TOWN OF
SUDBURY

STORMWATER MANAGEMENT PROGRAM PLAN

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APPENDICES

1. STORMWATER PROGRAM OVERVIEW

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, and any other materials found on lawns, streets, and parking lots.

In the Town of Sudbury, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a permit. Sudbury 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 SUDBURY HAVE TO DO?

The Town of Sudbury has had MS4 permit coverage since 2003. As part of the permitting requirements, Sudbury is required to develop a written Stormwater Management Program (SWMP). This SWMP (Plan) is a "living" reference document that will guide the town's implementation of requirements within the permit. Sudbury 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 fix 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 Town of Sudbury is located within Middlesex County and has a population of over 17,000, according to the 2010 census. The Town of Sudbury is located within the Concord River watershed and has four primary tributaries, Hop Brook, Pantry Brook, Sudbury River, and Unnamed Tributary MA82A-17, that flow through the community before discharging into the Sudbury River. Sudbury is bordered to the east by the Sudbury River, which discharges into the Assabet River. Sudbury also has several ponds, including Willis Pond, used by the community for fishing and boating. There are no public water supply watersheds within the Town of Sudbury. Sudbury Department of Public Works maintains over 50 miles of drainage pipe, thousands of drainage structures and discharges of stormwater to the environment in hundreds of locations. Sudbury continues to strive at making improvements to its stormwater management program every year to protect its water resources.

1.1 CONTROL MEASURES AND MEASUREABLE GOALS

As per Section 2 of the 2016 MS4 General Permit, traditional MS4s must implement a SWMP that includes the following six (6) control measures (CMs).

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping

As required by the MS4 General Permit, there are specific actions that must be undertaken to reduce stormwater pollution. These actions are called Best Management Practices (BMPs). The following plan outlines these BMPs, the measurable goal for each BMP, the deadline for development and implementation of BMPs, and the responsible party for implementing the BMP. Section 1.5 of this SWMP identifies the person(s) or department(s) responsible for the BMPs identified in this SWMP.

The Permit Year (PY) corresponds to each regulatory year starting on July 1, 2018.

CM 1: Public Education and Outreach (Permit Section 2.3.2)

Objective: Implement an education program that addresses stormwater issues of significance. The ultimate objective of a public education program is to increase knowledge of and help change behaviors of the public so that pollutants in stormwater are reduced. The "public" as defined in the MS4 General Permit are residents, businesses/institutions, developers/contractors, and industrial facilities.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
1.1	Develop public education program plan (Education and Outreach Plan)	2.3.2.a	Develop an Education & Outreach (E&O) Plan which will outline an education approach that is inclusive of all education requirements across the permit and for impaired waters. • Develop educational messages to be distributed to target audiences, consider the topics listed in 2.3.2.d of the MS4 General Permit. • Develop educational messages specific to the areas that discharge to priority waters, impaired waters, and drinking water supplies. • Plan to provide educational web content and other publicly accessible resources. • Consider needs specific to community based on language, types of businesses, etc. • Develop methods to evaluate effectiveness of the messages and overall education program.	End of Permit Year (PY) 1
1.2	Deliver targeted/timed educational messages	2.3.2.c	Post educational messages on the Town website. Maintain educational content throughout the permit term.	End of PY 1
			Distribute a minimum of 1 additional educational message to each of the 4 target audiences. (Ensure that messages to each audience are at least 1 year apart.)	End of PY 2
			Distribute a minimum of 1 educational message to each of the 4 target audiences (residents, commercial, construction, industrial.)	End of PY 5

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
1.3	Deliver Supplemental educational messages in areas that discharge to Total Phosphorus impaired waterbodies (Carding Mill Pond, Grist Mill Pond, Hop Brook, Stearns Mill Pond, Unnamed Tributary MA82A-17)	2.2.2.b.i.1 & Appendix H part II	For areas that discharge to waterbodies with a Total Phosphorus impairment, distribute 1 educational message in the June/July timeframe of each permit year that pertains to proper pet waste management.	Annual (June/July)
			For areas that discharge to waterbodies with a Total Phosphorus impairment, distribute 1 educational message in Aug./Sept./Oct. timeframe of each permit year that pertains to proper disposal of leaf litter.	Annual (Aug/Sept/Oct)
			For areas that discharge to waterbodies with a Total Phosphorus impairment, distribute 1 educational message in March/April timeframe of each permit year that pertains to proper disposal of grass clippings and fertilizer use.	Annual (March/April
1.4	Deliver supplemental educational messages in areas that discharge to bacteria or pathogen impaired waterbodies (Grist Mill Pond, Hop Brook, Pantry Brook)	2.2.2.c.i.1 & Appendix H part III	For areas that discharge to bacteria or pathogen impaired water bodies, provide educational materials to dog owners at the time of issuance or renewal of a dog license, or other appropriate time. These education materials describe the detrimental impacts of improper management of pet waste, requirements for waste collection and disposal, and penalties for noncompliance.	Throughout Permit Term
			For areas that discharge to bacteria or pathogen impaired water bodies, provide educational materials to owners of septic systems about proper maintenance (as applicable).	Annual
1.5	Assess educational program and modify if needed	2.3.2.e	Assess effectiveness of the educational program per the E&O Plan and modify messages if needed. Modify ineffective messages, if any, prior to next message delivery.	Annual

CM 2: Public Involvement and Participation (Permit Section 2.3.3)

