



STORMWATER MANAGEMENT PROGRAM PLAN

UPDATED MAY 2025





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1. STORMWATER PROGRAM OVERVIEW

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

In the City of Westfield, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a permit. Westfield 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” (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 WESTFIELD HAVE TO DO?

The City of Westfield has had MS4 Permit coverage since 2003. As part of the permitting requirements, Westfield is required to develop a written Stormwater Management Plan (SWMP). This SWMP is a “living” reference document that will guide the City’s implementation of requirements within the Permit. Westfield 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 City 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 City of Westfield is located within the Connecticut and Westfield River watersheds. There are eight primary tributaries, Ashley Brook, Cook Brook, Great Brook, Jacks Brook, Little Brook, Pond Brook, Powdermill Brook, and Moose Meadow Brook, that flow through the community before discharging into the Westfield River. The Westfield River runs through the City, providing several locations for swimming, boating, and fishing for the community. Additionally, Hampton Ponds State Park, located on the northern border of the City, is a location where community members can boat, swim, and fish in Hampton and Pequot Pond. The City's drinking water is sourced from the Granville Reservoir, in Granville, MA, the City's eight groundwater wells, and the City of Springfield when necessary. The Westfield Department of Public Works maintains over 130 miles of stormwater drainage pipe, thousands of drainage structures (manholes and catch basins), and these stormwater drainage systems discharge stormwater to the environment in hundreds of locations.

Several of Westfield's streams are considered "impaired" by the Massachusetts Department of Environmental Protection (MassDEP). Many of these impairments are due to excessive bacterial indicators. These can come from upstream sources, septic leaks, wildlife excrement, leaking sewer systems or other sources of wastewater. Westfield's stormwater program, as described herein, is structured to reduce and eliminate sources of pollution entering waterbodies via the City's MS4. As a portion of the City is within the Connecticut River watershed, which eventually drains to the Long Island Sound, there is also special consideration for nitrogen in stormwater which can be attributed to atmospheric deposition, fertilizers, and other natural sources, like leaf litter and grass clipping decomposition. Westfield continues to strive to make improvements to its stormwater management program every year to protect its water resources.

1.1 CONTROL MEASURES AND MEASUREABLE GOALS

The MS4 General Permit is structured around the following six minimum control measures (MCMs).

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

Permittees are required to prepare a SWMP describing specific actions they will implement to reduce stormwater pollution that align with the Permit requirements for each MCM. These actions, called Best Management Practices (BMPs), are described in this Plan, along with the measurable goal for each BMP and deadline for development and implementation. Section 1.5 of this SWMP identifies the person(s) or department(s) responsible for implementing



the BMPs identified in this SWMP.

The Permit Year (PY) referenced within this document corresponds to each regulatory year starting on July 1, 2018. Updates to the original version of this SWMP, dated August 23, 2018, have been incorporated into this document to reflect the City of Westfield's stormwater management program achievements through PY7 (ending June 30, 2025). A revision log tracking these updates is located in Appendix E.

The original SWMP and this most recent SWMP amendment are available for public access on the City's website.



MCM 1: Public Education and Outreach (Permit Part 2.3.2)

Objective: Implement an education and outreach 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 includes residents, businesses/institutions, developers/contractors, and industrial facilities.

BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
1.1	Develop public education program plan (Education and Outreach Plan)	2.3.2.a	<p>Develop an Education & Outreach (E&O) program which will outline an education approach that is inclusive of all education requirements across the Permit and for impaired waters.</p> <ul style="list-style-type: none"> • Develop educational messages to be distributed to target audiences, considering the topics listed in Part 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	<p>Distribute a minimum of 2 educational messages to each of the 4 target audiences (residents, commercial, construction, industrial) on Permit-specified topics during the Permit term. Ensure that messages to each audience are at least 1 year apart.</p> <ul style="list-style-type: none"> • Suggested residential topics: <ul style="list-style-type: none"> ○ Lawn care effects on water quality (pesticide/herbicide/fertilizer application); ○ Benefits of onsite stormwater infiltration; ○ Vehicle/equipment washing effects on water quality; ○ Proper disposal of swimming pool water; ○ Proper management of pet waste; and 	Throughout Permit Term



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
			<ul style="list-style-type: none"> ○ Septic system maintenance. • Suggested Business/Commercial/Institutional topics: <ul style="list-style-type: none"> ○ Lawn care effects on water quality (pesticide/herbicide/fertilizer application); ○ Benefits of onsite stormwater infiltration; ○ Use of detergents in building maintenance and vehicle/equipment washing; ○ Use of de-icing/anti-icing materials, including proper storage; ○ Proper storage of materials/waste/dumpster maintenance; ○ Proper management of parking lot surfaces; and ○ Proper disposal of swimming pool water. • Suggested Developer/Construction topics: <ul style="list-style-type: none"> ○ Proper sediment and erosion control practices; ○ Use of low impact development; and ○ Information about the EPA Construction General Permit (CGP). • Suggested Industrial topics: <ul style="list-style-type: none"> ○ Equipment inspection/maintenance; ○ Proper storage of materials; ○ Dumpster management; ○ Use of de-icing/anti-icing materials, including proper storage; ○ Benefits of onsite stormwater infiltration; <p>Information about the EPA Multisector General Permit.</p>	
	Deliver supplemental educational messages in areas that discharge to Total Phosphorus	2.2.2.b.i.1 & Appendix	Post educational messages on the City website and/or Facebook page. Maintain educational content throughout the Permit term.	End of PY 1
1.3	Deliver supplemental educational messages in areas that discharge to Total Phosphorus	2.2.2.b.i.1 & Appendix	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 use of slow-release and phosphorus-free fertilizers.	Annual



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
	impaired waterbodies (Pequot Pond)	H Part II	<p>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, noting any existing regulations where appropriate.</p> <p>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.</p>	
1.4	Deliver supplemental educational messages in areas that discharge to bacteria or pathogen impaired waterbodies (Ashley Brook, Jacks Brook, Little River, Moose Meadow Brook, Great Brook, Munn Brook, and Manhan River).	2.2.2.c.i.1 & Appendix H Part III	<p>For areas that discharge to bacteria or pathogen impaired waterbodies, provide educational materials to dog owners at the time of issuance or renewal of a dog license, or other appropriate time. These education materials will describe the detrimental impacts of improper management of pet waste, requirements for waste collection and disposal, and penalties for noncompliance, noting any existing regulations where appropriate.</p> <p>For areas that discharge to bacteria or pathogen impaired waterbodies, provide educational materials to owners of septic systems about proper maintenance (as applicable).</p>	Throughout Permit Term Annual
	Deliver supplemental education messages in areas that discharge to tributaries to the Long Island Sound, which is a nitrogen impaired waterbody.	2.2.1.c.i.1 & Appendix F Section B Part I	<p>For areas that discharge into tributaries of the Long Island Sound, which is a nitrogen impaired waterbody, distribute 1 educational message in April/May timeframe of each Permit year that pertains to proper disposal of grass clippings and use of slow-release fertilizers.</p> <p>For areas that discharge into tributaries of the Long Island Sound, which is a nitrogen impaired waterbody, distribute 1 educational message in the June/July timeframe of each Permit year that pertains to proper pet waste management, noting any existing regulations where appropriate.</p> <p>For areas that discharge into tributaries of the Long Island Sound, which is a nitrogen impaired waterbody, distribute 1 educational message in Aug./Sept./Oct. timeframe of each Permit year that pertains to proper disposal of leaf litter.</p>	Annual



