

Stormwater Management Program (SWMP)

City of Methuen

41 Pleasant Street MA 01844

EPA NPDES Permit Number MA041210

This Stormwater Management Plan is based on the EPA's Template and is designed to be updated annually based on the progress of the Town's Stormwater Management Program. Tighe & Bond has added language and information and made minor adjustments to the template based on our best professional judgement. Page numbers have not been noted in the Table of Contents below because they will change annually.

FY 2019-2024 Small MS4 Permit 5-Year Workplan

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Town of Methuen
FY2019-2023 Small MS4 Permit 5-Year Workplan

A hardcopy version of this Workplan may be retained by the Town and contain the most up-to-date documentation of completed requirements

FY19 Permit Year 1 May 2018 - June 2019	FY20 Permit Year 2 July 2019 - June 2020	FY21 Permit Year 3 July 2020 - June 2021	FY22 Permit Year 4 July 2021 - June 2022	FY23 Permit Year 5 July 2022 - June 2023		
Reporting	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Notice of Intent	Oct. 1, 2018	<input checked="" type="checkbox"/>				
Annual Report	Annually by Sept 30		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepare Stormwater Management Plan	June 30, 2019 and update annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MCM 1: Public Education	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Message to residents on stormwater topics of significance.	Distribute two messages spaced at least one year apart by 2023. Target to distribute in PY1 and PY3 per NOI.	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Message to businesses , institutions and commercial facilities on stormwater topics of significance.	Distribute two messages spaced at least one year apart by 2023. Target to distribute in PY2 and PY4 per NOI.	<input checked="" type="checkbox"/>		<input type="checkbox"/>		
Message to developers on stormwater topics of significance.	Distribute two messages spaced at least one year apart by 2023. Target to distribute in PY1 and PY3 per NOI.		<input type="checkbox"/>			<input type="checkbox"/>
Message to industrial facilities on stormwater topics of significance.	Distribute two messages spaced at least one year apart by 2023. Target to distribute in PY2 and PY4 per NOI.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	

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MCM 2: Public Participation	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Comply with State Public Notice Requirement (MGL Ch 30A, Sections 18-25) for all public involvement and participation	Ongoing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide an opportunity to participate in SWMP review and implementation	Annually by June 30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide opportunities for public involvement and participation in Methuen's stormwater program	Ongoing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Make annual reports and SWMP available to the public	Ongoing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MCM 3: Illicit Discharge Detection and Elimination	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Adopt bylaw prohibiting illicit discharges and authorizing investigation, repair and enforcement	Due on May 1, 2008 as part of 2008 Permit	<input type="checkbox"/>				
Identify all known SSOs that occurred during the last five years	June 30, 2019 and update annually thereafter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notify EPA / MassDEP of SSO orally in 24 hrs and in writing in 5 days	Ongoing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notify responsible party immediately on identification of illicit discharge or illegal connection	Ongoing, as needed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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MCM 3: Illicit Discharge Detection and Elimination (cont.)	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Eliminate known illicit or set expeditious schedule in 60 days	Ongoing, as needed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outfall / interconnection inventory and ranking	June 30, 2019 and update annually thereafter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written IDDE Program document, including statement of responsibilities and written outfall screening and sampling procedure	June 30, 2019	<input type="checkbox"/>				
Written catchment investigation procedure	Dec. 30, 2019		<input type="checkbox"/>			
Annually train IDDE staff	Annually by June 30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dry weather outfall and interconnection screening	June 30, 2021			<input type="checkbox"/>		
Investigation of problem catchments must begin, including wet weather screening	June 30, 2020		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finish "Phase I" system mapping requirements - outfalls and receiving waters - open channel conveyances - interconnections with other MS4s - municipally-owned treatment structures - initial catchment delineations	June 30, 2020		<input type="checkbox"/>			

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MCM 3: Illicit Discharge Detection and Elimination (cont.)	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Update system map with available "Phase II" information (see permit for detailed list)	Annually after Phase I mapping is completed			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MCM 4: Construction Site Erosion & Sedimentation	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Bylaw for sediment, erosion, debris, litter and sanitary waste	Due on May 1, 2008 as part of 2008 Permit	<input type="checkbox"/>				
Written procedure for site plan review/inspection/ enforcement	June 30, 2019	<input type="checkbox"/>				
MCM 5: New Development and Redevelopment	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Bylaw meeting 2003 post-construction requirements	Due on May 1, 2008 as part of 2008 Permit	<input type="checkbox"/>				
Update post-construction stormwater bylaw (see permit for detailed list)	June 30, 2020		<input type="checkbox"/>			
Report evaluating street design, parking guidelines and related rules	June 30, 2022 and updated annually thereafter				<input type="checkbox"/>	<input type="checkbox"/>
Report evaluating allowing green roofs, infiltration, rain harvesting	June 30, 2022				<input type="checkbox"/>	
Identify/rank five or more existing permittee-owned sites that could be retrofitted with structural BMPs	June 30, 2022 and updated annually thereafter				<input type="checkbox"/>	<input type="checkbox"/>

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MCM 6: Good Housekeeping	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Inventory permittee-owned parks/open space, buildings/facilities and vehicles/equipment	June 30, 2020 and update annually thereafter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Initial catch basin optimization plan	June 30, 2019	<input type="checkbox"/>				
Written O&M procedures for parks, buildings, facilities, vehicles and equipment, and infrastructure operations and maintenance (i.e., street sweeping, catch basin cleaning, winter road maintenance and stormwater treatment structure inspections)	June 30, 2020 and update annually thereafter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clean catch basins per plan	Annually by June 30 beginning in Permit Year 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sweep streets at a minimum once per year. Increase sweeping frequency of all municipal owned streets and parking lots with potential for high pollutant loads.	Annually by June 30 beginning in Permit Year 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspect all municipally owned mapped stormwater treatment structures (excluding catch basins)	Annually by June 30 beginning in Permit Year 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implement winter road maintenance program including road salt use optimization.	Implement every winter beginning in Permit Year 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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MCM 6: Good Housekeeping (cont.)	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Develop and implement a written SWPPP for permittee-owned or operated facilities	Develop by June 30, 2020 and implement continuously thereafter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cover or enclose salt piles	June 30, 2020 and implement continuously thereafter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Merrimack River Phosphorus Impairment	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Distribute annual messages that encourage proper use and disposal of yard waste and use of slow-release and phosphorus-free fertilizer	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distribute annual message that encourages proper management of pet waste	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adopt/Amend Post-Construction Regulations	June 30, 2020		<input type="checkbox"/>			
Complete Phosphorus Source ID Report	June 30, 2022				<input type="checkbox"/>	

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Bacteria Impairments to Bare Meadow Brook, Bartlett Brook, Merrimack River, and Spicket River	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Implement IDDE program, consider catchments that discharge to bacteria or pathogen impaired water bodies	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Include pet waste and, as applicable, septic system maintenance information in education program	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spicket River and Bare Meadow Brook Metals and Solids Impairment	Deadline	FY19 Permit Year 1	FY20 Permit Year 2	FY21 Permit Year 3	FY22 Permit Year 4	FY23 Permit Year 5
Increase street sweeping frequency for all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads	Annually	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rank outfalls to the Spicket River and Bare Meadow Brook as high priority for IDDE implementation in the initial ranking	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; clean catch basins frequently if inspection and maintenance activities indicate excessive sediment or debris loadings	Annually	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Certification

Authorized Representative (Optional): All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B. If there is an authorized representative to sign MS4 reports, there must be a signed and dated written authorization.

The authorization letter is:

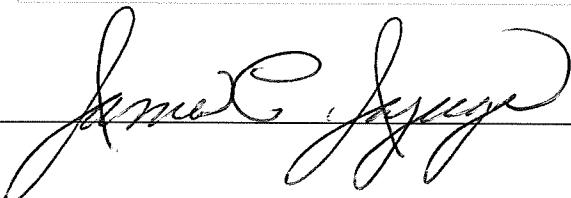
Attached to this document (document name listed below)

Publicly available at the website below

“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.”

Printed Name James P. Jajuga, Mayor

Signature



Date

 10/3/19

[Click Here for Revisions](#)

Background

Stormwater Regulation

The Stormwater Phase II Final Rule was promulgated in 1999 and was the next step after the 1987 Phase I Rule in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Under the Phase II rule all MS4s with stormwater discharges from Census designated Urbanized Area are required to seek NPDES permit coverage for those stormwater discharges.

Permit Program Background

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule. The 2003 small MS4 permit covered "traditional" (i.e., cities and towns) and "non-traditional" (i.e., Federal and state agencies) MS4 Operators located in the states of Massachusetts and New Hampshire. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

Stormwater Management Program (SWMP)

The SWMP describes and details the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP accurately describes the permittees plans and activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified, changed or updated to meet permit conditions during the permit term. The main elements of the stormwater management program are (1) a public education program in order to affect public behavior causing stormwater pollution, (2) an opportunity for the public to participate and provide comments on the stormwater program (3) a program to effectively find and eliminate illicit discharges within the MS4 (4) a program to effectively control construction site stormwater discharges to the MS4 (5) a program to ensure that stormwater from development projects entering the MS4 is adequately controlled by the construction of stormwater controls, and (6) a good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized.

Town Specific MS4 Background (optional)

Attached in Appendix B.

Small MS4 Authorization

The NOI was submitted on September 28, 2018

The NOI can be found at the following (document name or web address):

<https://www.cityofmethuen.net/engineering/pages/stormwater-information>
Attachment A of this SWMP

Authorization to Discharge was granted on April 5, 2019

The Authorization Letter can be found (document name or web address):

<https://www3.epa.gov/region1/npdes/stormwater/ma/tms4noi/methuen-auth.pdf>
Attachment A of this SWMP

Stormwater Management Program Team

SWMP Team Coordinator

Name	Stephen Gagnon	Title	Engineering Department Administrator
Department	Engineering		
Phone Number	(978) 983-8550	Email	SJGagnon@ci.methuen.ma.us
Responsibilities	Manages the City of Methuen's Stormwater Management Program and compliance with the MS4 Permit. Responsible for staying up to date with EPA's guidance; communicating program requirements and schedule to the SWMP team; communicating budget and resource needs to City decision-makers with assistance from the SWMP team.		

SWMP Team

Name	Daryl Laurenza	Title	Acting Director of Public Works
Department	Public Works		
Phone Number	(978) 983-8545	Email	dlaurenza@ci.methuen.ma.us
Responsibilities	Oversees DPW Stormwater Operations and will facilitate implementation of the Good Housekeeping Program. This will require coordination with Schools, Facilities, Recreation, Senior Center, Police, Fire, and other City Departments.		

Name	Richard J D'Agostino	Title	City Solicitor
Department	Solicitor's Office		
Phone Number	(978) 983-8575	Email	
Responsibilities	Advise regarding development and adoption of changes to City Code for Illicit Discharges, Construction Site Runoff Control, and Post-Construction Stormwater Management.		

Name	Kathleen Bradley Colwell	Title	Director of Planning
Department	Office of Economic and Community Development		
Phone Number	(978) 983-8562	Email	KBColwell@ci.methuen.ma.us
Responsibilities	Assist with education and outreach on significant stormwater management topics, specially to developers and property owners. Participate in changes to City Code and regulations to meet		

Responsibilities	new MS4 requirements. Formalize written procedures for review of construction sites, construction and post-construction inspections, and enforcement procedures. Work with DPW and Conservation to improve work flow and develop tracking mechanism for City permitting and oversight of projects disturbing 1 acre or more.	
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Name	Joseph T. Giarrusso	Title	Conservation Officer
Department	Conservation Division		
Phone Number	(978) 983-8650	Email	jgiarrusso@ci.methuen.ma.us

Responsibilities	Assist with education and outreach on significant stormwater management topics, specially to developers and property owners. Participate in changes to City Code and regulations to meet new MS4 requirements. Formalize written procedures for review of construction sites, construction and post-construction inspections, and enforcement procedures. Work with DPW and Planning to improve work flow and develop tracking mechanism for City permitting and oversight of projects disturbing 1 acre or more.		
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Name	Joe Cosgrove	Title	Environmental Planner/Energy Manager
Department	Planning		
Phone Number	(978) 983-8545	Email	
Responsibilities	Assist with education and outreach on significant stormwater management topics. Participate in changes to City Code and regulations to meet new MS4 requirements. Advise regarding regional opportunities for collaboration and funding.		

Name	Bruce Stella	Title	Facilities Manager
Department	Facilities		
Phone Number	(978) 722-6006	Email	bestella@methuen.k12.ma.us
Responsibilities	Works with DPW to develop and implement the Good Housekeeping program for City buildings.		

[Add SWMP Member](#)

Receiving Waters

The following table lists all receiving waters, impairments and number of outfalls discharging to each waterbody segment.

OR

The information can be found in the following document or at the following web address:

City Stormwater Info Page: <https://www.cityofmethuen.net/engineering/pages/stormwater-information> (See NOI also in Appendix A)

Click here to lengthen table

Eligibility: Endangered Species and Historic Properties

*Reminder: The proper consultations and updates to the SWMP must be conducted for construction projects related to your permit compliance where Construction General Permit (CGP) coverage, which requires its own endangered species and history preservation determination, is NOT being obtained.

Attachments:

- The results of Appendix C U.S. Fish and Wildlife Service endangered species screening determination
- The results of the Appendix D historic property screening investigations
- If applicable, any documents from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other Tribal representative to mitigate effects

These attachments are required within one year of the permit effective date and are:

- Attached to this document (document names listed below)

Endangered Species Act Eligibility Certification attached in Appendix C and National Historic Preservation Act Certification attached in Appendix D.

- Publicly available at the website listed below

Under what criterion did permittee determine eligibility for ESA?

- Criterion A
- Criterion B
- Criterion C

Under what criterion did permittee determine eligibility for Historic Properties?

- Criterion A
- Criterion B
- Criterion C

Below add any additional measures for structural controls that you're required to do through consultation with U.S. Fish and Wildlife Service (if applicable):

Not applicable.

Below add any additional measures taken to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO or THPO (if applicable):

Not applicable.

MCM 1

Public Education and Outreach

Permit Part 2.3.2

Objective: The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that the pollutants in stormwater are reduced.

Examples and Templates:

[EPA's Stormwater Education Toolbox](#)

[MassDEP's Stormwater Outreach Materials](#)

Other templates relevant to MCM 1 can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#peo>

BMP:Multi-media Public Education and Outreach

BMP Number (Optional) 1A

Document Name and/or Web Address: Stormwater Webpage: <https://www.cityofmethuen.net/engineering/pages/stormwater-information>
Annual Report Link: <https://www.cityofmethuen.net/water-department>

Description:

Education and outreach on stormwater management using multi-media methods including info on the City website, a stormwater write up in the Annual Drinking Water Quality Report and print materials. The City shall consider the following topics when developing educational messages and focus on topics relevant to the City of Methuen: effects of lawn care on water quality, benefits of on-site infiltration of stormwater, effects of automotive work and car washing on water quality and proper disposal of swimming pool water. The City is required to include proper pet waste management and septic maintenance in educational methods as part of the requirements of Appendix H of the permit for bacteria impairments. The City is also required to include use of phosphorus-free fertilizer and proper disposal of grass clippings and leaves in educational methods as part of the requirements of Appendix H of the permit for phosphorus impairments.

Targeted Audience: Residents

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Distribute a minimum of two (2) educational messages to residents spaced at least one year apart and supplement this message with an annual message on proper pet waste management. The City may also wish to measure results in more specific ways, like the percent of residents reached or changes in behaviors impacting stormwater management.

Message Date(s): 2018 (PY1), 2020 (PY3)

BMP: Multi-media Public Education and Outreach

BMP Number (Optional) 1B

Document Name and/or Web Address: <https://www.cityofmethuen.net/engineering/pages/stormwater-information>

Description:

Education and outreach on stormwater management using multi-media methods including web and print materials. The City shall consider the following topics when developing educational messages and focus on topics most relevant to the City of Methuen: proper lawn maintenance, benefits of on-site infiltration of stormwater, use of detergents in building maintenance, proper use and storage of salt or other de-icing and anti-icing materials, proper storage of materials, proper management of waste and dumpsters, proper management of parking lot surfaces, proper car care activities, and proper disposal of swimming pool water.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Distribute a minimum of two (2) educational messages to businesses, institutions, and commercial facilities spaced at least one year apart. The City may also wish to measure results in more specific ways, like the percent of businesses, institutions and commercial facilities reached or changes in behaviors impacting stormwater management.

Message Date(s): 2019 (PY2), 2021 (PY4)

BMP:Multi-media Public Education and Outreach

BMP Number (Optional) 1C

Document Name and/or Web Address: <https://www.cityofmethuen.net/engineering/pages/stormwater-information>

Description:

Education and outreach on stormwater management using multi-media methods including web and print materials. The City shall consider the following topics when developing educational messages and focus on topics most relevant to the City of Methuen: education about City Code related to stormwater, proper sediment and erosion control management practices, information about Low Impact Development (LID) principles and technologies, and information about EPA's construction general permit (CGP).

Targeted Audience: Developers (construction)

Responsible Department/Parties: Department of Public Works, Planning, Conservation

Measurable Goal(s):

Distribute a minimum of two (2) educational messages to developers spaced at least one year apart. The City may also wish to measure results in more specific ways, like the percent of developers reached or changes in behaviors impacting stormwater management. (e.g., reduced enforcement actions).

Message Date(s): 2018 (PY1), 2020 (PY2)

BMP:Multi-media Public Education and Outreach

BMP Number (Optional) 1D

Document Name and/or Web Address: <https://www.cityofmethuen.net/engineering/pages/stormwater-information>

Description:

Education and outreach on stormwater management using multi-media methods including web and print materials. The City shall consider the following topics when developing educational messages and focus on topics most relevant to the City of Methuen: equipment inspection and maintenance, proper storage of industrial materials, proper management and disposal of wastes, proper management of dumpsters,

minimization of use of salt or other de-icing/anti-icing materials, proper storage of salt or other de-icing/anti-icing materials, benefits of on-site infiltration of stormwater runoff from areas with low exposure to industrial materials, proper maintenance of parking lot surfaces, and requirements for coverage under EPA's Multi-Sector General Permit.

Targeted Audience: Industrial Facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Distribute a minimum of two (2) educational messages to industrial facilities spaced at least one year apart, the City may also wish to measure results in more specific ways, like the percent of industrial facilities reached or changes in behaviors impacting stormwater management.

Message Date(s): 2019 (PY2), 2021 (PY4)

BMP: [BMP name here]

BMP Number (Optional) _____

Document Name and/or Web Address: _____

Description: _____

Targeted Audience: Industrial facilities

Responsible Department/Parties: _____

Measurable Goal(s): _____

Message Date(s): _____

BMP: [BMP name here]

BMP Number (Optional) _____

Document Name and/or Web Address: _____

Description: _____

Targeted Audience: Industrial facilities

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

BMP:[BMP name here]

BMP Number (Optional)

Document Name and/or Web Address:

Description:

Targeted Audience: Residents

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

BMP:[BMP name here]

BMP Number (Optional)

Document Name and/or Web Address:

Description:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

Add BMP

MCM 2

Public Involvement and Participation

Permit Part 2.3.3

Objective: The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee's SWMP.

BMP: Public Review of Stormwater Management Program

BMP Number (Optional) 2A

Location of Plan and/or Web Address:

Responsible Department/Parties:

Measurable Goal(s):

Annually provide the public with an opportunity to participate in the review and implementation of the SWMP. Provide documents for review on the web.

BMP: Public Participation in Stormwater Management Program Development

BMP Number (Optional) 2B

Description:

Provide opportunities for public involvement and participation in Methuen's stormwater program. Specific activities may include cleanup events and yard waste collection. Provide documents for review on web. Support volunteer opportunities through Merrimack River Watershed Association and MVPC.

Responsible Department/Parties:

Measurable Goal(s):

Ongoing compliance and reporting of events and activities organized for public participation in the Annual Reports.

BMP: [BMP name here]

BMP Number (Optional)

Document Name and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

Add BMP

MCM 3

Illicit Discharge Detection and Elimination (IDDE) Program

Permit Part 2.3.4

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

Examples and Templates:
[IDDE Program Template and SOPs](#)

Other templates relevant to IDDE can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#idde>

BMP: IDDE Legal Authority

BMP Number (Optional) 3A

Completed (by May 1, 2008)

Ordinances Link or Reference: Illicit discharge enforcement has been done in the past through the Health Department or DPW. The City has drafted amendments to City Code Chapter 14, Sewers. This chapter more clearly address illicit discharges to the drainage system: <https://www.cityofmethuen.net/sites/methuenma/files/uploads/mmc32019.pdf>. This should be adopted as soon as possible with support from the City Solicitor.

Department Responsible for Enforcement: DPW

BMP: Sanitary Sewer Overflow (SSO) Inventory

BMP Number (Optional) 3B

Completed (by year 1)

Document Name and/or Web Address: Appendix G - Permit Year 1 Annual Report

Description:

Annually track and report the following SSO information: the location; a clear statement of whether the discharge entered a surface water directly or entered the MS4; the date(s) and time(s) of each known SSO occurrence; estimated volume(s) of the occurrence; description of the occurrence indicating known or suspected cause(s); mitigation and corrective measures completed with dates implemented; and mitigation and corrective measures planned with implementation schedules.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Develop an SSO inventory by June 30, 2019. Track number of SSOs identified and removed annually and update in Annual Reports.

SSO Reporting:

In the event of an overflow or bypass, a notification must be reported within 24 hours by phone to MassDEP, EPA, and other relevant parties. Follow up the verbal notification with a written report following MassDEP's Sanitary Sewer Overflow (SSO)/Bypass notification form within 5 calendar days of the time you become aware of the overflow, bypass, or backup.

