

# STORMWATER MANAGEMENT PLAN UPDATE FEBRUARY 2022







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## **ATTACHMENTS**

Attachment A:	<b>Endangered Species</b>
Attachment B:	IDDE Program and Appendices
Attachment C:	<b>O&amp;M Procedures for Facilities</b>
Attachment D:	<b>O&amp;M Procedures for Infrastructure</b>
Attachment E:	SWPPPs
Attachment F:	Separate storm Sewer System map
Attachment G:	SWMP Revision Log

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#### 1. INTRODUCTION

#### WHY IS THIS IMPORTANT?

Stormwater runoff commonly transports pollutants through municipal separate storm sewer systems (MS4s), where it is discharged, often untreated, into local water bodies. To the public, the MS4 is more commonly known as a stormwater drainage system or simply as the "drain." These stormwater drains have been constructed in developed areas to reduce the risk of flooding and damage to our built infrastructure. Unfortunately, stormwater drainage systems carry pollution during rain events and snow melt – this can include oil, trash, nutrients, and any other materials found on lawns, streets, and parking lots.

In the Town of Harwich, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a Permit. Harwich is one of thousands of communities and institutions across the country that must comply with these regulations. The stormwater drainage system discharge Permit is known as the "MS4 General Permit" and is issued and managed by both the U.S. Environmental Protection Agency (EPA) and the State of Massachusetts Department of Environmental Protection (MassDEP).

#### WHAT DOES HARWICH HAVE TO DO?

The Town of Harwich has had MS4 General Permit coverage since 2003 under Permit No. MAR041120. Most recently, the Town submitted a Notice of Intent (NOI) dated September 26, 2018 to reapply for permit coverage under the recently reissued MS4 General Permit, effective July 1, 2018. This NOI can be accessed on the EPA's website "Regulated MS4s in Massachusetts" (https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities. As part of the permitting requirements, Harwich was required to develop a written Stormwater Management Plan (SWMP). This SWMP (or Plan) is a reference document that guides the Town's implementation of requirements within the Permit. The Town is required to keep records of, and report on, the activities and measures that are implemented and consistent with this Plan. MS4 General Permit requirements are summarized (and simplified) as follows:



**Implement** public education programs to help Town residents, business owners, and developers understand their role in keeping stormwater clean.



**Engage** the public in decision-making throughout the program.



**Find** and address failed septic systems or leaky or unauthorized sanitary sewer lines that might be discharging into the drainage system.



**Ensure** that construction projects do not pollute runoff with sediments and debris.



**Ensure** that new development and redevelopment control and treat runoff before it leaves the property.



**Engage** in pollution prevention actions like road and parking area best practices (cleaning drainage systems and sweeping pavements), and ensure that municipal activities like vehicle washing, lawn maintenance, and materials storage do not contribute to stormwater pollution.





#### 1.1 STORMWATER REGULATION

No updates.

## 1.2 PERMIT PROGRAM BACKGROUND

No updates.

#### 1.3 STORMWATER MANAGEMENT PROGRAM

The Permit Year (PY) corresponds to each regulatory year starting on July 1, 2018. The original version of this SWMP, dated June 2019 and prepared by AECOM, has been updated herein to reflect the Town of Harwich's stormwater management program updates, progress, and achievements through PY 3 (ending June 30, 2021). A revision log tracking these updates are provided as **Attachment G**. Additional information related to the progress of the stormwater management program is provided in the MS4 Annual Report that is submitted to the EPA and MassDEP by the end of September each year.

**Attachments A** through **E** have remained unchanged since the original version of this SWMP was published; refer to the original SWMP document to view these attachments.

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## 1.4 TOWN-SPECIFIC MS4 BACKGROUND

No updates.