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
1.5	Assess educational program and modify if needed	2.3.2.e	Assess the effectiveness of the educational program and modify messages, if needed. Modify ineffective messages, if any, prior to next message delivery.	Annual



MCM 2: Public Involvement and Participation (Permit Part 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 Part 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 the public to comment on the 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 City website (following public notice requirements).	Annual



MCM 3: Illicit Discharge Detection and Elimination (IDDE) (Permit Part 2.3.4)

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

BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
3.1	Conduct Sanitary Sewer Overflow (SSO) reporting and inventory	2.3.4.4	<p>After identifying new SSOs, notify EPA within 24 hours and provide written notice to EPA and MassDEP within 5 days.</p> <ul style="list-style-type: none"> Document and file SSO reports and corrective measures implemented for annual reporting. Maintain database or summary of SSOs through Permit term. 	Throughout Permit term
			<p>Obtain and assess historic SSO reports.</p> <ul style="list-style-type: none"> Develop inventory of all identified SSOs (discharged to the MS4 within the past 5 years) indicating location, date/time, volume, suspected causes, and corrective measures. 	End of PY1
3.2	Continue MS4 system mapping	2.3.4.5	<p>Phase I – Update the system map required by the 2003 MS4 General 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.</p>	End of PY2
			<p>Phase II – Update separate storm sewer system map annually, include information for all MS4 outfalls (catchments) within 10 years of the Permit effective date.</p> <ul style="list-style-type: none"> 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). 	<p>Update: Annual</p> <p>Info for all drainage infrastructure: End of PY10</p>



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
3.3	Develop written IDDE Program Manual	2.3.4.6	Develop a written IDDE Program document that includes at a minimum: <ul style="list-style-type: none"> • 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 PY1
		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 pathogens (Ashley Brook, Jacks Brook, Little River, Moose Meadow Brook, Great Brook, Munn Brook, and Manhan River) as either Problem or High Priority catchments. Also prioritize catchments that drain to surface public drinking water supplies and/or waterbodies with recreational use as High Priority.	End of PY1
		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: <ul style="list-style-type: none"> • 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 and SSOs. • Establishes procedures to isolate and confirm sources of illicit discharges. Available data to be used for the SVF analysis shall be listed in the IDDE Program Manual.	End of PY1
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. The City owns approximately 450 outfalls.	All Outfalls/ Interconnections screened by end



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
			Dry weather screening and sampling requirements (must occur when there is no more than 0.1" of rainfall in past 24 hours): <ul style="list-style-type: none"> • 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. 	of PY3
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 PY3. 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 PY3
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 catchment investigations include: <ul style="list-style-type: none"> • 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. 	Complete investigation of problem outfalls by end of PY7 Investigate all catchments by end of PY10



BMP ID #	BMP Description	Permit Part 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. <ul style="list-style-type: none"> 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 PY7
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. <ul style="list-style-type: none"> Confirm removal of verified illicit discharges through dry (and/or wet) bracket sampling. 	During Permit term, document annually
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 SSOs and 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
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)



MCM 4: Construction Site Stormwater Runoff Control (Permit Part 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 Part 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.	<p>Review City Stormwater Bylaw and regulations, wetland protection, and local permit application process to ensure that site development applicants meet Construction General Permit obligations.</p> <ul style="list-style-type: none"> 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 2003 MS4 General 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 PY1
4.2	Develop written construction site stormwater runoff control program procedures	2.3.5.c.ii. & 2.3.5.c.v.	<p>Develop written Construction and Post-Construction Program Manual (Manual) or independent documentation for the following procedures:</p> <ul style="list-style-type: none"> 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. Procedures for enforcement of sediment and erosion control measures. Procedures to consider potential water quality impacts to impaired waters, construction waste handling, and evaluation of opportunities for use of LID and green infrastructure. <p>Include references to local ordinance/bylaw and regulations.</p>	End of PY1



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
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



MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment (Permit Part 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 Part 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 (Manual) or independent documentation to meet the following requirements: <ul style="list-style-type: none"> • Include references to City Stormwater Bylaw and regulations. • Document procedures and workflow for site plan review, inspections, responsible parties, and data tracking. • During development of the Manual or independent procedures: <ul style="list-style-type: none"> - Review City 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 City Stormwater Control Bylaw related to Permit Part 2.3.6.a.iii requirements (see BMP 5.2). - Recommend and implement changes to Bylaw (or Regulations), as necessary. 	End of PY1
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): <ul style="list-style-type: none"> • Require LID site planning and design strategies be implemented to the maximum extent feasible. • Require that design of stormwater management systems be consistent with, or more stringent than, the requirements of the 2008 Massachusetts Stormwater Handbook. • Require that stormwater management systems on new development sites be designed to meet an average annual pollutant removal equivalent to 	End of PY3



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
			<p>90% of the average annual load of Total Suspended Solids (TSS) and 60% of Total Phosphorus (TP) generated from the total post-construction impervious area on the site.</p> <ul style="list-style-type: none"> Require that stormwater management systems on redevelopment sites be designed to meet an average annual pollutant removal equivalent to 80% of TSS and 50% of TP generated from the total post-construction impervious area on the site. Provide options for offsite mitigation meeting the same standards as the new/redevelopment sites within the same United States Geological Survey (USGS) Hydrologic Unit Code 12 (HUC12) as the new/redevelopment site. 	
		2.3.6.a.iii & Appendix F Section B Part I & Appendix H Part II	<ul style="list-style-type: none"> 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 long-term operation and maintenance (O&M) of BMPs will occur. This can be accomplished by establishing 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 (Pequot Pond). Require that new development or redevelopment stormwater management BMPs be optimized for nitrogen removal for areas that discharge into waterbodies in the Connecticut River Watershed, which is a tributary to the Long Island Sound (Manhan River). 	



