

TOWN OF HINGHAM



STORMWATER MANAGEMENT PLAN UPDATE JUNE 2022

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ATTACHMENTS

- Appendix A: 2016 General Permit With Appendices**
- Appendix B: Stormwater Management Plan Revision Tracking Form**
- Appendix C: Endangered Species Act And National Historic Preservation Act Review**
- Appendix D: Separate Storm Sewer System Map**
- Appendix E: Impaired Waters And Special Resource Waters**

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 Hingham, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a Permit. Hingham 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 HINGHAM HAVE TO DO?

The Town of Hingham has had MS4 General Permit coverage since 2003 under Permit No. MAR041100. Most recently, the Town submitted a Notice of Intent (NOI) dated September 24, 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)” (<https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities>). As part of the permitting requirements, Hingham 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 REGULATORY BACKGROUND AND REQUIREMENTS

No updates.

1.2 ELIGIBILITY DETERMINATION

No updates.

1.3 SPECIAL ELIGIBILITY DETERMINATION

No updates.

1.4 PERMIT YEAR DEFINITIONS

No updates.

2. TOWN OF HINGHAM

2.1 IMPAIRED WATERBODIES

Table 1: 303d Listed Waterbodies and **Figure 2: Impaired Waterbodies** in the June 2021 SWMP Update are both based on the Final Massachusetts Year 2016 Integrated List of Waters, issued in December 2019. Since the issuance of the June 2021 SWMP Update, the “Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle” (2018/2020 List) was finalized in November 2021. **Table 1** and **Figure 2** have been updated to reflect the 2018/2020 List. The updated **Table 1** is provided below, and the updated **Figure 2** is in **Appendix E**.

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.

Table 1: 303d Listed Waterbodies

Waterbody Segment that Receives Flow from the MS4	Segment ID	TMDL	Category/Class	Impairment Cause	Impairment Source	Monitoring Requirements
Hingham Bay	MA70-06	No	5	Cause Unknown (Contaminants in Fish and/or Shellfish)	Contaminated Sediments, Discharges from Biosolids Storage, Upstream Source, Wet Weather Discharges (point source and stormwater/SSO/CSO)	NMR*
				Fecal Coliform	MS4 Discharges, Source Unknown	<i>E. coli</i>
				PCBs in Fish Tissue	Upstream Source, Wet Weather Discharges (point source and stormwater/SSO/CSO), Contaminated Sediments	NMR*

Waterbody Segment that Receives Flow from the MS4	Segment ID	TMDL	Category/Class	Impairment Cause	Impairment Source	Monitoring Requirements
Hingham Bay	MA70-07	No	5	Cause Unknown	Contaminated Sediments, Discharges from Biosolids Storage, Upstream Source, Wet Weather Discharges (point source and stormwater/SSO/CSO), Contaminated Sediments	NMR*
				Estuarine Bioassessments	Source Unknown	Contact MassDEP**
				Fecal Coliform	MS4 Discharges, Source Unknown	<i>E. coli</i>
				PCBs in Fish Tissue	Upstream Source, Wet Weather Discharges (point source and stormwater/SSO/CSO), Contaminated Sediments	NMR*
Hingham Harbor	MA74-18	No	5/SA	Cause Unknown (Contaminants in Fish and/or Shellfish)	Source Unknown	NMR*
				<i>E. coli</i>	Source Unknown	<i>E. coli</i>
				Fecal Coliform	Source Unknown	Enterococci
				PCBs in Fish Tissue	Source Unknown	NMR*
Hull Bay	MA70-09	No	5/SB	Cause Unknown	Contaminated	NMR*

Waterbody Segment that Receives Flow from the MS4	Segment ID	TMDL	Category/Class	Impairment Cause	Impairment Source	Monitoring Requirements
				(Contaminants in Fish and/or Shellfish)	Sediments, Discharges from MS4s, Upstream Sources, Wet Weather Discharges	
				Estuarine Bioassessments	Source Unknown	Contact MassDEP**
				Fecal Coliform	Discharges from MS4s, Source Unknown	Enterococci
				PCBs in Fish Tissue	Contaminated Sediments, Wet Weather Discharges, Upstream Sources	NMR*
Eel River	MA74-21	No	2/B	None listed	N/A	N/A
Accord Brook	MA74-16	No	5/A	Benthic Macroinvertebrates	Source Unknown	Contact MassDEP**
				Dissolved Oxygen	Source Unknown	Dissolved Oxygen
						Temperature
						BOD
Total Phosphorus						
Crooked Meadow River	MA74-01	No	5/B	Nutrient/Eutrophication Biological Indicators	Source Unknown	Total Phosphorus
Weir River	MA74-02	No	5/B	Curly-leaf Pondweed	Introduction of Non-Native Organisms	NMR*