The MassDEP contacts are:

Northeast Region (978) 694-3215
205B Lowell Street
Wilmington, MA 01887

The EPA contacts are:

EPA New England (617) 918-1510
5 Post Office Square
Boston, MA 02109

BMP: Map of Storm Sewer System

BMP Number (Optional) 3C

Phase I Completed
(by year 2)

Phase II Completed
(by year 10)

Document Location and/or Web Address: Appendix A - Initial Map with NOI. GIS will be up to date at DPW.

Description:

Create a map of the storm sewer system and update during IDDE program implementation. The map will include receiving waters, outfalls, interconnections, City-owned stormwater structures, catchment delineations, pipes, manholes and catch basins, among other features.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

By June 30, 2020, map 100% of 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, and initial catchment delineations within 2 years of the permit's effective date. By June 30, 2028, map 100% of outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer system (if available), and municipal combined sewer system (if applicable) within 10 years of the permit's effective date.

BMP: IDDE Program

BMP Number (Optional) 3D/3E1-3

Written Document Completed (by year 1)

Document Name and/or Web Address:

Description:

Create written IDDE program. Complete outfall/interconnection inventory and initial ranking, dry weather outfall screening and sampling, and catchment investigations.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Develop written IDDE program and complete outfall/interconnection and initial ranking. Update IDDE program, inventory and ranking as necessary. This was due by June 30, 2019 but was postponed due to lack of funding in Fiscal Year 2019. By June 30, 2021 conduct 100% of outfall screening on High and Low Priority Outfalls. By June 30, 2025 complete catchment investigations for 100% of the Problem Outfalls. By June 30, 2028, complete 100% of all catchment investigations. Track number of illicit discharges and volume removed.

The outfall/interconnection inventory and initial ranking and the dry weather outfall and interconnection screening and sampling results can be found:

Appendix G - Initial Ranking with Permit Year 1 Annual Report. For the priority ranking the following criteria were used:

- Within 500 feet of sewer pipes over 40 years
- Within 500 feet of the Merrimack River intake
- Proximity to an underdrain
- Proximity to an impaired waterbody with IDDE potential
- Historic IDDE issues from the CDM Smith Plan (9 streets)

There were not any Zone 1, 2, A, B, C or IWPA areas within Methuen.

BMP: Employee Training

BMP Number (Optional) 3F

Description:

Train employees on IDDE implementation.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Training occurs annually. Track employees trained, training topic, date/time, and materials presented. The Merrimack Valley Stormwater Collaborative (MVSC) occasionally conducts training workshops related to IDDE; attend when offered.

BMP:[BMP name here]

BMP Number (Optional) _____

Completed

Document Name and/or Web Address: _____

Description:

Responsible Department/Parties: _____

Measurable Goal(s):

Add BMP

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 and maintain sediment on site so that it is not transported in stormwater and allowed to discharge to a water of the U.S. through the permittee's MS4.

Examples and Templates:

Examples and templates relevant to MCM 4, including model ordinances and site inspection templates, can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#csrc>

BMP: Sediment and Erosion Control Ordinance

BMP Number (Optional) 4A _____

Completed (by May 1, 2008)

Ordinances Link or Reference: _____

Department Responsible for Enforcement:

Currently Planning, Conservation, and DPW review erosion and sediment control for nearly all projects disturbing 1 acre.

BMP: Site Plan Review Procedures

BMP Number (Optional) 4B _____

Written procedures completed (by year 1)

Document Name and/or Web Address: _____

Description:

Develop and implement written procedures for construction site plan review per Part 2.3.5 of the General Permit. This is contingent on the adoption of a new ordinance governing stormwater management and erosion control, which is still under development.

Responsible Department/Parties: DPW, Planning, Conservation

Measurable Goal(s):

Review current procedures and modify as soon as possible.

BMP: Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures

BMP Number (Optional) 4B _____

Completed (by year 1)

Document Name and/or Web Address: _____

Description:

Develop and implement written procedures for site inspections and enforcement procedures per Part 2.3.5 of the General Permit. This is contingent on the adoption of the ordinance governing stormwater management and erosion control, which is still under development.

Responsible Department/Parties: DPW, Planning, Conservation

Measurable Goal(s):

Review current procedures and modify if necessary by June 30, 2019. Develop work flow and tracking tool to be used by multiple City departments to track projects reviewed, site inspections, and enforcement actions.

BMP Number (Optional) _____

Completed

Document Name and/or Web Address: _____

Description: _____

Responsible Department/Parties: _____

Measurable Goal(s): _____

Add BMP

MCM 5

Post Construction Stormwater Management in New Development and Redevelopment

Permit Part 2.3.6

Objective: The objective of an effective post construction stormwater management program is to reduce the discharge of pollutants found in stormwater to the MS4 through the retention or treatment of stormwater after construction on new or redeveloped sites and to ensure proper maintenance of installed stormwater controls.

Examples and Templates:

Examples and templates relevant to MCM 5, including model ordinances and bylaw review templates and guidance can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#pcsm>

BMP: Post-Construction Ordinance

BMP Number (Optional) 5A

Completed (by year 2)

Town Ordinances Link or Reference:

Department Responsible for Enforcement:

Currently Planning, Conservation, and DPW review erosion and sediment control for nearly all projects disturbing 1 acre.

BMP: Street Design and Parking Lot Guidelines Report

BMP Number (Optional) 5B

Completed (by year 4)

Document Name and/or Web Address:

Description:

By June 30, 2022, develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if change to design standards for streets and parking lots can be modified to support low impact design options.

Responsible Department/Parties: Department of Public Works/Planning/Conservation

Measurable Goal(s):

Complete report no later than four (4) years of permit effective date.

BMP: Green Infrastructure Report

BMP Number (Optional) 5C

Completed (by year 4)

Document Name and/or Web Address:

Description:

By June 30, 2022, develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist.

Responsible Department/Parties: Department of Public Works/Planning/Conservation

Measurable Goal(s):

Complete report no later than four (4) years of permit effective date.

BMP: List of Municipal Retrofit Opportunities

BMP Number (Optional) 5D

Completed (by year 4)

Document Name and/or Web Address:

Description:

By June 30, 2022, conduct detailed inventory of City-owned properties and rank for retrofit potential. At a minimum, the City shall consider municipal properties with significant impervious cover that could be modified or retrofitted to reduce the frequency, volume, or pollutant loads of stormwater discharges.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Complete report no later than four (4) years of permit effective date. Beginning in year 5 keep running list of at least five (5) retrofit sites.

BMP:[BMP name here]

BMP Number (Optional)

Completed

Document Name and/or Web Address:

Description:

Responsible Department/Parties:

Measurable Goal(s):

Add BMP

MCM 6

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Permit Part 2.3.7

Objective: The permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.

Examples and Templates:

Examples and templates relevant to MCM 6, including SOP templates for catch basin cleaning, street sweeping, vehicle maintenance, parks and open space management, winter deicing, and Stormwater Pollution Prevention Plans can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#gh>

PERMITTEE OWNED FACILITIES

BMP: Parks and Open Spaces Operations and Maintenance Procedures

BMP Number (Optional) 6A

Written Document Completed (by year 2)

Document Name and/or Web Address: _____

Description:

By June 30, 2020, inventory and create O&M procedures for all permittee-owned parks and open spaces. This will require coordination with the Recreation Department.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Complete two (2) years after permit effective date, implement in following years.

Properties List (Optional): _____

BMP: Buildings and Facilities Operations and Maintenance Procedures

BMP Number (Optional) 6A

Written Document Completed (by year 2)

Document Name and/or Web Address: _____

Description:

By June 30, 2020, inventory and create O&M procedures for all permittee-owned buildings and facilities (including their storm drains). This will require coordination with Facilities, Schools, Police, Fire, and the Senior Center.

Responsible Department/Parties: Department of Public Works, Police, Fire, Schools, Senior Center, et al.

Measurable Goal(s):

Complete two (2) years after permit effective date, implement in following years.

Properties List (Optional): _____

BMP: Vehicles and Equipment Operations and Maintenance Procedures

BMP Number (Optional) 6A

Written Document Completed (by year 2)

Document Name and/or Web Address: _____

Description:

By June 30, 2020, inventory and create O&M procedures for all permittee-owned vehicles and equipment. This will require coordination with Police, Fire, DPW, and Schools.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Complete two (2) years after permit effective date, implement in following years.

Properties List (Optional): _____

INFRASTRUCTURE

BMP: Infrastructure Operations and Maintenance Procedures

BMP Number (Optional) 6B _____

Written Procedure Completed (by year 2)

Document Name and/or Web Address: _____

Description:

By June 30, 2020, establish and implement a program for repair and rehabilitation of MS4 infrastructure.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Complete two (2) years

BMP: Catch Basin Cleaning Program

BMP Number (Optional) 6D-1 _____

Written Procedure Completed (by year 1)

Document Name and/or Web Address: _____

Description:

By June 30, implement procedures to optimize catch basin cleaning developed under BMP 6B.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Track frequency and material quantity of catch basin cleaning. Document plan for optimizing catch basin cleaning in the first Annual report.

BMP: Street Sweeping Program**BMP Number (Optional) 6D-2****Written Procedure Completed (by year 1)** **Document Name and/or Web Address:** **Description:**

By June 30, implement procedures for street and parking lot sweeping developed under BMP 6B.

Responsible Department/Parties: Department of Public Works**Measurable Goal(s):**

Annually track number of miles cleaned or the volume or mass of material removed.

BMP: Winter Road Maintenance Program**BMP Number (Optional) 6D-3****Written Procedure Completed (by year 1)** **Document Name and/or Web Address:** **Description:**

By June 30, implement procedures for use and storage of deicing materials developed under BMP 6B.

Responsible Department/Parties: Department of Public Works**Measurable Goal(s):**

Evaluate at least one salt/chloride alternative for use in the municipality. Implement program for winter road maintenance throughout permit term.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures**BMP Number (Optional) 6D-4****Completed (by year 1)** **Document Name and/or Web Address:**

Description:

Inspect stormwater treatment structures annually by June 30 beginning in Year 1. By June 30, 2020, implement procedures to inspect and maintain City-owned structural stormwater BMPs.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Develop an inventory of City-owned BMPs within two years of permit effective date. Report on inspection and maintenance conducted annually.

BMP: SWPPP

BMP Number (Optional) _____

Completed (by year 2)

Document Name and/or Web Address: _____

Description:

By June 30, 2020, develop and implement a SWPPP and SWPPP BMPs at maintenance garages, transfer stations, and other waste-handling facilities. Confirm that the Highway Facility, transfer station, and water maintenance building are the only properties that require a SWPPP.

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

Update or develop SWPPPs within two years of permit effective date, implement in following years.

BMP:

BMP Number (Optional) _____

Completed

Document Name and/or Web Address: _____

Description:

Responsible Department/Parties: _____

Measurable Goal(s):

Add BMP

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Year 2 Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Year 3 Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Year 4 Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Year 5 Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Year X Annual Report

Document Name and/or Web Address:

Insert link to EPA website or include copy in Appendix G when complete.

Add a Year

TMDLs and Water Quality Limited Waters

Select the applicable Impairment(s) and/or TMDL(s).

Impairment(s)

Bacteria/Pathogens Chloride Nitrogen Phosphorus
 Solids/oil/grease (hydrocarbons)/metals

TMDL(s)

In State:

Assabet River Phosphorus Bacteria and Pathogen Cape Cod Nitrogen
 Charles River Watershed Phosphorus Lake and Pond Phosphorus

Out of State:

Bacteria and Pathogen Metals Nitrogen Phosphorus

Clear Impairments and TMDLs

Bacteria/Pathogens

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Bare Meadow Brook (MA84A-18)	Draft Merrimack River TMDL Report	<input type="button" value="+"/> <input type="button" value="-"/>
Bartlett Brook (MA84A-36)	Draft Merrimack River TMDL Report	<input type="button" value="+"/> <input type="button" value="-"/>
Merrimack River (MA84A-03)	Draft Merrimack River TMDL Report	<input type="button" value="+"/> <input type="button" value="-"/>
Merrimack River (MA84A-04)	Draft Merrimack River TMDL Report	<input type="button" value="+"/> <input type="button" value="-"/>
Spicket River (MA84A-10)	Draft Merrimack River TMDL Report	<input type="button" value="+"/> <input type="button" value="-"/>

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen must implement the IDDE program described in BMPs 3A-3F. Additionally, catchments draining to any of the water bodies listed above, which are impaired for bacteria or pathogens, shall be designated as either Problem Catchments or High Priority in implementation of the IDDE program and in the initial outfall ranking.

Public Education and Outreach

(Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information))

Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

Methuen must supplement the residential public education program described in BMP 1A with an annual message about the proper management of pet waste.

Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

Methuen must supplement the residential public education program described in BMP 1A by disseminating educational material to dog owners at the time of issuance or renewal of dog licenses. This is an ongoing requirement.

Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

Methuen must supplement the residential public education program described in BMP 1A by providing information to owners of septic systems about proper maintenance in any catchment that discharges to a waterbody impaired for bacteria or pathogens. Note that this only applies to <10% of the City's wastewater treatment and disposal.

Solids, Oil and Grease (Hydrocarbons), or Metals

Combination of Impaired Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Spicket River (MA84A-10) - Copper		<input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="+"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="-"/>
Bare Meadow Brook (MA84A-18) - Turbidity		<input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="+"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="-"/>

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen must implement the IDDE program as described in BMPs 3A-3F. Additionally, catchments draining to any of the waterbodies listed above shall be designated as either Problem Catchments or High Priority in implementation of the IDDE program and in the initial ranking.

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

For target areas with potential for high pollutant loads, the City must increase the frequency of the street sweeping program described in BMP 6D-2. This may include, but is not limited to, increased street sweeping in commercial areas and high density residential areas, or drainage areas with a large amount of impervious area.

Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen must supplement the catch basin cleaning program described in BMP 6D-1 to ensure that no sump is more than 50% full and increase the frequency of catch basin cleaning if inspection and maintenance activities indicate excessive sediment or debris loadings.

Requirements Due by Year 2

Stormwater Management in New Development and Redevelopment

Stormwater management systems designed on commercial and industrial land use area draining to the water quality limited water body shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City shall require stormwater management systems designed on commercial and industrial land draining to Spicket River and Bare Meadow Brook to incorporate for designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event. The City also encourages commercial and industrial property owners with stormwater management systems designed to infiltrate to provide the level of pollutant removal equal to or greater than the level of pollutant removal provided through the use of biofiltration of the same volume of runoff to be infiltrated, prior to infiltration.

Phosphorus

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Merrimack River (MA84A-03)		<input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="+"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="-"/>
Merrimack River (MA84A-04)		<input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="+"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="button" value="-"/>

Annual Requirements Beginning Year 1

Public Education and Outreach

(Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information))

Distribute an annual message in the spring(April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release and phosphorus-free fertilizers

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen will supplement its residential and business/commercial/institution public education programs described in BMPs 1A and 1B with an annual spring message encouraging the proper disposal of grass clippings and the use of slow-release and phosphorus-free fertilizers. The City will use the website and social media to the extent possible.

Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen will supplement its residential and business/commercial/institution public education programs described in BMPs 1A and 1B with an annual summer message encouraging the proper management of pet waste. The City will use the website and social media to the extent possible.

Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The City of Methuen will supplement residential and business/commercial/institution public education programs described in BMPs 1A and 1B with an annual fall message encouraging the proper disposal of leaf litter. The City will use the website and social media to the extent possible.

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

As part of the City's Operation & Maintenance procedures for street and parking lot sweeping established as part of BMP 6D-2, Methuen plans to increase street and parking lot sweeping to a minimum of two occurrences per year, once in the spring and once in the fall. Part of this process will include a cost estimate for increased labor and equipment needed to meet this requirement, which will need to be incorporated into the Fiscal Year 2021 request.

Establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BEGIN IN PERMIT YEAR 2 (Note: EPA template provides incorrect deadline).

As part of the City's Operations & Maintenance procedures for City-owned properties established as part of BMP 6A, the City of Methuen will establish a program to properly manage grass cuttings and leaf litter on City-owned properties. This program will prohibit blowing organic waste onto impervious surfaces.

Stormwater Management in New Development and Redevelopment

Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs to reduce phosphorus discharges

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

DUE IN PERMIT YEAR 4 (Note: EPA template provides incorrect deadline, this requirement is included under the Requirements for Permit Year 4). The Retrofit Feasibility Assessment described in BMP 5D will include consideration of BMPs to reduce phosphorus discharges.

Phosphorus Reduction Tracking BMP

Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus removal by the BMP consistent with Attachment 1 to Appendix H.

The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in pass per year by the BMP is found in the following document or website and is updated yearly at a minimum:

The City shall track any existing or installed structural BMPs within the regulated area and estimate

the phosphorus removal by the BMP. The BMP type, total area treated by the BMP, the design storage volume of the BMP and estimated phosphorus removed per year by the BMP shall be included in the Annual Reports in Appendix G. Mapping of structural BMPs and stormwater treatment structures is not due until Permit Year 2. Therefore, BMPs will not be inspected during Permit Year 1. This will begin after City-owned structural BMPs and treatment structures have been identified and mapped as part of the Phase 1 mapping efforts and SOPs for inspection and maintenance are developed as part of the City-wide Good Housekeeping Program Plan in Permit Year 2.

Requirements Due by Year 2

Stormwater Management in New Development and Redevelopment

The requirement for adoption/amendment of the permittee's ordinance or other regulatory mechanism shall include a requirement that new development and redevelopment stormwater management BMPs be optimized for phosphorus removal

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

As described in BMP 5A, the Post-Construction Regulations shall be modified to require that new development and redevelopment stormwater management BMPs be optimized for phosphorus removal. Developers and site owners will also be required to provide info and calculations to track BMP effectiveness to address pollutants of concern.

Requirements Due by Year 4

Complete a Phosphorus Source Identification Report

The document name (if attached) and/or web address is/are:

The City shall complete a Phosphorus Source Identification Report by June 30, 2022. The Report will be included in Appendix H when complete.

Stormwater Management in New Development and Redevelopment

Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs that infiltrate stormwater where feasible

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

The retrofit inventory and priority ranking described in BMP 5D will include consideration of BMPs that infiltrate stormwater where feasible.

Requirements Due by Year 5

Potential Structural BMPs

Evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under Permit part 2.3.6.d.ii or identified in the Phosphorus Source Identification Report that are within the drainage area of the impaired water or its tributaries

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

By June 30, 2023, the City shall evaluate all permittee-owned properties identified in the retrofit inventory or Phosphorus Source Identification Report for structural BMP installation.

Complete a listing of planned structural BMPs and a plan and schedule for implementation

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

By June 30, 2023 the City shall complete a list of planned structural BMPs and a plan and schedule for implementation. The list, plan and schedule should be included in the Permit Year 5 Annual Report and will be included in Appendix H when complete.

Appendix A

Notice of Intent, System Map, Authorization to Discharge Letter
from EPA

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Page 1 of 19

Part I: General Conditions

General Information

Name of Municipality or Organization: State:

EPA NPDES Permit Number (if applicable):

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Fax Number:

Other Information

Stormwater Management Program (SWMP) Location (web address or physical location, if already completed):

Eligibility Determination

Endangered Species Act (ESA) Determination Complete? Yes Eligibility Criteria (check all that apply): A B C

National Historic Preservation Act (NHPA) Determination Complete? Yes Eligibility Criteria (check all that apply): A B C

Check the box if your municipality or organization was covered under the 2003 MS4 General Permit

MS4 Infrastructure (if covered under the 2003 permit)

Estimated Percent of Outfall Map Complete? If 100% of 2003 requirements not met, enter an estimated date of completion (MM/DD/YY):

Web address where MS4 map is published:

If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission (see section V for submission options)

Regulatory Authorities (if covered under the 2003 permit)

Illicit Discharge Detection and Elimination (IDDE) Authority Adopted? No Effective Date or Estimated Date of Adoption (MM/DD/YY): *(Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit)*

Construction/Erosion and Sediment Control (ESC) Authority Adopted? No Effective Date or Estimated Date of Adoption (MM/DD/YY): *(Part II, III, IV or V, Subpart B.4.(a.) of 2003 permit)*

Post- Construction Stormwater Management Adopted? No Effective Date or Estimated Date of Adoption (MM/DD/YY): *(Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit)*

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part II: Summary of Receiving Waters

Please list the waterbodies to which your MS4 discharges. For each waterbody, please report the number of outfalls discharging into it and, if applicable, the segment ID and any impairments.

Massachusetts list of impaired waters: [Massachusetts 2014 List of Impaired Waters- http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf](http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf)

Waterbody that receives flow from the MS4 and segment ID if applicable	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/ DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
Isolated Wetland off of Arrowwood Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Autumn Lane	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Coachman Lane	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Copley Drive	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Dracut Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of East Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Freeport Avenue	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Haymeadow Road	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Howe Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Pheasant Hill Lane	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Riley Avenue	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Sable Run Lane	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Washington Street	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Isolated Wetland off of Route 213 West	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outside Receiving	419	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Click to lengthen table

Notice of Intent (NOI) for coverage under Small MS4 General Permit**Part III: Stormwater Management Program Summary**

Identify the Best Management Practices (BMPs) that will be employed to address each of the six Minimum Control Measures (MCMS). For municipalities/organizations whose MS4 discharges into a receiving water with an approved Total Maximum Daily Load (TMDL) and applicable waste load allocation (WLA), identify any additional BMPs employed to specifically support the achievement of the WLA in the TMDL section at the end of Part III.