## 1.5 SMALL MS4 AUTHORIZATION





## 1.6 STORMWATER MANAGEMENT PROGRAM TEAM

Title/ Position of Responsible Person	Name of Responsible Person	Role/Program Element(s)	
Town Engineer		<ul> <li>Oversight and design of projects for maintenance and repair of town owned infrastructure</li> <li>SWMP Team Coordinator that oversees the completion of tasks associated with the SWMP</li> <li>Execution/oversight of the IDDE program</li> <li>Execution/oversight of public education and outreach, public participation and review of the SWMP</li> <li>Development of the BMPs for construction and post-construction stormwater</li> </ul>	
Director of Highways and Maintenance	Lincoln Hooper	<ul> <li>Oversight of projects for maintenance and repair of town owned roads and associated infrastructure</li> <li>Execution/oversight hazardous waste and oil collection and the IDDE program</li> </ul>	
Director of Planning and Community Development	Jon Idman	• Execution/oversight of applicable portions of the public education and outreach requirements and the BMPs for construction and postconstruction stormwater within MCM 4 and 5.	
Recreation Director	Eric Beebe	Execution/oversight of the recreational permittee-owned facilities operations and managem plan.	
Building Commissioner		• Execution/oversight of applicable portions of the public education and outreach requirements and the BMPs for construction and postconstruction stormwater within MCM 4 and 5.	
Conservation Agent	Amy Usowski	• Execution/oversight of portions of the public education and outreach requirements applicable to the Conservation Department's mission, the beach clean-up program, and a portion of the construction site runoff control MCM.	
Health Director	Kathleen O'Neill	• Execution/oversight of portions of the public education and outreach requirements, IDDE, and other areas that pertain to septic systems, sewage, or general health.	





## 2. TOWN OF HARWICH

## 2.1 RECEVING WATERS

Per the requirements of part 1.10.2 of the MS4 General Permit, a list of Integrated List waterbody segments that receive discharge from the Town's MS4 and the estimated number of outfalls that discharge directly to each Integrated List waterbody segment is shown below. The list has been updated from the original **Receiving Waters Table** provided in the June 2019 SWMP and the Town's MS4 General Permit Notice of Intent (NOI) submission to the EPA dated September 26, 2018.

Waterbody Segment that Receives Flow from the MS4	Number of Outfalls into Receiving Water Segment	Outfalls Discharging to Receiving Water	
Atlantic Ocean	5	OF-8, OF-9, OF-10, OF-11, OF-12	
Wychmere Harbor (MA 96-96)	4	OF-4, OF-16, OF-17, OF-18	
Sasquatucket Harbor (MA 96-23)	3	OF-1, OF-2, OF-3	
Herring River (MA 96-22)	2	OF-5, OF-6	
Carding Brook	1	OF-7	
Grass Pond Bog	2	OF-13 and OF-19	
Coys Brook	1	OF-14	

The number of outfalls discharging to Wychmere Harbor (MA 96-96), located on the eastern shore of the Harbor, increased from three to four after an unmapped outfall was identified during a review of site plans for the Harwich Town Pier. The number of outfalls discharging to the Herring River (MA 96-22) decreased from four to two, after concluding that the two outfalls discharging near Shoal Hope Drive and Driftwood Terrace are privately-owned outfalls. A stormwater conveyance previously identified as an outfall discharging to the outlet stream from Skinequit Pond was field verified to be a culvert (OF-15). Lastly, the number of outfalls discharging to Coys Brook increased from zero to one, after discovering that an outfall was omitted from the Town's NOI. There are 17 confirmed outfalls located within the Town as of the issuance of this SWMP update.

Any updates to the numbers reported above will be included in future revisions of this document and described in the Annual Report, if necessary.