Objective: Provide opportunities to engage the public to participate in the review and implementation of the SWMP.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
2.1	Conduct public participation activities	2.3.3.b	Allow public participation in the implementation of the SWMP, annually. All public involvement activities shall comply with state public notice requirements. Document and report on activities.	Annual
2.2	Provide opportunity for public to review SWMP	2.3.3.b & c	Allow public participation in review of the SWMP annually. Facilitate public review of SWMP, annually. Allow public to comment on SWMP, annually. All public involvement activities shall comply with state public notice requirements. Document public review and public comments.	Annual
2.3	Make program documents available to the public	2.3.3.a	Post the SWMP and all Annual Reports on Town website (following public notice requirements).	Annual

CM 3: Illicit Discharge Detection and Elimination (IDDE) (Permit Section 2.3.4)

Objective: Implement an IDDE program to systematically find and eliminate sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.1	Conduct Sanitary Sewer Overflow (SSO) reporting and inventory	2.3.4.4	This BMP is not applicable to the Town of Sudbury as there are no sewers in town.	Throughout permit term End of PY 1
3.2	Continue MS4 system mapping	2.3.4.5	Phase I – Update the system map required by the MS4-2003 permit to include: outfalls and receiving waters, open channel conveyances, interconnections with other MS4s and other storm sewer systems, municipally-owned stormwater treatment structures, waterbodies (name and use impairments), and initial catchment delineations.	End of PY 2
			Phase II – Update separate storm sewer system map annually, include information for all MS4 outfalls (catchments) within 10 years of the permit effective date. • Update the system map annually as the following information becomes available during implementation of catchment investigation procedures: outfall spatial location, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer, and combined sewer systems (if available or applicable).	Update: Annual Info for all drainage infrastructure: End of PY 10
3.3	Develop written IDDE Program Manual	2.3.4.6	Develop a written IDDE Program document that includes at a minimum: • Legal authority, statement of responsibilities, outfall/interconnection inventory and initial priority ranking, outfall/interconnection screening and sampling procedures, follow-up ranking, catchment investigation procedures, illicit discharge confirmation and removal procedures, indicators or IDDE Program progress, ongoing screening, and training.	End of PY 1

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
		2.3.4.7.a & Appendix H	Conduct initial prioritization of catchments and include in IDDE Program document. Designate catchments draining to any waterbody impaired for bacteria or pathogen (Grist Mill Pond, Hop Brook, Pantry Brook) as either Problem or High Priority catchments. Also prioritize catchments that drain to waterbodies with recreational use as High Priority.	End of PY 1
		2.3.4.8	Outline Catchment Investigation Procedures: Develop a written systematic procedure to investigate each catchment associated with an outfall or interconnection within the MS4 system, that: • Identifies maps, historic plans and records, and other sources of data that will be used in identifying system vulnerability factors (SVFs) within each catchment. • Includes a description of manhole inspection methodology that involves systematically and progressively observing, sampling, and evaluating key junction manholes to determine location of suspected illicit discharges. • Establishes procedures to isolate and confirm sources of illicit discharges. Available data to be used for System Vulnerability Factors (SVF) shall be listed in the IDDE Program Manual.	End of PY 1
3.4	Conduct dry weather Outfall/ Interconnection screening and sampling	2.3.4.7.b	Conduct dry-weather Outfall/Interconnection screening annually to meet permit requirement of all outfalls screened by the end of PY3. • Town operates approximately 450 outfalls. Complete approximately 150 dry-weather inspections per permit year starting in PY 1. Provide data annually. Dry weather screening and sampling (no more than 0.1" of rainfall in past 24 hours): • Record condition and information for inventory and priority ranking. • If flow, sample for ammonia, chlorine, conductivity, salinity, E. coli or enterococcus, surfactants, temperature, and pollutants of concern. • If no flow but evidence of illicit flow exists, revisit within one week to perform screening/sampling.	All outfalls screened by end of PY 3

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.5	Conduct wet weather Outfall/Interconnection screening and sampling	2.3.4.8	Conduct wet-weather Outfall/Interconnection screening in catchments with System Vulnerability Factors prior to initiation of catchment investigation. Provide data annually. • Wet weather screening and sampling shall be conducted during or after a precipitation event of sufficient intensity to produce a discharge. Recommended in the Spring. Sample for ammonia, chlorine, conductivity, salinity, E. coli or enterococcus, surfactants, temperature, and pollutants of concern.	Complete all wet-weather screening in identified catchments by end of PY 7
3.6	Reprioritize outfalls and interconnections	2.3.4.7.c	Update IDDE Program Manual with refined prioritization based on applicable dry weather screening results in PY 3. Update outfall and interconnection ranking (2.3.4.7.a) based on information gathered during dry weather screening. Ranking can be updated continuously as new screening information becomes available.	Update prioritization by end of PY 3
3.7	Conduct catchment investigations	2.3.4.8	For each catchment, conduct investigations consistent with IDDE Program Manual; inspect key junction manholes and refine mapping information on the location of pipes, manholes, and extent of catchment. • Dry weather investigation in manholes: if flow, sample for ammonia, chlorine, and surfactants. If no flow, conduct sandbag placement during dry weather. Return for evidence of flow. Sample as needed. • Town operates approximately 400 outfalls and has ten years (2017-2027) to complete all investigations. Conduct approximately 40 catchment investigations per year beginning in PY 2. Provide data annually.	• Complete investigation of problem outfalls by end of PY 7 • Investigate all catchments by end of PY 10
3.8	Conduct expeditious removal of verified sources of illicit discharge or SSO, and confirmatory screening	2.3.4.8	Upon verification of an illicit discharge, locate, identify, and eliminate the illicit discharge as expeditiously as possible. Where elimination of an illicit discharge within 60 days is not possible, establish an expeditious schedule and report the dates of identification and schedule for removal in annual report. • Confirm removal of verified illicit discharges through dry (and/or wet) bracket sampling.	During permit term, document annually