For each MCM, list each existing or proposed BMP by category and provide a brief description, responsible parties/departments, measurable goals, and the year the BMP will be employed (public education and outreach BMPs also require a target audience).

MCM 1: Public Education and Outreach

BMP ID	BMP Media/Category	BMP Description	Targeted Audience	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
1A	Multi-media methods (including web content and print materials)	Education and outreach on stormwater management topics of significance in Methuen (including pet waste management, proper use of pesticides and fertilizers). Educational topics will include but are not limited to those in Part 2.3.2.d.i	Residents	DPW	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)
1B	Multi-media methods (including web content and print materials)	Education and outreach on stormwater management topics of significance in Methuen (including proper lawn maintenance, parking lot sweeping). Educational topics will include but are not limited to those in Part 2.3.2.d.ii	Businesses, Institutions, and Commercial Facilities	DPW	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Media/Category	BMP Description	Targeted Audience	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
1C	Multi-media methods (including web content and print materials)	Education and outreach on stormwater management topics of significance in Methuen (including proper erosion and sedimentation control, permit requirements, design standards). Educational topics will include but are not limited to those in Part 2.3.2.d.iii	Developers (Construction)	DPW/ Planning/ Conservation	Distribute a minimum of two (2) educational messages spaced at least a year apart	2018 (PY1)
1D	Multi-media methods (including web content and print materials)	Education and outreach on stormwater management topics of significance in Methuen (including pollution prevention, illicit discharges, Multi-Sector General Permit). Educational topics will include but are not limited to those in Part 2.3.2.d.iv	Industrial Facilities	DPW	Distribute a minimum of two (2) educational messages spaced at least a year apart	2019 (PY2)

Notice of Intent (NOI) for coverage under Small MS4 General PermitPart III: Stormwater Management Program Summary

MCM 2: Public Involvement and Participation

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
2A	Public Review	SWMP review (Plan and reports available on web and at public meetings)	DPW	Annually provide the public with an opportunity to participate in the review and implementation of the SWMP	2018 (PY1)
2B	Public Participation	Provide opportunities for public involvement and participation in Methuen's stormwater program (including clean up events, yard waste collection). Specific activities, schedule, and lead departments are included in the SWMP.	DPW	Ongoing compliance	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

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Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
3A	IDDE Ordinance	Adopt draft Ordinance to contain new MS4 provisions per section 2.3.4	City Solicitor/DPW	Track illicit discharges identified and removed.	2018 (PY1)
3B	SSO Inventory	Provide SSO inventory in accordance with permit conditions	DPW	Complete within one (1) year of effective date of permit. Track # of SSOs identified and removed annually	2018 (PY1)
3C	Storm sewer system map	Improve map during IDDE Program implementation	DPW	Update map within two (2) years of effective date of permit and complete full system map 10 years after effective date of permit	2018 (PY1)
3D	Written IDDE program	Develop written IDDE Plan and update as necessary	DPW	Complete within one (1) year of the effective date of permit and update as required	2018 (PY1)
3E-1	Assessment and Priority Ranking of Outfalls & Interconnections	Outfall/Interconnection Inventory and Initial Ranking as part of BMP 3D	DPW	Complete within one (1) year of the effective date of permit and update as necessary	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
3E-2	Assessment and Priority Ranking of Outfalls & Interconnections	Dry Weather Outfall Screening & Sampling in accordance with IDDE Plan and permit conditions	DPW	Complete three (3) years after effective date of permit. Track # of illicit discharges identified & volume removed. Summarize screening/sampling results.	2018 (PY1)
3E-3	Assessment and Priority Ranking of Outfalls & Interconnections	Catchment Investigations according to IDDE Program and permit conditions	DPW	Complete 10 years after effective date of permit. Track # and percentage of MS4 catchments evaluated. Track # of illicit discharges identified & volume removed. Summarize screening/sampling results.	2019 (PY2)
3F	Employee Training	Train employees on IDDE implementation	DPW with support from Merrimack Valley Stormwater Collaborative	Train annually. Track employees trained, training topic, date/time, and materials presented.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General PermitPart III: Stormwater Management Program Summary

MCM 4: Construction Site Stormwater Runoff Control

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
4A	Construction Ordinance and Regulations	Adopt draft ordinance and develop regulations, if necessary, to contain new MS4 provisions per section 2.3.5.	City Solicitor/ DPW / Planning / Conservation	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)
4B	Construction Policy and Procedures	Develop and implement written procedures for site inspections and enforcement procedures per section 2.3.5.	DPW / Planning / Conservation	Review current procedures and modify if necessary within one (1) year of permit effective date	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

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Notice of Intent (NOI) for coverage under Small MS4 General PermitPart III: Stormwater Management Program Summary

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
5A	Post-Construction Construction Ordinance and Regulations	Adopt draft ordinance and develop regulations, if necessary, to contain new MS4 provisions per section 2.3.6.a.	City Solicitor/ DPW	Modify existing ordinance and/or regulations if necessary within two (2) years of permit effective date	2019 (PY2)
5B	Assess street and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.	DPW/ Planning / Conservation	Complete report within four (4) years of permit effective date	2020 (PY3)
5C	Assess allowing green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	DPW/ Planning / Conservation	Complete report within four (4) years of permit effective date	2020 (PY3)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
5D	Retrofit Feasibility Assessment	Conduct detailed inventory of City-owned properties and rank for retrofit potential	DPW	Complete report within four (4) years of permit effective date. Beginning in year 5 keep running list of at least five (5) retrofit sites	2020 (PY3)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

MCM 6: Municipal Good Housekeeping and Pollution Prevention

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
6A	Operation & Maintenance Program	Inventory and create O&M procedures for all permittee-owned parks and open spaces, buildings and facilities (including their storm drains), and vehicles and equipment	DPW	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)
6B	Operation & Maintenance Program	Establish and implement program for repair and rehabilitation of MS4 infrastructure	DPW	Complete two (2) years after permit effective date, implement in following years	2019 (PY2)
6C	Stormwater Pollution Prevention Plan (SWPPP)	Develop and implement a SWPPP for the Highway facility, transfer station, and Water Maintenance building.	DPW	Complete SWPPPs within two (2) years of permit effective date, implement in following years	2019 (PY2)
6D-1	Operation & Maintenance Program	Implement procedures to optimize catch basin cleaning developed under BMP 6B	DPW	Track frequency and material quantity of catch basin cleaning. In first Annual Report and in SWMP, document plan for optimizing catch basin cleaning.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

BMP ID	BMP Category	BMP Description	Responsible Department/Parties	Measurable Goal	Beginning Year of BMP Implementation
6D-2	Operation & Maintenance Program	Implement procedures for street and parking lot sweeping developed under BMP 6B	DPW	Annually track number of miles cleaned or the volume or mass of material removed.	2018 (PY1)
6D-3	Operation & Maintenance Program	Implement procedures for use and storage of deicing materials developed under BMP 6B	DPW	Implement program for winter road maintenance throughout permit term.	2018 (PY1)
6D-4	Operation & Maintenance Program	Implement procedures to inspect and maintain City-owned structural stormwater BMPs	DPW	Development of inventory of City-owned BMPs due within two (2) years of permit effective date. Report on inspection and maintenance conducted annually.	2018 (PY1)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

Actions for Meeting Total Maximum Daily Load (TMDL) Requirements

Use the drop-down menus to select the applicable TMDL, action description to meet the TMDL requirements, and the responsible department/parties. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

Applicable TMDL	Action Description	Responsible Department/Parties (enter your own text to override the drop down menu)

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

Actions for Meeting Requirements Related to Water Quality Limited Waters

Use the drop-down menus to select the pollutant causing the water quality limitation and enter the waterbody ID(s) experiencing excursions above water quality standards for that pollutant. In addition, if you are subject to additional requirements due to a downstream nutrient impairment (see Part 2.2.2 of the permit) select the pollutant of concern and indicate applicable waterbody IDs or write "all waterbodies" if applicable. Choose the action description from the dropdown menu and indicate the responsible party. If no options are applicable, or more than one, **enter your own text to override drop-down menus**.

Pollutant	Waterbody ID(s)	Action Description	Responsible Department/Parties (enter your own text to override the drop down menu)
Phosphorus	Merrimack River (MA84A-03)	Adhere to requirements in part II of Appendix H	DPW
Phosphorus	Merrimack River (MA84A-04)	Adhere to requirements in part II of Appendix H	DPW
E. Coli	Bare Meadow Brook (MA84A-18)	Adhere to requirements in part III of Appendix H	DPW
E. Coli	Bartlett Brook (MA84A-36)	Adhere to requirements in part III of Appendix H	DPW
E. Coli	Spicket River (MA84A-10)	Adhere to requirements in part III of Appendix H	DPW
E. Coli	Merrimack River (MA84A-03)	Adhere to requirements in part III of Appendix H	DPW
E. Coli	Merrimack River (MA84A-04)	Adhere to requirements in part III of Appendix H	DPW
Copper	Spicket River (MA84A-10)	Adhere to requirements in part V of Appendix H	DPW
Turbidity	Bare Meadow Brook (MA84A-18)	Adhere to requirements in part V of Appendix H	DPW

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 2.2.2 that you have identified as not applicable to your MS4 because you do not discharge to the impaired water body or a tributary to an impaired water body due to nitrogen or phosphorus. Provide all supporting documentation below or attach additional documents if necessary. Also, provide any additional information about your MS4 program below.

1. BMPs identified in the 2003 General Permit NOI have evolved over the permit term due to staff changes and Stormwater Program modifications. The intent of the 2003 BMPs are being met under the proposed 2016 General Permit BMPs included in the Stormwater Management Plan. The Plan will describe how the BMPs under the 2003 permit fit into the new program, particularly where BMPs and/or measurable goals that are outdated or no longer appropriate have been replaced or updated.
2. The National Endangered Species Eligibility Determination screening process has been completed and the City of Methuen meets Criterion C. The City's stormwater discharges and discharge related activities will have no affect on listed species or critical habitat. The City will consult with U.S. Fish and Wildlife as needed during the permit term.
3. The National Historic Preservation Act Eligibility Determination screening process has been completed and the City of Methuen meets Criterion A. The City's stormwater discharges do not have the potential to cause effects on historic properties. The City will consult with the State Historic Preservation Officer as needed during the permit term.
4. The outfalls and associated receiving waters in Part II are based on mapping as of September 2018 and are subject to change during implementation of the Stormwater Management Program as newly constructed outfalls are added to the map and inventory; locations are adjusted; or outfalls are removed if they are determined to be non-municipally owned/operated (e.g., MassDOT) or reclassified as a BMP inlet, culvert, or other structure. Changes to the outfall inventory and mapping will be formalized in Annual Reports to EPA.

Detailed explanations of the above notes will be included in the City's Stormwater Management Plan.

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Page 19 of 19

Part V: 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 gather and evaluate 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, I certify that 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.

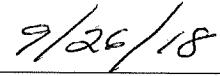
Name: James P. Jajuga

Title: Mayor

Signature:

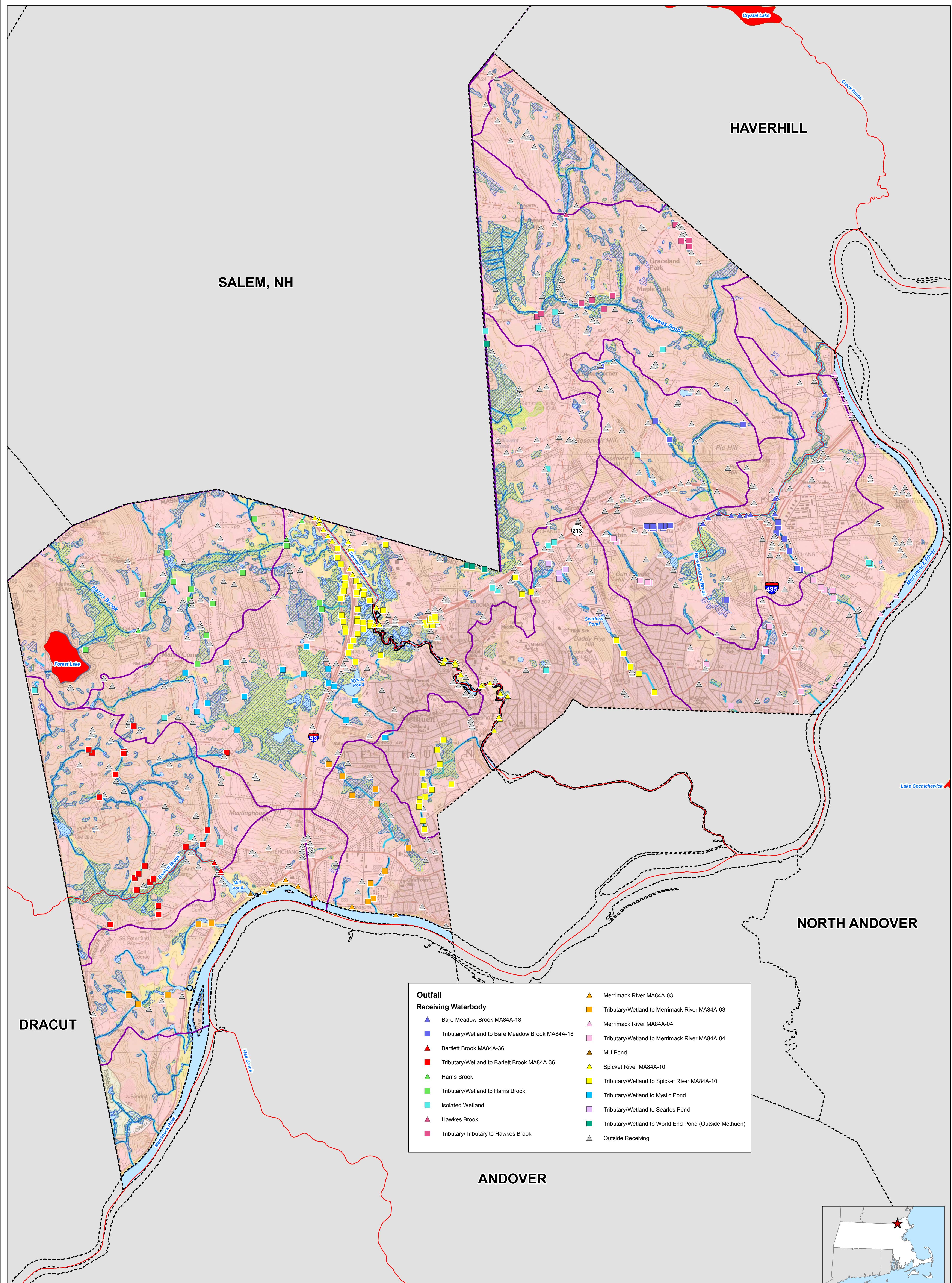


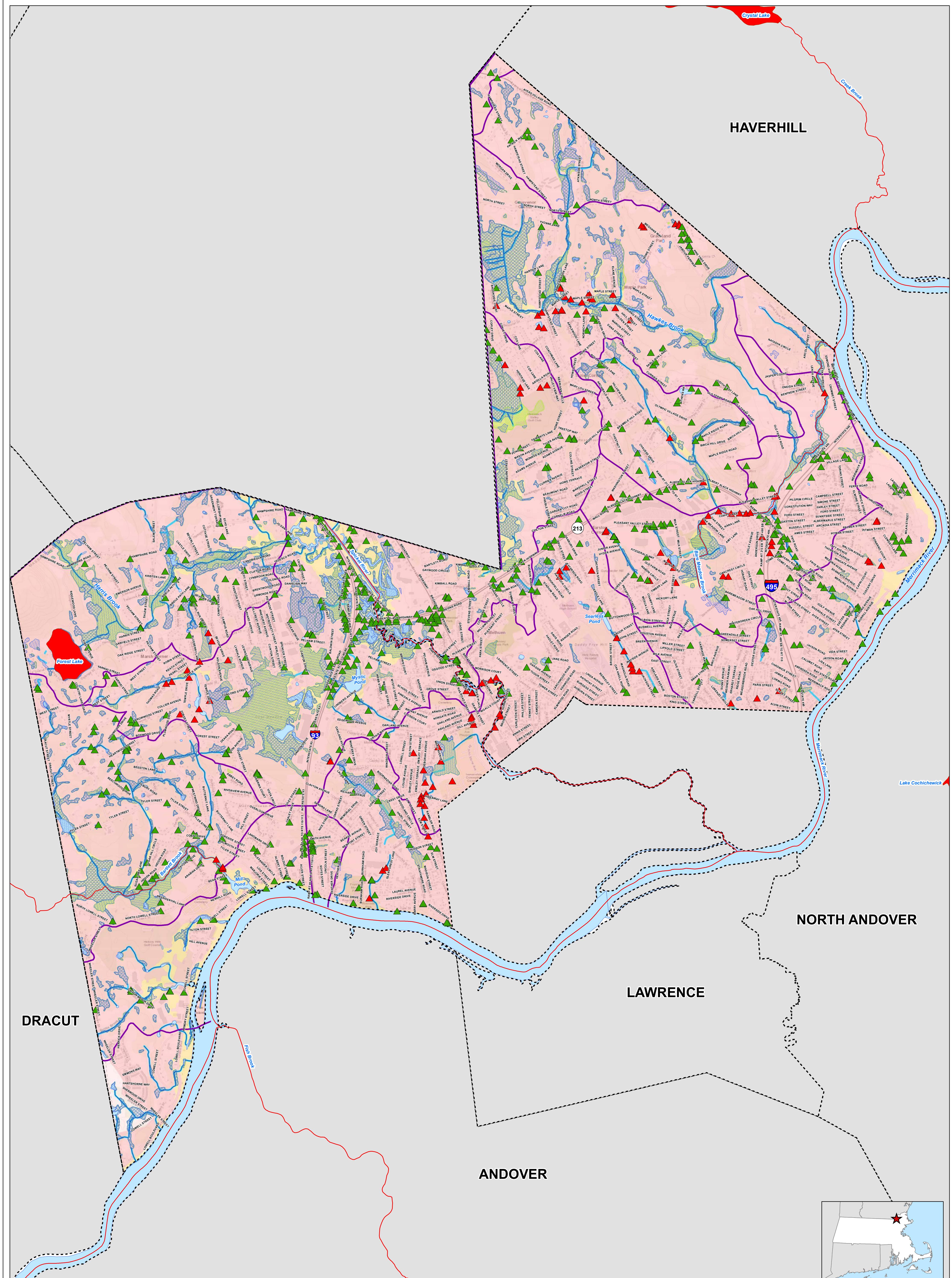
Date:



[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Note: When prompted during signing, save the document under a new file name







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

VIA EMAIL

April 5, 2019

James P. Jajuga
Mayor

And;

Stephen Gagnon
Engineering Dept. Administrator
Searles Building, Room 206
41 Pleasant Street
Methuen, MA. 01844
SJGagnon@ci.methuen.ma.us

Re: National Pollutant Discharge Elimination System Permit ID #: MAR041210, City of Methuen

Dear Stephen Gagnon:

The 2016 NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts (MS4 General Permit) is a jointly issued EPA-MassDEP permit. Your Notice of Intent (NOI) for coverage under this MS4 General Permit has been reviewed by EPA and appears to be complete. You are hereby granted authorization by EPA and MassDEP to discharge stormwater from your MS4 in accordance with the applicable terms and conditions of the MS4 General Permit, including all relevant and applicable Appendices. This authorization to discharge expires at midnight on **June 30, 2022**.

For those permittees that certified Endangered Species Act eligibility under Criterion C in their NOI, this authorization letter also serves as EPA's concurrence with your determination that your discharges will have no effect on the listed species present in your action area, based on the information provided in your NOI.

As a reminder, your first annual report is due by **September 30, 2019** for the reporting period from May 1, 2018 through June 30, 2019.

Information about the permit and available resources can be found on our website:
<https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>. Should you have any questions regarding this permit please contact Newton Tedder at tedder.newton@epa.gov or (617) 918-1038.

Sincerely,



Thelma Murphy, Chief
Stormwater and Construction Permits Section
Office of Ecosystem Protection
United States Environmental Protection Agency, Region 1

and;

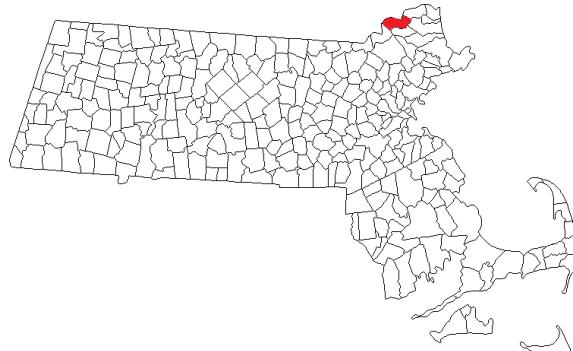


Lealdon Langley, Director
Wetlands and Wastewater Program
Bureau of Water Resources
Massachusetts Department of Environmental Protection

Appendix B

Town Specific MS4 Background

Methuen is located in Essex County, approximately 30 miles northwest of Boston. There are approximately 0.77 square miles of water within its 23.1 square mile footprint. According to the 2010 United States Census, Methuen is home to approximately 47,250 residents in more than 16,500 households. All of the City is within the urbanized area and therefore, regulated by EPA under the MS4 program.



The City of Methuen is located within the Merrimack River watershed. Pollutants from stormwater runoff are a contributing factor to the impairment of Methuen's waterbodies, including bacterial contamination and high phosphorus levels. There are several other impaired water bodies in Methuen that receive stormwater discharges; pollutants of concern and specific activities to mitigate these are outlined in the SWMP.

