disturbance of an acre or more of land. Normal maintenance and improvement of land in
Agricultural or aquacultural use, as defined by the Wetlands Protection Act regulation 310 CMR 10.4, are exempt. In addition, as authorized in the Phase J1 Small MS4 General Permit for Massachusetts, storm water discharges resulting from the above activities that are subject to jurisdiction under the Wetlands Protection Act and demonstrate compliance with the Massachusetts Storm Water Management Policy as reflected in an Order of conditions issued by the Conservation Commission are exempt from compliance with this bylaw.

No person may undertake a construction activity, including clearing, grading and excavation that results in a land disturbance that will disturb equal to or greater than one acre of land or will disturb less than one acre of land but part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one acre of land draining into the Town of Nahant municipal storm sewer system without a permit from the Planning Board. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity or the original purpose of the site.

Construction activities that are exempt are:

1. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulations 310 CMR 10.04 and MGL Chapter 40A, section 3;

2. Maintenance of existing landscaping gardens, or lawn areas associated with a single family dwelling provided such maintenance does not include the addition of more than 100 cubic yards of soil material, or alteration of drainage patterns;

3. The construction of fencing that will not substantially alter existing terrain or drainage patterns:

4. Normal maintenance of Town owned public land, ways, and appurtenances:

5. Maintenance, reconstruction or resurfacing of any public way; and the installation of drainage structures or utilities within or associated with public ways that have been approved by the appropriate authorities provided that written notice be filed with the Planning Board fourteen (14) days prior to commencement of activity;

6. Activities that are subject to jurisdiction under the Wetlands Protection Act and demonstrate compliance with the Massachusetts Storm Water Management Policy as reflected in an Order of Condition issued by the Conservation Commission.

SECTION 5. RESPONSIBILITY FOR ADMINISTRATION

A. The Planning Board shall administer, implement and enforce this bylaw. Any powers granted to or duties imposed upon the Planning Board may be delegated in writing by the Planning Board to its employees or agents.

B. Waiver. The Planning Board may waive strict compliance with any requirement of this by-law or the rules and regulations promulgated hereunder, where:

(1) Such action is allowed by federal, state and local statutes and/or regulations,

(2) Is in the public interest, and

(3) Is not inconsistent with the purpose and intent of this by-law.
C. Public Hearing. The Permit Authority shall hold a public hearing within sixty-five (65) days of the receipt of a complete application and shall take final action within ninety (90) days from the time of the close of the hearing unless such time is extended by agreement between the applicant and the Permit Authority. Notice of the public hearing shall be given by publication and posting and by certified mail at the applicant’s expense to abutters at least fourteen (14) days prior to the hearing. The Permit Authority shall make the application available for inspection by the public during business hours at the Nahant Town Hall.

D. Information requests. The applicant shall submit all additional information requested by the Permit Authority to issue a decision on the application.

E. Actions by the Permit Authority may include;

1. Approve the Storm water Management Permit (Storm water Management Permit) Application and issue a permit if it finds that the proposed plan will protect water resources and meets the objectives and requirements of this by-law;

2. Approve the Storm water Management Permit application and issue a permit with conditions, modifications or restrictions that the Permit Authority determines are required to ensure that the project will protect water resources and meets the objectives and requirements of this by-law;

3. Disapprove the Storm water Management Permit Application and deny the permit if it finds that the proposed plan will not protect water resources or fails to meet the objectives and requirements of this by-law.

F. Failure of the Permit Authority to take final action. Failure of the Permit Authority to take final action upon an Application within the time specified above shall be deemed to be approval of said Application. Upon certification by the Town Clerk that the allowed time has passed without the Permit Authority’s action, the Storm water Management Permit shall be issued by the Town Clerk.

SECTION 6. RULES AND REGULATIONS

The Planning Board may adopt, and periodically amend rules and regulations to effectuate the purposes of this by-law. Failure by the Planning Board to promulgate such rules and regulations shall not have the effect of suspending or in this by-law. The Rules and Regulations shall include Permits and Procedure; Storm water Management Plan; Operation and Maintenance Plans, etc.