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.9	Evaluate the overall effectiveness of the IDDE Program	2.3.4.9	Evaluate the overall effectiveness of the IDDE Program using the indicators for tracking program success as defined in the IDDE Program Manual. Indicators include: number of illicit discharges identified and removed, number and percent of total catchments investigated, dry and wet weather screening and sampling results, and volume of sewage removed. • Provide evaluation of IDDE program annually via annual report.	During permit term, document annually
3.10	Ongoing screening	2.3.4.10	Reprioritize each outfall and interconnection upon completion of all catchment investigations (2.3.4.8) and schedule ongoing screening once every 5 years that includes dry weather screening and sampling. Ongoing wet weather screening and sampling is also required at outfalls where previous wet weather screening was required due to SVFs. • Conduct outfall screening once every five years upon completion of all catchment investigations.	Upon completion of all catchment investigations, then ongoing screening once every 5 years
3.11	Conduct employee training	2.3.4.11	Provide annual training (at a minimum) to employees involved in the IDDE Program. Report on the frequency and type of employee training in annual report.	Annually (at a minimum)

CM 4: Construction Site Stormwater Runoff Control (Permit Section 2.3.5)

Objective: The objective of an effective construction stormwater runoff control program is to minimize or eliminate erosion on regulated construction sites within the regulated MS4 area and to ensure that sediments and other pollutants are not transported in stormwater from construction sites and allowed to discharge to a water of the U.S. through the MS4.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
4.1	Ensure construction stormwater runoff control ordinances, local site development, and wetland protection permit application process are consistent with MS4 General Permit	2.3.5.c.i.	Review Town Stormwater Bylaw and regulations, wetland protection, and local permit application process to ensure that site development applicants meet Construction General Permit obligations. • Continue to implement an effective construction stormwater runoff control program. An ordinance or other regulatory mechanism that requires the use of sediment and erosion control and waste management practices at construction sites that disturb greater than one acre (or common plan of development) was required to be in place by May 1, 2008 under the MS4-2003 Permit. • Continue to require construction site operators performing land disturbance activities that exceed one acre (or common plan of development) to implement an erosion and sediment control program consistent with the Construction General Permit.	End of PY 1
4.2	Develop written construction site stormwater runoff control program procedures	2.3.5.c.ii. & 2.3.5.c.v.	Develop written Construction and Post-Construction Program Manual. • Include references to local ordinance/bylaw and regulations. • Include procedures and workflow for site plan review, pre-construction review, receipt and consideration of information submitted by the public, inspections, responsible parties, and data tracking. • Include procedures for enforcement of sediment and erosion control measures. • Include procedures to consider potential water quality impacts to impaired waters, construction waste handling, and evaluation of opportunities for use of LID and green infrastructure.	End of PY 1
4.3	Track, inspect, and document applicable construction projects	2.3.5.c.v.	Track the number of site plan reviews, site inspections, and enforcement actions and include in annual report.	Throughout permit term, annually

CM 5: Post-Construction Stormwater Management in New Development and Redevelopment (Permit Section 2.3.6)

Objective: The objective of this control measure is to reduce the discharge of pollutants found in stormwater through the retention or treatment of stormwater on regulated new or redevelopment sites within the regulated MS4 area.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
5.1	Develop written post-construction stormwater runoff program procedures	2.3.6.a	Develop written Construction and Post-Construction Program Manual. • Document procedures and workflow for site plan review, inspections, responsible parties, and data tracking. • Include references to Town Stormwater Bylaw and regulations. • During development of the Program Manual: - Review Town Stormwater Control Ordinance/Bylaw and regulations and wetland protection and local permit application process to ensure that site development applicants meet Post-Construction General Permit obligations consistent with permit requirements in part 2.3.6.a (see BMP 5.2) and those related to management of Phosphorus and Bacteria in discharges to impaired waters. - Evaluate the effectiveness of Town Stormwater Control Bylaw related to permit section 2.3.6.a.iii requirements (see BMP 5.2). - Recommend and implement changes to Bylaw (or Regulations), as necessary.	End of PY 1
5.2	Update Local Bylaw (or regulations) on Stormwater Management in New & Redevelopment	2.3.6.a.ii	Based on outcome of BMP 5.1, update the Bylaw or other regulatory mechanism (as needed). • Require LID site planning and design be used to the maximum extent feasible. • Require that design of treatment and infiltration systems follows guidance in the Massachusetts Stormwater Handbook Vol. 2 or other approved BMP design guidance. • Require that new development sites meet Massachusetts Stormwater Handbook Standards 1, 2, 3, 5, 6, and 9 and retain the first inch of runoff from all impervious surfaces AND/OR remove 90% of Total Suspended Solids (TSS) and 60% of Total Phosphorus (TP) generated from all impervious surfaces.	End of PY 2