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
5.3	Assess Local Standards		During review of Bylaw (or other regulatory mechanism) in PY3 (see BMP 5.2): <ul style="list-style-type: none"> Evaluate existing zoning or other municipal standards to determine if the requirements are stormwater-friendly, per Permit Part 2.3.6.b and 2.3.6.c. Recommend changes to zoning or other municipal standards. 	End of PY3
		2.3.6.b	Street Design and Parking Lot Requirements Assessment: <ul style="list-style-type: none"> 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 PY4, document status annually
		2.3.6.c	Assessment of local regulation's effect on integration of infiltration/water reuse practices: <ul style="list-style-type: none"> 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 PY4, document status annually



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
5.4	Identify BMP Retrofits for Reduction of Impervious Area (IA)	2.3.6.d	<p>During municipal facility inventory conducted in PY2 (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.</p> <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> - 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 PY4. 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 PY5 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 PY5 annual report. 	<p>End of PY4</p> <p>Annually starting PY5</p>



MCM 6: Pollution Prevention and Good Housekeeping in Municipal Operations (Permit Part 2.3.7)

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

BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
6.1	Develop Operations & Maintenance (O&M) Program documentation	2.3.7.a	<p>Develop written O&M procedures per Part 2.3.7.a of the Permit:</p> <ul style="list-style-type: none"> • Develop Clean Water Best Practices Manual inclusive of all City facilities, drainage system operations activities, inspection obligations, and including specific impaired waters provisions. Program procedures shall include the following: <ul style="list-style-type: none"> - Municipal facilities/equipment inventory by watersheds/catchments - Proper use, storage, and disposal of potential stormwater pollutants such as pesticides, herbicides, fertilizers, and petroleum products - Pet waste management - Waterfowl congregation area management - Management of trash receptacles - Vehicle and equipment maintenance, including wash water management - Municipal infrastructure maintenance: street sweeping and catch basin cleaning - Road salt use and optimization - Stormwater treatment structures O&M - Landscape maintenance (including grass clippings and leaf litter) • Report on status of inventory and program documentation. 	End of PY2
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 PY2, document status annually
6.3	Develop/Refine Stormwater Pollution Prevention Plan (SWPPP)	2.3.7. b	Develop SWPPP (and Spill Prevention, Control, and Countermeasure Plans, or SPCC Plans, as needed) for maintenance garage, public works yard, transfer station, and waste handling facilities. The SWPPP shall include the elements	End of PY2, document annually



BMP ID #	BMP Description	Permit Part Reference	Measurable Goal(s)	Deadline(s)
	for maintenance garages, public works yards, transfer stations, and waste handling facilities		listed in Part 2.3.7.b. ii. Keep all records associated with the development and implementation of the SWPPP. Report status of SWPPP annually.	thereafter
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 Total Maximum Daily Loads (TMDLs) or to water quality limited waterbodies (impaired waterbodies), or stormwater discharges causing or contributing to impairments have additional requirements included in Parts 2.1, 2.2, and Appendix F of the MS4 General Permit. The City of Westfield's MS4 discharges to waterbodies that are considered impaired, according to MassDEP's 2022 Integrated List of Waters; however, none of these waterbodies have an approved TMDL. A list of impaired waters that are within the City of Westfield and their impairment causes is provided in Table 1-1 below. A map showing MassDEP's 2022 impaired waters located in the City of Westfield is provided in Appendix C of this SWMP.

Westfield is within the Connecticut River Watershed, which drains to Long Island Sound and has an approved TMDL for nitrogen. For areas within the City that directly discharge into a tributary of the Long Island Sound, there are additional MCMs or BMPs that have been established, as required by Parts 2.1 and 2.2 of the MS4 General Permit. The Long Island Sound's primary impairment is nitrogen, and therefore, some requirements of Appendix F in the MS4 General Permit apply. A description of the BMPs and measurable goals 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 F of the General Permit:

- For areas that discharge to waters that are within the Connecticut River Watershed, which is impaired by nitrogen and tributary to the Long Island Sound (all waterbodies listed in Table 1-1):
 - Supplement the Residential and Business/Commercial/Institutional public education and outreach program with an annual timed message on specific topics (April/May: disposal of grass clippings and slow-release 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 nitrogen removal.
 - Establish requirements for use of slow-release fertilizer, proper management of grass clippings and leaf litter, and increase of street sweeping to a minimum of twice per year (Spring/Fall) on all Permittee owned property.
 - Develop a Nitrogen Source Identification Report including the total urbanized area within the Connecticut Watershed, all screening and monitoring results, impervious area and Directly Connected Impervious Area (DCIA) for the target catchment, identification, delineation and prioritization of potential catchments with high nitrogen loading, and identification of potential retrofit opportunities or installation of structural BMPs during redevelopment.
 - Evaluate all municipal 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. Implement one BMP within six years of Permit effective date.
- Estimate the total nitrogen removal provided by any structural BMP installed in the regulated area.

There are other waterbodies within Westfield that are impaired, but do not have an approved TMDL. For the areas within the City that directly discharge to impaired waterbody segments without an approved TMDL, there are additional BMPs that have been established in Parts 2.1, 2.2, and Appendix H of the MS4 General Permit. Among the impairment causes are total phosphorus, and bacteria or pathogens. A description of the Permit requirements and BMPs related to impaired waters and measurable goal(s) for each BMP have been integrated into Section 1.1 of this Plan and are summarized below:

- For the areas that discharge to waters that are impaired by Total Phosphorus (Pequot Pond):
 - 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 slow-release and phosphorus-free 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. Implement one BMP within six years of Permit effective date.
 - 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 (Ashley Brook, Jacks Brook, Little River, Moose Meadow Brook, Powdermill Brook, Pequot Pond, Great Brook, Munn Brook, and Manhan River):
 - Supplement residential public education and outreach program with an annual message encouraging the proper management of pet waste and proper maintenance of septic systems, noting any existing regulations where appropriate.
 - Designate catchments draining to any waterbody impaired for bacteria or pathogens as either Problem or High Priority catchments in implementation of the IDDE program.

There are no additional requirements associated with excess algal growth, chlorophyll-a, and dissolved oxygen beyond analyzing samples for these parameters during outfall and interconnection screening activities. No monitoring is required for Eurasian watermilfoil (*Myriophyllum spicatum*), and water chestnut.