SECTION 7. SURETY

The Planning Board may require the permittee to post before the start of land disturbance activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by town counsel, and be in an amount deemed sufficient by the Planning Board to ensure that the work will be completed in accordance with the permit. If the project is phased, the Planning Board may release part of the bond as each phase is completed in compliance with the permit but the bond may not be fully released until the Planning Board has received the final report as required by Section I 0 and issued a certificate of completion.
SECTION 8. FINAL REPORTS

Upon completion of the work, the permittee shall submit a report (including certified as-built construction plans, as outlined in Subdivision Regulations, Section IV.B.8.a, from a Professional Engineer (P.E.), surveyor, or Certified Professional in Erosion and Sediment Control (CPESC), certifying that all erosion and sediment control devices, and approved changes and modification, have been completed in accordance with the conditions of the approved permit. Any discrepancies should be noted in the cover letter.

SECTION 9. ENFORCEMENT

A. The Planning Board or an authorized agent of the Planning Board shall enforce this by-law, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

B. Orders

1. The Planning Board or an authorized agent of the Planning Board may issue a written order to enforce the provisions of this by-law or the regulations thereunder, which may include:
   (a) A requirement to cease and desist from the land-disturbing activity until there is compliance with the bylaw and provisions of the land-disturbance permit:
   (b) Maintenance, installation or performance of additional erosion and sediment control measures:
   (c) Monitoring, analyses, and reporting
   (d) Remediation of erosion and sedimentation resulting directly or indirectly from the land-disturbing activity.

2. If the enforcing person determines that abatement or remediation of erosion and sedimentation is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline the Town of Nahant. may, at its option, undertake such work, and the property owner shall reimburse the Town of Nahant expenses

9(B) (3) (Special Assessment)

3. With in thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner shall be notified of the costs incurred by the Town of Nahant, including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Planning Board 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 Planning Board affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the cost shall become a municipal charges lien against the property owner pursuant to G.L.Ch. 40§58 for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate, as provided in G.L. Ch. 59, § 57, after the thirty first day following the day on which the costs were due. Rev. 3/6/2017 by Town Counsel and TA.
C. **Criminal Penalty.** Any person who violates any provision of this by-law, regulation, order or permit issued there under, shall be punished by a fine of not more than **$100.00**. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

D. **Non-Criminal Penalty**

As an alternative to criminal prosecution or civil action, the Town of Nahant may elect to utilize the non-criminal disposition procedure set forth in G.L. Ch.40,§ 21 D. and Article XIII (Non-Criminal Disposition of Violations) within the Police By-Laws of the Town of Nahant, in which case the Planning Board of the Town of Nahant shall be the enforcing person. The penalty for the 1st violation shall be **$25.00.** The penalty for the 2nd violation shall be **$50.00.** The penalty for the 3rd and subsequent violations shall be **$100.00.** Each day or part thereof that such violation occurs or continues shall constitute a separate offense. Rev. 3/6/2017 by Town Counsel and TA.

E. Appeals. The decisions or order of the Planning Board shall be final. Further relief shall be to a court of competent jurisdiction

F. 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 10. CERTIFICATE OF COMPLETION**

The issuing authority will issue a letter certifying completion upon receipt and approval of the final reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with this bylaw.

**SECTION 11. 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.

ATM 4/25/2015
Warrant Article 11. (General) approved amendment to the Town’s bylaws.
AG amendment approval 8/31/2015 Case # 7562

This general bylaw shall be in full force and effect from and after its passage approval recording and publications, as provided by law.

Passed and adopted by Town Meeting of the Town of Nahant on the twenty fifth (25th) day of April, 2015 by a unanimous vote in favor.

Approved by the Attorney General of Massachusetts on August 31, 2015.
Witness my hand and the seal of the Town of Nahant.