Waterbody Segment that Receives Flow from the MS4	Segment ID	TMDL	Category/Class	Impairment Cause	Impairment Source	Monitoring Requirements
				Dewatering	Baseflow Depletion from Groundwater Withdrawals	NMR*
				Fish Passage Barrier	Dam or Impoundment	NMR*
				E. coli	Source Unknown	<i>E. coli</i>
				Fecal Coliform	Source Unknown	<i>E. coli</i>
				Nutrient/Eutrophication Biological Indicators	Source Unknown	Total Phosphorus
Weir River	MA74-11	No	5/SA	Cause Unknown (Contaminants in Fish and/or Shellfish)	Source Unknown	NMR*
				Fecal Coliform	Source Unknown	Enterococci
				PCBs in Fish Tissue	Source Unknown	NMR*
Weymouth Back River	MA74-13	No	5/SA	Cause Unknown (Contaminants in Fish and/or Shellfish)	Source Unknown	NMR*
				Fecal Coliform	Source Unknown	Enterococci
				PCBs in Fish Tissue	Source Unknown	NMR*
Old Swamp River	MA74-03	Yes	4a/A	Fish Passage Barrier	Dam or Impoundment	NMR*
				E. coli	Discharges from MS4s, Source Unknown	<i>E. coli</i>
				Fecal Coliform	Discharges from MS4s, Source Unknown	<i>E. coli</i>

Waterbody Segment that Receives Flow from the MS4	Segment ID	TMDL	Category/Class	Impairment Cause	Impairment Source	Monitoring Requirements
Plymouth River	MA74-20	No	5/B	<i>E. coli</i>	Discharges from MS4s, Source Unknown	<i>E. coli</i>

1. *NMR = No monitoring required.
2. **MassDEP has not established monitoring requirements for this parameter based on previous consultations.
3. Enterococci is sampled instead of fecal coliform because it is more representative of potential human health risks in salt/brackish waterbodies.

3. BEST MANAGEMENT PRACTICES FOR MINIMUM CONTROL MEASURES

3.1 ENHANCED BMPS FOR IMPAIRED WATERBODIES

No updates.

3.2 MCM 1: PUBLIC EDUCATION AND OUTREACH

No updates.

3.3 MCM 2: PUBLIC INVOLVEMENT AND PARTICIPATION

No updates.

3.4 MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.4.1 BMPs

3.4.1.2 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 **Appendix D** of this SWMP Update, includes the following information:

- 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 per the 2018/2020 List
- Initial catchment delineations
- Drainpipes, manholes, and catch basins.

The map was updated in PY4 to incorporate changes in the 2018/2020 List and drainage infrastructure location and configuration changes identified during catchment investigations.

This BMP has been updated to incorporate waterbody impairment/TMDL statuses presented in the 2018/2020 List and drainage infrastructure location and configuration edits identified during catchment investigations.

3.4.1.6 BMP 3F Conduct Dry Weather Screening

The Town conducted dry weather screening of 30 outfalls during PY4. Additionally, the Town performed catchment investigations in several locations of the Town where drainage infrastructure directly discharges to waterbodies. Screening and sampling results from the Town's dry weather screening activities will be submitted as an attachment to the Town's MS4 Annual Report (see Section 4.4 for more information). The Town will continue dry weather outfall screening and catchment investigation activities during PY5.

This BMP has been updated to reflect the progress made in the Town's IDDE dry weather screening program.

3.5 MCM 4: CONSTRUCTION SITE RUNOFF CONTROL

No updates.

3.6 MCM 5: POST-CONSTRUCTION STORMWATER MANAGEMENT

3.6.1 BMPs

The following subsections have been updated to reflect the current status of the Town's MS4 General Permit Post-Construction Stormwater Management program. Subsections not listed remain unchanged from the Permit Year 3 update.