Table 1-1: Impaired Waterbodies in Westfield, MA (Based on Final 2022 Integrated List of Waters)

Segment ID	Name	Impairment Category Classification	Impairment Cause*	Impairment Source	Pollutant of Concern Sampling Requirements
Waterbodies in the Westfield River Watershed:					
MA32-37	Ashley Brook	Category 5	Escherichia coli	Unknown	- Escherichia coli
MA32-39	Jacks Brook	Category 5	Escherichia coli	Unknown	- Escherichia coli
MA32-08	Little River	Category 5	Escherichia coli	Unknown Discharges from MS4	- Escherichia coli
			Fecal Coliform	Unknown Discharges from MS4	- Fecal Coliform
			Temperature	Impervious Surface/ Parking Lot Runoff Loss of Riparian Habitat	- No Monitoring Required
MA32-36	Little River	Category 5	Escherichia coli	Unknown Discharges from MS4 Wet Weather Discharges (Non-Point	- Escherichia coli



Segment ID	Name	Impairment Category Classification	Impairment Cause*	Impairment Source	Pollutant of Concern Sampling Requirements
				Source)	
			Combined Biota/Habitat Assessments	Unknown	- No Monitoring Required
			Temperature	Unknown Dam or Impoundment	- No Monitoring Required
MA32-41	Moose Meadow Brook	Category 5	Fecal Coliform	Agriculture Grazing in Riparian or Shoreline Zones	- Fecal Coliform
			Escherichia coli	Agriculture Grazing in Riparian or Shoreline Zones	- Escherichia coli
MA32-09	Powdermill Brook	Category 5	Algae	Unknown	- Total Phosphorus
			Escherichia coli	Unknown Discharges from MS4	- Escherichia coli
			Turbidity	Unknown	- Turbidity - Total Suspended Solids
			Sedimentation/Siltation	Post-Development Erosion & Sedimentation Streambank Modification/Destabilization	- Total Suspended Solids
MA32012	Buck Pond	Category 5	Non-Native Aquatic Plants	Introduction of Non-Native Organisms	- No Monitoring Required
			Chlorophyll-a	Unknown	- Total



Segment ID	Name	Impairment Category Classification	Impairment Cause*	Impairment Source	Pollutant of Concern Sampling Requirements
					Phosphorus
			Dissolved Oxygen	Unknown	- Dissolved Oxygen
MA32043	Horse Pond	Category 5	Non-Native Aquatic Plants	Introduction of Non-Native Organisms	- No Monitoring Required
			Chlorophyll-a	Unknown	- Total Phosphorus
			Dissolved Oxygen	Unknown	- Dissolved Oxygen
			Eurasian Water Milfoil, Myriophyllum spicatum	Introduction of Non-Native Organisms	- No Monitoring Required
MA32055	Pequot Pond	Category 5	Total Phosphorus	Unknown	- Total Phosphorus
			Dissolved Oxygen	Unknown	- Dissolved Oxygen - Total Phosphorus - Temperature - BOD5
			Curly-leaf Pondweed	Introduction of Non-Native Organisms	- No Monitoring Required
			Water Chestnut	Introduction of Non-Native Organisms	- No Monitoring Required
			Non-Native Aquatic Plants	Introduction of Non-Native Organisms	- No Monitoring Required
			Chlorophyll-a	Unknown	- Total



Segment ID	Name	Impairment Category Classification	Impairment Cause*	Impairment Source	Pollutant of Concern Sampling Requirements
					Phosphorus
			Enterococcus	Discharges from MS4	- Enterococcus
			Eurasian Water Milfoil, Myriophyllum spicatum	Introduction of Non-Native Organisms	- No Monitoring Required
MA32-25	Great Brook	Category 5	Escherichia coli	Discharges from MS4	- Escherichia coli
			Temperature	Unknown	- No Monitoring Required
MA32-58	Arm Brook	Category 5	Temperature	Unknown	- No Monitoring Required
MA32-59	Munn Brook	Category 5	Escherichia coli	Unknown	- Escherichia coli
Waterbodies tributary to the Connecticut River via Southamptton/Easthampton:					
MA34-11	Manhan River	Category 5	Escherichia coli	Unknown	- Escherichia coli
			Water Chestnut	Introduction of Non-Native Organisms	- No Monitoring Required

*Note: Items in grey, italicized font may require consultation from MassDEP, per Appendix G of 2016 MS4 General Permit

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.

1.2.2 Surface Public Drinking Water Supplies

The City of Westfield has no surface public drinking water supply sources or surface water supply watersheds within its City boundary, according to available MassGIS data. A list of all known waterbody segments that receive discharge from Westfield’s MS4 is included in the City’s MS4 General Permit Notice of Intent (NOI) submission to the EPA dated September 5, 2018, which can be accessed on the EPA’s website. As detailed in the NOI, there are no known direct discharges to public surface drinking water supplies. Any updates to the waterbody segments receiving discharge from Westfield’s MS4 will be included in future revisions of this document, if necessary.



1.2.3 Increased Discharges

The City of Westfield 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 List of Waters report 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 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 have been included in the BMPs outlined in Section 1.1 of this SWMP.

If necessary, the City of Westfield 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 ELIGIBILITY DETERMINATIONS

Consistent with Part 1.9 of the 2016 MS4 General Permit, the City of Westfield has completed an assessment of both Endangered Species and Historic Properties. The Information, Planning, and Conservation (IPaC) online system process was completed and the Northern Long-Eared Bat and the Small Whorled Pogonia were identified in Westfield. However, since the action area does not contain one or more of the species listed in Appendix C, Part B, Step 2 for determination of Criterion B, and discharges from the City's MS4 are not likely to adversely affect the Northern Long-Eared Bat or Small Whorled Pogonia habitats, Criterion C is applicable. Therefore, the stormwater discharges and discharge-related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the United States Fish and Wildlife Service (USFWS).

Appendix D of the MS4 General Permit was consulted for guidance regarding the National Historic Preservation Act. It was determined that Criterion A is applicable: The discharges authorized under this Permit do not have the potential to cause effects to historic properties.

If, during the course of Permit implementation, the City 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

Entities covered under the MS4 General Permit are required to collect and report information about the development and implementation of their SWMP. The City of Westfield conducts annual evaluations of its program compliance, the appropriateness of its identified BMPs, progress towards meeting new Permit requirements, and progress towards achieving its identified measurable goals, which include reducing the discharge of pollutants to the maximum extent practicable (MEP).

The City of Westfield will keep records required by the MS4 General Permit for at least five (5) years after they are generated. Records include, but are not limited to: information used in the development of written (hardcopy or electronic) program required by this Permit, 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 NOI, SWMP, SWPPP, and annual reports. Records will be available for public observation upon request. 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 reports shall include the following content:

- 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/interconnection/catchment 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 BMP.

Annual reports are made available for public access on the City's and the EPA's website.