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
			• Require that redevelopment sites meet Massachusetts Stormwater Handbook Standards 1, 2, 3, 5, and 6 and improve existing conditions by retaining the first 0.8 inch of runoff from all impervious surfaces AND/OR removing 80% of TSS and 50% of TP generated from all impervious surfaces.	
		2.3.6.a.iii & Appendix H part II	• Require the submission of as-built drawings no later than 2 years after completion of construction projects. Document in the Annual Report the measures/procedures utilized to meet this requirement. • Establish a mechanism to ensure that operation and maintenance (O&M) of BMPs will continue by dedicated accounts or funds, maintenance contracts, or assumed ownership of the BMPs. Document in the Annual Report the measures/procedures utilized to meet this requirement. • Require that new development or redevelopment stormwater management BMPs be optimized for Phosphorus removal for areas that discharge to waterbodies with a Total Phosphorus impairment (Carding Mill Pond, Grist Mill Pond, Hop Brook, Stearns Mill Pond, and Unnamed Tributary MA82A-17).	
5.3	Assess Local Standards	2.3.6.b	During review of Bylaw (or other regulatory mechanism) in PY 2 (see BMP 5.2). • Evaluate existing zoning or other municipal standards to determine if the requirements are stormwater-friendly, per permit section 2.3.6.b and 2.3.6.c. • Recommend changes to zoning or other municipal standards.	End of PY 2
			Street Design and Parking Lot Requirements Assessment. • Develop a report assessing street design and parking lot requirements that affect the creation of impervious cover. • Involve the local planning board and local transportation board and include recommendations for policies that will minimize impervious area (IA) attributable to parking areas and street designs, schedules for implementing recommendations, and subsequent assessment. • Document status of the assessment and planned or completed changes to local regulations/guidelines in annual report.	End of PY 4, document status annually

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
		2.3.6.c	Assessment of local regulation's effect on integration of infiltration/water reuse practices: • Develop a report assessing how local regulations affect the ability of development to include infiltration practices (e.g. green roofs, rain gardens, curb extensions, planter gardens, and porous & pervious pavement) and water harvesting devices (e.g. rain barrels and cisterns) that promote the use of stormwater for non-potable uses. • Create a schedule for revising regulations, if necessary. • Include this schedule, assessment findings, and progress towards making infiltration and water harvesting practices feasible in annual report.	End of PY 4, document status annually
5.4	Identify BMP Retrofits for Reduction of Impervious Area (IA)	2.3.6.d	During municipal facility inventory conducted in PY 2 (BMP 6.1), identify sites with likely reconstruction activity during the permit term. Where appropriate, these facilities with planned reconstruction shall include stormwater control measures. • Complete an inventory of at least 5 municipal properties/ roadways that could be modified through the reduction of IA by end of PY4 and include in annual report. o Retrofits to municipal properties with significant IA should be considered at a minimum. • Conduct retrofit assessment on facilities without planned improvements and within impaired watersheds (as applicable) in PY 4. Also see Section 1.2.1 Impaired Waters. • Continue to identify additional municipal properties/infrastructure that could be retrofitted such that a minimum of 5 sites are maintained in the inventory, until such a time as when there are less than 5 sites remaining. Update inventory annually beginning with PY 5 annual report. • Report on inventoried MS4 properties that have been retrofitted with BMPs that mitigate IA. Non-MS4 retrofitted properties may also be included. Report on retrofits annually beginning with PY 5 annual report.	End of PY 4 Annually starting PY 5

CM 6: Pollution Prevention and Good Housekeeping in Municipal Operations (Permit Section 2.3.7)

Objective: To implement a *Pollution Prevention & Good Housekeeping Program* for municipal operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all municipal operations and municipal facilities.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
6.1	Develop Operations & Maintenance (O&M) Program documentation	2.3.7.a	Develop written O&M procedures per section 2.3.7.a of the permit. • Develop Municipal Facility and Operations Stormwater Pollution Prevention Manual; inclusive of all Town facilities, drainage system operations activities, inspection obligations, and including specific impaired waters provisions. Program procedures shall include the following: - Municipal Facilities/Equipment Inventory by watersheds/catchments. - Identify sites with likely reconstruction activity during the permit term. Where appropriate, these facilities with planned reconstruction shall include stormwater control measures. - Municipal Infrastructure Maintenance: Street Sweeping and Catchbasin Cleaning. - Road Salt Use and Optimization. - Stormwater Treatment Structures O&M. - Landscape Maintenance. • Report on status of inventory and program documentation.	End of PY 2
6.2	Implement O&M Program	2.3.7.a	Report on status of O&M programs, maintenance activities, best practices, and provide documentation in annual report consistent with reporting requirements outlined in 2.3.7.a.	End of PY 2, document status annually
6.3	Develop/Refine Stormwater Pollution Prevention Plan (SWPPP) for maintenance garages, public works yards, transfer stations, and waste handling facilities	2.3.7. b	Develop SWPPP (and Spill prevention, control, and countermeasure, or SPCC, as needed) for maintenance garage, public works yard, transfer station, and waste handling facilities. SWPPP shall include the elements listed in 2.3.7.b. ii. Keep all records associated with the development and implementation of the SWPPP. Report status of SWPPP annually.	End of PY 2, document annually thereafter