3.6.1.2 BMP 5C Target Properties to Reduce Impervious Areas

The Town proactively identifies and completes modifications and retrofits to BMPs located on Town owned properties to reduce the frequency, volume, and pollutant loads of stormwater discharges to and from its MS4 through the reduction of impervious area. Several BMPs have recently been constructed that meet MS4 General Permit requirements and are summarized in a related inventory.

This BMP has been updated to reflect the completion of a BMP modification/retrofit inventory. A copy of the BMP retrofit inventory is available at the Department of Public Works.

3.6.1.3 BMP 5C Allow Green Infrastructure

The Town is in the process of drafting a report assessing the Town's existing regulations related to the feasibility of making green infrastructure practices available.

This BMP is currently in progress. The SWMP will be modified to reflect completion of the BMP and the location where the report can be reviewed upon completion.

3.6.1.4 BMP 5D Street Design and Parking Lot Guidelines

The Town is in the process of drafting a report assessing the Town's existing regulations related to the effect of street and parking lot guidelines on the creation of impervious cover.

This BMP is currently in progress. The SWMP will be modified to reflect completion of the BMP and the location where the report can be reviewed upon completion.

3.6.1.5 BMP 5E Massachusetts Stormwater Handbook Compliance

The Town is in the process of reviewing local regulations to ensure stormwater controls or management practices for new and redevelopment meet the MS4 General Permit requirements and applicable requirements in the Massachusetts Stormwater Handbook.

This BMP is currently in progress. The SWMP will be modified to reflect completion of the BMP and the location where the report can be reviewed upon completion.

3.7 MCM 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING

3.7.1 BMPs

The following subsections have been updated to reflect the current status of the Town's MS4 General Permit Post-Construction Stormwater Management program. Subsections not listed remain unchanged from the Permit Year 3 update.

3.7.1.1 BMP 6A O&M Procedures

The Town has developed O&M procedures for parks and open spaces, buildings and facilities, vehicles and equipment, and MS4 infrastructure. These procedures can be accessed at the Department of Public Works.

3.7.1.2 BMP 6B Inventory Town Facilities

The Town has developed an inventory of Town-owned facilities consistent with the requirements of Part 2.3.7.a.ii of the MS4 General Permit. The inventory includes all municipally owned facilities with the potential for stormwater polluting activities, including, but not limited to:

- Parks and open space
- Buildings where pollutants are exposed to runoff (e.g., schools, town offices, fire stations, garages, etc.)
- Vehicle and equipment storage areas

The inventory can be accessed at the Department of Public Works.

3.7.1.3 BMP 6C Infrastructure O&M

The Town has developed written Operations and Maintenance (O&M) Standard Operating Procedures (SOPs) consistent with the requirements of Part 2.3.7.a of the MS4 General Permit. The objectives of the O&M SOPs are to establish procedures for MS4 infrastructure maintenance that will help reduce the discharge of pollutants from municipally owned facilities. The O&M SOPs include:

- Winter road maintenance procedures targeting minimal use and proper storage of sodium chloride and other salts
- Catch basin inspection, cleaning, and maintenance procedures, and a plan for optimization of these routine activities
- Street sweeping and cleaning procedures to ensure all Town-owned roadways are swept at least once per year
- Management and disposal of catch basin cleanings and street sweepings to avoid discharge into receiving waters
- Stormwater treatment structure inspections and maintenance procedures

The O&M SOPs can be accessed at the Department of Public Works.

3.7.1.4 BMP 6D SWPPP

The Town has developed a written Stormwater Pollution Prevention Plans (SWPPP) for the Department of Public Works consistent with the requirements of Part 2.3.7.b of the MS4 General Permit. The SWPPPs include:

- Pollution and prevention team
- Description of the facility and identification of potential pollutant sources
- Identification of stormwater controls
- Material exposure prevention, good housekeeping, preventative maintenance, spill prevention and response, erosion and sediment control, management of runoff, salt storage pile or salt-containing pile management, employee training, and maintenance of control measure practices

The SWPPP can be accessed at the Department of Public Works.

4. PROGRAM MANAGEMENT, EVALUATION, RECORD KEEPING, AND REPORTING

4.1 PROGRAM MANAGEMENT

No updates.

