

# TOWN OF FRANKLIN



## STORMWATER MANAGEMENT PLAN UPDATE JULY 2021







#### TABLE OF CONTENTS

SEC	TION	PA	GE NO.				
1.	INTR	INTRODUCTION					
	1.1 1.2 1.3 1.4	Regulatory Background and Requirements Eligibility Determination Special Eligibility Determination Permit Year Definitions	2 2 2 2				
2.	TOW	N OF FRANKLIN	3				
	2.1 2.2 2.3 2.4 2.5		3 5 5 5 5				
3.	-	T MANAGEMENT PRACTICES FOR MINIMUM CONTR SURES	-				
	3.1 3.2 3.3	MCM 2: Public Involvement and Participation					
	3.4 3.5	· · · · · · · · · · · · · · · · · · ·	7 7 7 7				
	3.6	3.5.1.5 BMP 5E Massachusetts Stormwate Handbook Compliance MCM 6: Pollution Prevention and Good Housekeeping					

		3.6.1 BM	Ps	7
		3.6.1.1	BMP 6A O&M Procedures	7
		3.6.1.2	BMP 6B Inventory Town Facilities	8
		3.6.1.3	BMP 6C Infrastructure O&M	8
		3.6.1.4	BMP 6D SWPPP	8
	3.7	Enhanced BN	IPs for Impaired Waterbodies	9
4.				
4.			SEMENT, EVALUATION, RECORD KEEPI	
4.	AND			
4.	<b>AND</b> 4.1	REPORTING.	agement	10
4.	AND 4.1 4.2	REPORTING . Program Man	agement luation	<b>10</b> 10
4.	<b>AND</b> 4.1 4.2 4.3	REPORTING . Program Man Program Eval	agement luation ng	10 10 10

#### **APPENDICES**

<b>APPENDIX A:</b>	2016 GENERAL PERMIT WITH APPENDICES
<b>APPENDIX B:</b>	STORMWATER MANAGEMENT PLAN REVISION
	TRACKING FORM
<b>APPENDIX C:</b>	ENDANGERED SPECIES ACT AND NATIONAL
	HISTORIC PRESERVATION ACT REVIEW
APPENDIX D:	MS4 PERMIT-RELATED STANDARD OPERATING
	PROCEDURES FOR MCM 4
APPENDIX E:	MS4 PERMIT-RELATED STANDARD OPERATING
	PROCEDURES FOR MCM 6
APPENDIX F:	SEPARATE STORM SEWER SYSTEM MAP
<b>APPENDIX G:</b>	IMPAIRED WATERS AND SPECIAL RESOURCE
	WATERS





#### 1. INTRODUCTION

#### WHY IS THIS IMPORTANT?

Stormwater runoff frequently transports pollutants through municipal separate storm sewer systems (MS4s), where it is discharged, often untreated, into local waterbodies. 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 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 Franklin, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a Permit. Franklin 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 jointly by the U.S. Environmental Protection Agency (EPA) and the State of Massachusetts Department of Environmental Protection (MassDEP).

#### WHAT DOES FRANKLIN HAVE TO DO?

The Town of Franklin has had MS4 Permit coverage since 2003 and obtained permit coverage under the MS4 Permit that was reissued on April 4, 2016 and became effective July 1, 2018 (Permit No. MAR041117). As part of the permitting requirements, Franklin is 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.





The Permit Year (PY) reference within this document corresponds to each regulatory year starting on July 1, 2018. Updates to the original version of this SWMP, dated June 2019, and prepared by Wood, of Chelmsford, Massachusetts, have been incorporated into this document to reflect the Town of Franklin's stormwater management program updates and achievements through PY3 (ending June 30, 2021). Additional information related to the progress of the stormwater management program is provided in the MS4 Annual Report that is submitted to the US EPA and MassDEP in September. A revision log tracking these updates is located in **Appendix B**.

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 <a href="https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permits">https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permits</a>.