The City of Methuen has achieved many of its measurable goals for the BMPs selected in the 2003 Notice of Intent and those added in subsequent years to reflect unplanned stormwater activities by the City. A list of BMPs completed under the 2003 Small MS4 Permit is included on the next page. Of note, the City screened approximately 500 outfalls for illicit discharges in 2004. There were 7 outfalls identified with high levels of fecal coliform and required follow up investigation. In 2008, the City performed these follow up investigations and addressed sources of nonpoint source pollution and illicit discharges.

The City of Methuen has taken advantage of regional approaches to provide stormwater education and outreach, primarily to residential audiences. Public Works staff participate in monthly meetings with the Merrimack Valley Stormwater Collaborative (MVSC) and additional MVSC-sponsored training events and workshops in support of the City's SWMP. The City maintains a Stormwater Information webpage, which includes an overview of the City's stormwater management program for residents to read. The webpage also contains information about the City's Notice of Intent, outfall map and receiving waters, and education for residents about the effects of pet waste and lawn fertilizers on water quality. Methuen has also assisted in cleaning up a portion of the Merrimack River along City property and plans to assist other local watersheds in their cleanup programs.

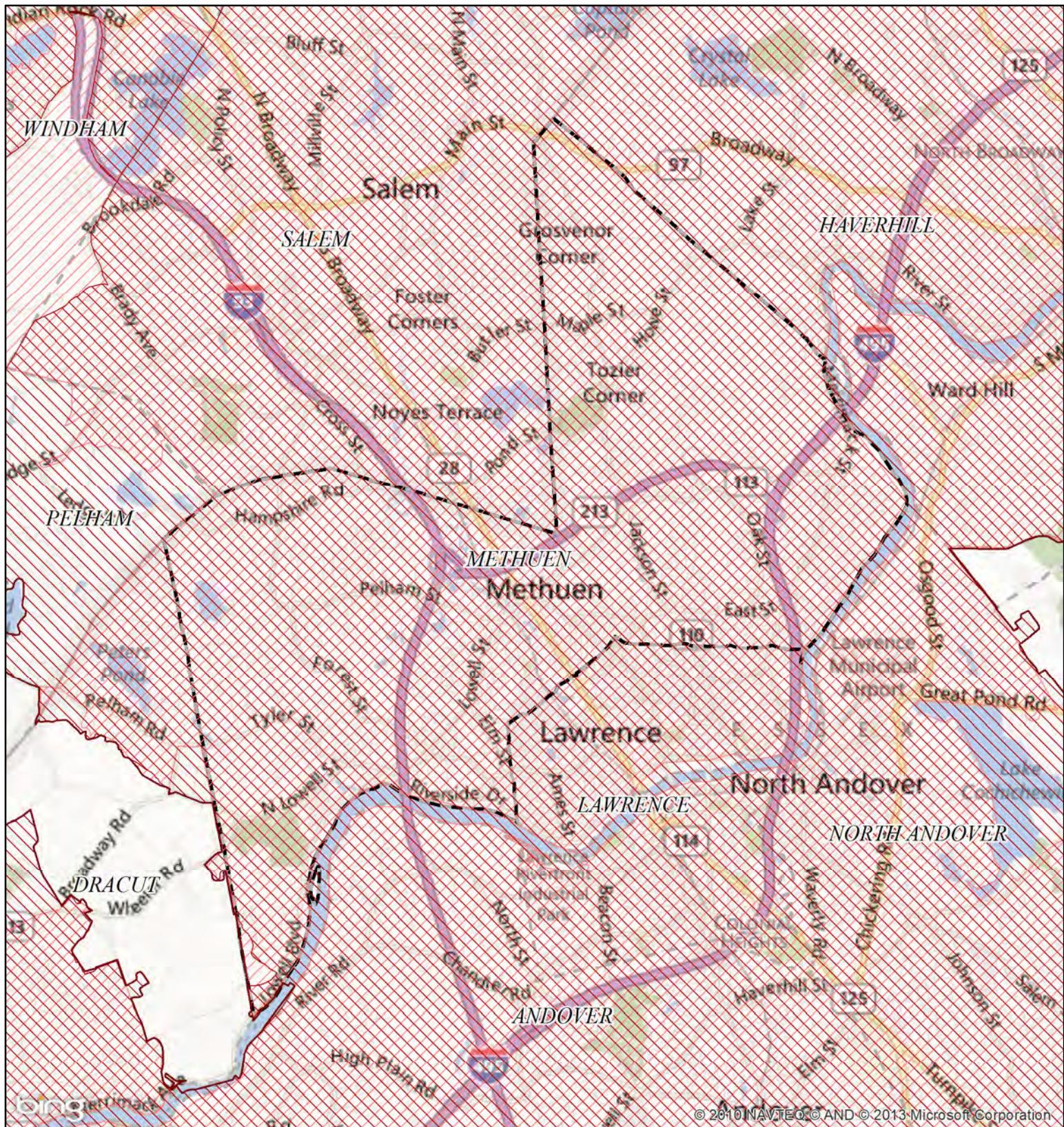
The City has made a significant investment in GIS-based mapping of the stormwater and sewer system and developing a drainage system base map of catch basins, drainage manholes, and known connectivity. The GIS base map identifies impaired water bodies within the City.

Lastly, the City has established an active Good Housekeeping Program for stormwater pollution prevention including active street sweeping, catch basin cleaning, and annual hazardous waste drop-off days.

Summary of 2003 and 2016 MS4 General Permit BMPs

BMPs identified in the 2003 General Permit NOI have evolved over the permit term due to staff changes and Stormwater Program modifications. The intent of the 2003 BMPs are being met under the following proposed 2016 General Permit BMPs (BMPS current as of 2018 Annual Report):

- 1.01: Article/Brochure in City Newsletter – now under BMPs 1A-D
- 1.02: Info – Lawn Waste Disposal to Landscapers – now under BMPs 1A-C
- 1.03: Staff Table at Neighborhood Cleanup Day – now under BMP 1A
- 1.04: Offer Education Program to Children – now under BMP 1A
- 1.05: “Don’t feed waterfowl” Signs – now under BMP 1A
- 1.06: Annual Update of SWMP to City Council – now under BMP 2A
- 2.01: Public Participation – now under BMP 2B
- 2.02: Comply with state notification guidelines – now under BMP 2A
- 2.03: Offer to assist watershed group activities – now under BMP 2B
- 3.01: Dry Weather Outfall Screening – now under BMP 3E-2
- 3.02: Map Outfalls/Receiving Water – now under BMP 3C
- 3.03: Map Drain System/GIS – now under BMPs 3C and 3E-1
- 3.04: Develop/Implement Plan to ID and Remove Illicit Discharges – now under BMPs 3D-F
- 3.05: Illegal Collection/Dumping Ordinance – now under BMP 3A
- 4.01: Erosion & Sedimentation Control – now under BMPs 4A-B
- 4.02: Require Waste Management Plan at Construction Sites > 1 acre – now under BMPs 4A-B
- 4.03: Review Site Plans – now under BMPs 4A-B
- 4.04: New Construction Project Ordinance – now under BMPs 4A
- 4.05: Develop Draft Ordinance to Implement Const. Site Runoff Control – now under BMP 4A
- 5.01: Ordinance to Apply Standards 2,3,4,7 & 9 of MA Stormwater Policy – now under BMP 5A
- 5.02: Specify BMP Manual – now under BMP 5A
- 5.03: Ordinance to Ensure Long-Term Maintenance of Structural BMPs – now under BMP 5A
- 6.01: Continue Employee Training – now under BMP 3F
- 6.02: Identify Sensitive Receptors – now under BMP 3E-1, BMP 6C and BMP 6D-1-4
- 6.03: Street & Parking Lot Sweeping – now under BMP 6D-2
- 6.04: Roadway Deicing – now under BMP 6D-3
- 6.05: Storm Drain Maintenance – now under BMP 6B
- 6.06: Park & Landscape Maintenance – now under BMP 6A
- 6.07: Annual Hazardous Waste Drop-off Day – now under BMP 2B
- 6.08: Proper Snow Disposal – now under BMP 6D-3



NPDES Phase II Stormwater Program Automatically Designated MS4 Areas

Methuen MA

Regulated Area:

UA Based on
2000 Census UA Based on
2010 Census



Town Population: 47252
Regulated Population: 47252
(Populations estimated from 2010 Census)



Urbanized Areas, Town Boundaries:
US Census (2000, 2010)
Base map © 2013 Microsoft Corporation
and its data suppliers

Appendix C

Endangered Species Act Eligibility Criteria Documentation

Endangered Species Act Eligibility Certification

To: City of Methuen Stormwater Management Program Files
FROM: Tighe & Bond
COPY: Daryl Laurenza, Acting DPW Director
Stephen Gagnon, Engineering Department Administrator
DATE: April 18, 2019

Tighe & Bond has completed the National Endangered Species Eligibility Determination screening process in accordance with Part 1.9.1 and Appendix C of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts (see Attachment A of this memorandum), effective July 1, 2018, and determined that the **City of Methuen** meets **Criterion C**, where it was determined that the stormwater discharges and discharge related activities will have "no affect" on listed species or critical habitat.

Tighe & Bond followed EPA's screening process required by the 2016 Small MS4 General Permit as follows:

Tighe & Bond went to the USFWS Information for Planning and Consultation (IPaC) website¹ and created an IPaC Trust Resources Report and received an Official Species List from the USFWS New England Ecological Services Field Office, included in Attachment B to this memorandum. The Official Species List lists the following species that may occur or could potentially be affected by activities in the City:

- Northern Long-eared Bat.

This report documents that there are **no critical habitats in Methuen**.

Tighe & Bond then went to the USFWS New England Field Office website for Endangered Species Reviews/Consultations² and selected the Massachusetts state list³ to review which cities have federally-listed species. A copy of the list of Federally Listed Endangered and Threatened Species in Massachusetts is included in Attachment C to this memorandum. Based on review of this list, the Northern Long-eared Bat is listed statewide, and no additional species were identified in Methuen.

Tighe & Bond then reviewed Step 1 Part B of the USFWS endangered species consultation, and visited the Massachusetts Natural Heritage and Endangered Species Program (NHESP) species information and conservation website about the Northern Long-eared Bat⁴. The NHESP website included a map showing the known locations of the Northern Long-eared Bat within Massachusetts. Attachment D includes a map showing there are **no roost trees or hibernating locations within or adjacent to Methuen**.

¹ <http://ecos.fws.gov/ipac/>

² https://www.fws.gov/newengland/EndangeredSpec-Consultation_Project_Review.htm

³ <https://www.fws.gov/newengland/pdfs/MA%20species%20by%20City.pdf>

⁴ <http://www.mass.gov/eea/agencies/dfq/dfw/natural-heritage/species-information-and-conservation/rare-mammals/northern-long-eared-bat.html>

Based on the results of the NHESP website review, Tighe & Bond determined there is no potential habitat for any listed species within the action area and therefore **no further coordination is required with the USFWS**. Attachment E provides the USFWS "no species present" letter that states "no species are known to occur in the project area."

As described in the supplemental guidance document "Stormwater Management Notice of Intent (NOI) Frequently Asked Questions"⁵, if it is determined that the municipality in review only contains the Northern Long-eared Bat and it is agreed that discharges will have no effect on the species, the municipality is not required to contact USFWS. Per the response to Step 3, Question 3 below, the City of Methuen will consult with USFWS as needed during the permit term on any future BMPs.

Step 1 – Determine if you can meet USFWS Criterion A

"USFWS Criterion A: You can certify eligibility, according to USFWS Criterion A, for coverage by this permit if, upon completing the Information, Planning, and Conservation (IPaC) online system process, you printed and saved the preliminary determination which indicated that federally listed species or designated critical habitats are not present in the action area. See Attachment 1 to Appendix C for instructions on how to use IPaC."

No, the City of Methuen's IPaC action area contains the Northern Long-eared Bat.

Step 2 – Determine if You Can Meet Eligibility USFWS Criteria B

"USFWS Criterion B: You can certify eligibility according to USFWS Criteria B for coverage by this permit if you answer "Yes" to **all** of the following questions:

- 1) Does your action area contain one or more of the following species: Sandplain gerardia, Small whorled Pogonia, American burying beetle, Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?"

No, the City of Methuen's action area does not contain any of the above-referenced species.

- 2) Did your assessment of the discharge and discharge related activities indicate that the discharge or discharge related activities "may affect" or are "not likely to adversely affect" listed species or critical habitat?

No, based on EPA guidance for the listed species, Tighe & Bond has determined that the City's discharges and discharge related activities will have "no affect" on listed species or critical habitat (see discussion above).

Step 3 – Determine if You Can Meet Eligibility USFWS Criteria C

"You can certify eligibility according to USFWS Criterion C for coverage by this permit if you answer "Yes" to both of the following questions:

- 1) Does your action area contain one or more of the following species: Northern Long-eared Bat, Sandplain gerardia, Small whorled Pogonia and/or American burying beetle and does not contain any following species: Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?

⁵ <https://www3.epa.gov/region1/npdes/stormwater/assets/pdfs/sw-mgmt-noi-faqs-ma-nh.pdf>

Yes, the City of Methuen's action area contains the Northern Long-eared Bat, but none of the other subsequent species.

2) Did the assessment of your discharge and discharge related activities indicate that there would be "no affect" on listed species or critical habitat and EOA provided concurrence with your determination?

Yes, Tighe & Bond performed an informal consultation with USFWS and determined that the City's discharges and discharge related activities will have "no affect" on listed species or critical habitat (see discussion above).

3) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will conduct an endangered species screening for the proposed site and contact the USFWS if you determine that the new activity "may affect" or is "not likely to adversely affect" listed species or critical habitat under the jurisdiction of the USFWS."

Yes, during the course of the permit term the City of Methuen agrees to conduct an endangered species screening for the proposed site and contact USFWS if they plan to install a structural BMP not identified in the NOI.

Tighe & Bond's review of all questions under Step 3 resulted in "Yes" and thereby we determined the City of Methuen's action area meets the endangered species' eligibility requirements included in **Criterion C**.

\\tighebond.com\\data\\Data\\Projects\\MM1831 Methuen MA\\Task 4 Notice of Intent\\Supplemental Docs\\ESA\\ESA Cert.docx

Attachment A

Excerpts from EPA's NPDES General Permits for Stormwater Discharges
from Small MS4s in Massachusetts

Appendix C – Endangered Species Guidance

APPENDIX C

ENDANGERED SPECIES GUIDANCE

A. Background

In order to meet its obligations under the Clean Water Act and the Endangered Species Act (ESA), and to promote the goals of those Acts, the Environmental Protection Agency (EPA) is seeking to ensure the activities regulated by this general permit do not adversely affect endangered and threatened species or critical habitat. Applicants applying for permit coverage must assess the impacts of their stormwater discharges and discharge-related activities on federally listed endangered and threatened species (“listed species”) and designated critical habitat (“critical habitat”) to ensure that those goals are met. Prior to obtaining general permit coverage, applicants must meet the ESA eligibility provisions of this permit by following the steps in this Appendix¹.

Applicants also have an independent ESA obligation to ensure that their activities do not result in any prohibited “take” of listed species¹². The term “Take” is used in the ESA to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. “Harm” is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering. “Harass” is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Many of the measures required in this general permit and in these instructions to protect species may also assist in ensuring that the applicant’s activities do not result in a prohibited take of species in violation of section 9 of the ESA. If the applicant has plans or activities in an area where endangered and threatened species are located, they may wish to ensure that they are protected from potential take liability under ESA section 9 by obtaining an ESA section 10 permit or by requesting formal consultation under ESA section 7. Applicants that are unsure whether to pursue a section 10 permit or a section 7 consultation for takings protection should confer with the appropriate United States Fish and Wildlife Service (USFWS) office or the National Marine Fisheries Service (NMFS), (jointly the Services).

Currently, there are 20 species of concern for applicants applying for permit coverage, namely the Dwarf wedgemussel (*Alasmidonta heterodon*), Northeastern bulrush (*Scirpus ancistrochaetus*), Sandplain gerardia (*Agalinis acuta*), Piping Plover (*Charadrius melanotos*), Roseate Tern (*Sterna dougallii*), Northern Red-bellied cooter (*Pseudemys rubriventris*), Bog Turtle (*Glyptemys muhlenbergii*), Small whorled Pogonia (*Isotria medeoloides*), Puritan tiger beetle (*Cicindela puritana*), American burying beetle (*Nicrophorus americanus*), Northeastern beach tiger beetle (*Cicindela dorsalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Atlantic Sturgeon (*Acipenser oxyrinchus*), Shortnose Sturgeon (*Acipenser brevirostrum*), North Atlantic Right Whale (*Eubalaena glacialis*), Humpback Whale (*Megaptera novaengliae*), Fin Whale (*Balaenoptera physalus*), Kemp’s Ridley Sea Turtle (*Lepidochelys kempii*), Loggerhead Sea Turtle (*Caretta caretta*), Leatherback Sea Turtle (*Dermochelys coriacea*), and the Green Turtle (*Chelonia*

¹ EPA strongly encourages applicants to begin this process at the earliest possible stage to ensure the notification requirements for general permit coverage are complete upon Notice of Intent (NOI) submission.

² Section 9 of the ESA prohibits any person from “taking” a listed species (e.g. harassing or harming it) unless: (1) the taking is authorized through an “incidental take statement” as part of completion of formal consultation according to ESA section 7; (2) where an incidental take permit is obtained under ESA section 10 (which requires the development of a habitat conversion plan; or (3) where otherwise authorized or exempted under the ESA. This prohibition applies to all entities including private individuals, businesses, and governments.

mydas). The Atlantic Sturgeon, Shortnose Sturgeon, North Atlantic Right Whale, Humpback Whale, Fin Whale, Loggerhead Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle and Green Turtle are listed under the jurisdiction of NMFS. The Dwarf wedgemussel, Northeastern bulrush, Sandplain gerardia, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Small whorled Pogonia, Roseate Tern, Puritan tiger beetle, Northeastern beach tiger beetle, Northern Long-eared Bat and American burying beetle are listed under the jurisdiction of the U.S. Fish and Wildlife Service.

Any applicant seeking coverage under this general permit, must consult with the Services where appropriate. When listed species are present, permit coverage is only available if EPA determines, or the applicant determines and EPA concurs, that the discharge or discharge related activities will have “no affect” on the listed species or critical habitat, or the applicant or EPA determines that the discharge or discharge related activities are “not likely to adversely affect” listed species or critical habitat and formal or informal consultation with the Services has been concluded and results in written concurrence by the Services that the discharge is “not likely to adversely affect” an endangered or threatened species or critical habitat.

EPA may designate the applicants as non-Federal representatives for the general permit for the purpose of carrying out formal or informal consultation with the Services (See 50 CFR §402.08 and §402.13). By terms of this permit, EPA has automatically designated operators as non-Federal representatives for the purpose of conducting formal or informal consultation with the U.S. Fish and Wildlife Service. EPA has not designated operators as non-Federal representatives for the purpose of conducting formal or informal consultation with the National Marine Fisheries Service. EPA has determined that discharges from MS4s are not likely to adversely affect listed species or critical habitat under the jurisdiction of the National Marine Fisheries Service. EPA has initiated informal consultation with the National Marine Fisheries Service on behalf of all permittees and no further action is required by permittees in order to fulfill ESA requirements of this permit related to species under the jurisdiction of NMFS

B. The U.S. Fish and Wildlife Service ESA Eligibility Process

Before submitting a notice of intent (NOI) for coverage by this permit, applicants must determine whether they meet the ESA eligibility criteria by following the steps in Section B of this Appendix. Applicants that cannot meet the eligibility criteria in Section B must apply for an individual permit.

The USFWS ESA eligibility requirements of this permit relating to the Dwarf wedgemussel, Northeastern bulrush, Sandplain gerardia, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Small whorled Pogonia, Roseate Tern, Puritan tiger beetle, Northeastern beach tiger beetle, Northern Long-eared Bat and American burying beetle may be satisfied by documenting that one of the following criteria has been met:

USFWS Criterion A: No endangered or threatened species or critical habitat are in proximity to the stormwater discharges or discharge related activities.

USFWS Criterion B: In the course of formal or informal consultation with the Fish and Wildlife Service, under section 7 of the ESA, the consultation resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the stormwater discharges and

discharge related activities are “not likely to adversely affect” listed species or critical habitat (informal consultation).

USFWS Criterion C: Using the best scientific and commercial data available, the effect of the stormwater discharge and discharge related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the applicant and affirmed by EPA, that the stormwater discharges and discharge related activities will have “no affect” on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the USFWS.

1. The Steps to Determine if the USFWS ESA Eligibility Criteria Can Be Met

To determine eligibility, you must assess the potential effects of your known stormwater discharges and discharge related activities on listed species or critical habitat, PRIOR to completing and submitting a Notice of Intent (NOI). You must follow the steps outlined below and document the results of your eligibility determination.

Step 1 – Determine if you can meet USFWS Criterion A

USFWS Criterion A: You can certify eligibility, according to USFWS Criterion A, for coverage by this permit if, upon completing the Information, Planning, and Conservation (IPaC) online system process, you printed and saved the preliminary determination which indicated that federally listed species or designated critical habitats are not present in the action area. See Attachment 1 to Appendix C for instructions on how to use IPaC.

If you have met USFWS Criterion A skip to Step # 4.

If you have not met USFWS Criterion A, go to Step # 2.