4.2 PROGRAM EVALUATION

The Town of Hingham conducts annual evaluations of its program compliance, the appropriateness of its identified BMPs, progress toward meeting upcoming 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 September 30th.

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

4.3 RECORD KEEPING

No updates.

4.4 ANNUAL REPORTS

The MS4 Annual Report is due by September 30, 2022. Annual reports are available for public access on the Town’s and the EPA’s website.

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

Name

Appendices

APPENDIX A: 2016 GENERAL PERMIT WITH APPENDICES

A copy of the original 2016 MS4 General Permit was included in Appendix A of the original version of this SWMP. On December 7, 2020, changes to the Permit were issued; these changes became effective on January 6, 2021. The modified 2016 MS4 General Permit and its appendices can be accessed on the EPA's website, at <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>.

APPENDIX B: STORMWATER MANAGEMENT PLAN REVISION TRACKING FORM

Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning
00	6/25/2019	--	--
01	6/22/2021	1.	Introduction to the Town's stormwater program and adding reference to the original SWMP prepared by Wood
		2.1	Updated Table 1: 303d Listed Waterbodies to reflect approved 2016 Massachusetts Integrated List of Waters
		2.2	NEW SECTION: Added language to reflect that receiving waterbodies are listed in the Town's MS4 General Permit NOI submission to the EPA
		2.3	NEW SECTION: Added language to reflect that interconnections are shown on the updated Separate Storm Sewer System Map in Appendix E
		2.4	NEW SECTION: Added language to reflect the Town's surface public drinking water supply sources
		2.5	NEW SECTION: Added language to reflect that the Town will comply with proper provisions to authorize any future increased discharges
		3.2	Added language to reflect that education and outreach materials shall note any existing Town regulations where appropriate.
		3.4.1.2	Revised language to reflect that a copy of the Separate Storm Sewer System Map will be updated annually and included in Appendix E
		3.4.1.6	Added an update on the Town's IDDE program
		3.6.1.5	Added language to reflect that the deadline to assess and update Town regulations was extended by one year
		3.7.1.2 – 3.7.1.3	Revised language to reflect that the Town has completed their inventory of municipally-owned facilities
		3.7.1.4	Revised language to reflect that the Town has completed a SWPPP for the Department of Public Works
		4.2	Revised language to reflect that the Town's annual program evaluations can be found in their MS4 annual reports
		4.4	Revised language to reflect that the Town's annual reports can be accessed on the Town's and the EPA's websites
	Appendix E	NEW SECTION: Added Separate Storm Sewer System Map	
	Appendix F	NEW SECTION: Added Impaired Waters Map to replace Figure 2: Impaired Waterbodies in the original SWMP	
02	6/30/2022	2.1	Updated Table 1: Listed Waterbodies to reflect approved 2018/2020 Massachusetts Integrated List of Waters

Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning
		3.4.1.2	Updated MS4 map to include 2018/2020 Massachusetts Integrated List of Waters impairments/TMDLs for waterbodies receiving discharges from the MS4
		3.4.1.6	Updated subsection to reflect completion of additional outfall screenings and catchment investigations.
		3.6.1.2	Updated subsection to reflect status of selection of 5 BMPs located on municipally owned properties for retrofits/modifications.
		3.6.1.3	Updated subsection to reflect draft Green Infrastructure Feasibility assessment report in progress.
		3.6.1.4	Updated subsection to reflect draft Street and Parking Lot Guidelines assessment report in progress.
		3.6.1.5	Updated subsection to reflect status of Massachusetts Stormwater Handbook Compliance.

APPENDIX C: ENDANGERED SPECIES ACT AND NATIONAL HISTORIC PRESERVATION ACT REVIEW

No updates.