Appendix C, Endangered Species Act and National Historic Preservation Act Review, Appendix D, MS4 Permit-Related Standard Operating Procedures for MCM 4, and Appendix E, MS4 Permit-Related Standard Operating Procedures for MCM 6 remained unchanged since the original version of this SWMP was published. Refer to the original SWMP document and/or SWMP Permit Year 2 Update to view these appendices.

#### 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 FRANKLIN

#### 2.1 IMPAIRED WATERBODIES

Table 1 – Listed Waterbodies and Figure 2 – Impaired Waterbodies in the original June 2019 SWMP are both based on the Final Massachusetts Year 2014 Integrated List of Waters. The 2016 Integrated List of Waters was released in December 2019. Table 1 and Figure 2 have been updated to reflect the 2016 Integrated List of Waters The updated Table 1 is provided below, and the updated Figure 2 is located in Appendix F. Future reissuance of the Massachusetts Integrated List of Waters may necessitate additional modifications to this Plan to maintain compliance with applicable requirements.

Waterbody	MassDEP Segment ID	TMDL	Category	Impairment Cause	Impairment Source	Monitoring Requirements
Charles River	MA72-04	No	5	Other Flow Regime Modification	Dam or Impoundment Municipal Point Source Discharge	NMR*
				Chlordane in Fish Tissue	Unknown	
				DDT in Fish Tissue	Unknown	
				Escherichia coli ( <i>E. coli</i> )	On-site Treatment Systems Unknown Urban Runoff/Storm Sewers	E. coli
				Fish Bioassessments	Dam or Impoundment Municipal Point Source Discharge	Contact MassDEP**
				Mercury in Fish Tissue	Unknown Atmospheric Deposition - Toxics	NMR*
Populatic Pond	MA72096	096 No	5	Algae	Internal Nutrient Recycling Municipal Point Source Discharge	Total Phosphorus (freshwater)
				Chlordane in Fish Tissue	Unknown	NMR*
				DDT in Fish Tissue	Unknown	
				Dissolved Oxygen	Internal Nutrient Recycling Municipal Point Source Discharge	Dissolved Oxygen Temperature
				Dissolved Oxygen Supersaturation	Internal Nutrient Recycling Municipal Point Source Discharge	BOD₅ Total Phosphorus (freshwater)

#### Table 1: Listed Waterbodies





Waterbody	MassDEP Segment ID	TMDL	Category	Impairment Cause	Impairment Source	Monitoring Requirements
Populatic Pond	MA72096	No	5	Mercury in Fish Tissue	Unknown Atmospheric Deposition - Toxics	NMR*
				Nutrient/Eutrophication Biological Indicators	Internal Nutrient Recycling Municipal Point Source Discharge	Total Phosphorus (freshwater)
Mine Brook	MA72-14	No	5	Habitat Assessment	Habitat Modification – other than Hydromodification.	Contact MassDEP**
				Escherichia coli ( <i>E. coli</i> )	Discharges from MS4 Unknown	E. coli
				Temperature	Upstream/Downstream Source Baseflow Depletion from GW Withdrawals Loss of Riparian Habitat Unknown	NMR*
Franklin Reservoir	MA72095	Yes	4A	Aquatic Plants (Macrophytes)	Unknown	NMR*
Northeast				Turbidity	Unknown	Total Suspended Solids and Turbidity
Franklin Reservoir Southwest	MA72032	Yes	4A	Aquatic Plants (Macrophytes)	Unknown	NMR*
				Turbidity	Unknown	Total Suspended Solids and Turbidity
				Non-Native Aquatic Plants	Introduction of Non-Native Organisms	NMR*
Uncas Pond	MA72122	Yes	4A	Dissolved Oxygen	Unknown	Dissolved Oxygen Temperature BOD <sub>5</sub> Total Phosphorus (freshwater)
Beaver Pond	MA72006	No	4C***	Non-Native Aquatic Plants	Introduction of Non-Native Organisms	NMR*