1.5 RESPONSIBLE PARTIES FOR STORMWATER PROGRAM IMPLEMENTATION

Title/ Position of Responsible Person	Name of Responsible Person	Role/Program Element(s)
Interim Public Works Director	Francis Cain	Staffing and Budgeting



Title/ Position of Responsible Person	Name of Responsible Person	Role/Program Element(s)
Stormwater Coordinator	Noel Lioce	MCM 1, 2, 3, 6 (non-operations BMPs), and all TMDL and Impaired Water Provisions
Deputy Superintendent Public Works	Casey Berube	Catch Basin Cleaning, Street Sweeping, Winter Operations
City Engineer	Allison McMordie	Site Plan Review (MCM 4 and 5)
Assistant Director of Planning & Development	Jay Vinskey	MCM 4 and 5



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

The MS4 General 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 this SWMP and the following documents can be found at the Westfield Department of Public Works, as detailed in the sections below.

2.1 IDDE PROGRAM

2.1.1 IDDE Program Manual

The City of Westfield has developed a written IDDE Program Manual consistent with the requirements of Part 2.3.4.6 of the MS4 General Permit. The IDDE Program 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
- Training resources and modules

The IDDE Program Manual can be found at the Department of Public Works.

2.1.2 Separate Storm Sewer System Map

The City of Westfield has developed a Separate Stormwater Sewer System Map, and an Impaired Waters Map consistent with the requirements of Part 2.3.4.5.a of the MS4 General Permit. The maps, provided in Appendix A and Appendix C, include 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 most recent Massachusetts Integrated List of Waters report



- Initial catchment delineations
- Regulated urbanized area
- Drain pipes, manholes and catch basins

The map will be updated annually and/or upon receipt of new information relating to the MS4 drainage network. A web-based interactive version of this map can be found on the City of Westfield website at this link: <https://www.cityofwestfield.org/157/GIS>

2.1.3 SSO Inventory

The City of Westfield has developed a Sanitary Sewer Overflow Inventory consistent with the requirements of Part 2.3.4.4 of the MS4 General Permit. The inventory can be found at the Department of Public Works.

2.1.4 Receiving Waterbodies

Consistent with the requirements of Part 1.10.2 of the MS4 General Permit, a list of all known waterbody segments that receive discharges from the City of Westfield's MS4 is provided in Table 1-1. The City's MS4 General Permit NOI submission to the EPA dated September 5, 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.

2.1.5 Interconnected Separate Storm Sewer Systems

Consistent with 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 City of Westfield'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 A.

2.2 CONSTRUCTION AND POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

2.2.1 Site Plan Review, Site Inspection, and Erosion & Sediment Control Procedures

Consistent with the requirements of Part 2.3.5 of the MS4 General Permit, the City of Westfield has developed written procedures for site plan review, site inspections, and enforcement of sediment and erosion control measures. These procedures are detailed in the City's Land Development Program Manual, which can be accessed at the Department of Public Works.



2.2.2 New Development/Redevelopment Ordinance

Consistent with the requirements of Part 2.3.6.a.iii of the MS4 General Permit, the City of Westfield has developed a regulatory mechanism to require submission of as-built drawings and ensure long-term operation and maintenance of post-construction stormwater BMPs. The ordinance can be found on the City of Westfield website at [Municode Library – Chapter 16, Article II, Division 4](#).

2.2.3 Street Design and Parking Lot Report

Consistent with the requirement of Parts 2.3.6.b and 2.3.6.c of the MS4 General Permit, the City of Westfield developed a Code Assessment Report in PY5 with a section assessing current street design and parking lot guidelines and other code requirements to ensure that the creation of impervious cover is minimized and that innovative stormwater management is not constrained by local code. A copy of this report is available at the Department of Public Works. The City plans to initiate implementation of the recommended updates to their regulations during PY6.

2.2.4 Green Infrastructure Report

Consistent with the requirements of Part 2.3.6.c of the MS4 General Permit, the City of Westfield developed a Code Assessment Report in PY5 with a section assessing how local regulations affect the ability of development projects to include green infrastructure practices such as infiltration systems (e.g. green roofs, rain gardens, curb extensions, planter gardens, and pervious pavement/concrete/pavers) and water harvesting devices (e.g. rain barrels and cisterns) that promote use of stormwater for non-potable uses. This report can be found at the Department of Public Works. The City plans to initiate implementation of the recommended updates to their regulations during PY8.

2.2.5 Retrofit Properties Inventory

Consistent with the requirements of Part 2.3.6.d of the MS4 General Permit, the City of Westfield has developed a report assessing the City's existing stormwater BMPs, identifying sites where impervious areas can be reduced, and assessing the likelihood and potential impacts of completing such retrofits. The inventory can be found at the Department of Public Works. The City identified seven (7) Permittee-owned properties that could be modified or retrofitted with BMPs to mitigate the effects of impervious areas.

2.3 MUNICIPAL FACILITIES AND OPERATIONS PROGRAMS

2.3.1 Clean Water Best Practices Manual

The City of Westfield has developed a Clean Water Best Practices (CWBP) Manual consistent with the requirements of Part 2.3.7.a.ii of the MS4 General Permit. The objectives of the CWBP Manual are to provide a general guidance document to the City detailing ways to reduce stormwater-transported pollution during typical activities on municipally-owned properties and to promote behavior that will improve water quality in the City of Westfield. The



manual includes general best practices for managing the following assets:

- Parks and open space
- Vehicles and equipment
- Buildings and facilities
- MS4 infrastructure

The CWBP Manual can be accessed at the Department of Public Works.

2.3.2 Municipal Facility Inventory

The City of Westfield has developed a Municipal Facility Inventory 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 (such as schools, city offices, fire stations, garages, etc.)
- Vehicle and equipment storage areas

The Municipal Facility Inventory is located in Appendix A of the CWBP Manual, which can be accessed at the Department of Public Works.

2.3.3 O&M Standard Operating Procedures

The City of Westfield 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 City-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 are located in Appendix B of the CWBP Manual, which can be accessed at the Department of Public Works.



2.3.4 Stormwater Pollution Prevention Plans

The City of Westfield has developed written Stormwater Pollution Prevention Plans (SWPPPs) for the Twiss Street Transfer Station and 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 City also maintains a SWPPP for the Westfield-Barnes Regional Airport under the Multi-Sector General Permit. All SWPPPs can be accessed at the Department of Public Works.