#### 2.2 ELIGIBILITY: ENDANGERED SPECIES AND HISTORIC PROPERTIES





#### 2.3 TMDLS AND WATER QUALITY LIMITED WATERS

The waterbody impairments listed in the **Receiving Waters Table** in the June 2019 SWMP and the Town's MS4 General Permit NOI submission to the EPA dated September 26, 2018 are based on the Final Massachusetts Year 2014 Integrated List of Waters. The **Receiving Waters Table**, below, and the Town's Separate Storm System Map, included in **Attachment F**, have been updated to reflect the 2016 Integrated List of Waters issued in December 2019. In summary, a fecal coliform TMDL was added to Wychmere Harbor. The Draft 2018 Massachusetts "List of Integrated Waters" was reviewed to determine whether impairments or TMDLs associated with receiving waterbodies were projected to change, outfalls discharging to impaired/TMDL waterbodies.

## Summary of 2016 Integrated List of Waters – Status of Harwich's Receiving Waters

Category 5 Waters: Waters Requiring a TMDL				
Indicator Contributing to Impairment:	Wychmere Harbor MA96-96			
Fecal Coliform	•			

Category 4a Waters: Waters with a TMDL			
Indicator Contributing to Impairment:	Herring River MA96-22	Saquatucket Harbor MA96-23	
Fecal Coliform	•	•	

- Impairment listed in 2014 and 2016
- Impairment added in 2016

Future reissuance and/or approval of the Massachusetts Integrated List of Waters may necessitate additional modifications to this Plan to maintain compliance with applicable requirements.

## 2.4 INTERCONNECTED SEPARATE STORM SEWER SYSTEMS

The Town of Harwich has no known interconnections with other municipalities or privately-owned infrastructure. The Town has minimal interconnections with the Massachusetts Department of Transportation's (MassDOT's) stormwater infrastructure on Route 28. These interconnections were added to the





Town's Separate Storm System Map, included in **Attachment F.** 

#### 2.5 SURFACE PUBLIC DRINKING WATER SUPPLIES

The Town of Harwich has no surface public drinking water supply sources or surface water supply watersheds within its Town boundary. A list of all known waterbody segments that receive discharge from Harwich's MS4 is included in Section 2.1 of this SWMP update, which documents the identification of two outfalls draining to waterbodies previously identified in the NOI and the removal of three outfalls determined to be privately owned and/or a culvert. As detailed in the NOI, there are no known direct discharges to public surface drinking water supplies. Any updates to the waterbody segments receiving discharges from Harwich's MS4 will be included in future revisions of this document, if necessary.

#### 2.6 INCREASED DISCHARGES

The Town of Harwich will comply with the provisions of 314 CMR 4.04 Massachusetts Surface Water Quality Standards, including information submittal requirements and obtaining authorization for increased discharges where appropriate. Any authorization of an increased discharge by MassDEP shall be incorporated within this SWMP.

Harwich will not cause increased discharges, including increased pollutant loading(s) from the MS4 to impaired waters listed in categories 4a or 5 on the most recent Massachusetts Integrated Report of waters listed pursuant to Clean Water Act section 303(d) and 305(b) unless the Town demonstrates that there is no net increase in loading from the MS4 to the impaired water of the pollutant(s) for which the waterbody is impaired.

Unless otherwise determined by the EPA or by MassDEP, compliance with the Part 2.2.2 and Part, 2.3.6, and other relevant requirements of the MS4 General Permit, including all reporting and documentation requirements, are considered as demonstrating no net increase or increased discharge. Part 2.2.2 and 2.3.6 requirements were included in the BMPs outlined in the June 2019 SWMP and any updates are provided in Section 3 of this SWMP Update.

If necessary, the Town of Harwich will demonstrate compliance with this provision by either:

- Documenting that the pollutant(s) for which the waterbody is impaired is not present in the MS4's discharge and retaining documentation of this finding with the SWMP documents; or
- Documenting that the total load of the pollutant(s) of concern from the MS4 to any impaired portion of the receiving water will not increase as a result of the activity and retaining documentation of this finding in the SWMP documents.





### 3. BEST MANAGEMENT PRACTICES FOR MINIMUM CONTROL MEASURES

#### 3.1 MCM 1: PUBLIC EDUCATION AND OUTREACH

No updates.