\*NMR = No monitoring required. \*\*Contact MassDEP to determine monitoring requirements, per Appendix G of the 2016 MS4 General Permit. \*\*\*Category 4C waters are defined as "Impairment not caused by a pollutant – TMDL not required"





#### 2.2 RECEIVING WATERBODIES

Per the requirements of Part 1.10.2 of the MS4 General Permit, a list of all Integrated List waterbody segments that receive discharge from the Town's MS4 is provided in **Table 1**, above. The Town's MS4 General Permit Notice of Intent submission to the EPA, dated September 28, 2018, included the estimated number of outfalls that discharge directly to each Integrated List waterbody segment. A copy of the original NOI can be accessed on the EPA's website. Any updates to the numbers reported in the NOI will be included in future revisions of this document, if necessary.

#### 2.3 INTERCONNECTED SEPARATE STORM SEWER SYSTEMS

Per the requirements of Part 1.10.2 of the MS4 General Permit, all known interconnected MS4s and other separate storm sewer systems receiving a discharge from the Town's MS4, as well as the waterbody segment(s) that ultimately receive the discharge, are shown on the updated Separate Storm Sewer System Map in **Appendix F**.

#### 2.4 SURFACE PUBLIC DRINKING WATER SUPPLIES

The Town of Franklin 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 Franklin's MS4 is included in the Town's MS4 General Permit Notice of Intent (NOI) submission to the EPA dated September 28, 2018, which can be accessed on the EPA's website at <a href="https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities">https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities</a>. 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 Franklin's MS4 will be included in future revisions of this document, if necessary.

#### 2.5 INCREASED DISCHARGES

The Town of Franklin shall 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.

There shall be no increased discharges, including increased pollutant loading(s) from the MS4 to impaired waters listed in categories 4A, 4C, 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 discharger 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 U.S. EPA or by MassDEP, compliance with the Part 2.2.2 and 2.3.6 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 Franklin 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

The public education and outreach MCM objective in Part 2.3.2 of the 2016 MS4 GP is: '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 pollutants in stormwater are reduced.'

Education and outreach materials shall note any existing Town regulations where appropriate.

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

No updates.

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

#### 3.3.1 BMPs

The following subsections have been updated to reflect the current status of the Town's MS4 General Permit program. Subsections not listed remain unchanged from the Permit Year 2 update.

#### 3.3.1.2 BMP 3B Stormwater Sewer System Map

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 F** 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 2016 Massachusetts Integrated List of Waters report
- Initial catchment delineations
- Drain pipes, manholes, and catch basins

The map was updated in PY3 to incorporate changes in the 2016 Massachusetts Integrated List of Waters.

This BMP has been updated to provide more information regarding the contents of the Town's Separate Storm Sewer System Map.





#### 3.3.1.6 BMP 3F Conduct Dry Weather Screening

As of June 16, 2021 the Town completed dry weather inspections at 350 out of 492 Town-owned outfalls and is continuing dry weather outfall screening efforts through the end of PY3. Screening and sampling results from the Town's outfall investigations will be submitted as an attachment to the Town's MS4 Annual Report (see Section 4.4 for more information). In PY4, the Town will begin investigating catchments associated with Problem Outfalls identified during dry weather outfall screening.

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

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

No updates.

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

#### 3.5.1 BMPs

The following subsections have been updated to reflect the current status of the Town's MS4 General Permit program. Subsections not listed remain unchanged from the Permit Year 2 update.

#### 3.5.1.5 BMP 5E Massachusetts Stormwater Handbook Compliance

The Town completed the assessment of local regulations and implemented updates to meet the requirements of the MS4 General Permit. Edits were made to conform to local regulations. Associated bylaws were passed by the Town to amend codes between February and May 2021.

This BMP has been updated to reflect the completion of stormwater regulatory reviews and updates.