Margaret R. Barile
Town Clerk

A true copy, attest:
APPENDIX E
Sanitary Sewer Overflow Inventory
Sanitary Sewer Overflow (SSO) Inventory

SSO No. 01
Location: 330 Lynnway Lynn, MA
Date: 4-25-2017
Time Start: 3:45 PM
Time End: 6:45 PM
Estimated Volume: 30,000 Gallons
Description: Linear break due to corrosion of pipe
Mitigation Planned: None

SSO No. 02
Location: 282 Lynnway Lynn, MA
Date: 6-3-2019
Time Start: 8:45 AM
Time End: 10:00 AM
Estimated Volume: 19,389 Gallons
Description: Linear break due to corrosion of pipe.
Mitigation Planned: None
APPENDIX F
IDDE Plan and Initial Priority Ranking
ASSESSMENT AND PRIORITY RANKING OF OUTFALLS

The MS4 Permit requires an assessment and priority ranking of outfalls in terms of their potential to have illicit discharges and SSOs, and the related public health significance. The ranking helps determine the priority order for performing IDDE investigations and meeting permit milestones.

An initial outfall classification and priority ranking is provided in Attachment 1.

DRY WEATHER OUTFALL SCREENING AND SAMPLING

Dry weather flow is a common indicator of potential illicit connections. The MS4 Permit requires all outfalls (excluding Problem and Excluded Outfalls) to be inspected for the presence of dry weather flow. The Town of Nahant (Town) is responsible for conducting dry weather outfall screening, starting with High Priority outfalls, based on the initial priority ranking provided at the end of this document.

1.1 WEATHER CONDITIONS

Dry weather outfall screening and sampling may occur when no more than 0.1 inches of rainfall has occurred in the previous 24-hour period and no significant snow melt is occurring. When possible, 48 to 72 hours of dry weather is preferred. For purposes of determining dry weather conditions, precipitation data will be used from National Weather Service (NWS).

1.2 DRY WEATHER SCREENING/SAMPLING PROCEDURE

General Procedure

The dry weather outfall inspection and sampling procedure consists of the following general steps:

1. Identify outfall(s) to be screened/sampled based on initial outfall inventory and priority ranking
2. Acquire the necessary staff, mapping, and field equipment (see Table 1 for list of potential field equipment)
3. Conduct the outfall inspection during dry weather:
   - Photograph the outfall
• Record the inspection information and outfall characteristics (using paper forms or digital form using a tablet or similar device) (Refer to the EPA New England Bacterial Source Tracking Protocol).
• Look for and record visual/olfactory evidence of pollutants in flowing outfalls including odor, color, turbidity, and floatable matter (suds, bubbles, excrement, toilet paper or sanitary products). Also observe outfalls for deposits and stains, vegetation, and damage to outfall structures.

4. If flow is observed, sample and test the flow following the procedures described in Section 2.3.

5. If no flow is observed, but evidence of illicit flow exists (illicit discharges are often intermittent or transitory), revisit the outfall during dry weather within one week of the initial observation, if practicable, to perform a second dry weather screening and sample any observed flow.

6. Input results from screening and sampling into spreadsheet/database. Include pertinent information in the outfall inventory and priority ranking.

7. Include all outfall screening and monitoring data collected during the reporting period and cumulative for the permit term in the annual report.

Field Equipment

Table 1 lists field equipment commonly used for dry weather outfall screening and sampling.