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
6.4	Conduct site inspection procedures consistent with SWPPP for maintenance garages, public works yards, transfer stations, and waste handling facilities	2.3.7.b.iii.	Inspect all areas exposed to stormwater and all stormwater control measures at each facility at least once per calendar quarter and report findings in annual report.	Once per quarter upon completion of BMP 6.3, document annually.
6.5	Conduct employee training program consistent with SWPPP	2.3.7. h.	Conduct employee training consistent with SWPPP.	Every other Permit Year

1.2 WATER QUALITY STANDARDS

1.2.1 Impaired Waters

Discharges to waterbodies with approved TMDL or to water quality limited water bodies, or discharges causing or contributing to impairment have additional requirements in parts 2.1 and 2.2 of the MS4 General Permit. The Town of Sudbury MS4 discharges to waterbodies that are considered impaired, according to MassDEP's 2014 Integrated List of Waters. However, none of these waterbodies have an approved TMDL. A list of impaired waters that are within the Town of Sudbury and their impairment causes is provided in Table 1-1 on the following page. A map showing MassDEP's 2014 Integrated Waters for the Town of Sudbury is provided in Appendix C of this SWMP.

There are other waterbodies within Sudbury that are impaired, but do not have an approved TMDL. For the areas within the Town that directly discharge to impaired waterbody segments without an approved TMDL, there are additional control measures or BMPs that have been established, as required by parts 2.1 and 2.2 of the MS4 General Permit. Among the impairment causes are bacteria/pathogens, sediments (TSS or turbidity) and phosphorus, and therefore, some of the requirements of Appendix H in the General Permit apply. A description of the BMPs and measurable goal(s) associated with these requirements have been integrated into Section 1.1 of this SWMP. The following is a summary of the additional permit requirements, per Appendix H of the General Permit:

- For the areas that discharge to waters that are impaired by Total Phosphorus (Carding Mill Pond, Grist Mill Pont, Hop Brook, Stearns Mill Pond, and Unnamed Tributary MA82A-17):
    - Supplement the Residential and Business/Commercial/Institutional public education and outreach program with an annual timed message on specific topics (March/April: disposal of grass clippings and fertilizer use; June/July: proper management of pet waste; August/September/October: proper disposal of leaf litter).
    - Adopt or amend an ordinance or other regulatory mechanism that includes a requirement that new development or redevelopment stormwater management BMPs be optimized for phosphorus removal.
    - Include consideration of BMPs that infiltrate stormwater where feasible in retrofit inventory and priority.
    - Establish housekeeping procedures to manage grass cuttings and leaf litter on permittee property.
    - Increase street sweeping frequencies on all municipally owned streets and parking lots to a minimum of 2x per year (one time each spring and fall).
    - Develop a Phosphorus Source Identification Report which includes the total MS4 area draining to each water quality limited receiving water, all screening and monitoring results, impervious area and DCIA for the target catchment, identification, delineation and prioritization of potential catchments with high phosphorus loading, and identification of potential retrofit opportunities or installation of structural BMPs during redevelopment.
    - Evaluate all properties presenting retrofitting opportunities or areas for structural BMP installation.

- Provide a listing of planned structural BMPs and a plan and schedule for the implementation of such BMPs.
- Estimate the total phosphorus removal provided by any structural BMP installed in the regulated area.

- For the areas that discharge to waters that are impaired by bacteria or pathogens but do not have an approved TMDL (Grist Mill Pond, Hop Brook, Pantry Brook):
  - Supplement residential public education and outreach program with an annual message encouraging the proper management of pet waste and proper maintenance of septic systems.
  - Designate catchments draining to any waterbody impaired for bacteria or pathogens as either Problem or High Priority catchments in implementation of the IDDE program.
- For the areas that discharge to waters that are impaired by turbidity and total suspended but do not have an approved TMDL (Stearns Mill Pond, Unnamed Tributary):
  - Increase street sweeping on municipally owned or operated facilities to target areas with high potential pollutant load.
  - Prioritize inspection of catchbasins to ensure that no catchbasin sump exceeds 50% full.

Table 1-1: Impaired Waters in Sudbury

Waterbody	MassDEP Segment ID	TMDL	Category	Impairment Cause	Analytical Method (Appendix G)
Carding Mill Pond	MA82015	No	5	Aquatic Plants (Macrophytes)	No Monitoring Required
				Dissolved Oxygen Saturation	365.1; 365.2; 365.3
				Excess Algal Growth	365.1; 365.2; 365.3
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
				Non-Native Aquatic Plants	No Monitoring Required
Grist Mill Pond	MA82055	No	5	Aquatic Plants (Macrophytes)	No Monitoring Required
				Dissolved Oxygen Saturation	365.1; 365.2; 365.3
				Excess Algal Growth	365.1; 365.2; 365.3
				Fecal Coliform	SM9222D