#### 3.6 MCM 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING

#### 3.6.1 BMPs

The following subsections have been updated to reflect the current status of the Town's MS4 General Permit program. Subsections not listed remain unchanged from the Permit Year 2 update.

#### 3.6.1.1 BMP 6A O&M Procedures

The Town 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.

This BMP has been updated to reflect the completion of the Town's O&M procedures for parks and open spaces, vehicles and equipment, buildings and facilities, and MS4 infrastructure.





#### 3.6.1.2 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.

This BMP has been updated to reflect the completion of the Town's inventory of municipally owned facilities.

#### 3.6.1.3 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.

This BMP has been updated to reflect the completion of the Town's written O&M SOPs.

#### 3.6.1.4 BMP 6D SWPPP

The Town has developed written Stormwater Pollution Prevention Plans (SWPPPs) for the Department of Public Works and Recycling Center facilities 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 SWPPPs can be accessed at the Department of Public Works.

This BMP has been updated to reflect the completion of the SWPPPs for the Town's Department of Public Works and Recycling Center facilities.

#### 3.7 ENHANCED BMPS FOR IMPAIRED WATERBODIES

No updates.





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

#### 4.1 PROGRAM MANAGEMENT

No updates.

#### 4.2 PROGRAM EVALUATION

The Town of Franklin 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 28<sup>th</sup>.

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 28<sup>th</sup>. 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 Name : Jak Hellen, Town Administr

Date





## **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 <a href="https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit">https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit</a>.





## APPENDIX B: STORMWATER MANAGEMENT PLAN REVISION TRACKING FORM





Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning
00	6/2019		
01	7/3/2020		-
		1.	Introduction to the Town's stormwater program and adding reference to the original SWMP prepared by Wood
		2.1	Updated Table 1: 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 F
		2.4	NEW SECTION: Added language to reflect that the Town has no surface public drinking water supply sources
	6/22/2021	2.5	NEW SECTION: Added language to reflect that the Town will comply with proper provisions to authorize any future increased discharges
		3.1	Added language to reflect that education and outreach materials shall note any existing Town regulations where appropriate.
01		3.3.1.2	Revised language to reflect that a copy of the Separate Storm Sewer System Map will be updated annually and included in Appendix F
		3.3.1.6	Added an update on the Town's IDDE program
		3.5.1.5	Added language to reflect that the Town has completed the assessment and update of Town regulations
		3.6.1.1 – 3.6.1.3	Revised language to reflect that the Town has completed O&M procedures and their inventory of municipally-owned facilities
		3.6.1.4	Revised language to reflect that the Town has completed SWPPPs for their Department of Public Works and Recycling Center facilities
		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 F	NEW SECTION: Added Separate Storm Sewer System Map
		Appendix G	NEW SECTION: Added Impaired Waters Map to replace Figure 2: Impaired Waterbodies in the original SWMP





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





No updates.





## APPENDIX D: MS4 PERMIT-RELATED STANDARD OPERATING PROCEDURES FOR MCM 4





No updates.