Table 1 Field Equipment – Dry Weather Outfall Screening and Sampling

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Use/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clipboard</td>
<td>For organization of field sheets and writing surface</td>
</tr>
<tr>
<td>Field Forms or Tablet for Electronic Forms</td>
<td>Field sheets for both dry weather inspection and dry weather sampling should be available, with extra sheets included</td>
</tr>
<tr>
<td>Chain of Custody Forms</td>
<td>To ensure proper handling of all samples</td>
</tr>
<tr>
<td>Pens/Pencils/Permanent Markers</td>
<td>For proper labeling</td>
</tr>
<tr>
<td>Nitrile Gloves</td>
<td>To protect the sampler as well as the sample from contamination</td>
</tr>
<tr>
<td>Flashlight/headlamp with batteries</td>
<td>For looking in outfalls or manholes, helpful in early mornings as well</td>
</tr>
<tr>
<td>Cooler with Ice</td>
<td>For transporting samples to the laboratory</td>
</tr>
<tr>
<td>Digital Camera</td>
<td>For documenting field conditions at time of inspection</td>
</tr>
<tr>
<td>Personal Protective Equipment (PPE)</td>
<td>Reflective vest, safety glasses, and boots at a minimum</td>
</tr>
<tr>
<td>GPS Receiver</td>
<td>For taking spatial location data</td>
</tr>
<tr>
<td>Distilled water</td>
<td>For use with test kits</td>
</tr>
<tr>
<td>Water Quality Meters</td>
<td>Hand-held meters for testing for various water quality parameters.</td>
</tr>
<tr>
<td>Test Kits (see Table 3)</td>
<td>For ammonia and surfactants. Have extra kits on hand to sample more outfalls than are anticipated to be screened in a single day</td>
</tr>
<tr>
<td>Label Tape</td>
<td>For labeling sample containers</td>
</tr>
</tbody>
</table>
Sample Collection and Analysis

If flow is present during a dry weather outfall inspection, samples will be collected and analyzed for the required permit parameters identified in Table 2.

**Table 6-2 Dry Weather Flow Analysis**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Analysis Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Field Test Kit</td>
</tr>
<tr>
<td>Chlorine</td>
<td>Portable Meter</td>
</tr>
<tr>
<td>Conductivity</td>
<td>Portable Meter</td>
</tr>
<tr>
<td>Salinity</td>
<td>Portable Meter</td>
</tr>
<tr>
<td>Temperature</td>
<td>Portable Meter</td>
</tr>
<tr>
<td>Surfactants</td>
<td>Portable Meter</td>
</tr>
<tr>
<td>Indicator Bacteria</td>
<td>Field Test Kit</td>
</tr>
<tr>
<td>(E. coli or Enterococcus)</td>
<td>EPA Certified Laboratory Procedure (40 CFR Part 136)</td>
</tr>
</tbody>
</table>

The general procedure for collection of outfall samples is as follows:

1. Fill out all sample information on sample bottles and field sheets
2. Put on protective gloves (nitrile/latex/other) before sampling.

3. Collect sample with dipper or directly into sample containers. If possible, collect water from the flow directly into the sample bottle. Be careful not to disturb sediments.

4. If using a dipper or other device, triple rinse the device with distilled water and then in water to be sampled, except for bacteria sampling.

5. Use test strips, test kits, and field meters (rinse similar to dipper) for most parameters (See Table 3).

6. Place laboratory samples on ice for analysis of bacteria.

7. Fill out chain-of-custody form for laboratory samples.

8. Coordinate with Laboratory to pick-up/drop-off samples.

9. Store used test strips and test kit waste/ampules properly in a 5-gallon bucket with a cover, store and dispose of properly.

10. Decontaminate all testing personnel and equipment.

In the event that an outfall is submerged, either partially or completely, or inaccessible, field staff will proceed to the first accessible upstream manhole or structure for observation and sampling and will report the location with the screening results.

All analysis with the exception of indicator bacteria can be performed with field test kits or field instrumentation and are not subject to 40 CFR part 136. Field kits need to have appropriate detection limits and ranges. Table 3 lists various field test kits and field instruments that can be used for outfall sampling associated with the 2016 MS4 Permit parameters, other than indicator bacteria. Preservation is not required if samples are analyzed immediately.