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 SYSTEM MAP

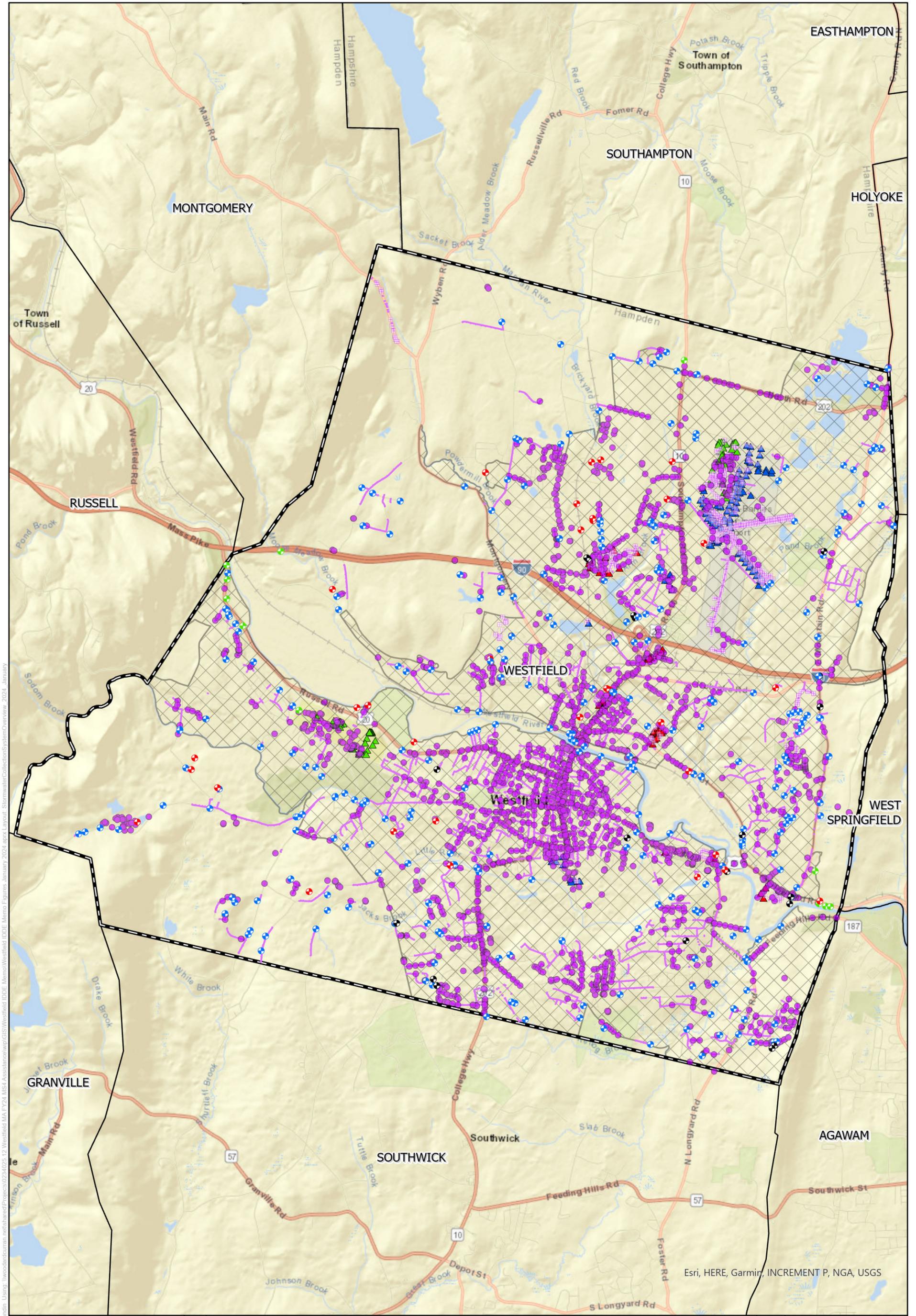


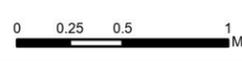
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Stormwater Collection System Overview

City of Westfield, MA

Legend

- | | | | |
|---|--|--|---|
| <p>Outfall</p> <p>Ownership</p> <ul style="list-style-type: none"> ● City ● State ● Private ● Other | <ul style="list-style-type: none"> ● Stormwater Manhole Stormwater Catch Basin — Stormwater Drain Pipe | <p>Stormwater BMP</p> <p>Owner</p> <ul style="list-style-type: none"> ▲ City ▲ Private ▲ State | <ul style="list-style-type: none"> Urban Areas - US Census 2020 Westfield Boundary Town Boundaries |
|---|--|--|---|



Map Created: January 2024

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: ESRI GIS, MassGIS, US Census, Westfield MA



APPENDIX B: SPECIAL ELIGIBILITY DETERMINATION LETTERS



CITY OF WESTFIELD, MASSACHUSETTS

Department of Public Works

28 Sackett Street, Westfield, MA 01085-3572

(413) 572-6243

David Billips, Director

Francis Cain, Assistant Director

August 8, 2018

Newton Tedder
US Environmental Protection Agency
Stormwater and Construction Permits Section (OEP06-1)
Five Post Office Square, Suite 100
Boston, MA 02109

Re: Endangered Species Determination for Westfield, MA Associated with the MA MS4 General Permit

Dear Mr. Tedder:

The City of Westfield, MA is a non-federal representative designated by the Environmental Protection Agency (EPA) for conducting formal or informal consultation with the U.S. Fish and Wildlife Service.

I have evaluated the United States Fish & Wildlife Service iPAC Biological and Conservation Data System files in response to new regulation promulgation under the 2016 Massachusetts Municipal Separate Sewer System (MS4) General Permit. The objective of this review is to determine the presence of endangered or threatened species within the program implementation area in Westfield, MA.

Our review evaluated the area of impact of required program activities, analysis of these program activity areas within the iPAC database, examining maps, other sources of information, and the personal knowledge of staff or cooperating experts.

According to the information currently in the iPAC database, there are two threatened species within the proposed project area (Small Whorled Pogonia and Northern Long-Eared Bat) and no critical habitat. Please see Attachment 1 as the official species list.

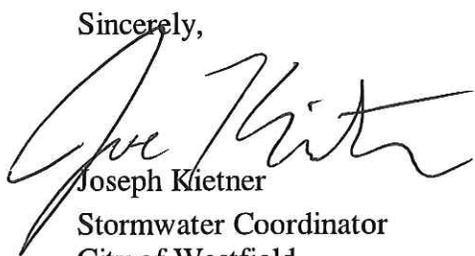
The proposed stormwater program activities are a continuation of previous permitted activities and include non-structural management of stormwater runoff as required by the MA MS4 General Permit. These activities will include education, investigation, and pollutant source control on existing municipal facilities and roadways and will not disturb terrestrial vegetation. Both listed species are sensitive to land disturbance and as the program implementation will not disturb vegetation we have therefore determined that our programmatic activities will have “no affect” on the listed species.

If during the course of the permit term we plan to install structural stormwater treatment practices or engage in other land disturbing activities as a result of compliance with the MS4 General Permit, the City of Westfield will initiate further informal or formal consultation with the USFWS.