#### 3.2 MCM 2: PUBLIC INVOLVEMENT AND PARTICIPATION

No updates.

#### 3.3 MCM 3: ILLICIT DISCHARGE AND DETECTION ELIMINATION

#### 3.3.1 BMPs

## 3.3.1.3 BMP 3.3 – Map of Storm Sewer System

The Town has developed a Separate Stormwater Sewer System Map consistent with the requirements of Part 2.3.4.5.a of the MS4 General Permit. The map, provided in **Attachment F** of this SWMP Update, includes the following information:

- Outfalls and receiving waters
- Open channel conveyances
- Waterbodies identified by name and indication of all use impairments per the 2016 Massachusetts Integrated List of Waters report
- Initial catchment delineations
- MassDOT interconnection locations

The Town of Harwich has no known municipally-owned stormwater treatment structures that discharge into the Town's MS4 system or surface water. The Separate Storm Sewer System Map will be updated in PY4 to incorporate changes in the 2016 Massachusetts Integrated List of Waters and installation of new drainage infrastructure, as needed.

This BMP has been updated to provide more information regarding the Town's Separate Storm Sewer System infrastructure. Specifically, the quantity of outfalls has been updated to reflect the configuration and types of infrastructure verified in the field, changes in the 2016 Massachusetts Integrated List of Waters statuses, and recently identified interconnections with MassDOT's MS4.

#### 3.4 MCM 4: CONSTRUCTION SITE RUNOFF CONTROL





## **3.5 MCM 5: POST-CONSTRUCTION STORMWATER MANAGEMENT**

3.5.1 BMPs

No updates.

## 3.6 MCM 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING

3.6.1 BMPs





#### 4. ANNUAL EVALUATION

#### 4.1 SELF-EVALUATION

The Town of Harwich conducts annual evaluations of its program compliance, the appropriateness of its identified Best Management Practices (BMPs), whether it's meeting new Permit requirements, and progress towards achieving its identified measurable goals, which include reducing the discharge of pollutants to the maximum extent practicable ("MEP"). The Town documents the findings of these annual evaluations in their MS4 Program annual report, submitted to the EPA and MassDEP by the end of September.

#### 4.2 RECORD KEEPING

The Town of Harwich will keep records required by the MS4 General Permit for at least five (5) years after they are generated. Records include, but are not limited to: information used in the development of any written (hardcopy or electronic) program required by this permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; and data used in the development of the notice of intent, SWMP, SWPPP, and annual reports. Records will be available for public observation as requested. Records will be submitted to the EPA or MassDEP as requested.

#### 4.3 ANNUAL REPORTS

Annual reports are due to the EPA and MassDEP each year within 90 days of the close of the permit year on June 30<sup>th</sup>. The annual reports shall include the following content:

- Self-assessment review of compliance with permit conditions;
- An assessment/evaluation of:
  - o The appropriateness of the identified BMPs
  - Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP
  - o The identified measurable goals for each of the CMs
- All outfall screening and sampling results;
- Summary of stormwater activities planned to be undertaken during the next reporting cycle;
- Any change in identified BMPs or measurable goals and justification for those changes; and
- The information specified under the reporting requirements for each CM.

Changes to the Town's stormwater permit compliance program do not need to be updated in their NOI, however, this information will be included in the Town's annual reports and SWMP updates. Annual reports are also made available for public access on the EPA's website at <a href="Regulated MS4s">Regulated MS4s</a> in <a href="Massachusetts">Massachusetts</a> (<a href="https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities">https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities</a>).





## 5. 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 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."

Signature	Date
Namo	<u> </u>

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# **Appendices**





## **ATTACHMENT A: ENDANGERED SPECIES**









## ATTACHMENT B: IDDE PROGRAM AND APPENDICES









## ATTACHMENT C: O&M PROCEDURES FOR FACILITIES





Operations and Maintenance Procedures for Town-owned facilities can be accessed at Town Hall.