Step 2 – Determine if You Can Meet Eligibility USFWS Criteria B

USFWS Criterion B: You can certify eligibility according to USFWS Criteria B for coverage by this permit if you answer “Yes” to **all** of the following questions:

- 1) Does your action area contain one or more of the following species: Sandplain gerardia, Small whorled Pogonia, American burying beetle, Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?
AND
- 2) Did your assessment of the discharge and discharge related activities indicate that the discharge or discharge related activities “may affect” or are “not likely to adversely affect” listed species or critical habitat?
AND
- 3) Did you contact the USFWS and did the formal or informal consultation result in either a “no jeopardy” opinion by the USFWS (for formal consultation) or concurrence by the

USFWS that your activities would be “not likely to adversely affect” listed species or critical habitat (for informal consultation)?

AND

- 4) Do you agree to implement all measures upon which the consultation was conditioned?
- 5) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will re-initiate informal or formal consultation with USFWS as necessary?

Use the guidance below Step 3 to understand effects determination and to answer these questions.

If you answered “Yes” to all four questions above, you have met eligibility USFWS Criteria B. Skip to Step 4.

If you answered “No” to any of the four questions above, go to Step 3.

Step 3 – Determine if You Can Meet Eligibility USFWS Criterion C

USFWS Criterion C: You can certify eligibility according to USFWS Criterion C for coverage by this permit if you answer “Yes” to both of the following question:

- 1) Does your action area contain one or more of the following species: Northern Long-eared Bat, Sandplain gerardia, Small whorled Pogonia and/or American burying beetle and **does not** contain one any following species: Dwarf wedgemussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, and Northeastern beach tiger beetle?³
OR
- 2) Did the assessment of your discharge and discharge related activities and indicate that there would be “no affect” on listed species or critical habitat and EPA provided concurrence with your determination?
- 3) Do you agree that if, during the course of the permit term, you plan to install a structural BMP not identified in the NOI that you will to conduct an endangered species screening for the proposed site and contact the USFWS if you determine that the new activity “may affect” or is “not likely to adversely affect” listed species or critical habitat under the jurisdiction of the USFWS.

Use the guidance below to understand effects determination and to answer these questions.

If you answered “Yes” to both the question above, you have met eligibility USFWS Criterion C. Go to Step 4.

If you answered “No” to either of the questions above, you are not eligible for coverage by this permit. You must submit an application for an individual permit for your stormwater discharges. (See 40 CFR 122.21).

USFWS Effects Determination Guidance:

If you are unable to certify eligibility under USFWS Criterion A, you must assess whether your stormwater discharges and discharge-related activities “may affect”, will have “no affect” or are “not likely to adversely affect” listed species or critical habitat. “Discharge-related activities” include: activities which cause, contribute to, or result in point source stormwater pollutant discharges; and measures to provide treatment for stormwater discharges including the siting, construction and operational procedures to control, reduce or prevent water pollution. Please be aware that no protection from incidental take liability is provided under this criterion.

The scope of effects to consider will vary with each system. If you are having difficulty in determining whether your system is likely to cause adverse effects to a listed species or critical habitat, you should contact the USFWS for assistance. In order to complete the determination of effects it may be necessary to follow the formal or informal consultation procedures in section 7 of the ESA.

Upon completion of your assessment, document the results of your effects determination. If your results indicate that stormwater discharges or discharge related activities will have “no affect” on threatened or endangered species or critical habitat and EPA concurs with your determination, you are eligible under USFWS Criterion C of this Appendix. Your determination may be based on measures that you implement to avoid, eliminate, or minimized adverse effects.

If the determination is “May affect” or “not likely to adversely affect” you must contact the USFWS to discuss your findings and measures you could implement to avoid, eliminate, or minimize adverse effects. If you and the USFWS reach agreement on measures to avoid adverse effects, you are eligible under USFWS Criterion B. Any terms and/or conditions to protect listed species and critical habitat that you relied on in order to complete an adverse effects determination, must be incorporated into your Storm Water Management Program (required by this permit) and implemented in order to maintain permit eligibility.

If endangered species issues cannot be resolved: If you cannot reach agreement with the USFWS on measures to avoid or eliminate adverse effects then you are not eligible for coverage under this permit. You must seek coverage under an individual permit.

Effects from stormwater discharges and discharge-related activities which could pose an adverse effect include:

- *Hydrological:* Stormwater discharges may cause siltation, sedimentation, or induce other changes in receiving waters such as temperature, salinity or pH. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.
- *Habitat:* Excavation, site development, grading and other surface disturbance activities, including the installation or placement of treatment equipment may adversely affect listed species or their habitat. Stormwater from the small MS4 may inundate a listed species habitat.

- *Toxicity:* In some cases, pollutants in the stormwater may have toxic effects on listed species.

Step 4 - Document Results of the Eligibility Determination

Once the USFWS ESA eligibility requirements have been met, you shall include documentation of USFWS ESA eligibility in the Storm Water Management Program required by the permit. Documentation for the various eligibility criteria are as follows:

- USFWS Criterion A: A copy of the IPaC generated preliminary determination letter indicating that no listed species or critical habitat is present within your action area. You shall also include a statement on how you determined that no listed species or critical habitat are in proximity to your stormwater system or discharges.
- USFWS Criterion B: A dated copy of the USFWS letter of concurrence on a finding of “no jeopardy” (for formal consultation) or “not likely to adversely affect” (for informal consultation) regarding the ESA section 7 consultation.
- USFWS Criterion C: A dated copy of the EPA concurrence with the operator’s determination that the stormwater discharges and discharge-related activities will have “no affect” on listed species or critical habitat.

C. Submittal of Notice of Intent

Once the ESA eligibility requirements of Part C of this Appendix have been met you may submit the Notice of Intent indicating which Criterion you have met to be eligible for permit coverage. Signature and submittal of the NOI constitutes your certification, under penalty of law, of eligibility for permit coverage under 40 CFR 122.21.

D. Duty to Implement Terms and Conditions upon which Eligibility was Determined

You must comply with any terms and conditions imposed under the ESA eligibility requirements to ensure that your stormwater discharges and discharge related activities do not pose adverse effects or jeopardy to listed species and/or critical habitat. You must incorporate such terms and conditions into your Storm Water Management Program as required by this permit. If the ESA eligibility requirements of this permit cannot be met, then you may not receive coverage under this permit and must apply for an individual permit.

E. Services Information

United States Fish and Wildlife Service Office

National websites for Endangered Species Information:

Endangered Species home page: <http://endangered.fws.gov>

ESA Section 7 Consultations: <http://endangered.fws.gov/consultation/index.html>

Information, Planning, and Conservation System (IPAC): <http://ecos.fws.gov/ipac/>

U.S. FWS – Region 5
Supervisor

New England Field Office
U.S. Fish and Wildlife Services
70 Commercial Street, Suite 300
Concord, NH 03301

Natural Heritage Network

The Natural Heritage Network comprises 75 independent heritage program organizations located in all 50 states, 10 Canadian provinces, and 12 countries and territories located throughout Latin America and the Caribbean. These programs gather, manage, and distribute detailed information about the biological diversity found within their jurisdictions. Developers, businesses, and public agencies use natural heritage information to comply with environmental laws and to improve the environmental sensitivity of economic development projects. Local governments use the information to aid in land use planning.

The Natural Heritage Network is overseen by NatureServe, the Network's parent organization, and is accessible on-line at:
http://www.natureserve.org/nhp/us_programs.htm, which provides websites and other access to a large number of specific biodiversity centers.

U.S. Fish and Wildlife IPaC system instructions

Use the following protocol to determine if any federally listed species or designated critical habitats under USFWS jurisdiction exist in your action area:

Enter your project specific information into the “Initial Project Scoping” feature of the Information, Planning, and Conservation (IPaC) system mapping tool, which can be found at the following location:

<http://ecos.fws.gov/ipac/>

- a. Indicate the action area¹ for the MS4 by either:
 - a. Drawing the boundary on the map or by uploading a shapefile. Select “Continue”
- c. Click on the “SEE RESOURCE LIST” button and on the next screen you can export a trust resources list. This will provide a list of natural resources of concern, which will include an Endangered Species Act Species list. You may also request an official species list under “REGULATORY DOCUMENTS” Save copies and retain for your records

¹ The action area is defined by regulation as all areas to be affected directly or indirectly by the action and not merely the immediate area involved in the action (50 CFR §402.02). This analysis is not limited to the "footprint" of the action nor is it limited by the Federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area.

The documentation used by a Federal action agency to initiate consultation should contain a description of the action area as defined in the Services' regulations and explained in the Services' consultation handbook. If the Services determine that the action area as defined by the action agency is incorrect, the Services should discuss their rationale with the agency or applicant, as appropriate. Reaching agreement on the description of the action area is desirable but ultimately the Services can only consult when an action area is defined properly under the regulations.

For storm water discharges or discharge related activities, the action area should encompass the following:

- The immediate vicinity of, or nearby, the point of discharge into receiving waters.
- The path or immediate area through which or over which storm water flows from the municipality to the point of discharge into the receiving water. This includes areas in the receiving water downstream from the point of discharge.
- Areas that may be impacted by construction or repair activities. This extends as far as effects related to noise (from construction equipment, power tools, etc.) and light (if work is performed at night) may reach.

The action area will vary with the size and location of the outfall pipe, the nature and quantity of the storm water discharges, and the type of receiving waters, among other factors.

Attachment B

USFWS New England Field Office
Official Species List for the City of Methuen



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:

April 16, 2019

Consultation Code: 05E1NE00-2019-SLI-1436

Event Code: 05E1NE00-2019-E-03441

Project Name: Methuen NOI

Subject: 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: 05E1NE00-2019-SLI-1436

Event Code: 05E1NE00-2019-E-03441

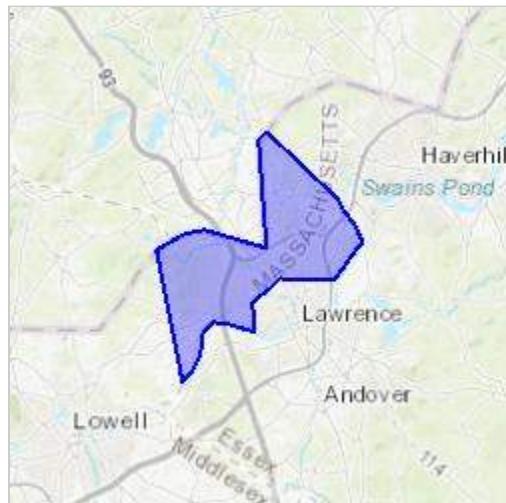
Project Name: Methuen NOI

Project Type: Regulation Promulgation

Project Description: This project is applying for coverage under the 2016 MS4 General Permit. The project consists of the entire area of the Town of Methuen's small municipal separate storm sewer systems (MS4) that falls within the urbanized area of the town. Based on EPA's 2016 MS4 General Permit, Methuen must apply for permit coverage for the Town's MS4 stormwater discharges and assess the impacts of the stormwater discharges and discharge-related activities on endangered and threatened species, and designated critical habitats that fall within the areas that fall within the MS4.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.73291089006531N71.18880277447619W>



Counties: Essex, MA | Rockingham, NH

Endangered Species Act Species

There is a total of 1 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

Critical habitats

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

Attachment C

Federally Listed Endangered and Threatened Species in Massachusetts

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN
MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

¹Migratory only, scattered along the coast in small numbers

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.

-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.

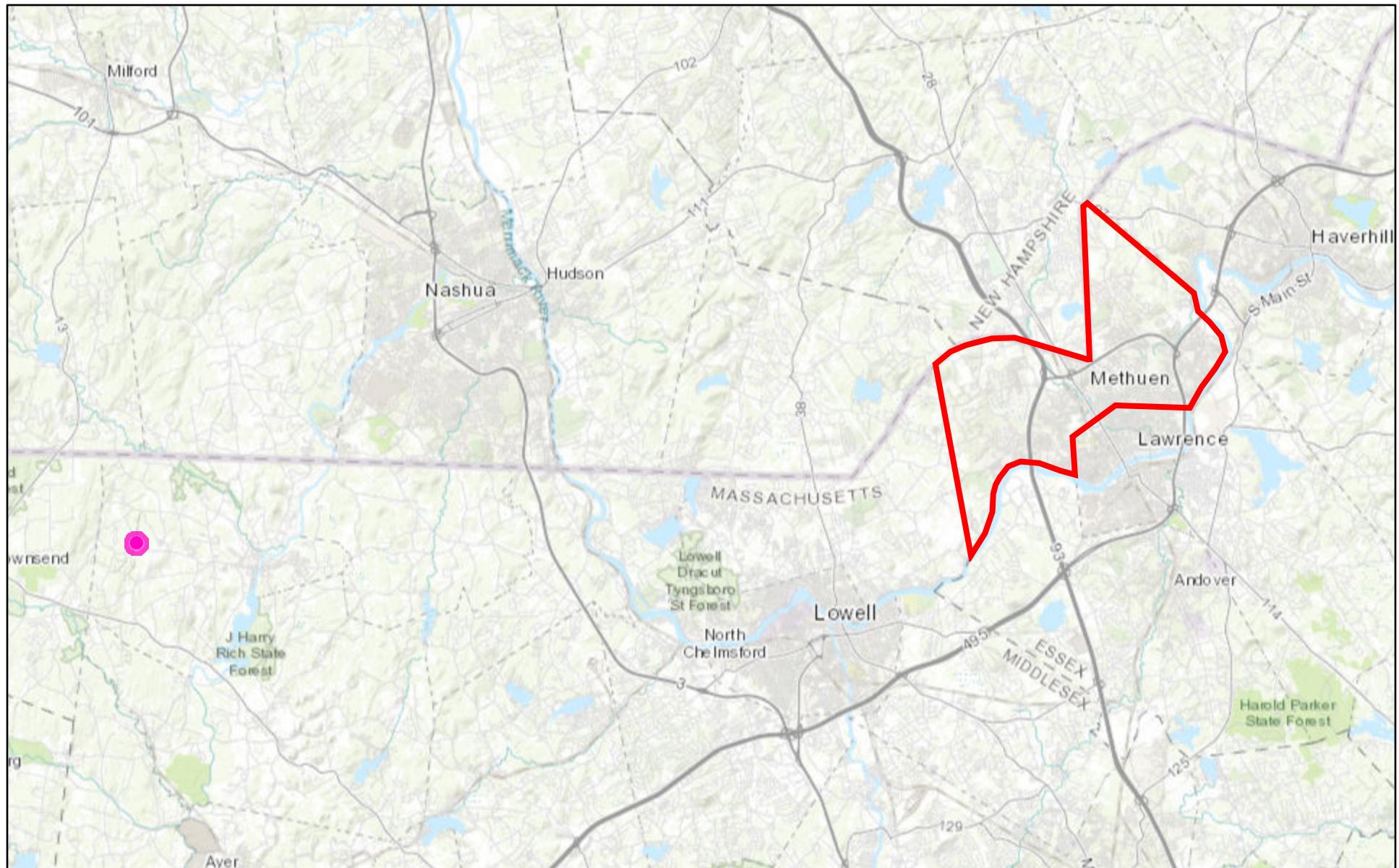
-Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

Attachment D

NHESP Northern Long-eared Bat

Hibernacula Map

Northern Long-Eared Bat Locations



September 19, 2018

Statewide NLEB Symbology

● Hibernaculum

MA Northern Long-eared Bat Winter Hibernacula (with 1/4 mile buffer)

1:288,895

0 1.75 3.5 7 mi
0 2.75 5.5 11 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

Attachment E

USFWS New England Field Office
Review Letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE



New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 31, 2019

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2019)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact David Simmons of this office at 603-227-6425 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

Appendix D

Historic Properties Eligibility Criteria Documentation

National Historic Preservation Act Eligibility Certification

To: City of Methuen Stormwater Program Files
FROM: Tighe & Bond
COPY: Daryl Laurenza, Acting DPW Director
Stephen gagnon, Engineering Department Administrator
DATE: April 18, 2019

Tighe & Bond has completed the National Historic Preservation Act Eligibility Determination screening process in accordance with Part 1.9.2 and Appendix D of U.S. EPA's National Pollutant Discharge Elimination System (NPDES) General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts (see Attachment A of this memorandum), effective July 1, 2018, and determined that the **City of Methuen** meets **Criterion A**, where the discharges do not have the potential to cause effects on historic properties.

Tighe & Bond followed the screening process included in Appendix D and has determined Methuen is an existing facility authorized by the previous permit and therefore meets Criterion A (see Question 1 in Appendix D of the Permit) and is not, as part of developing and submitting the Notice of Intent for permit coverage, undertaking any activity involving subsurface land disturbance less than an acre.

Based on this screening process, the City of Methuen's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities will not have an effect on a property that is listed or eligible for listing on the National Register of Historic Properties (NRHP) and no further action is necessary at this time.

Attachment B to this memorandum includes a list of the National Register of Historic Places listings that is current as of April 4, 2019, and a list of federal- and state-listed historic areas, buildings, burial grounds, objects, and structures located in the City of Methuen downloaded from the Massachusetts Cultural Resource Information System (MACRIS) that is current as of April 18, 2019.

If the City undertakes construction on or around a property that is listed or eligible for listing, the City will coordinate with the State Historic Preservation Officer (SHPO) (i.e. the Massachusetts Historical Commission) by submitting a Project Notification Form and associated documentation for the project. As applicable for each project, the City will implement measures to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO or THPO. If the City fails to document and implement such measures, those discharges are ineligible for coverage under EPA's Small MS4 General Permit.

Attachment A

Excerpts from EPA's NPDES General Permits for Stormwater Discharges
from Small MS4s in Massachusetts

Appendix D - National Historic Preservation Act Guidance

Appendix D
National Historic Preservation Act Guidance

Background

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of Federal “undertakings” on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term federal “undertaking” is defined in the NHPA regulations to include a project, activity, or program of a federal agency including those carried out by or on behalf of a federal agency, those carried out with federal financial assistance, and those requiring a federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA’s issuance of a National Pollutant Discharge Elimination System (NPDES) General Permit is a federal undertaking within the meaning of the NHPA regulations and EPA has determined that the activities to be carried out under the general permit require review and consideration, in order to be in compliance with the federal historic preservation laws and regulations. Although individual submissions for authorization under the general permit do not constitute separate federal undertakings, the screening processes provides an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit. To address any issues relating to historic properties in connection with the issuance of this permit, EPA has included a screening process for applicants to identify whether properties listed or eligible for listing on the National Register of Historic Places are within the path of their discharges or discharge-related activities (including treatment systems or any BMPs relating to the discharge or treatment process) covered by this permit.

Applicants seeking authorization under this general permit must comply with applicable, State, Tribal, and local laws concerning the protection of historic properties and places and may be required to coordinate with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO) and others regarding effects of their discharges on historic properties.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a federal undertaking has no potential to have an effect on historic properties fulfills an agency’s obligations under NHPA. EPA has reason to believe that the vast majority of activities authorized under this general permit will have no potential effects on historic properties. This permit typically authorizes discharges from existing facilities and requires control of the pollutants discharged from the facility. EPA does not anticipate effects on historic properties from the pollutants in the authorized discharges. Thus, to the extent EPA’s issuance of this general permit authorizes discharges of such constituents, confined to existing channels, outfalls or natural drainage areas, the permitting action does not have the potential to cause effects on historical properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit authorization. These existing dischargers should have already addressed NHPA issues in the previous general permit as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from

the applicable SHPO or THPO regarding methods of mitigating potential impacts. To the extent this permit authorizes renewal of prior coverage without relevant changes in operations the discharge has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties the applicant undertakes the construction and/or installation of control measures that involve subsurface disturbance that involves less than 1 acre of land. (Ground disturbances of 1 acre or more require coverage under the Construction General Permit.) Where there is disturbance of land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if the applicant is establishing new or altering existing control measures to manage their discharge that will involve subsurface ground disturbance of less than 1 acre, they will need to ensure (1) that historic properties will not be impacted by their activities or (2) that they are in compliance with a written agreement with the SHPO, THPO, or other tribal representative that outlines all measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Subsurface Disturbance

The type of control measures that are presumptively expected to cause subsurface ground disturbance include:

- Dikes
- Berms
- Catch basins, drainage inlets
- Ponds, bioretention areas
- Ditches, trenches, channels, swales
- Culverts, pipes
- Land manipulation; contouring, sloping, and grading
- Perimeter Drains
- Installation of manufactured treatment devices

EPA cautions applicants that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Certification

Upon completion of this screening process the applicant shall certify eligibility for this permit using one of the following criteria on their Notice of Intent for permit coverage:

Criterion A: The discharges do not have the potential to cause effects on historic properties.

Criterion B: A historic survey was conducted. The survey concluded that no historic properties are present. Discharges do not have the potential to cause effects on historic properties.

Criterion C: The discharges and discharge related activities have the potential to have an effect on historic properties, and the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the applicant will carry out to mitigate or prevent any adverse effects on historic properties.

Authorization under the general permit is available only if the applicant certifies and documents permit eligibility using one of the eligibility criteria listed above. Small MS4s that cannot meet any of the eligibility criteria in above must apply for an individual permit.

Screening Process

Applicants or their consultant need to answer the questions and follow the appropriate procedures below to assist EPA in compliance with 36 CFR 800.

Question 1: Is the facility an existing facility authorized by the previous permit or a new facility and the applicant is not undertaking any activity involving subsurface land disturbance less than an acre?

YES - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion A on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has “no potential to cause effects” (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

NO- Go to Question 2.

Question 2: Is the property listed in the National Register of Historic Places or have prior surveys or disturbances revealed the existence of a historic property or artifacts?

NO - The applicant should certify that fact in writing and file the statement with the EPA. This certification must be maintained as part of the records associated with the permit.