Waterbody	MassDEP Segment ID	TMDL	Category	Impairment Cause	Analytical Method (Appendix G)
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
				Non-Native Aquatic Plants	No Monitoring Required
Puffers Pond	MA82092	No	5	Mercury in Fish Tissue	No Monitoring Required
Stearns Mill Pond	MA82104	No	5	Aquatic Plants (Macrophytes)	No Monitoring Required
				Dissolved Oxygen	365.1; 365.2; 365.3
				Excess Algal Growth	365.1; 365.2; 365.3
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
				Turbidity	160.2; 180.1
				Non-Native Aquatic Plants	No Monitoring Required
Hop Brook	MA82A-05	No	5	Dissolved Oxygen	365.1; 365.2; 365.3
				Dissolved Oxygen saturation	365.1; 365.2; 365.3
				Excess Algal Growth	365.1; 365.2; 365.3
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
Hop Brook	MA82A-06	No	5	Dissolved Oxygen	365.1; 365.2; 365.3
				Excess Algal Growth	365.1; 365.2; 365.3
				Fecal Coliform	SM9222D
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
Pantry Brook	MA82A-19	No	5	Fecal Coliform	SM9222D
Sudbury River	MA82A-03	No	5	Mercury in Fish Tissue	No Monitoring Required
Sudbury River	MA82A-04	No	5	Mercury in Fish Tissue	No Monitoring Required
				Non-Native Aquatic Plants	No Monitoring Required
Unnamed Tributary	MA82A-17	No	5	Excess Algal Growth	365.1; 365.2; 365.3
				Dissolved Oxygen	365.1; 365.2; 365.3
				Dissolved Oxygen saturation	365.1; 365.2; 365.3
				pH	150.2

Waterbody	MassDEP Segment ID	TMDL	Category	Impairment Cause	Analytical Method (Appendix G)
				Total Phosphorus	365.1; 365.2; 354.3; SM 4500-P-E
				Total Suspended Solids	160.2; 180.1

Note: Reissuance and/or approval of the Massachusetts Integrated List of Waters may necessitate modifications to this Plan to maintain compliance with applicable requirements.

1.2.2 Surface Public Drinking Water Supplies

The Town of Sudbury has no surface public drinking water supply sources or surface water supply watersheds within its town boundary, according to available MassGIS data. A list of all known waterbody segments that receive discharge from Sudbury's MS4 is provided in Table 1 of Appendix E. As shown in the table, there are no known direct discharges to public surface drinking water supplies.

1.2.3 Increased Discharges

The Town of Sudbury shall comply with the provisions of 314 CMR 4.04 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 5 or 4b 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 Section 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. Section 2.2.2 and 2.3.6 requirements have been included in the BMPs outlined in Section 1.1 of this SWMP.

If necessary, the Town of Sudbury 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; 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.

1.3 SPECIAL ELIGIBILTY DETERMINATIONS

Consistent with Section 1.9 of the 2016 MS4 General Permit, the Town of Sudbury has completed an assessment of both Endangered Species and Historic Properties. It has been determined that there will be no impact as a result of stormwater program implementation. If, during the course of permit implementation, the Town initiates a project that will result in ground or vegetation disturbance, additional consultation with the appropriate agencies will be initiated. See Appendix B for determination letters.

1.4 ANNUAL PROGRAM SELF-EVALUATION, RECORD KEEPING & ANNUAL REPORTING

Covered entities are required to collect and report information about the development and implementation of their SWMP. The Town of Sudbury will conduct an annual evaluation of its program compliance, the appropriateness of its identified Best Management Practices (BMPs), meeting new permit requirements, and progress towards achieving its identified measurable goals, which will include reducing the discharge of pollutants to the maximum extent practicable ("MEP").

The Town of Sudbury will keep records required by the MS4 General Permit for at least five (5) years after they are generated. Records include, but 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.

Annual reports are due to the EPA and MassDEP each year within 90 days of the close of the permit year on June 30 (September 28). The annual report content shall include:

- Self-assessment review of compliance with permit conditions;
- An assessment/evaluation of:
    - The appropriateness of the identified BMPs
    - Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP
    - 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.

Annual reports will be made available for public access through the EPA's webpages.

1.5 RESPONSIBLE PARTIES FOR STORMWATER PROGRAM IMPLEMENTATION

Title/ Position of Responsible Person	Name of Responsible Person	Role/Program Element(s)
Director of Public Works	Dan Nason	CM 1, 2, 3, 5 (Retroftting, Post-Construction Inspections, Plan Review Assistance), 6
Planning & Community Development Director	Meagen Donoghue	CM 4, 5 (Administration of Stormwater Permits)
Conservation Coordinator	Deborah Dineen	CM 4, 5 (Administration of Wetland Permits)
Building Inspector	Mark Herweck	CM 1 (Erosion and Sediment Control Education for Contractors)
Health Director	William Murphy	CM 1 (Septic Education), 3 (Assistance on IDDE Program)
Facilities Department	Arthur Richard	CM 5 (Target Properties for Retrofitting)

2. PROGRAM DOCUMENTS: PLANS, PROCEDURES, INVENTORIES, AND MAPS

The permit requires certain documents to be included in the SWMP. These documents will be developed consistent with the schedule outlined in Section 1.1. This Section provides information on where these documents can be accessed. Some of these documents have been appended to this SWMP, while others are provided in a location external to the SWMP due to size or complexity. Hard copies of the following documents can be found at the Department of Public Works, unless otherwise noted below.

2.1 IDDE PROGRAM

2.1.1 IDDE Program Manual

The Town of Sudbury has developed a written IDDE Program Manual consistent with the requirements of part 2.3.4.6 of the MS4 General Permit. The IDDE Manual includes:

- Responsible parties
- Regulatory authority
- Dry weather outfall screening and sampling procedures
- Interconnection screening procedures
- Initial assessment and priority ranking of outfalls/interconnections
- Catchment investigation procedures
- Enforcement procedures

2.1.2 Separate Storm Sewer System Map

The Town of Sudbury 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 A, 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 2014 Massachusetts Integrated List of Waters report
- Initial catchment delineations
- Regulated urbanized area

The map will be updated annually. A web-based interactive version of the map can be found on the Town of Sudbury website at https://www.mapsonline.net/sudburyma/stormwater.html

2.1.3 SSO Inventory

The Town of Sudbury does not currently contain sanitary sewer collection system and therefore this inventory is not applicable to Sudbury.