### **APPENDIX E: MS4 PERMIT-RELATED STANDARD OPERATING PROCEDURES FOR MCM 6**





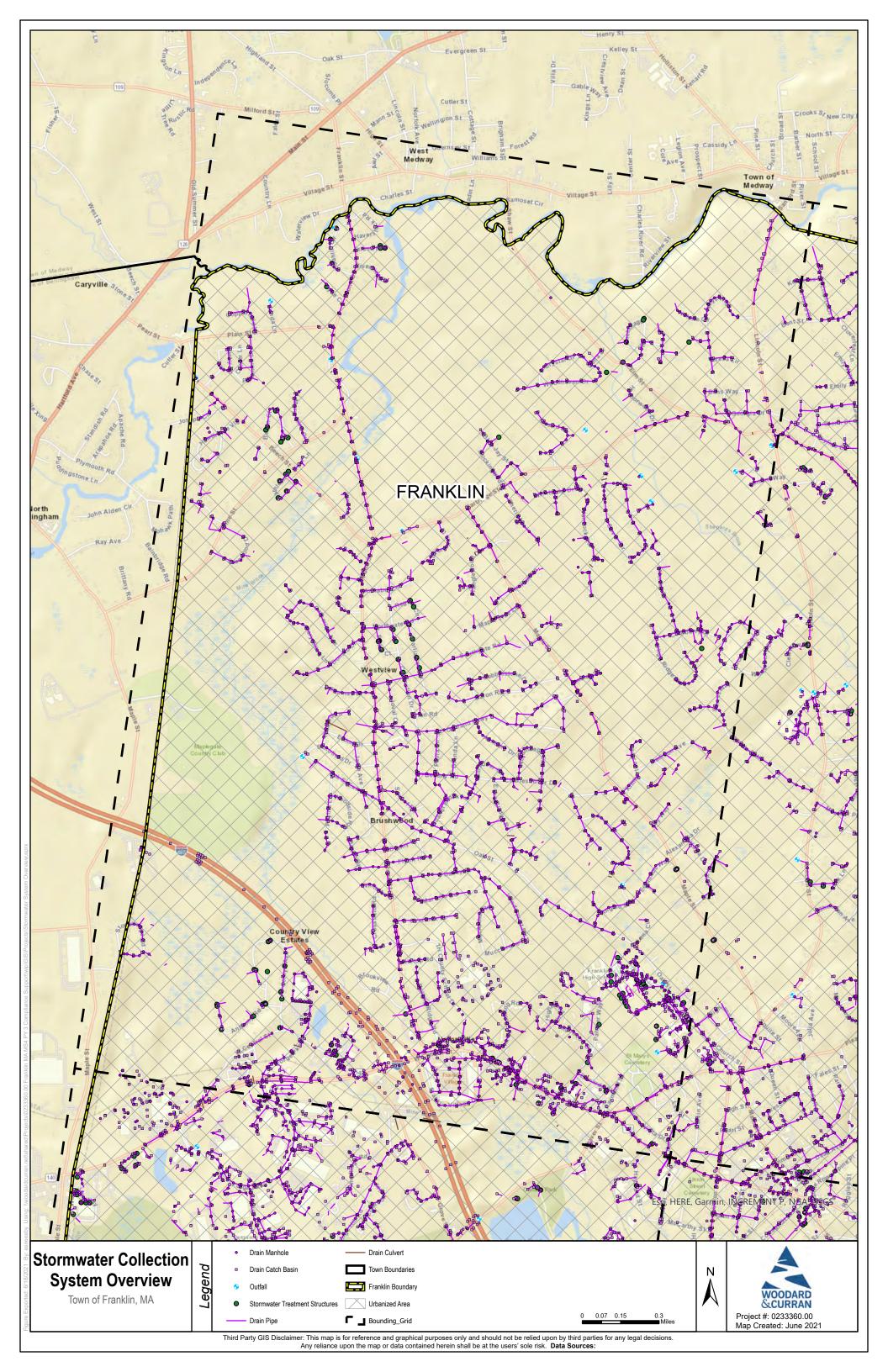
Finalized MS4 permit-related standard operating procedures (SOPs) can be accessed at the Department of Public Works. These include the following:

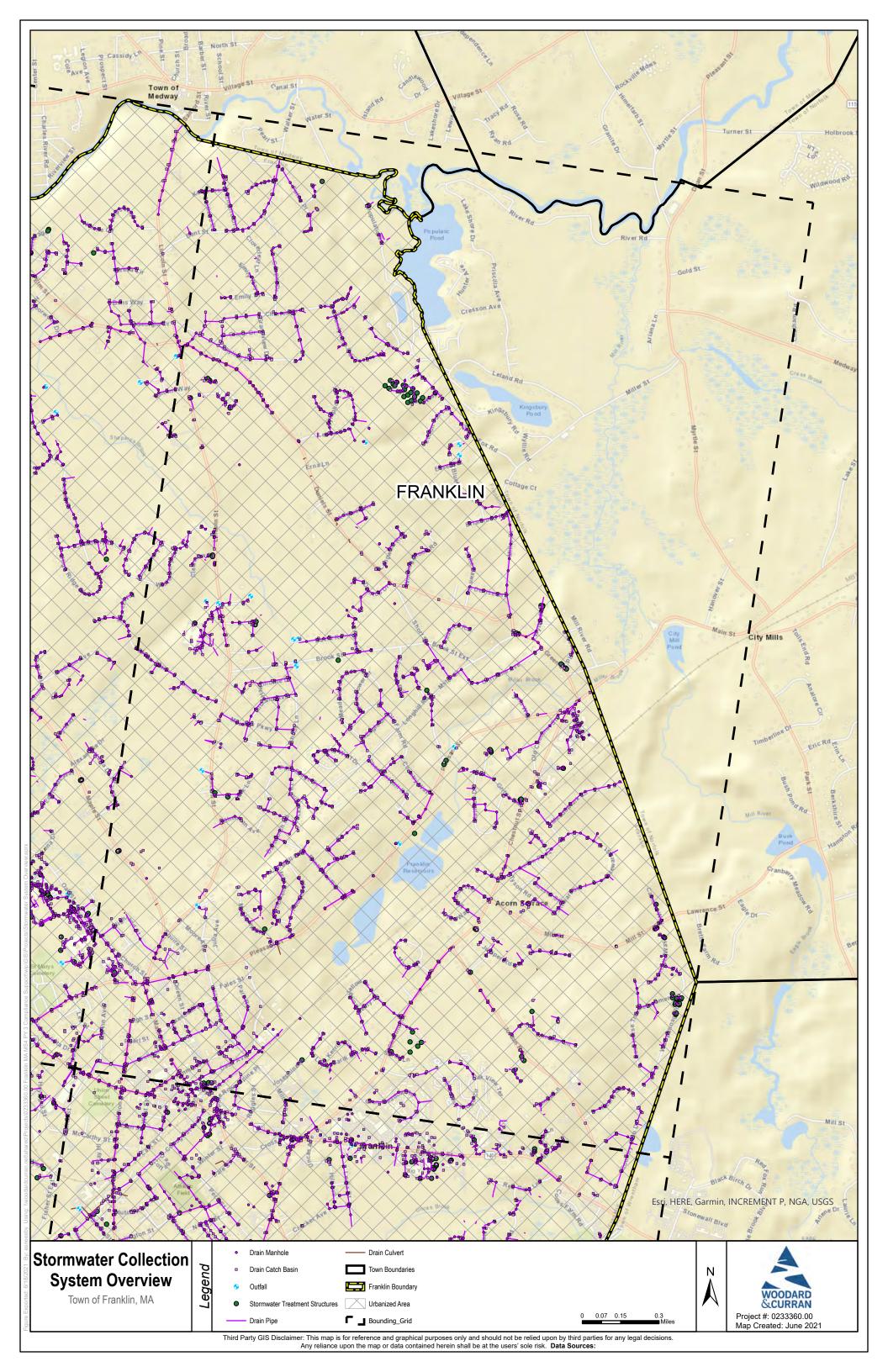
- Winter Road Maintenance
- Catch Basin Inspection and Cleaning
- Street Sweeping
- Stormwater Treatment Structure Inspections