## ATTACHMENT D: O&M PROCEDURES FOR INFRASTRUCTURE









## **ATTACHMENT E: SWPPPS**



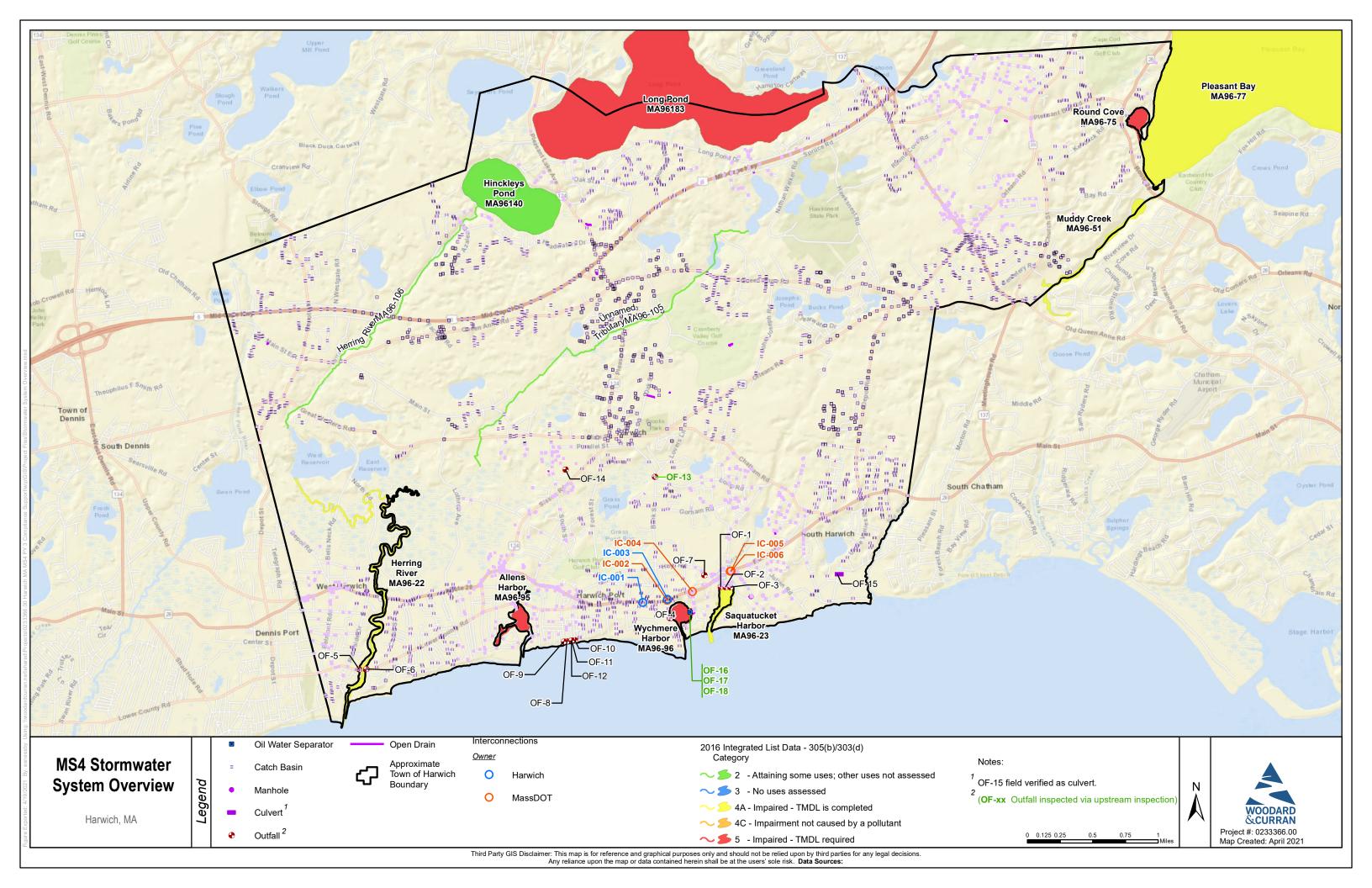


The Stormwater Pollution Prevention Plan for the Department of Public Works Facility and Transfer Station can be accessed at Town Hall and on-site at the facility.