Table 3. Sampling Parameters and Analysis Methods

<table>
<thead>
<tr>
<th>Analyte or Parameter</th>
<th>Instrumentation (Portable Meter)</th>
<th>Field Test Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>CHEMetrics™ V-2000 Colorimeter Hach™ DR/890 Colorimeter Hach™ Pocket Colorimeter™ II</td>
<td>CHEMetrics™ K-1410 CHEMetrics™ K-1510 (series) Hach™ NI-SA Hach™ Ammonia Test Strips</td>
</tr>
<tr>
<td>Chlorine</td>
<td>CHEMetrics™ V-2000, K-2513 Hach™ Pocket Colorimeter™ II</td>
<td>NA</td>
</tr>
<tr>
<td>Conductivity</td>
<td>CHEMetrics™ I-1200 YSI Pro30 YSI EC300A Oakton 450</td>
<td>NA</td>
</tr>
<tr>
<td>Analyte or Parameter</td>
<td>Instrumentation (Portable Meter)</td>
<td>Field Test Kit</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Temperature</td>
<td>YSI Pro30</td>
<td>NA</td>
</tr>
<tr>
<td>Salinity</td>
<td>YSI EC300A</td>
<td>NA</td>
</tr>
<tr>
<td>Temperature</td>
<td>Oakton 450</td>
<td>NA</td>
</tr>
<tr>
<td>Indicator Bacteria:</td>
<td>EPA certified laboratory procedure</td>
<td>NA</td>
</tr>
<tr>
<td>E. coli (freshwater)</td>
<td>(40 CFR § 136)</td>
<td>NA</td>
</tr>
<tr>
<td>Enterococcus (saltwater)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Testing for indicator bacteria must be conducted using analytical methods and procedures found in 40 CFR § 136. Samples for laboratory analysis must also be stored and preserved in accordance with procedures found in 40 CFR § 136. **Table 6** lists analytical methods, detection limits, hold times, and preservatives for laboratory analysis of dry weather sampling parameters.

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1 40 CFR § 136: [http://www.ecfr.gov/cgi-bin/text-idx?SID=b3b41fdea0b7b0b8cd6c4304d86271b7&mc=true&node=pt40.25.136&rgn=div5](http://www.ecfr.gov/cgi-bin/text-idx?SID=b3b41fdea0b7b0b8cd6c4304d86271b7&mc=true&node=pt40.25.136&rgn=div5)
<table>
<thead>
<tr>
<th>Analyte or Parameter</th>
<th>Analytical Method</th>
<th>Detection Limit</th>
<th>Max. Hold Time</th>
<th>Preservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>EPA: 350.2, SM: 4500-NH3C</td>
<td>0.05 mg/L</td>
<td>28 days</td>
<td>Cool ≤6°C, H2SO4 to pH &lt;2, No preservative required if analyzed immediately</td>
</tr>
<tr>
<td>Surfactants</td>
<td>SM: 5540-C</td>
<td>0.01 mg/L</td>
<td>48 hours</td>
<td>Cool ≤6°C</td>
</tr>
<tr>
<td>Chlorine</td>
<td>SM: 4500-Ci G</td>
<td>0.02 mg/L</td>
<td>Analyze within 15 minutes</td>
<td>None Required</td>
</tr>
<tr>
<td>Temperature</td>
<td>SM: 2550B</td>
<td>NA</td>
<td>Immediate</td>
<td>None Required</td>
</tr>
<tr>
<td>Specific Conductance</td>
<td>EPA: 120.1, SM: 2510B</td>
<td>0.2 µs/cm</td>
<td>28 days</td>
<td>Cool ≤6°C</td>
</tr>
<tr>
<td>Salinity</td>
<td>SM: 2520</td>
<td>-</td>
<td>28 days</td>
<td>Cool ≤6°C</td>
</tr>
<tr>
<td>Indicator Bacteria:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E.coli</td>
<td>EPA: 1603</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM: 9221B, 9221F, 9223 B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: Colilert®, Colilert-18®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterococcus</td>
<td>EPA: 1600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM: 9230 C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: Enterolert®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E.coli</td>
<td>EPA: 1 cfu/100mL</td>
<td></td>
<td>8 hours</td>
<td>Cool ≤10°C, 0.0008% Na2S2O3</td>
</tr>
<tr>
<td>SM: 2 MPN/100mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: 1 MPN/100mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterococcus</td>
<td>EPA: 1 cfu/100mL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM: 1 MPN/100mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: 1 MPN/100mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SM = Standard Methods
Safety

In some cases, sampling may take place within a roadway or risky environment. It is recommended to request police detail when working within major roadways and be compliant with Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) standards to implement proper traffic control, including traffic cones and signage as needed. Wear proper PPE including high-visibility safety vests, safety glasses, boots, and gloves at a minimum.