APPENDIX D: SEPARATE STORM SEWER SYSTEM MAP

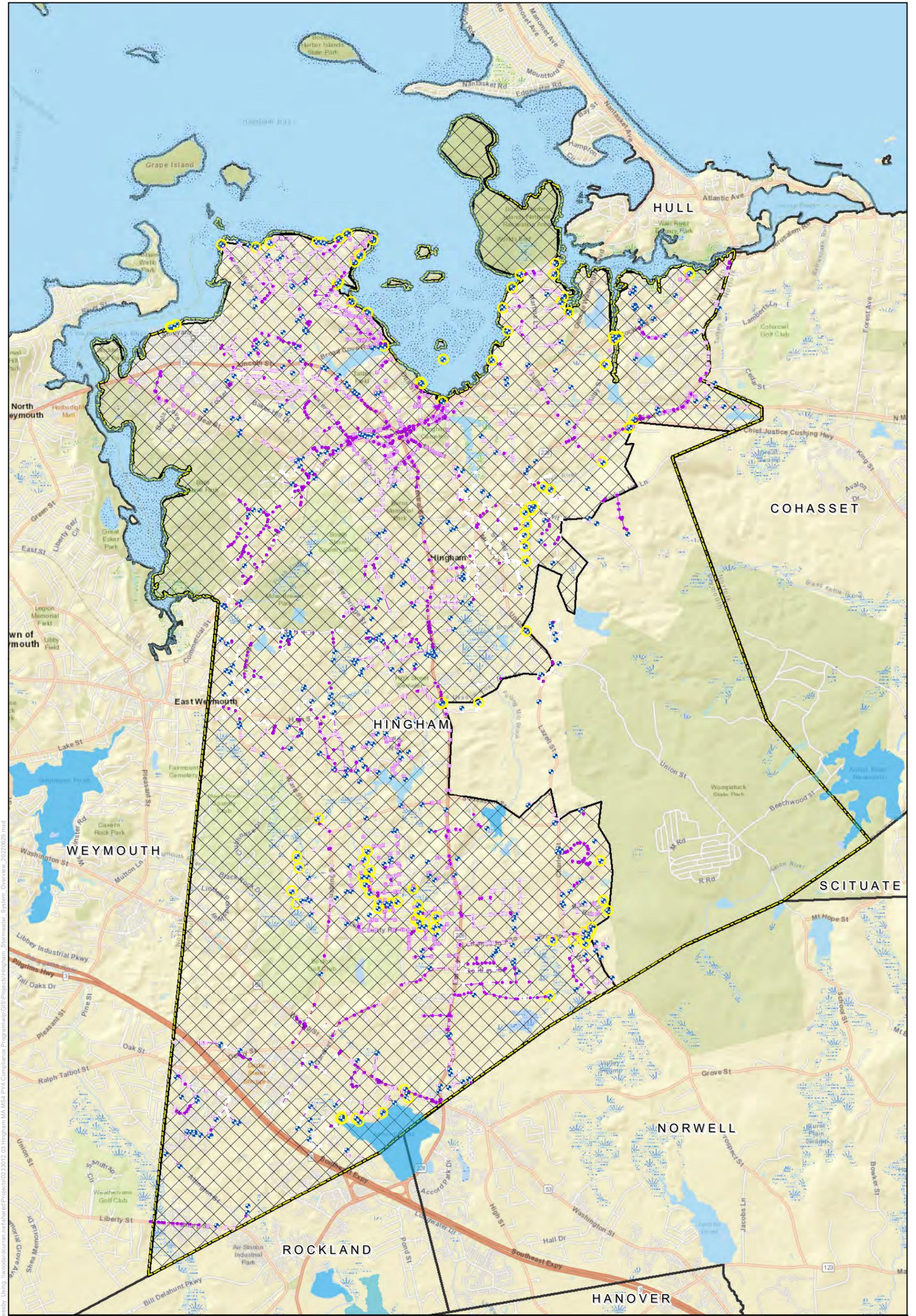


Figure Exported: 6/29/2022 By: esneesty Using: \\woodardcurran.net\shared\Projects\0233012_03_Hingham_MA_MSA_PV4_Comppliance_Program\GIS\Projects\Hingham_Stormwater_System_Overview_20220629.mxd

Stormwater System Overview

Town of Higham, MA

Legend

- swDischargePoints
- Manhole
- Catch Basin
- Direct_Discharge_Outfalls
- Drain Pipe
- Hingham Boundary
- Urbanized Area