The applicant should certify eligibility for this permit using Criterion B on their Notice of Intent for permit coverage. The applicant does not need to contact the state Historic Commission. Based on that statement, EPA will document that the project has “no potential to cause effects” (36 CFR 800.3(a)(1)). There are no further obligations under the Section 106 regulations.

YES - The applicant or their consultant should prepare a complete information submittal to the SHPO. The submittal consists of:

- Completed Project Notification Form- forms available at <http://www.sec.state.ma.us/mhc/mhcform/formidx.htm>;

- USGS map section with the actual project boundaries clearly indicated; and
- Scaled project plans showing existing and proposed conditions.

(1) Please note that the SHPO does not accept email for review. Please mail a paper copy of your submittal (Certified Mail, Return Receipt Requested) or deliver a paper copy of your submittal (and obtain a receipt) to:

State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Blvd.
Boston MA 02125.

(2) Provide a copy of your submittal and the proof of MHC delivery showing the date MHC received your submittal to:

NPDES Permit Branch Chief
US EPA Region 1 (OEP06-1)
5 Post Office Square, Suite 100
Boston MA 02109-3912.

The SHPO will comment within thirty (30) days of receipt of complete submittals, and may ask for additional information. Consultation, as appropriate, will include EPA, the SHPO and other consulting parties (which includes the applicant). The steps in the federal regulations (36 CFR 800.2 to 800.6, etc.) will proceed as necessary to conclude the Section 106 review for the undertaking. **The applicant should certify eligibility for this permit using Criterion C on their Notice of Intent for permit coverage.**

Attachment B

Excerpts from National Register Listings for Massachusetts
MACRIS List of Federal- and State-Listed Historic Areas, Buildings,
Burial Grounds, Objects, and Structures in the City of Methuen

National Register of Historic Places Listed Properties as of 4/4/2019 (<https://www.nps.gov/subjects/nationalregister/database-research.htm>)

Ref#	Property Name	Status	State	County	City	Street & Number	Listed Date	Other Names
84002307	Barker, Stephen, House	Listed	MASSACHUSETTS	Essex	Methuen	165 Haverhill St.	1/20/1984	Woodland Cottage
84002317	Buswell, J.E., House	Listed	MASSACHUSETTS	Essex	Methuen	535-537 Prospect St.	1/20/1984	
84002320	Daddy Frye's Hill Cemetery	Listed	MASSACHUSETTS	Essex	Methuen	East and Arlington Sts.	1/20/1984	
84002323	Dolan, Terence, House	Listed	MASSACHUSETTS	Essex	Methuen	478 Prospect St.	1/20/1984	
84002326	Double-arch Sandstone Bridge	Listed	MASSACHUSETTS	Essex	Methuen	Hampshire Rd.	6/20/1984	
84002351	Emerson House	Listed	MASSACHUSETTS	Essex	Methuen	58 Ayers Village Rd.	1/20/1984	
84002347	Emerson, Capt. Oliver, Homestead	Listed	MASSACHUSETTS	Essex	Methuen	133 North St.	1/20/1984	
84002353	Emmons, G.B., House	Listed	MASSACHUSETTS	Essex	Methuen	283 Broadway	1/20/1984	
84002365	First Baptist Church	Listed	MASSACHUSETTS	Essex	Methuen	253 Lawrence St.	1/20/1984	
78000461	First Church Congregational	Listed	MASSACHUSETTS	Essex	Methuen	Pleasant and Stevens Sts.	12/1/1978	
84002367	Hardy, Urias, House	Listed	MASSACHUSETTS	Essex	Methuen	50 Brown St.	1/20/1984	
84002388	House 15--19 Park Street	Listed	MASSACHUSETTS	Essex	Methuen	15--19 Park St.	1/20/1984	
84002385	House at 10 Park Street	Listed	MASSACHUSETTS	Essex	Methuen	10 Park St.	1/20/1984	
84002381	House at 113--115 Center Street	Listed	MASSACHUSETTS	Essex	Methuen	113--115 Center St.	1/20/1984	
84002387	House at 13 Annis Street	Listed	MASSACHUSETTS	Essex	Methuen	13 Annis St.	1/20/1984	
84002377	House at 136 Hampstead Street	Listed	MASSACHUSETTS	Essex	Methuen	136 Hampstead St.	6/20/1984	
84002382	House at 23 East Street	Listed	MASSACHUSETTS	Essex	Methuen	23 East St.	1/20/1984	
84002390	House at 262--264 Pelham Street	Listed	MASSACHUSETTS	Essex	Methuen	262--264 Pelham St.	1/20/1984	
84002379	House at 306 Broadway	Listed	MASSACHUSETTS	Essex	Methuen	306 Broadway	1/20/1984	
84002374	House at 4 Birch Avenue	Listed	MASSACHUSETTS	Essex	Methuen	4 Birch Ave.	1/20/1984	
84002396	House at 491 Prospect Street	Listed	MASSACHUSETTS	Essex	Methuen	491 Prospect St.	1/20/1984	
84002392	House at 50 Pelham Street	Listed	MASSACHUSETTS	Essex	Methuen	50 Pelham St.	1/20/1984	
84002394	House at 526 Prospect Street	Listed	MASSACHUSETTS	Essex	Methuen	526 Prospect St.	1/20/1984	
84002384	House at 9 Park Street	Listed	MASSACHUSETTS	Essex	Methuen	9 Park St.	1/20/1984	
84002398	Johnson House	Listed	MASSACHUSETTS	Essex	Methuen	8 Ditson Pl.	1/20/1984	
84002399	Lawrence Street Cemetery	Listed	MASSACHUSETTS	Essex	Methuen	Lawrence St.	1/20/1984	
78000462	Methuen Memorial Music Hall	Listed	MASSACHUSETTS	Essex	Methuen	192 Broadway	12/14/1978	Serlo Organ Hall
84002403	Methuen Water Works	Listed	MASSACHUSETTS	Essex	Methuen	Cross St.	1/20/1984	
84002404	Morse, Moses, House	Listed	MASSACHUSETTS	Essex	Methuen	311 Pelham St.	1/20/1984	
84002407	Nevins Memorial Library	Listed	MASSACHUSETTS	Essex	Methuen	305 Broadway	1/20/1984	
84002406	Nevins, Henry C., Home for Aged and Incurables	Listed	MASSACHUSETTS	Essex	Methuen	110 Broadway	1/20/1984	
84002413	Old Town Farm	Listed	MASSACHUSETTS	Essex	Methuen	430 Pelham St.	1/20/1984	
84002414	Park Lodge	Listed	MASSACHUSETTS	Essex	Methuen	257 Lawrence St.	1/20/1984	
84002416	Perkins, Joseph, House	Listed	MASSACHUSETTS	Essex	Methuen	297 Howe St.	1/20/1984	
84002417	Pleasant-High Historic District	Listed	MASSACHUSETTS	Essex	Methuen	Roughly bounded by Broadway, High, Vine, Charles, and Pleasant Sts.	6/20/1984	
84002431	Searles High School	Listed	MASSACHUSETTS	Essex	Methuen	41 Pleasant St.	1/20/1984	
84002432	Simpson, James E., House	Listed	MASSACHUSETTS	Essex	Methuen	606 Prospect St.	1/20/1984	
84002435	Spicket Falls Historic District	Listed	MASSACHUSETTS	Essex	Methuen	Roughly bounded by Spicket River, Railroad, Pelham, Hampshire, Broadway and Osgood Sts.	6/20/1984	
84002437	Swan, Asie, House	Listed	MASSACHUSETTS	Essex	Methuen	669 Prospect St.	1/20/1984	
84002438	Tenny Castle Gatehouse	Listed	MASSACHUSETTS	Essex	Methuen	37 Pleasant St.	1/20/1984	
84002439	Turnpike House	Listed	MASSACHUSETTS	Essex	Methuen	314 Broadway	1/20/1984	
84002441	Waldo, George A., House	Listed	MASSACHUSETTS	Essex	Methuen	233 Lawrence St.	1/20/1984	
84002444	Walnut Grove Cemetery	Listed	MASSACHUSETTS	Essex	Methuen	Grove and Railroads Sts.	1/20/1984	

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Methuen; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
MET.A	Spicket Falls Historic District		Methuen	
MET.B	Pleasant - High Street Historic District		Methuen	
MET.C	Arlington Mills Historic District		Methuen	
MET.D	Methuen Multiple Resource Area		Methuen	
MET.E	Searles, Tenney Nevins Historic District		Methuen	
MET.F	Searles Estate		Methuen	
MET.G	Tenney Estate - Fair View Park		Methuen	
MET.H	Spicket Falls Historic District (Boundary Increase)		Methuen	
MET.I	Arlington Neighborhood		Methuen	
MET.J	Fair Oaks Area		Methuen	
MET.K	Glen Forest Area		Methuen	
MET.L	Lowell - Union Streets Area		Methuen	
MET.M	Lower Germantown		Methuen	
MET.N	Massachusetts S. P. C. A. Animal Shelter Farm		Methuen	
MET.O	Oakside Area		Methuen	
MET.P	Pleasant Street - High Street Area		Methuen	
MET.Q	Methuen Town Forest - Forest Lake		Methuen	
MET.R	Upper Prospect Street Area		Methuen	
MET.S	Ashland Avenue Streetscape		Methuen	
MET.T	Lowell Streetscape		Methuen	
MET.U	First Baptist Church and Parsonage		Methuen	
MET.V	Kimball Road Area		Methuen	
MET.532		3-5 Annis St	Methuen	c 1910
MET.533		4 Annis St	Methuen	c 1900
MET.534	Arlington Mills Double Worker Housing	6-8 Annis St	Methuen	r 1895
MET.535		7 Annis St	Methuen	r 1895
MET.536		9 Annis St	Methuen	r 1895

Inv. No.	Property Name	Street	Town	Year
MET.537	Arlington Mills Double Worker Housing	10-12 Annis St	Methuen	r 1895
MET.538		11 Annis St	Methuen	r 1895
MET.103		13 Annis St	Methuen	c 1880
MET.540		14 Annis St	Methuen	r 1895
MET.541		15 Annis St	Methuen	r 1895
MET.542		16-18 Annis St	Methuen	r 1895
MET.543		17 Annis St	Methuen	r 1895
MET.544		19-21 Annis St	Methuen	r 1895
MET.545		20 Annis St	Methuen	r 1895
MET.546		22 Annis St	Methuen	c 1910
MET.547		23-25 Annis St	Methuen	r 1895
MET.548		28 Annis St	Methuen	r 1895
MET.549		29 Annis St	Methuen	r 1895
MET.550		30 Annis St	Methuen	r 1895
MET.551		39-41 Annis St	Methuen	r 1895
MET.552		43-47 Annis St	Methuen	r 1895
MET.1327		37 Arlington St	Methuen	c 1925
MET.1328		39 Arlington St	Methuen	c 1925
MET.1329		47-49 Arlington St	Methuen	c 1925
MET.1330		53 Arlington St	Methuen	c 1925
MET.1331		55 Arlington St	Methuen	c 1925
MET.116		54 Arnold St	Methuen	c 1860
MET.117	Fairbanks, William G. House	58 Arnold St	Methuen	c 1880
MET.371		1 Arthur St	Methuen	c 1900
MET.487	Ashford Street School	46 Ashford St	Methuen	1913
MET.553		1-3 Ashton Pl	Methuen	r 1895
MET.554		2 Ashton Pl	Methuen	r 1895
MET.555		4-6 Ashton Pl	Methuen	r 1895
MET.556		8-10 Ashton Pl	Methuen	c 1900
MET.557		11 Ashton Pl	Methuen	r 1965
MET.1332		1-3 Auburn St	Methuen	c 1922
MET.1333		2 Auburn St	Methuen	c 1922
MET.1334		7 Auburn St	Methuen	c 1922
MET.1335		9-11 Auburn St	Methuen	c 1922
MET.1336		10-12 Auburn St	Methuen	c 1922
MET.1337		13-15 Auburn St	Methuen	c 1922
MET.1338		14-16 Auburn St	Methuen	c 1922
MET.1339		17-19 Auburn St	Methuen	c 1922

Inv. No.	Property Name	Street	Town	Year
MET.1340		18-20 Auburn St	Methuen	c 1922
MET.1341		21-23 Auburn St	Methuen	c 1922
MET.1342		22-24 Auburn St	Methuen	c 1922
MET.1343		25-27 Auburn St	Methuen	c 1922
MET.1344		28-30 Auburn St	Methuen	c 1922
MET.1345		29-31 Auburn St	Methuen	c 1922
MET.1346		32-34 Auburn St	Methuen	c 1922
MET.170	Pettingill House	4 Ayers Village Rd	Methuen	1828
MET.171	Emerson House	58 Ayers Village Rd	Methuen	c 1750
MET.143	Emenegger, John Barn	47 Baremeadow St	Methuen	c 1890
MET.488	Sweeney, John P. House	175 Berkeley St	Methuen	c 1900
MET.142	Birch Street, 4	4 Birch St	Methuen	c 1910
MET.1347		2-4 Birchwood Rd	Methuen	c 1925
MET.1348		6-8 Birchwood Rd	Methuen	c 1925
MET.1349		10-12 Birchwood Rd	Methuen	c 1925
MET.1350		14-16 Birchwood Rd	Methuen	c 1925
MET.1351		18 Birchwood Rd	Methuen	c 1960
MET.1352		20 Birchwood Rd	Methuen	c 1960
MET.1353		26 Birchwood Rd	Methuen	1950
MET.1354		30 Birchwood Rd	Methuen	c 1950
MET.1355		34 Birchwood Rd	Methuen	c 1950
MET.1356		46-48 Birchwood Rd	Methuen	c 1925
MET.1357		47 Birchwood Rd	Methuen	c 1930
MET.1358		55 Birchwood Rd	Methuen	c 1930
MET.1359		56 Birchwood Rd	Methuen	c 1925
MET.1361		58 Birchwood Rd	Methuen	c 1960
MET.1360		59 Birchwood Rd	Methuen	c 1925
MET.1362		62-64 Birchwood Rd	Methuen	c 1925
MET.1363		65 Birchwood Rd	Methuen	c 1930
MET.1364		66 Birchwood Rd	Methuen	c 1960
MET.1365		69 Birchwood Rd	Methuen	c 1930
MET.1366		70-72 Birchwood Rd	Methuen	c 1925
MET.1367		73 Birchwood Rd	Methuen	c 1930
MET.1368		80 Birchwood Rd	Methuen	c 1960
MET.1369		83 Birchwood Rd	Methuen	c 1930
MET.1370		86-88 Birchwood Rd	Methuen	c 1930
MET.1371		90-92 Birchwood Rd	Methuen	c 1925
MET.1372		95 Birchwood Rd	Methuen	c 1930

Inv. No.	Property Name	Street	Town	Year
MET.1373		98-100 Birchwood Rd	Methuen	c 1925
MET.558		3 Blake St	Methuen	c 1947
MET.559		7 Blake St	Methuen	c 1947
MET.560		10 Blake St	Methuen	r 1945
MET.561		11 Blake St	Methuen	c 1947
MET.562		12 Blake St	Methuen	r 1955
MET.563		15 Blake St	Methuen	c 1947
MET.564		19 Blake St	Methuen	c 1947
MET.140		52 Boston St	Methuen	c 1875
MET.1259		68 Boston St	Methuen	r 1895
MET.1260		70 Boston St	Methuen	r 1915
MET.1261		78 Boston St	Methuen	r 1915
MET.1262		79 Boston St	Methuen	r 1895
MET.1263		81 Boston St	Methuen	r 1915
MET.1264		85 Boston St	Methuen	r 1915
MET.1265		89 Boston St	Methuen	r 1915
MET.1266		92 Boston St	Methuen	r 1875
MET.1267		93 Boston St	Methuen	r 1915
MET.1268		94 Boston St	Methuen	r 1915
MET.1269		95 Boston St	Methuen	r 1915
MET.1270		96 Boston St	Methuen	r 1915
MET.1271		97 Boston St	Methuen	r 1915
MET.1272		98 Boston St	Methuen	r 1915
MET.1273		99 Boston St	Methuen	r 1895
MET.1274		100 Boston St	Methuen	r 1915
MET.1275		105 Boston St	Methuen	r 1915
MET.1276		109-111 Boston St	Methuen	r 1915
MET.1277		113 Boston St	Methuen	r 1915
MET.1278		21 Boylston St	Methuen	r 1915
MET.1279		25 Boylston St	Methuen	r 1875
MET.1280		27 Boylston St	Methuen	r 1915
MET.139	Currier Elementary School	30 Boylston St	Methuen	1923
MET.1374		5 Brewster Terr	Methuen	c 1950
MET.1375		6 Brewster Terr	Methuen	c 1950
MET.1376		7 Brewster Terr	Methuen	c 1950
MET.1377		8 Brewster Terr	Methuen	c 1930
MET.1378		11 Brewster Terr	Methuen	c 1950
MET.1379		12 Brewster Terr	Methuen	c 1960

Inv. No.	Property Name	Street	Town	Year
MET.1380		15 Brewster Terr	Methuen	c 1950
MET.1381		16 Brewster Terr	Methuen	c 1960
MET.1382		20 Brewster Terr	Methuen	c 1950
MET.800	Hillside Acre Animal Cemetery	Broadway	Methuen	1917
MET.906	Broadway Bridge - Ingalls Bridge	Broadway	Methuen	1858
MET.565		2 Broadway	Methuen	r 1965
MET.566		19-33 Broadway	Methuen	r 1965
MET.567		50 Broadway	Methuen	r 1965
MET.568		53 Broadway	Methuen	r 1885
MET.569		55-59 Broadway	Methuen	c 1900
MET.570		58 Broadway	Methuen	r 1985
MET.571		61-63 Broadway	Methuen	r 1885
MET.572		62 Broadway	Methuen	r 1965
MET.573		64-66 Broadway	Methuen	c 1900
MET.574		69 Broadway	Methuen	c 1900
MET.575		70-72 Broadway	Methuen	c 1900
MET.576		71-75 Broadway	Methuen	r 1885
MET.577		77 Broadway	Methuen	r 1925
MET.578		78-80 Broadway	Methuen	c 1900
MET.93	All Saints Episcopal Church	82 Broadway	Methuen	1904
MET.579		83-87 Broadway	Methuen	r 1915
MET.580		86-88 Broadway	Methuen	r 1935
MET.581		91 Broadway	Methuen	r 1925
MET.582		95 Broadway	Methuen	r 1880
MET.92	Nevins, Henry C. Home for Aged and Incurables	100-110 Broadway	Methuen	1906
MET.1687	Huse, Aaron Double House	100-102 Broadway	Methuen	r 1880
MET.583		103 Broadway	Methuen	r 1880
MET.584		107 Broadway	Methuen	c 1925
MET.238	Ingalls, Charles Hat Factory Workers Housing #1	163 Broadway	Methuen	c 1840
MET.239	Ingalls, Charles Hat Factory Workers Housing #2	165-167 Broadway	Methuen	c 1875
MET.240	Ingalls, James Block	169-175 Broadway	Methuen	1899
MET.1688	Sutton, William House	176 Broadway	Methuen	c 1905
MET.1689	Hayden, Thomas House	180 Broadway	Methuen	c 1890
MET.241	Parsons, T. A. - Coleman, Andrew House	183-185 Broadway	Methuen	c 1854
MET.242		187 Broadway	Methuen	1970
MET.1690	Methuen American Legion Post #122	190 Broadway	Methuen	1924
MET.243	Coleman, Charles W. House	191 Broadway	Methuen	1904
MET.91	Methuen Memorial Music Hall	192 Broadway	Methuen	c 1899

Inv. No.	Property Name	Street	Town	Year
MET.244	Walgreens Pharmacy	201-203 Broadway	Methuen	1986
MET.245		209-211 Broadway	Methuen	c 1880
MET.246	Simonds, Asa House	213 Broadway	Methuen	1881
MET.247	Shirley, Jesse B. House	215-217 Broadway	Methuen	c 1880
MET.248	Buckminster, Frank House	219 Broadway	Methuen	1895
MET.249	Selden Worsted Mills	225 Broadway	Methuen	c 1919
MET.89	Saint Monica's Roman Catholic Church	231 Broadway	Methuen	1896
MET.90	Saint Monica's Roman Catholic Church Rectory	231 Broadway	Methuen	c 1922
MET.250	Serlo Organ Hall Outbuilding	238 Broadway	Methuen	c 1890
MET.251	Methuen Co-operative Bank	243 Broadway	Methuen	1964
MET.253	Clark, E. M. and E. A. House	245-247 Broadway	Methuen	c 1860
MET.252	Central Methuen Mini-Mall	246 Broadway	Methuen	c 1967
MET.88	Osgood, Benjamin House	248-250 Broadway	Methuen	c 1819
MET.254	Lawlor, Dr. Richard H. House	251 Broadway	Methuen	1909
MET.255	Wessell's Service Station	254 Broadway	Methuen	1938
MET.256	Friendly's Restaurant	255 Broadway	Methuen	1967
MET.257	Swain, Frederick M. House	258-260 Broadway	Methuen	1901
MET.87	Barnes, Lewis E. House	259-261 Broadway	Methuen	1906
MET.259	Douglas, John T. House	262-264 Broadway	Methuen	1909
MET.260	Merrill, Moses - Woodbury, Dr. George E. House	265 Broadway	Methuen	1806
MET.261	Gage, Frank - Sanborn, John C. House	266 Broadway	Methuen	c 1840
MET.262	Bennett, Alva - Richardson, Abiah House	268 Broadway	Methuen	c 1842
MET.20	Turnpike Hotel	271 Broadway	Methuen	1879
MET.263	U. S. Post Office - Methuen Branch	272 Broadway	Methuen	1963
MET.19	Exchange Hotel	275 Broadway	Methuen	1851
MET.264	Merrimack Valley National Bank of Haverhill	276 Broadway	Methuen	1963
MET.1691	Tenney, Daniel W. House	281 Broadway	Methuen	1879
MET.4	Emmons, G. B. House	283 Broadway	Methuen	c 1890
MET.3		285-287 Broadway	Methuen	c 1830
MET.21	Methuen Old Town Hall	290 Broadway	Methuen	1853
MET.2	Perkins, John A. House	293 Broadway	Methuen	c 1890
MET.266	Methuen Historical Commission Building	299 Broadway	Methuen	1919
MET.265	Currier Block	300 Broadway	Methuen	c 1879
MET.1692	Tenney, George Washington House	302 Broadway	Methuen	1892
MET.5		304 Broadway	Methuen	c 1840
MET.1	Nevins Memorial Library	305 Broadway	Methuen	1883
MET.6		306 Broadway	Methuen	c 1830
MET.7		308 Broadway	Methuen	c 1840