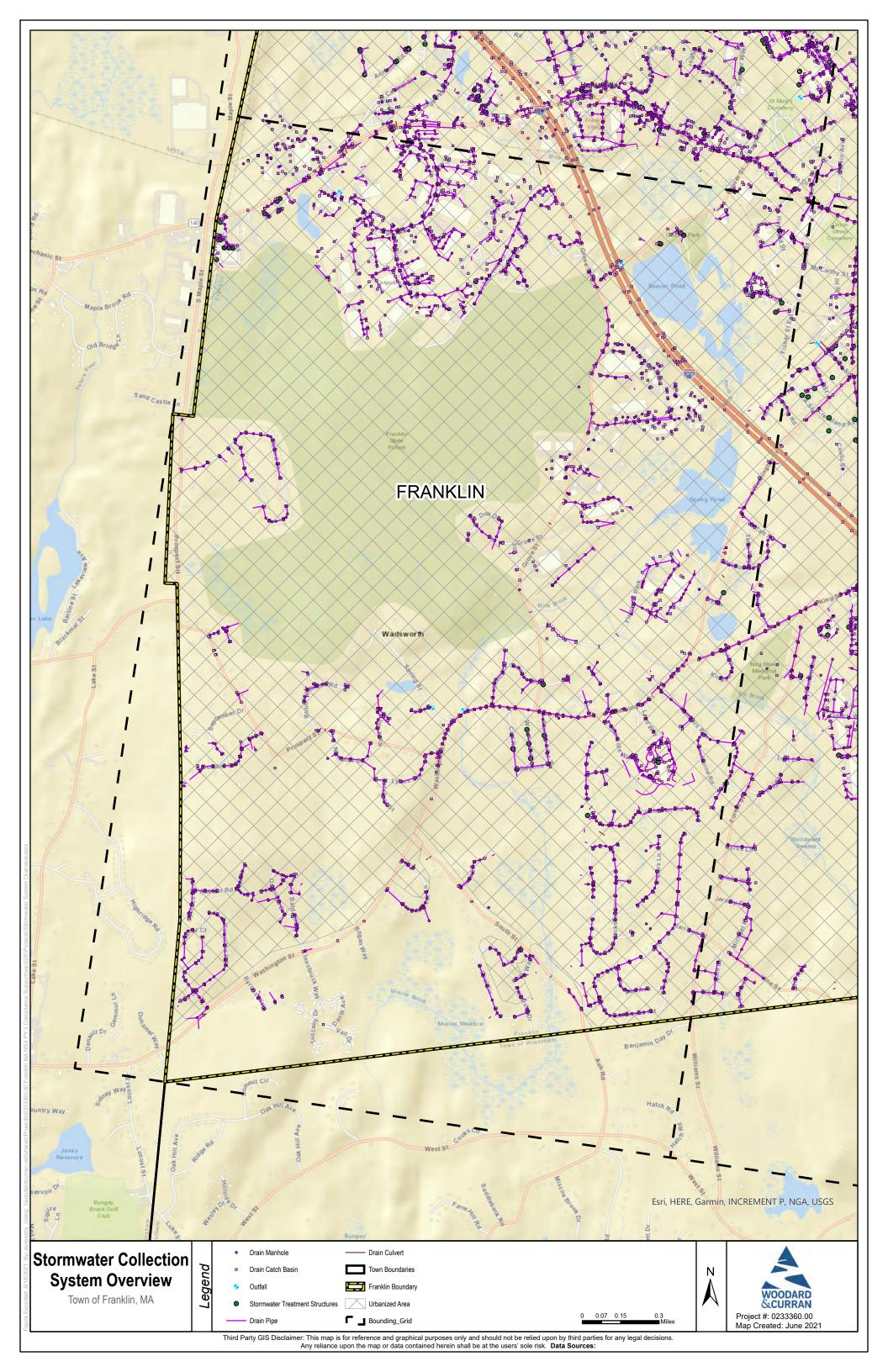


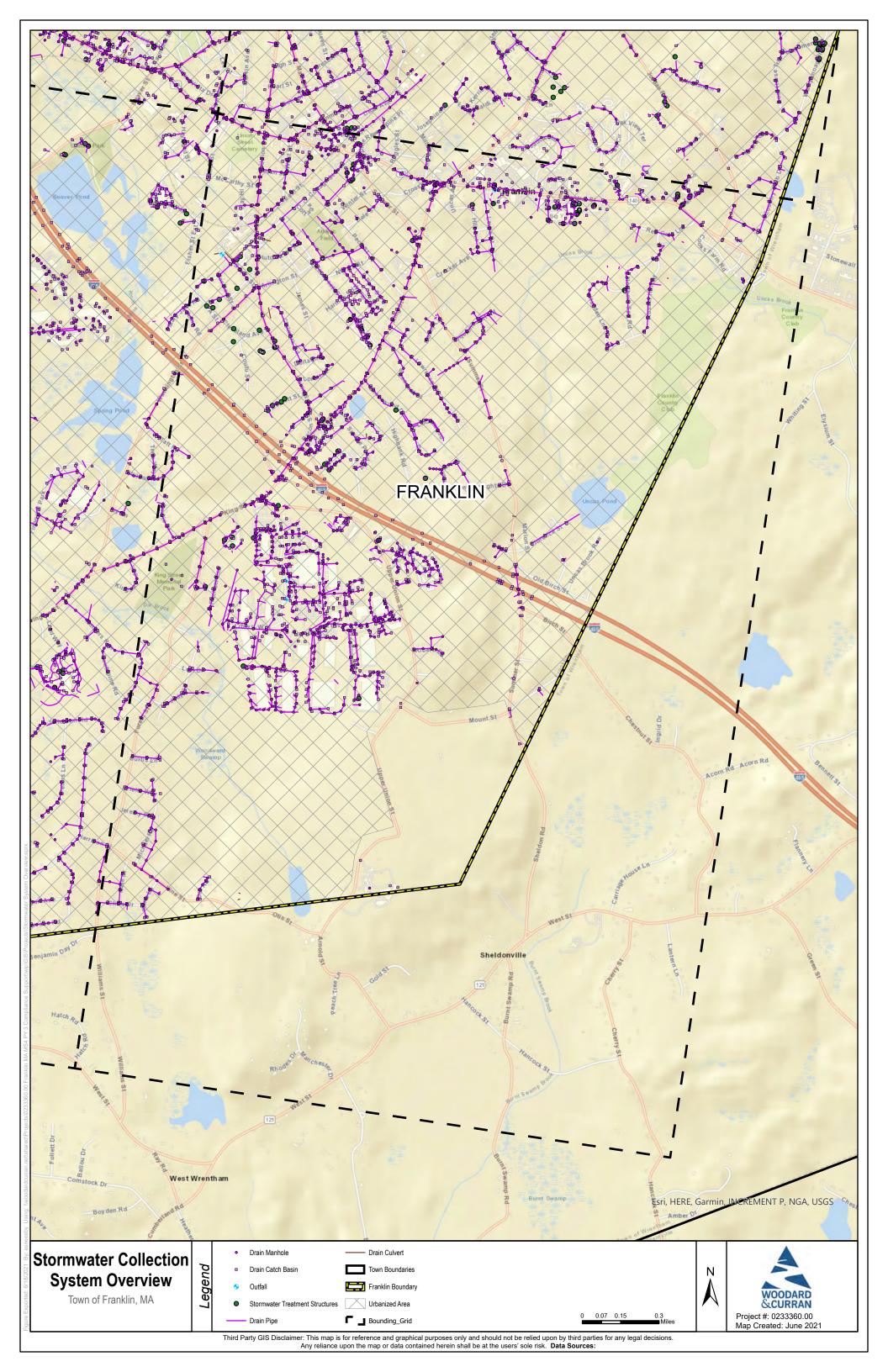


## APPENDIX F: SEPARATE STORM SEWER SYSTEM MAP













APPENDIX G: IMPAIRED WATERS AND SPECIAL RESOURCE WATERS