Project #: 0233012.03
Map Created: June 2022



Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

APPENDIX E: IMPAIRED WATERS AND SPECIAL RESOURCE WATERS

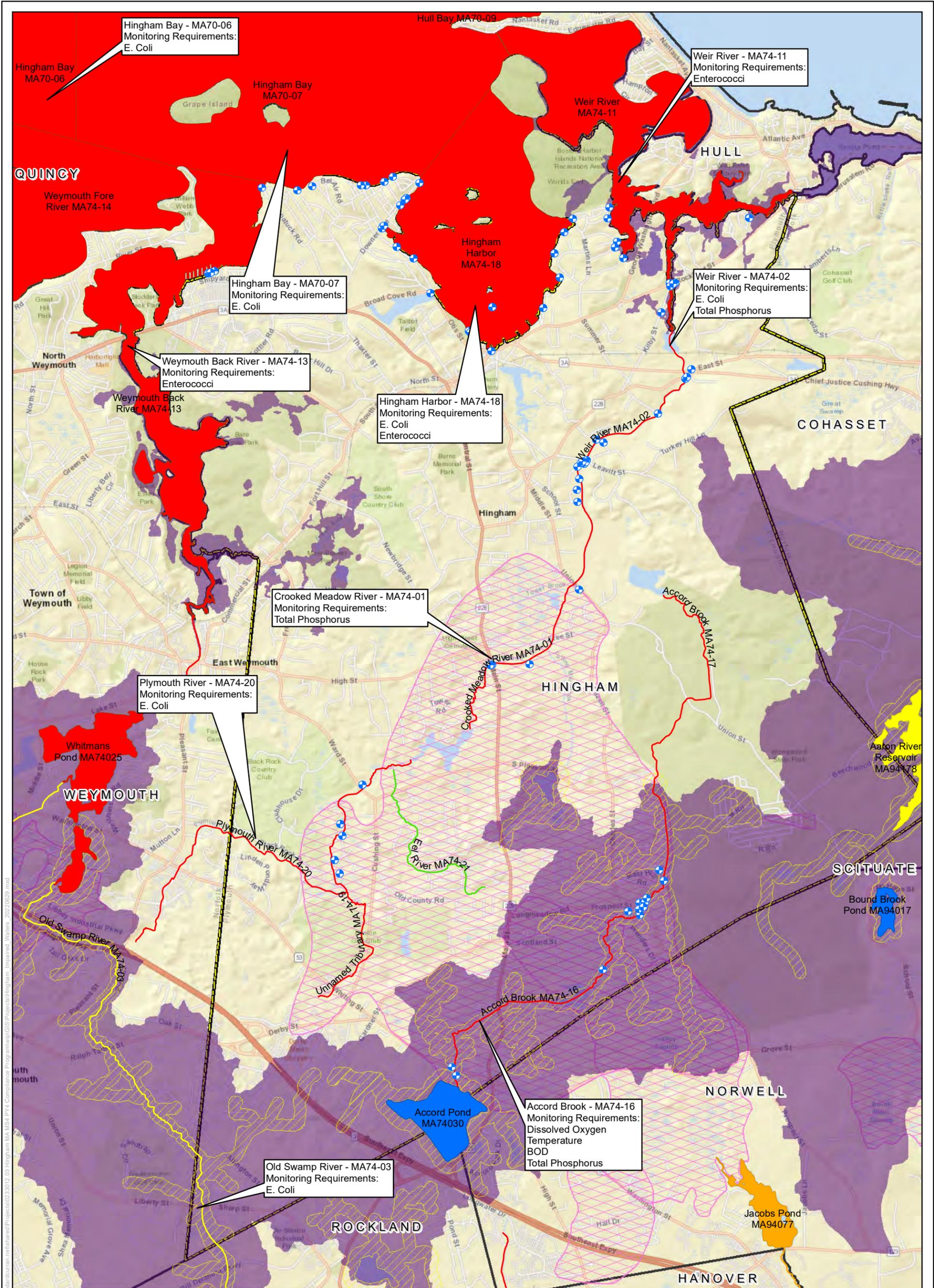


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Town of Hingham Water Resources

Town of Hingham, MA

Legend

- Outfalls with Direct Discharge to Impaired Waters
- Surface Water Protection Area - Zone A
- Outstanding Resource Waters
- MassDEP Approved Zone IIs
- Hingham Boundary

2018/2020 Integrated List Waters - 305(b)/303(d) Category

- 2 - Attaining some uses; other uses not assessed
- 3 - No uses assessed
- 4A - Impaired - TMDL is completed
- 4C - Impairment not caused by a pollutant
- 5 - Impaired - TMDL required



Project #: 0233012.03
Map Created: June 2022



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