2.1.4 Receiving Waterbodies

Per the requirements of part 1.10.2 of the MS4 General Permit, a list of all known waterbody segments that receive discharge from Sudbury's MS4 is provided in Table 1 of Appendix E. The table also includes estimated number of outfalls that discharge to each Integrated List waterbody segment.

2.1.5 Interconnected Separate Storm Sewer Systems

Per the requirements of part 1.10.2 of the MS4 General Permit, a list of all known interconnected MS4s and other separate storm sewer systems receiving a discharge from Sudbury's MS4, as well as the waterbody segment(s) that ultimately receive the discharge, is provided in Table 2 of Appendix E.

2.2 CONSTRUCTION AND POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

2.2.1 Site Inspections and E&SC Procedures

The Town of Sudbury has developed written procedures for site inspections and enforcement of sediment and erosion control procedures in accordance with part 2.3.5. These procedures will be developed in Permit Year 1.

2.2.2 New Development/ Redevelopment Ordinance

In accordance with part 2.3.6.a.iii of the permit, the Town of Sudbury has developed a regulatory mechanism to require submission of as-built drawings and ensure long-term operation and maintenance of post-construction stormwater BMPs. These procedures will be developed in Permit Year 1.

2.2.3 "Stormwater Friendly Code" Assessment

In accordance with part 2.3.6.b and 2.3.6.c of the permit, the Town of Sudbury has developed a report assessing current street design and parking lot guidelines, and an assessment of other "code" requirements to ensure that the creation of impervious cover is minimized and that innovative stormwater management is not constrained by local code. These procedures will be developed by Permit Year 4.

2.3 MUNICIPAL FACILITIES AND OPERATIONS PROGRAMS

2.3.1 Inventory of Municipal Facilities and Equipment

The Town of Sudbury has developed a facility inventory consistent with the requirements of part 2.3.7.a.ii of the MS4 General Permit. The inventory includes municipally-owned:

- Parks and open space
- Buildings where pollutants are exposed to runoff (such as schools, town offices, fire stations, garages, etc.)
- Vehicles and equipment

This inventory will be developed in Permit Year 2.

2.3.2 Infrastructure O&M Program Plan

The Town of Sudbury has developed a written Infrastructure Operations and Maintenance Program Plan (O&M Plan) consistent with the requirements of part 2.3.7.a of the MS4 General Permit. The objective of the O&M Manual is to establish procedures for MS4 infrastructure maintenance that would help reduce discharge of pollutants. The O&M Plan includes:

- Catch basin inspection, cleaning and maintenance procedures, and a plan for optimization of these routine activities
- Street sweeping and cleaning procedures
- Management and disposal of the waste produced by catch basin cleaning and street sweeping
- Winter road maintenance procedures that aim at minimizing the use of sodium chloride and other salts
- Stormwater Treatment Structures inspection and maintenance procedures

This plan will be developed in Permit Year 2.

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: SEPARATE STORM SEWER MAP

APPENDIX B: SPECIAL ELIGIBILIY DETERMINATION LETTERS

APPENDIX C: IMPAIRED WATERS AND SPECIAL RESOURCE WATERS

APPENDIX D: DEFINITIONS

Definitions, Abbreviations and Acronyms

Best Management Practices (BMPs) - Schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Common Plan of Development - A "larger common plan of development or sale" is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan. For example, if a developer buys a 20-acre lot and builds roads, installs pipes, and runs electricity with the intention of constructing homes or other structures sometime in the future, this would be considered a larger common plan of development or sale. If the land is parceled off or sold, and construction occurs on plots that are less than one acre by separate, independent builders, this activity still would be subject to stormwater permitting requirements if the smaller plots were included on the original site plan.

Control Measure - Refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

Discharge - When used without qualification, means the "discharge of a pollutant."

Discharge of a Pollutant - Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source”. This includes additions of pollutants into waters of the United States from surface runoff which is collected or channeled by man; or discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharge-related Activities - Activities which cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

Disturbance - Action to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, site preparation (e.g., excavating, cutting, and filling), soil compaction, and movement and stockpiling of top soils.

Existing Discharger - An operator applying for coverage under this permit for discharges covered previously under an NPDES general or individual permit.

Facility or Activity - Any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.

Impaired Water - A water is impaired if it does not meet one or more of its designated use(s). For purposes of this permit, “impaired” refers to categories 4 and 5 of the

five- part categorization approach used for classifying the water quality standards attainment status for water segments under the TMDL program. Impaired waters compilations are also sometimes referred to as "303(d) lists." Category 5 waters are impaired because at least one designated use is not being supported or is threatened and a TMDL is needed. Category 4 waters indicate that at least one designated use is not being supported but a TMDL is not needed (4a indicates that a TMDL has been approved or established by EPA; 4b indicates other required control measures are expected in result in the attainment of water quality standards in a reasonable period of time; and 4c indicates that the non- attainment of the water quality standard is the result of pollution (e.g. habitat) and is not caused by a pollutant). See USEPA's 2006 Integrated Report Guidance, July 29, 2005 for more detail on the five part categorization of waters [under EPA National TMDL Guidance http://www.epa.gov/owow/tmdl/policy.html]).