Inv. No.	Property Name	Street	Town	Year
MET.8		310 Broadway	Methuen	c 1870
MET.1693	Page, Rufus House	312 Broadway	Methuen	r 1871
MET.9	Turnpike House	314 Broadway	Methuen	c 1805
MET.1694	Gilcreast, Everett House	316 Broadway	Methuen	c 1890
MET.10		318 Broadway	Methuen	c 1870
MET.11		322 Broadway	Methuen	c 1860
MET.1320	S. P. C. A. Farm - South Cottage	400 Broadway	Methuen	c 1920
MET.1321	S. P. C. A. Farm - North Cottage	400 Broadway	Methuen	c 1915
MET.1322	S. P. C. A. Farm - Livestock Barn - Carriage Shed	400 Broadway	Methuen	c 1920
MET.1323	S. P. C. A. Farm - Small Animal Shelter	400 Broadway	Methuen	c 1920
MET.1324	S. P. C. A. Farm - Poultry Barn	400 Broadway	Methuen	c 1930
MET.1325	S. P. C. A. Farm - Animal Cemetery Office - Garage	400 Broadway	Methuen	c 1938
MET.1326	S. P. C. A. Farm - Crematory	400 Broadway	Methuen	1971
MET.94		1 Brown St	Methuen	c 1880
MET.585		3 Brown St	Methuen	r 1880
MET.586		5-7 Brown St	Methuen	r 1880
MET.587		6 Brown St	Methuen	c 1900
MET.588		8 Brown St	Methuen	c 1900
MET.589		10 Brown St	Methuen	c 1900
MET.590		11-13 Brown St	Methuen	r 1880
MET.591		12-14 Brown St	Methuen	c 1900
MET.592		15-17 Brown St	Methuen	r 1880
MET.593		16 Brown St	Methuen	r 1915
MET.95		19-21 Brown St	Methuen	c 1880
MET.594		20 Brown St	Methuen	c 1900
MET.595		25 Brown St	Methuen	c 1900
MET.596		26 Brown St	Methuen	r 1975
MET.597		27 Brown St	Methuen	r 1915
MET.598		29-31 Brown St	Methuen	r 1915
MET.599		33-35 Brown St	Methuen	c 1900
MET.600		36 Brown St	Methuen	r 1935
MET.601		37 Brown St	Methuen	r 1880
MET.602		40-42 Brown St	Methuen	r 1915
MET.603		41 Brown St	Methuen	r 1880
MET.604		43 Brown St	Methuen	r 1915
MET.605		44 Brown St	Methuen	r 1925

Inv. No.	Property Name	Street	Town	Year
MET.96	Hardy, Urias House	50 Brown St	Methuen	c 1900
MET.606		52-54 Brown St	Methuen	r 1915
MET.607		61 Brown St	Methuen	r 1965
MET.608		67 Brown St	Methuen	r 1925
MET.97		71 Brown St	Methuen	c 1910
MET.609		73 Brown St	Methuen	r 1915
MET.610		77-77 1/2 Brown St	Methuen	r 1880
MET.611		79-79 1/2 Brown St	Methuen	r 1915
MET.612		80 Brown St	Methuen	r 1880
MET.613		81 Brown St	Methuen	r 1880
MET.614		82 Brown St	Methuen	r 1925
MET.615		83 Brown St	Methuen	r 1880
MET.616		84-86 Brown St	Methuen	r 1880
MET.617		87 Brown St	Methuen	r 1880
MET.618		88 Brown St	Methuen	c 1915
MET.619		90 Brown St	Methuen	r 1925
MET.620		91 Brown St	Methuen	r 1915
MET.621		94-96 Brown St	Methuen	r 1925
MET.622		95 Brown St	Methuen	r 1925
MET.623		102-104 Brown St	Methuen	r 1925
MET.1383		2-4 Burgess St	Methuen	r 1925
MET.1384		7 Burgess St	Methuen	c 1955
MET.1385		10-12 Burgess St	Methuen	r 1925
MET.1386		15 Burgess St	Methuen	c 1955
MET.1387		16 Burgess St	Methuen	c 1955
MET.1388		17-19 Burgess St	Methuen	c 1925
MET.1389		21-23 Burgess St	Methuen	c 1925
MET.1390		22-24 Burgess St	Methuen	c 1925
MET.1391		25-27 Burgess St	Methuen	c 1925
MET.1392		28 Burgess St	Methuen	c 1960
MET.1393		29 Burgess St	Methuen	c 1960
MET.624		1 Camden St	Methuen	r 1880
MET.625		2-4 Camden St	Methuen	r 1915
MET.626		3-9 Camden St	Methuen	c 1900
MET.627		6 Camden St	Methuen	r 1915
MET.628		8-14 Camden St	Methuen	r 1915
MET.629		19-27 Camden St	Methuen	r 1915
MET.630		20-22 Camden St	Methuen	c 1900

Inv. No.	Property Name	Street	Town	Year
MET.631		33 Camden St	Methuen	c 1910
MET.102		34 Camden St	Methuen	c 1880
MET.632		35-37 Camden St	Methuen	r 1880
MET.633		39-41 Camden St	Methuen	r 1880
MET.634		40 Camden St	Methuen	c 1910
MET.635		42-44 Camden St	Methuen	r 1915
MET.636		46-48 Camden St	Methuen	c 1910
MET.637		47-49 Camden St	Methuen	c 1900
MET.638		50 Camden St	Methuen	c 1900
MET.639		55 Camden St	Methuen	c 1900
MET.640		57 Camden St	Methuen	c 1900
MET.642		58 Camden St	Methuen	c 1900
MET.641		59-61 Camden St	Methuen	c 1900
MET.643		62-64 Camden St	Methuen	c 1900
MET.644		66-68 Camden St	Methuen	c 1900
MET.645		70-72 Camden St	Methuen	c 1900
MET.646		71 Camden St	Methuen	r 1885
MET.647		73-75 Camden St	Methuen	r 1885
MET.648		74 Camden St	Methuen	r 1885
MET.649		84-86 Camden St	Methuen	c 1900
MET.101		93 Camden St	Methuen	c 1880
MET.650		96 Camden St	Methuen	c 1900
MET.651		98 Camden St	Methuen	c 1900
MET.652		99 Camden St	Methuen	r 1885
MET.653		108 Camden St	Methuen	r 1885
MET.654		110-112 Camden St	Methuen	r 1885
MET.655		115 Camden St	Methuen	r 1965
MET.656		117 Camden St	Methuen	r 1965
MET.657		118-120 Camden St	Methuen	r 1885
MET.658		119 Camden St	Methuen	r 1965
MET.659		121 Camden St	Methuen	r 1895
MET.660		124 Camden St	Methuen	r 1925
MET.661		126 Camden St	Methuen	r 1925
MET.662		135 Camden St	Methuen	r 1885
MET.663		138 Camden St	Methuen	r 1885
MET.100		146 Camden St	Methuen	c 1920
MET.664	Saint George's Ebenezer Primitive Methodist Church	3 Carleton St	Methuen	1904

Inv. No.	Property Name	Street	Town	Year
MET.665		4-6 Carleton St	Methuen	c 1900
MET.666		8-10 Carleton St	Methuen	c 1900
MET.667		9-11 Carleton St	Methuen	r 1885
MET.668		12-14 Carleton St	Methuen	c 1900
MET.669		13 Carleton St	Methuen	r 1885
MET.670		15 Carleton St	Methuen	r 1885
MET.671		16-18 Carleton St	Methuen	c 1900
MET.672		17 Carleton St	Methuen	r 1885
MET.673		19 Carleton St	Methuen	r 1885
MET.674		20-22 Carleton St	Methuen	c 1900
MET.675		21 Carleton St	Methuen	r 1925
MET.676		24 Carleton St	Methuen	c 1900
MET.677		24-26 Carleton St	Methuen	c 1900
MET.678		25-27 Carleton St	Methuen	r 1915
MET.679		28-30 Carleton St	Methuen	c 1900
MET.680		29 Carleton St	Methuen	r 1925
MET.98		31 Carleton St	Methuen	c 1850
MET.681		35-37 Carleton St	Methuen	c 1900
MET.682		39 Carleton St	Methuen	r 1885
MET.1281		2 Carroll St	Methuen	r 1915
MET.107		3 Center St	Methuen	c 1870
MET.683		5 Center St	Methuen	r 1885
MET.684	Methuen Primitive Methodist Church	9 Center St	Methuen	c 1900
MET.685		10 Center St	Methuen	c 1880
MET.686		11 Center St	Methuen	c 1900
MET.687		15-17 Center St	Methuen	c 1900
MET.688		19-25 Center St	Methuen	c 1900
MET.689		27 Center St	Methuen	r 1950
MET.690		29 Center St	Methuen	r 1885
MET.691		31 Center St	Methuen	r 1885
MET.693		34-38 Center St	Methuen	r 1935
MET.692		35 Center St	Methuen	r 1885
MET.694		37-45 Center St	Methuen	c 1900
MET.695		47-49 Center St	Methuen	c 1900
MET.696		51-57 Center St	Methuen	r 1965
MET.697		59 Center St	Methuen	c 1900
MET.698		61-63 Center St	Methuen	r 1850
MET.699		65-71 Center St	Methuen	r 1915

Inv. No.	Property Name	Street	Town	Year
MET.700		68 Center St	Methuen	c 1900
MET.701		73-75 Center St	Methuen	c 1900
MET.702		76 Center St	Methuen	c 1900
MET.703		83-85 Center St	Methuen	c 1900
MET.704		84-86 Center St	Methuen	r 1885
MET.705		88 Center St	Methuen	r 1880
MET.706		89 Center St	Methuen	r 1885
MET.707		90-94 Center St	Methuen	r 1915
MET.1140		91-95 Center St	Methuen	r 1885
MET.708		96 Center St	Methuen	r 1885
MET.709		97 Center St	Methuen	r 1885
MET.710		99 Center St	Methuen	r 1885
MET.711		101-103 Center St	Methuen	r 1885
MET.712		102 Center St	Methuen	r 1885
MET.713		104-106 Center St	Methuen	r 1885
MET.714		105-111 Center St	Methuen	c 1920
MET.715		106 Center St	Methuen	r 1885
MET.716		110 Center St	Methuen	r 1885
MET.717		112-114 Center St	Methuen	r 1915
MET.99		113-115 Center St	Methuen	c 1860
MET.718		125-127 Center St	Methuen	c 1900
MET.719		129-131 Center St	Methuen	c 1900
MET.1141	First Spiritualist Church	133 Center St	Methuen	c 1895
MET.720		139-141 Center St	Methuen	r 1915
MET.721		140 Center St	Methuen	r 1915
MET.722		146 Center St	Methuen	r 1885
MET.723		147-149 Center St	Methuen	c 1900
MET.724		150-152 Center St	Methuen	r 1885
MET.725		155-157 Center St	Methuen	c 1900
MET.52	Archibald, Edward A. House	4 Central St	Methuen	c 1850
MET.1588		5 Central St	Methuen	r 1885
MET.1589		6 Central St	Methuen	c 1900
MET.51		9 Central St	Methuen	c 1880
MET.1590		10 Central St	Methuen	c 1900
MET.1591		12 Central St	Methuen	c 1910
MET.1592		13 Central St	Methuen	c 1900
MET.1593		14 Central St	Methuen	r 1985
MET.1594		15-15 1/2 Central St	Methuen	c 1900

Inv. No.	Property Name	Street	Town	Year
MET.1595		16 Central St	Methuen	c 1900
MET.1596		17-19 Central St	Methuen	c 1900
MET.1597		20 Central St	Methuen	r 1965
MET.1598		21 Central St	Methuen	c 1900
MET.1599		23 Central St	Methuen	c 1900
MET.1600		25 Central St	Methuen	c 1900
MET.267	Goldsmith, Dr. Charles A. House	1 Charles St	Methuen	c 1870
MET.268	Tenney and Company Shoe Factory	2 Charles St	Methuen	1868
MET.269	Sargent, Calvin J. House	3 Charles St	Methuen	1869
MET.270	Tenney, J. Milton House	5 Charles St	Methuen	1869
MET.271	Webster, Samuel House	7 Charles St	Methuen	1875
MET.272	Richardson, Thomas J. House	9 Charles St	Methuen	c 1859
MET.273		11-13 Charles St	Methuen	1981
MET.274	Haffner, Louis A. House	17 Charles St	Methuen	1933
MET.111	Acadia Mills	Chase St	Methuen	1881
MET.234	Arlington Mills Engine House	Chase St	Methuen	1890
MET.235	Cotton Mills #2	Chase St	Methuen	c 1885
MET.236	Worsted Spinning Mill	Chase St	Methuen	1909
MET.237	Barrett Cotton Storehouse	Chase St	Methuen	c 1895
MET.1707	Arlington Mills Building #17	Chase St	Methuen	
MET.726		12-14 Chase St	Methuen	r 1885
MET.728		15 Chase St	Methuen	c 1900
MET.727		16-18 Chase St	Methuen	r 1885
MET.729		17 Chase St	Methuen	r 1885
MET.730		19 Chase St	Methuen	r 1885
MET.731		20-22 Chase St	Methuen	r 1885
MET.732		21 Chase St	Methuen	r 1885
MET.733		24A Chase St	Methuen	r 1885
MET.734		24B Chase St	Methuen	r 1885
MET.735		25 Chase St	Methuen	r 1885
MET.736		26-28 Chase St	Methuen	r 1885
MET.110		27 Chase St	Methuen	c 1880
MET.738		1 Chelmsford St	Methuen	r 1850
MET.739		2 Chelmsford St	Methuen	r 1850
MET.108		3 Chelmsford St	Methuen	c 1870
MET.741		4 Chelmsford St	Methuen	r 1925
MET.740		5-7 Chelmsford St	Methuen	c 1900
MET.742		6 Chelmsford St	Methuen	r 1915

Inv. No.	Property Name	Street	Town	Year
MET.743		8-10 Chelmsford St	Methuen	c 1900
MET.744		9 Chelmsford St	Methuen	c 1900
MET.745		11 Chelmsford St	Methuen	r 1885
MET.746		12-14 Chelmsford St	Methuen	r 1885
MET.747		15 Chelmsford St	Methuen	r 1885
MET.748		17 Chelmsford St	Methuen	r 1885
MET.749		18 Chelmsford St	Methuen	r 1965
MET.750		20 Chelmsford St	Methuen	r 1965
MET.751		38-42 Chelmsford St	Methuen	r 1915
MET.752		44 Chelmsford St	Methuen	r 1935
MET.1601		6 Cochrane St	Methuen	r 1850
MET.1282		5 Court St	Methuen	r 1915
MET.1283		11 Court St	Methuen	r 1965
MET.1284		14 Court St	Methuen	r 1915
MET.1285		15 Court St	Methuen	r 1915
MET.1286		18 Court St	Methuen	r 1915
MET.1287		20 Court St	Methuen	r 1915
MET.489	Methuen Water Works Chief Engineer's House	114 Cross St	Methuen	c 1893
MET.210	Methuen Water Works	120 Cross St	Methuen	1893
MET.154	Currier, Asa - Richardson, Jonas House	70 Currier St	Methuen	r 1750
MET.75	Carleton, Joseph Warren - Johnson, Edward F. House	8 Ditson Pl	Methuen	1811
MET.78	Central Elementary School	10 Ditson Pl	Methuen	1904
MET.76	Johnson, M. House	12 Ditson Pl	Methuen	c 1840
MET.77	Currier, Daniel - Ditson, Benjamin House	16 Ditson Pl	Methuen	c 1840
MET.191	Sawyer, Caleb House	74 Dracut St	Methuen	c 1775
MET.372		4 East Prospect St	Methuen	r 1925
MET.373		5 East Prospect St	Methuen	c 1915
MET.374		6 East Prospect St	Methuen	r 1935
MET.375		7 East Prospect St	Methuen	r 1925
MET.376		9 East Prospect St	Methuen	r 1925
MET.377		10 East Prospect St	Methuen	r 1925
MET.378		11 East Prospect St	Methuen	r 1925
MET.379		13 East Prospect St	Methuen	r 1925
MET.380		14 East Prospect St	Methuen	r 1925
MET.275		1 East River Pl	Methuen	1986
MET.276	Bleakney, Charles House	5 East River Pl	Methuen	c 1940
MET.277	Bleakney, Thomas House	7-9 East River Pl	Methuen	c 1922

Inv. No.	Property Name	Street	Town	Year
MET.278	Bleakney, Thomas Garage	9 East River Pl	Methuen	c 1928
MET.279	Tenney Estate Stock Stable	East St	Methuen	1884
MET.280	Saint Basil's Seminary and Chapel	East St	Methuen	1960
MET.803	Daddy Frye's Hill Cemetery	East St	Methuen	1728
MET.281	Holihan, Loyola House	3 East St	Methuen	1935
MET.282	Clifford, Charles House	5 East St	Methuen	1923
MET.283	Callahan, John F. House	21 East St	Methuen	1965
MET.85	East Street, 23	23 East St	Methuen	c 1840
MET.381		100 East St	Methuen	c 1900
MET.382		111 East St	Methuen	r 1925
MET.383		112 East St	Methuen	r 1925
MET.384		113 East St	Methuen	r 1925
MET.385		114 East St	Methuen	r 1925
MET.386		115 East St	Methuen	r 1925
MET.387		116 East St	Methuen	r 1915
MET.388		117 East St	Methuen	r 1935
MET.389		120 East St	Methuen	c 1915
MET.390		122 East St	Methuen	c 1962
MET.391		123 East St	Methuen	r 1935
MET.392		126 East St	Methuen	r 1915
MET.393		128 East St	Methuen	c 1915
MET.394		130 East St	Methuen	c 1915
MET.395		132-134 East St	Methuen	c 1915
MET.396		133 East St	Methuen	r 1935
MET.397		136 East St	Methuen	c 1915
MET.398		138 East St	Methuen	c 1915
MET.399		140 East St	Methuen	c 1915
MET.400		142 East St	Methuen	r 1925
MET.401		143 East St	Methuen	r 1935
MET.402		144 East St	Methuen	r 1925
MET.403		146-148 East St	Methuen	r 1925
MET.404		150 East St	Methuen	r 1925
MET.490	Thornton, Elizabeth House	47 Elm St	Methuen	c 1900
MET.175	Thornton, Frank D. House	61 Elm St	Methuen	c 1915
MET.491	Voyer, Edward J. - Steinberg, Max Double House	96 Elm St	Methuen	c 1919
MET.1394		2 Elmwood Rd	Methuen	c 1930
MET.1395		3 Elmwood Rd	Methuen	c 1925
MET.1396		4 Elmwood Rd	Methuen	c 1945

Inv. No.	Property Name	Street	Town	Year
MET.1397		5 Elmwood Rd	Methuen	c 1955
MET.1398		9 Elmwood Rd	Methuen	c 1950
MET.1399		15 Elmwood Rd	Methuen	c 1950
MET.1400		18 Elmwood Rd	Methuen	c 1930
MET.1401		19 Elmwood Rd	Methuen	c 1950
MET.1402		20 Elmwood Rd	Methuen	c 1925
MET.1403		22 Elmwood Rd	Methuen	c 1950
MET.1404		23 Elmwood Rd	Methuen	c 1950
MET.1405		25 Elmwood Rd	Methuen	c 1960
MET.1406		28 Elmwood Rd	Methuen	c 1950
MET.1407		29 Elmwood Rd	Methuen	c 1950
MET.1408		32 Elmwood Rd	Methuen	c 1950
MET.1409		33 Elmwood Rd	Methuen	c 1950
MET.1410		35 Elmwood Rd	Methuen	c 1940
MET.1411		36 Elmwood Rd	Methuen	c 1950
MET.1412		40 Elmwood Rd	Methuen	c 1950
MET.1413		43 Elmwood Rd	Methuen	c 1950
MET.1414		44 Elmwood Rd	Methuen	c 1950
MET.1415		48 Elmwood Rd	Methuen	c 1950
MET.1416		49 Elmwood Rd	Methuen	c 1950
MET.1417		50 Elmwood Rd	Methuen	c 1960
MET.1418		56 Elmwood Rd	Methuen	c 1950
MET.1419		65-67 Elmwood Rd	Methuen	c 1925
MET.1420		69-71 Elmwood Rd	Methuen	c 1925
MET.1421		70 Elmwood Rd	Methuen	c 1965
MET.1422		73-75 Elmwood Rd	Methuen	c 1925
MET.1423		74-76 Elmwood Rd	Methuen	c 1925
MET.1424		77-79 Elmwood Rd	Methuen	c 1925
MET.1425		81 Elmwood Rd	Methuen	c 1965
MET.1426		82-84 Elmwood Rd	Methuen	c 1925
MET.1427		86 Elmwood Rd	Methuen	c 1970
MET.1428		88 Elmwood Rd	Methuen	c 1960
MET.1429		89-91 Elmwood Rd	Methuen	c 1925
MET.1430		93-95 Elmwood Rd	Methuen	c 1925
MET.1431		97 Elmwood Rd	Methuen	c 1950
MET.405		1 Fair Oaks Ave	Methuen	r 1935
MET.406		1-3 Fair Oaks Ave	Methuen	c 1915
MET.407		5 Fair Oaks Ave	Methuen	r 1925