1.3 INTERPRETING OUTFALL SAMPLING RESULTS

Outfall analytical data from dry weather sampling can be used to help identify the major type or source of discharge. Table 5 shows values identified by the U.S. EPA and the Center for Watershed Protection as typical threshold screening values for select parameters. These represent the typical threshold concentration (or value) of each parameter expected to be found in stormwater. Screening values that exceed these benchmarks may be indicative of pollution and/or illicit discharges.

Table 6-5 Benchmark Field Measurements for Select Parameters

<table>
<thead>
<tr>
<th>Analyte or Parameter</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>&gt;0.5 mg/L</td>
</tr>
<tr>
<td>Conductivity</td>
<td>&gt;2,000 μS/cm</td>
</tr>
<tr>
<td>Surfactants</td>
<td>&gt;0.25 mg/L</td>
</tr>
<tr>
<td>Chlorine</td>
<td>&gt;0.02 mg/L</td>
</tr>
<tr>
<td>(detectable levels per the 2016 MS4 Permit)</td>
<td></td>
</tr>
<tr>
<td>Indicator Bacteria(^\text{2}): E.coli</td>
<td>The geometric mean of the five most recent samples taken during the same bathing season shall not exceed 126 colonies per 100 mL, and no single sample taken during the bathing season shall exceed 235 colonies per 100 mL</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 – 8.3 standard units and not more than 0.5 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class. (314CMR04; Class B)</td>
</tr>
</tbody>
</table>

1.4 FOLLOW-UP RANKING OF OUTFALLS

The Town will update and re-prioritize the initial outfall ranking based on information gathered during dry weather screening. The rankings will be updated periodically as dry weather screening information becomes available but will be completed within three (3) years of the effective date of the permit (June 30, 2021).

Outfalls where relevant information was found indicating sewer input to the MS4, or where sampling results indicate sewer input are highly likely to contain illicit discharges from sanitary sources. Such

\(^2\) Massachusetts Water Quality Standards: [http://www.mass.gov/eea/docs/dep/service/regulations/314cmr04.pdf](http://www.mass.gov/eea/docs/dep/service/regulations/314cmr04.pdf)
outfalls will be ranked at the top of the High Priority Outfalls category for investigation. Other outfalls may be re-ranked based on any new information from dry weather screening.

**CATCHMENT INVESTIGATIONS**

TBD. Due January 1, 2020.
### Initial Outfall Priority Ranking

**6/27/2019**

**Weighting:**
- 40%
- 20%
- 10%
- 5%
- 25%

<table>
<thead>
<tr>
<th>Temp Outfall ID</th>
<th>Waterbody Segment that Receives Flow from the MS4</th>
<th>Pollutants Causing Impairments</th>
<th>Priority</th>
<th>Proximity to Beach</th>
<th>TMDL</th>
<th>Land Use/Zoning</th>
<th>Size of Catchment</th>
<th>Proximity to Sewer</th>
<th>Score</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH52-1</td>
<td>Lynn Harbor (MA93-52)</td>
<td>Fecal Coliform</td>
<td>High-TMDL/Beach</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2.65</td>
<td>1</td>
</tr>
<tr>
<td>LH52-2</td>
<td>Lynn Harbor (MA93-52)</td>
<td>Fecal Coliform</td>
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1 Proximity to Beach: 3 = outfall discharges directly to a public beach; 2.5 = outfall discharges near a public beach; 1 = outfall discharges near a beach (not public); 0 = outfall discharge not near a beach
2 TMDL: 3 = Approved TMDL; 1= no TMDL required
3 Land Use/Zoning: 3 = Primarily dense residential and commercial; 2 = some residential and some forest/open space or golf course; 1 = primarily forest/conservation land with some less dense residential
4 Size of catchment is based on number of drainage structures (manholes and catch basins); areas with more structures are ranked higher
5 Proximity to Sewer: 2= Sewer located in close proximity or overlapping; 1= No sewer in close proximity
APPENDIX G
Training Records