Based on this review and an evaluation of determination requirements outlined in Appendix C of the MA MS4 General Permit, we have determined that we meet Criterion C. We request EPA's concurrence of this determination for inclusion in our Stormwater Management Program Plan.

Please do not hesitate to contact me if you have further questions about Westfield's stormwater management program.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Kietner", written over the printed name.

Joseph Kietner
Stormwater Coordinator
City of Westfield
413-642-9398
Joseph.Kietner@cityofwestfield.org



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

August 08, 2018

Consultation Code: 05E1NE00-2017-SLI-0735

Event Code: 05E1NE00-2018-E-06198

Project Name: Westfield Massachusetts Stormwater Discharges

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2017-SLI-0735

Event Code: 05E1NE00-2018-E-06198

Project Name: Westfield Massachusetts Stormwater Discharges

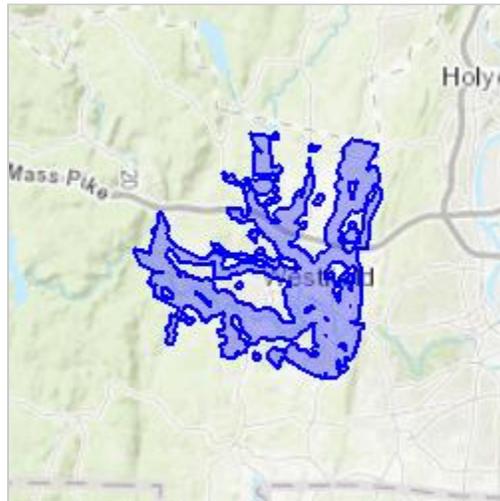
Project Type: Regulation Promulgation

Project Description: The project includes non-structural management of stormwater runoff as required by the MA MS4 General Permit. These activities will almost entirely include pollutant source control on existing municipal facilities and roadways. If during the course of the permit term we plan to install structural stormwater treatment practices, the City of Westfield will initiate informal or formal consultation with the USFWS as necessary.

The project area was defined based on municipal stormwater discharge (aka outfalls) locations and a buffer around mapped local hydrography. This polygon was clipped to the regulated urbanized area and resulted in an action area of approximately 13,000 acres.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.13421248298066N72.78981655320234W>



Counties: Hampden, MA | Hampshire, MA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Flowering Plants

NAME	STATUS
Small Whorled Pogonia <i>Isotria medeoloides</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened

Critical habitats

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



CITY OF WESTFIELD, MASSACHUSETTS

Department of Public Works

28 Sackett Street, Westfield, MA 01085-3572

(413) 572-6243

David Billips, Director

Francis Cain, Assistant Director

Newton Tedder
US Environmental Protection Agency
Stormwater and Construction Permits Section (OEP06-1)
Five Post Office Square, Suite 100
Boston, MA 02109

The City of Westfield (MS4 permittee) has determined that the discharges regulated under this permit do not have the potential to cause effects on National Register of Historic Properties.

The implementation of this Stormwater Management Plan (SWMP) will require development of standards of practice, compliance documentation, investigation and operations of existing drainage facilities, local regulatory policies and other studies. The SWMP does not obligate the City of Westfield to undertake any activity involving subsurface land disturbance and program implementation will only take place on existing municipal separate storm sewer systems that have been previously authorized for coverage under the MS4 General Permit.

Westfield has 12 historical sites that are listed on the National Register of Historic Places.

- o [Landlord Fowler, Tavern - 171 Main Street](#)
- o [State Normal School - Westfield Municipal Building - 59 Court Street](#)
- o [State Normal Training School - Washington Street](#)
- o [Van Deusen, H.M. Whip Company - 42 Arnold Street](#)
- o [Watson-Steiger-Loomis Octagon House - 28 King Street](#)
- o [Westfield Whip Manufacturing Company - 360 Elm Street](#)
- o [Old Burying Ground - Mechanic Street](#)
- o [United States Whip Company Complex - 24 Main Street](#)
- o [Dewey House - 87 South Maple Street](#)
- o [Prospect Hill School - 33 Montgomery Street](#)
- o [Sanford Whip Factory - 330 Elm Street](#)
- o Westfield Business District

If during the course of MS4 General Permit program implementation, the City of Westfield anticipates subsurface land disturbance as a result of this General Permit, the City will prepare a complete information submittal to the State Historic Preservation Office.