## ATTACHMENT F: SEPARATE STORM SEWER SYSTEM MAP







## **ATTACHMENT G: SWMP REVISION LOG**





Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning	Signature	
00	6/2019			See Original Certification Page	
		1.	Added introduction to the Town's stormwater program		
		1.3	Added language to reference the Town's original SWMP prepared by AECOM		
		2.1	Updated the Town's Receiving Waters Table and added language to reflect that the table will be further updated in the future, if necessary		
		2.3	Added language to address how the approved 2016 Massachusetts List of Integrated Waters will be incorporated into this SWMP		
		2.4	NEW SECTION: Added statement that the Town has no interconnections with other municipalities or privately-owned stormwater infrastructure, but has minimal interconnections with MassDOT-owned infrastructure.		
		2.5	NEW SECTION: Added language to reflect that the Town has no surface public drinking water supply sources		
		2.6	NEW SECTION: Added language to reflect that the Town will comply with proper provisions to authorize any future increased discharges		
01	01/26/2021	3.1.1.9	Added language to reflect how education and outreach messaging related to bacteria impairments is disseminated to all Town residents		
			3.1.1.10	Added language to reflect how education and outreach messaging related to bacteria impairments is disseminated to all Town residents	
			3.2.1.1	Added a link to the Town website page where the Town's original SWMP and updates are posted	
		3.2.1.6	NEW SECTION: Added a new Public Participation BMP		
			3.3.1.3	Added language to reflect that a copy of the Separate Storm Sewer System Map will be updated annually and included in Attachment F	
		3.3.1.4	Added language to state that the IDDE Plan can be accessed at Town Hall		
		3.5.1.5	Added language to reference the Town's as-built and long-term O&M requirements		
			3.6.1.1	Added language to state that the Parks and Open Space O&M Procedures can be accessed at Town Hall	
		3.6.1.2	Added language to state that the Buildings and Facilities O&M  Procedures can be accessed at Town Hall		





Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning	Signature		
		3.6.1.3	Added language to state that the Vehicles and Equipment O&M  Procedures can be accessed at Town Hall			
		3.6.1.9	Added language to state that the DPW/Transfer Station SWPPP can be accessed at Town Hall			
01			4.1	NEW SECTION: Added language about the Town's annual SWMP self- evaluations		
01	01/26/2021	4.2	NEW SECTION: Added language to reflect how the Town keeps their MS4 records for at least 5 years			
			4.3	NEW SECTION: added language to summarize the annual reporting process		
			Attachment F	NEW SECTION: Added Separate Storm Sewer System Map		
		Attachment G	NEW SECTION: Added SWMP Revision Log			
	2/02/2022			1.6	Personnel updated to reflect current names and titles of responsible	
		1.0	persons			
			2.1	The outfall identifications were added to the receiving waters table for clarity		
					Long Pond, Allens Harbor, Round Cove, and Muddy River were removed	
			2.3	from the table containing receiving water impairments/TMDLs because it		
02			was verified that outfalls do not charge to these waterbodies			
		2.3	Impairments/TMDLs were adjusted based on the "Massachusetts Year 2016 Integrated List of Waters"			
		2.4	Newly identified interconnections owned by MassDOT were added			
			The Storm Sewer System Map was updated to reflect field verified			
			3.3.1.3 and	infrastructure, changes to impairments/TMDLs of receiving waterbodies		
			Attachment F	based on the 2016 Massachusetts Integrated List of Waters, and the		
			identification of MassDOT interconnections			