Impervious Surface - Any surface that prevents or significantly impedes the infiltration of water into the underlying soil. This can include but is not limited to: roads, driveways, parking areas and other areas created using non porous material; buildings, rooftops, structures, artificial turf and compacted gravel or soil.

Industrial Activity - The ten categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity," as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Industrial Stormwater - Stormwater runoff associated with the definition of "stormwater discharges associated with industrial activity."

Interconnection - The point (excluding sheet flow over impervious surfaces) where the permittee's MS4 discharges to another MS4 or other storm sewer system, through which the discharge is eventually conveyed to a water of the United States. Interconnections shall be treated similarly to outfalls throughout the permit.

Junction Manhole - For the purposes of this plan, a junction manhole is a manhole or structure with two or more inlets accepting flow from two or more MS4 alignments. Manholes with inlets solely from private storm drains, individual catch basins, or both are not considered junction manholes for these purposes.

Key Junction Manhole - For the purposes of this plan, key junction manholes are those junction manholes that can represent one or more junction manholes without compromising adequate implementation of the illicit discharge program. Adequate implementation of the illicit discharge program would not be compromised if the exclusion of a particular junction manhole as a key junction manhole would not affect the permittee's ability to determine the possible presence of an upstream illicit discharge. A permittee may exclude a junction manhole located upstream from another located in the immediate vicinity or that is serving a drainage alignment with no potential for illicit connections.

Municipal Separate Storm Sewer - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man- made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Municipal Separate Storm Sewer System (MS4) - Means all separate storm sewers that are defined as "large" or "medium" or "small" municipal storm sewer systems pursuant to paragraphs 40 CFR 122.26 (b)(4) and (b)(7), or designated under paragraph 40 126.26(a) (1)(v). For the purposes of this permit "MS4" may also refer to the permittee with jurisdiction over the sewer system.

New Development - Any construction activities or land alteration resulting in total earth disturbances greater than 1 acre (or activities that are part of a larger common plan of development disturbing greater than 1 acre) on an area that has not previously been developed to include impervious cover. (see part 2.3.6. of the permit)

Outfall Catchment - The land area draining to a single outfall or interconnection. The extent of an outfall's catchment is determined not only by localized topography and impervious cover but also by the location of drainage structures and the connectivity of MS4 pipes.

Owner or Operator - The owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Point Source - Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant - Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water.

Pollutant of Concern - A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a State's 303(d) list.

Redevelopment - For the purposes of this plan, any construction, land alteration, or improvement of impervious surfaces resulting in total earth disturbances greater than 1-acre (or activities that are part of a larger common plan of development disturbing greater than 1 acre) that does not meet the definition of new development (see above).

Site - For the purposes of this plan, the area extent of construction activities, including but not limited to the creation of new impervious cover and improvement of existing impervious cover.

Stormwater - Stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Discharges Associated with Construction Activity - A discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing,

grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. (See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Total Maximum Daily Loads (TMDLs) - A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes waste load allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources and/or natural background and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Urbanized Area - US Census designated area comprised of a densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. For the purposes of this permit, Urbanized Areas as defined by any Census since 2000 remain subject to stormwater regulation even if there is a change in the reach of the Urbanized Area because of a change in more recent Census data.

Water Quality Limited Water - for the purposes of this permit, a water quality limited water is any waterbody that does not meet applicable water quality standards, including but not limited to waters listed in categories 5 or 4b on the Massachusetts Integrated Report of waters listed pursuant to Clean Water Act section 303(d) and 305(b).

Water Quality Standards - A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States and EPA adopt WQS to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)).

Abbreviations and Acronyms

BMP – Best Management Practice CGP – Construction General Permit
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DCIA – Directly Connected Impervious Area EPA – U. S. Environmental Protection Agency ESA – Endangered Species Act
USFWS – U. S. Fish and Wildlife Service IA – Impervious Area
IDDE – Illicit Discharge Detection and Elimination LA – Load Allocations
MOS – Margin of Safety
MS4 – Municipal Separate Storm Sewer System MSGP – Multi-Sector General Permit
NHPA – National Historic Preservation Act NMFS – U. S. National Marine Fisheries Service NOI – Notice of Intent
NPDES – National Pollutant Discharge Elimination System NRHP – National Register of Historic Places
PCP – Phosphorus Control Plan (pertaining to Charles River Watershed phosphorus
POTW – Publicly Owned Treatment Works
SHPO – State Historic Preservation Officer

SPCC – Spill Prevention, Control, and Countermeasure SWMP – Stormwater Management Program
SWPPP – Stormwater Pollution Prevention Plan TMDL – Total Maximum Daily Load
USGS – United States Geological Survey WLA – Wasteload Allocation
WQS – Water Quality Standard

APPENDIX E: RECEIVING WATERS AND INTERCONNECTIONS

Table 1: Receiving Waterbodies

Receiving Waterbody Segment (Waterbody Name and MassDEP Segment ID)	Classification	Impairments / Pollutants of Concern	TMDLs / WLAs	Number of Outfalls (From the MS4 that discharge to waterbody)	Drinking Water Supply?

Table 2: Interconnections

Interconnected System (Name of entity that owns interconnected separate storm sewer system – municipality, state, DOT, other/private, etc.)	Receiving Waterbody (Waterbody Name and MassDEP Segment ID)	Classification	Impairments / Pollutants of Concern	TMDLs / WLAs	Number of Interconnections