Sincerely,


Joseph Kietner
Stormwater Coordinator

City of Westfield

413-642-9398

Joseph.Kietner@cityofwestfield.org



APPENDIX C: IMPAIRED WATERS AND SPECIAL RESOURCE WATERS

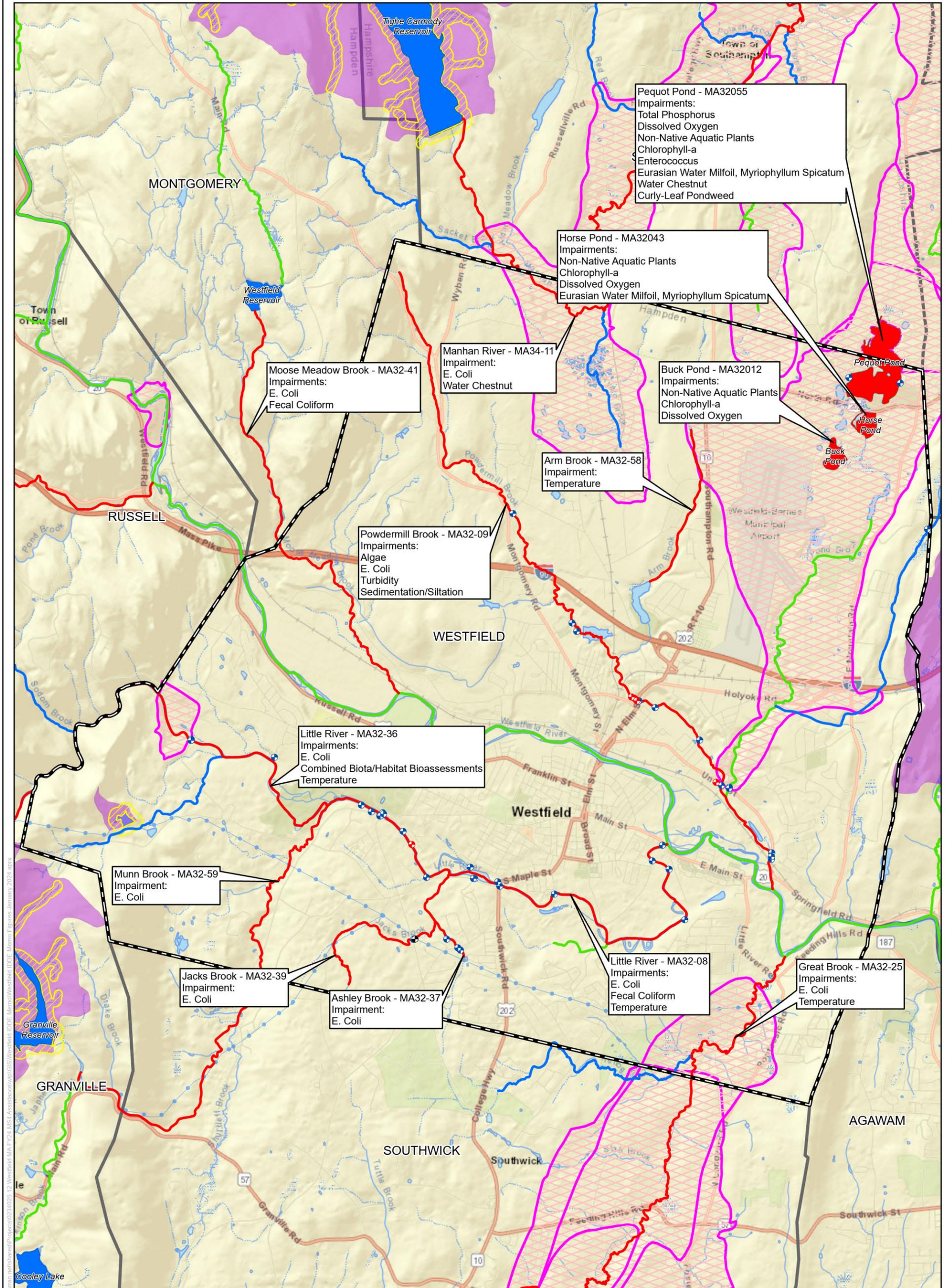


Figure Exported: 1/29/2024 By: N.Landin Using: \\woodardcurran.net\shared\Projects\02340295_12 Westfield MA FY24 MSA Assistance\GIS\Westfield IDDE Memo\Westfield IDDE Memo Figures January 2024.aprx

City of Westfield Water Resources

City of Westfield, MA

- Outfalls with Direct Discharge to Impaired Waters**
- Owner**
- City of Westfield
 - Private
 - Other
- Legend**
- Outstanding Resource Waters
 - ZONE A
 - DEP Approved Zone II
 - Westfield Boundary

- 2022 Integrated List Data - 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



N

Woodard & Curran

Map Created: January 2024

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: ESRI GIS, MassGIS, Westfield MA



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, City, 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).

Urban Area – A US Census designated area that represents densely developed territory, and encompasses residential, commercial, and other nonresidential urban land uses. Each urban area must encompass at least 2,000 housing units or at least 5,000 people.

Urban Area with a Population of at least 50,000 – Based on the 2020 Census.



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)
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
MCM – Minimum Control Measure
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
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



APPENDIX E: REVISION LOG



Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning
00	8/23/2018	--	--
01	6/30/2020	1.2.1	Note added to address how the approved 2016 Massachusetts List of Integrated Waters will be incorporated into this SWMP; struck Powdermill Brook, Buck Pond, and Horse Pond from Total Phosphorus related impairments due to impairments being removed from 2016 Massachusetts List of Integrated Waters
		1.2.2	Revised language to reflect that receiving waterbodies are listed in the City's MS4 General Permit NOI submission to the EPA
		2.1.3	Revised language to reflect that the City has developed an SSO Inventory
		2.1.4	Revised language to reflect that receiving waterbodies are listed in the City's MS4 General Permit NOI submission to the EPA
		2.2.1	Revised language to reflect that a Land Development Program Manual has been completed
		2.2.4	NEW SECTION: Added language to reflect that the City will develop a Green Infrastructure Report in PY4
		2.2.5	NEW SECTION: Added language to reflect that the City will develop a Retrofit Properties Inventory in PY4
		2.3.1	NEW SECTION: Added language to reflect that the City has developed a Clean Water Best Practices Manual
		2.3.2	Revised language to reflect that a Municipal Facility Inventory has been completed
		2.3.3	Revised language to reflect that an O&M Program Plan has been completed
		2.3.4	NEW SECTION: Added Language to reflect that the City has developed SWPPPs for its Transfer Station and Department of Public Works
		Appendix A	Revised Separate Storm Sewer Map
02	6/22/2021	1.1	Revised BMP 5.2 language to reflect MS4 General Permit modifications effective January 6, 2021
		1.2.1	Revised section text and Table 1-1 to reflect any changes between the MassDEP's 2014 and 2016 Integrated List of Waters
		1.5	Revised Responsible Parties for Stormwater Program Implementation table
		Appendix A	Revised Separate Storm Sewer Map
		Appendix C	Revised Impaired Waters and Special Resource Waters Map
03	6/24/2022	1.2.1	Revised section text and Table 1-1 to reflect any changes between the MassDEP's 2016 and 2018/2020 Integrated List of Waters
		Appendix A	Revised Separate Storm Sewer Map
		Appendix C	Revised Impaired Waters and Special Resource Waters Map



Revision No.	Revision Date	Section of SWMP	Revision(s) Made/Reasoning
04	6/14/2023	2.2.3	Revised language to reflect that a Street Design and Parking Lot Report has been completed
		2.2.4	Revised language to reflect that a Green Infrastructure Report has been completed
		2.2.5	Revised language to reflect that a Retrofit Properties Inventory has been completed
		Appendix A	Revised Separate Storm Sewer Map per IDDE field investigation
		Appendix C	Revised Impaired Waters and Special Resource Waters Map
05	06/21/2024	1.2.1	Revised section text and Table 1-1 to reflect any changes between the MassDEP's 2018/2020 and 2022 Integrated List of Waters; updated education and outreach requirements related to bacteria/pathogen impairments throughout the report accordingly
		2.2.3	Revised language to reflect that regulation updates will be pursued in PY7
		2.2.4	Revised language to reflect that regulation updates will be pursued in PY7
		2.2.5	Revised language to reflect that the City implemented a stormwater retrofit project in PY6
		Appendix A	Revised Separate Storm Sewer System Map
		Appendix C	Revised Impaired Waters and Special Resource Waters Map
06	05/2/2025	1.5	Revised list of responsible parties for stormwater program implementation to reflect staffing changes
		2.2.4	Revised language to reflect that regulation updates will be pursued in PY8
		2.2.5	Removed reference to Falcon Drive SCM
		Appendix D	Updated urbanized area determination language per the June 2023 Final Rule (Urban Area Maps for NPDES MS4 Phase II Stormwater Permits US EPA)