Inv. No.	Property Name	Street	Town	Year
MET.408		16 Fair Oaks Ave	Methuen	r 1925
MET.177	Forest Street Union Church	15 Forest St	Methuen	1913
MET.1166		5 Franklin Ave	Methuen	r 1965
MET.1167		9 Franklin Ave	Methuen	r 1965
MET.1168		15 Franklin Ave	Methuen	r 1955
MET.1169		21 Franklin Ave	Methuen	r 1965
MET.1170		25 Franklin Ave	Methuen	r 1965
MET.1171		27 Franklin Ave	Methuen	r 1965
MET.1172		31 Franklin Ave	Methuen	r 1965
MET.753		17 French St	Methuen	r 1885
MET.754		19 French St	Methuen	r 1885
MET.755		23 French St	Methuen	c 1900
MET.756		27-29 French St	Methuen	c 1900
MET.757		31-33 French St	Methuen	r 1885
MET.758		35 French St	Methuen	r 1885
MET.759		36-36 1/2 French St	Methuen	r 1915
MET.760		38-40 French St	Methuen	c 1905
MET.761		42-44 French St	Methuen	r 1915
MET.762		46-48 French St	Methuen	r 1915
MET.763		51-53 French St	Methuen	r 1915
MET.764		52-54 French St	Methuen	r 1915
MET.765		55-57 French St	Methuen	r 1915
MET.766		58 French St	Methuen	c 1964
MET.767		64 French St	Methuen	c 1947
MET.768		66 French St	Methuen	c 1947
MET.36	Gleason, Daniel House	2 Gage St	Methuen	c 1860
MET.1602		5-7 Gage St	Methuen	c 1915
MET.216	Rushton, Samuel - Baril, Daniel House	6-8 Gage St	Methuen	1923
MET.1603	Bodwell, John W. House	9 Gage St	Methuen	c 1870
MET.35	Copp, George W. House	10 Gage St	Methuen	1901
MET.1604		12 Gage St	Methuen	c 1915
MET.1605		13 Gage St	Methuen	r 1885
MET.1606		14 Gage St	Methuen	r 1885
MET.34		15-17 Gage St	Methuen	c 1890
MET.33	Emerson, James O. House	16 Gage St	Methuen	c 1865
MET.1607		18 Gage St	Methuen	c 1870
MET.1608	Cooper, Charles H. House	19 Gage St	Methuen	c 1915
MET.1609	Morton, Robert House	20 Gage St	Methuen	c 1906

Inv. No.	Property Name	Street	Town	Year
MET.32	Webster, John C. House	21 Gage St	Methuen	c 1870
MET.1610	Turner, Annie L. House	22 Gage St	Methuen	c 1904
MET.1611	MacKay, Dr. Arthur House	23 Gage St	Methuen	c 1910
MET.1612	Jowett, John W. House	24 Gage St	Methuen	c 1902
MET.1613		25 Gage St	Methuen	r 1885
MET.1614		26 Gage St	Methuen	r 1885
MET.31		28 Gage St	Methuen	c 1860
MET.1615		29 Gage St	Methuen	r 1925
MET.1616		32 Gage St	Methuen	r 1885
MET.1617		33 Gage St	Methuen	r 1925
MET.1618		36 Gage St	Methuen	c 1905
MET.1619	Morgan, Robert House	37 Gage St	Methuen	c 1910
MET.30		39 Gage St	Methuen	c 1875
MET.1620		43 Gage St	Methuen	r 1925
MET.492	Merrill Schoolhouse	24 Gill Ave	Methuen	1873
MET.493	Oldroyd, Frank House	31 Gill Ave	Methuen	c 1905
MET.284	International Worsted Weaving Room	4 Gleason St	Methuen	c 1919
MET.285	Swain, Frederick M. House	5 Gleason St	Methuen	1890
MET.286	Swain, Charles F. Double House	7-9 Gleason St	Methuen	1892
MET.287	Swain, Charles F. Rental House	11 Gleason St	Methuen	1892
MET.288	Swain, Charles F. Rental House	13 Gleason St	Methuen	1892
MET.289	Swain, Charles F. Rental House	15 Gleason St	Methuen	c 1892
MET.1173		30 Glen Ave	Methuen	c 1940
MET.1174		32 Glen Ave	Methuen	c 1940
MET.1175		34 Glen Ave	Methuen	c 1940
MET.1176		36 Glen Ave	Methuen	c 1940
MET.1177		38 Glen Ave	Methuen	c 1940
MET.1178		40 Glen Ave	Methuen	c 1940
MET.1179		41 Glen Ave	Methuen	c 1945
MET.1180		42 Glen Ave	Methuen	c 1940
MET.1181		43 Glen Ave	Methuen	c 1945
MET.1182		44 Glen Ave	Methuen	c 1935
MET.1183		46 Glen Ave	Methuen	c 1950
MET.1184		50 Glen Ave	Methuen	c 1948
MET.494	Oakland Methodist Episcopal Church	11 Gloucester St	Methuen	c 1910
MET.290	Tenney Chapel	Grove St	Methuen	1927
MET.801	Walnut Grove Cemetery	Grove St	Methuen	1853
MET.1219		23 Grove St	Methuen	c 1910

Inv. No.	Property Name	Street	Town	Year
MET.1220		25 Grove St	Methuen	c 1910
MET.1221		27 Grove St	Methuen	c 1910
MET.1222		31 Grove St	Methuen	r 1925
MET.1223		53 Grove St	Methuen	c 1860
MET.901	Stone Arch Bridge	Hampshire Rd	Methuen	1835
MET.495	Hampshire Road School	107-109 Hampshire Rd	Methuen	1911
MET.497	Kimball House and Farm	255 Hampshire Rd	Methuen	c 1850
MET.291	Wilson's Brown Derby Lunch Room	3 Hampshire St	Methuen	1949
MET.224	Methuen Company Store	4-6 Hampshire St	Methuen	1885
MET.18	Odd Fellows Building	5-7 Hampshire St	Methuen	1899
MET.17	Methuen Mill Company Building	12 Hampshire St	Methuen	1859
MET.292	Brown's Provision Shop	18 Hampshire St	Methuen	c 1870
MET.293		20-24 Hampshire St	Methuen	c 1915
MET.294	Andrew's Service Station	21 Hampshire St	Methuen	1944
MET.295		26-28 Hampshire St	Methuen	1936
MET.25	Methuen Company Mill #5	30R Hampshire St	Methuen	c 1840
MET.296	Methuen Co-operative Bank	30 Hampshire St	Methuen	1936
MET.297	Methuen Co-operative Bank	32-34 Hampshire St	Methuen	1936
MET.298	Rhodes Bakery	36-38 Hampshire St	Methuen	c 1925
MET.16	Methuen Company Store	42-46 Hampshire St	Methuen	c 1860
MET.15		59 Hampshire St	Methuen	c 1860
MET.14		66 Hampshire St	Methuen	c 1840
MET.13		80 Hampshire St	Methuen	r 1850
MET.1672		189 Hampshire St	Methuen	r 1920
MET.1673		193 Hampshire St	Methuen	r 1920
MET.496	Huse, P. - Dodge, Fannie House	200 Hampshire St	Methuen	c 1870
MET.900	Road Boundary Boulder	Hampstead St	Methuen	1726
MET.159	Howe Elementary School	11 Hampstead St	Methuen	1914
MET.160	Hastings - Howe, Charles House and Farm	55 Hampstead St	Methuen	c 1800
MET.162	Hampstead Street, 136	136 Hampstead St	Methuen	c 1840
MET.161	Harris, Dr. Ralph - Richardson, Bradford House	139 Hampstead St	Methuen	c 1810
MET.163	Woodbury, Milton G. House	140 Hampstead St	Methuen	c 1910
MET.167	Eaton, Thomas House	156 Hampstead St	Methuen	c 1720
MET.168	Tyler, Jacob House and Farm	163 Hampstead St	Methuen	c 1840
MET.169	Merrill, James House	232 Hampstead St	Methuen	c 1840
MET.498	Ferland, Henry House	2-4 Haverhill St	Methuen	c 1910
MET.499	Saint Anne's Orphanage	100A Haverhill St	Methuen	1923
MET.526	Saint Theresa's Parochial Grammar School	100A Haverhill St	Methuen	c 1923

Inv. No.	Property Name	Street	Town	Year
MET.500	Barker, Stephen Junior High School	129 Haverhill St	Methuen	1921
MET.176	Barker, Stephen House	165 Haverhill St	Methuen	1839
MET.1709		252 Haverhill St	Methuen	c 1915
MET.180	Cox, Patrick House	256 Haverhill St	Methuen	c 1870
MET.501		32-36 Hawthorne Ave	Methuen	c 1900
MET.1703	Wilson House	15-17 High St	Methuen	c 1911
MET.39	Gutterson, Lizzie House	21 High St	Methuen	1898
MET.217		22 High St	Methuen	c 1950
MET.40	Remick, Frank House	23 High St	Methuen	1892
MET.219	Moore, Elizabeth House	25-25A High St	Methuen	c 1895
MET.37	Fulton, Joseph W. House	26 High St	Methuen	c 1870
MET.41	Crosby, Arthur J. House	27 High St	Methuen	c 1890
MET.221	Dodge, Selwin House	29 High St	Methuen	c 1890
MET.38	Harris, Samuel H. Jr. House	30 High St	Methuen	c 1865
MET.222	Carleton, Sarah House	31 High St	Methuen	c 1884
MET.218	Morse, Helen - Parr, Dr. John House	32 High St	Methuen	c 1894
MET.223	Howe, John S. House	33 High St	Methuen	c 1920
MET.220	Stevens, John A. House	36 High St	Methuen	c 1820
MET.42	Crosby, Arthur House	38 High St	Methuen	c 1898
MET.43	Webster, John N. House	42-44 High St	Methuen	c 1850
MET.1644	Dartmouth Court	48-52 High St	Methuen	1924
MET.299	Gall, Archibald House	2 Highland Ave	Methuen	c 1880
MET.903	Marston Forge Monument	Howe St	Methuen	1898
MET.158	Currier, T. Benton - Mello, Joseph House	89 Howe St	Methuen	c 1900
MET.502	Locke, Harry F. House	195 Howe St	Methuen	1913
MET.503	Keighley, George House	255 Howe St	Methuen	1920
MET.157	Perkins, Joseph House	297 Howe St	Methuen	1840
MET.156	Jewell, William M. House	310 Howe St	Methuen	c 1870
MET.155		327 Howe St	Methuen	c 1840
MET.769		5 Huse Rd	Methuen	r 1935
MET.913	I-495 Bridge	I-495	Methuen	1964
MET.910	I-93 Bridge	I-93	Methuen	1959
MET.911	I-93 Bridge	I-93	Methuen	1959
MET.924	Interstate 495 Bridge	Interstate 495	Methuen	1964
MET.137		2 Jackson St	Methuen	c 1915
MET.131	Moore, L. C. House	3 John St	Methuen	c 1900
MET.1432		4 Kenwood Rd	Methuen	c 1965
MET.1433		9 Kenwood Rd	Methuen	c 1950

Inv. No.	Property Name	Street	Town	Year
MET.1434		15 Kenwood Rd	Methuen	c 1950
MET.1435		23 Kenwood Rd	Methuen	c 1950
MET.1436		25 Kenwood Rd	Methuen	c 1950
MET.1437		29 Kenwood Rd	Methuen	c 1965
MET.1438		31 Kenwood Rd	Methuen	c 1950
MET.1439		39 Kenwood Rd	Methuen	c 1960
MET.1440		44 Kenwood Rd	Methuen	c 1930
MET.1441		51 Kenwood Rd	Methuen	c 1960
MET.1442		52 Kenwood Rd	Methuen	c 1930
MET.1443		55 Kenwood Rd	Methuen	c 1950
MET.1444		62-64 Kenwood Rd	Methuen	c 1930
MET.1445		63 Kenwood Rd	Methuen	c 1950
MET.1446		65-67 Kenwood Rd	Methuen	c 1930
MET.1447		66 Kenwood Rd	Methuen	c 1970
MET.1448		69 Kenwood Rd	Methuen	c 1965
MET.1449		72-74 Kenwood Rd	Methuen	c 1930
MET.1450		73-75 Kenwood Rd	Methuen	c 1930
MET.1451		76 Kenwood Rd	Methuen	c 1975
MET.1452		81-83 Kenwood Rd	Methuen	c 1930
MET.1453		84-86 Kenwood Rd	Methuen	c 1930
MET.1454		85-87 Kenwood Rd	Methuen	c 1930
MET.1455		90 Kenwood Rd	Methuen	c 1940
MET.1456		92-94 Kenwood Rd	Methuen	r 1925
MET.1457		93 Kenwood Rd	Methuen	c 1950
MET.1458		95 Kenwood Rd	Methuen	r 1965
MET.1459		96 Kenwood Rd	Methuen	c 1940
MET.1674		3 Kimball Rd	Methuen	r 1920
MET.1675		5 Kimball Rd	Methuen	r 1920
MET.1676		7 Kimball Rd	Methuen	r 1920
MET.1677		9 Kimball Rd	Methuen	r 1920
MET.1678		11 Kimball Rd	Methuen	r 1920
MET.1679		12 Kimball Rd	Methuen	r 1920
MET.1680		14 Kimball Rd	Methuen	r 1920
MET.1681		17 Kimball Rd	Methuen	r 1920
MET.1682		18 Kimball Rd	Methuen	r 1920
MET.1683		20 Kimball Rd	Methuen	r 1920
MET.1684		22 Kimball Rd	Methuen	r 1920
MET.1685		25 Kimball Rd	Methuen	r 1920

Inv. No.	Property Name	Street	Town	Year
MET.1686		30 Kimball Rd	Methuen	r 1920
MET.141		17 King St	Methuen	c 1850
MET.770		2 Kirk St	Methuen	r 1915
MET.105		3-5 Kirk St	Methuen	c 1880
MET.104		4 Kirk St	Methuen	c 1890
MET.771		6 Kirk St	Methuen	c 1900
MET.772		7-9 Kirk St	Methuen	r 1885
MET.773		8-10 Kirk St	Methuen	r 1885
MET.774		11 Kirk St	Methuen	r 1885
MET.775		12-14 Kirk St	Methuen	r 1915
MET.106		15 Kirk St	Methuen	c 1870
MET.777		17-19 Kirk St	Methuen	r 1925
MET.778		20-22 Kirk St	Methuen	r 1915
MET.779		21-23 Kirk St	Methuen	r 1915
MET.780		24 Kirk St	Methuen	c 1900
MET.782		25-27 Kirk St	Methuen	r 1850
MET.781		26 Kirk St	Methuen	c 1900
MET.783		26 Kirk St	Methuen	r 1850
MET.784		28-30 Kirk St	Methuen	r 1915
MET.785		29 Kirk St	Methuen	r 1925
MET.786		35 Kirk St	Methuen	r 1925
MET.787		36 Kirk St	Methuen	c 1915
MET.788		41-43 Kirk St	Methuen	r 1915
MET.789		45-47 Kirk St	Methuen	r 1915
MET.790		49-51 Kirk St	Methuen	r 1915
MET.791		50 Kirk St	Methuen	r 1935
MET.1460		1-3 Larchwood Rd	Methuen	c 1923
MET.1461		6-8 Larchwood Rd	Methuen	c 1923
MET.1462		10-12 Larchwood Rd	Methuen	c 1923
MET.1463		18 Larchwood Rd	Methuen	c 1930
MET.1464		22-24 Larchwood Rd	Methuen	c 1923
MET.1465		41 Larchwood Rd	Methuen	c 1930
MET.1466		42-44 Larchwood Rd	Methuen	c 1923
MET.1467		48 Larchwood Rd	Methuen	r 1975
MET.1468		49 Larchwood Rd	Methuen	c 1945
MET.1469		50 Larchwood Rd	Methuen	c 1955
MET.1470		57 Larchwood Rd	Methuen	c 1930
MET.1471		62 Larchwood Rd	Methuen	c 1955

Inv. No.	Property Name	Street	Town	Year
MET.1472		65 Larchwood Rd	Methuen	c 1930
MET.1473		66-68 Larchwood Rd	Methuen	c 1923
MET.1474		73-75 Larchwood Rd	Methuen	c 1923
MET.1475		74-76 Larchwood Rd	Methuen	c 1923
MET.1476		81-83 Larchwood Rd	Methuen	c 1923
MET.1477		88 Larchwood Rd	Methuen	c 1950
MET.1478		89-91 Larchwood Rd	Methuen	c 1923
MET.1479		90 Larchwood Rd	Methuen	c 1950
MET.1185		3 Laurel Ave	Methuen	c 1955
MET.1186		4 Laurel Ave	Methuen	c 1950
MET.1187		7 Laurel Ave	Methuen	c 1950
MET.1188		8 Laurel Ave	Methuen	c 1950
MET.1189		11 Laurel Ave	Methuen	c 1950
MET.1190		12 Laurel Ave	Methuen	c 1950
MET.1191		15 Laurel Ave	Methuen	c 1950
MET.1192		16 Laurel Ave	Methuen	c 1950
MET.1193		17 Laurel Ave	Methuen	c 1950
MET.1194		20 Laurel Ave	Methuen	c 1950
MET.1195		23 Laurel Ave	Methuen	c 1950
MET.1196		24 Laurel Ave	Methuen	c 1950
MET.1197		27 Laurel Ave	Methuen	c 1950
MET.1218		28 Laurel Ave	Methuen	c 1950
MET.1198		31 Laurel Ave	Methuen	c 1960
MET.1199		32 Laurel Ave	Methuen	c 1960
MET.1200		35 Laurel Ave	Methuen	c 1960
MET.1201		36 Laurel Ave	Methuen	c 1960
MET.1202		39 Laurel Ave	Methuen	c 1960
MET.1203		42 Laurel Ave	Methuen	c 1960
MET.1204		43 Laurel Ave	Methuen	c 1960
MET.1205		47 Laurel Ave	Methuen	c 1960
MET.802	Lawrence Street Cemetery	Lawrence St	Methuen	1831
MET.1480		5-7 Lawrence St	Methuen	c 1915
MET.1481		9-11 Lawrence St	Methuen	c 1915
MET.1482		13 Lawrence St	Methuen	c 1915
MET.1483		25 Lawrence St	Methuen	c 1950
MET.1484		31 Lawrence St	Methuen	c 1920
MET.1485		37-39 Lawrence St	Methuen	c 1910
MET.1486		41-43 Lawrence St	Methuen	c 1910

Inv. No.	Property Name	Street	Town	Year
MET.1487		49 Lawrence St	Methuen	c 1930
MET.1488		53-55 Lawrence St	Methuen	c 1930
MET.1489		59 Lawrence St	Methuen	c 1970
MET.1490		73 Lawrence St	Methuen	c 1910
MET.1491		75-77 Lawrence St	Methuen	c 1930
MET.1492		87-89 Lawrence St	Methuen	c 1930
MET.1493		91 Lawrence St	Methuen	c 1945
MET.1494		95 Lawrence St	Methuen	c 1950
MET.1495		99 Lawrence St	Methuen	c 1950
MET.1496		103 Lawrence St	Methuen	c 1950
MET.1497		107 Lawrence St	Methuen	c 1950
MET.1498		111 Lawrence St	Methuen	c 1950
MET.1499		115 Lawrence St	Methuen	c 1950
MET.1500		119 Lawrence St	Methuen	c 1950
MET.1501		125 Lawrence St	Methuen	c 1960
MET.1502		127 Lawrence St	Methuen	c 1940
MET.1503		131 Lawrence St	Methuen	c 1940
MET.1504		135 Lawrence St	Methuen	c 1940
MET.1505		139 Lawrence St	Methuen	c 1950
MET.309	Saint Monica's Catholic School	200 Lawrence St	Methuen	1957
MET.354	Saint Monica's Catholic Convent	200 Lawrence St	Methuen	1960
MET.83	Searles Estate - Estate House	209 Lawrence St	Methuen	1911
MET.300	Searles Estate - Ice House and Shed	209 Lawrence St	Methuen	c 1900
MET.301	Searles Estate - Butters - Searles Barn	209 Lawrence St	Methuen	c 1870
MET.302	Searles Estate - Butters Homestead	209 Lawrence St	Methuen	c 1870
MET.303	Searles Estate - Butters House	209 Lawrence St	Methuen	1867
MET.304	Searles Estate - Rivier Nursery	209 Lawrence St	Methuen	c 1800
MET.305	Searles Estate - Gardner's Cottage	209 Lawrence St	Methuen	1900
MET.306	Searles Estate - Hallways	209 Lawrence St	Methuen	r 1900
MET.307	Searles Estate - Chapel	209 Lawrence St	Methuen	1915
MET.308	Searles Estate - Searles Chapel	209 Lawrence St	Methuen	1918
MET.355	Searles Estate - Provincial House	209 Lawrence St	Methuen	1985
MET.356	Searles Estate - Seed House	209 Lawrence St	Methuen	c 1900
MET.357	Searles Estate - New Barn - Studio	209 Lawrence St	Methuen	1900
MET.358	Searles Estate - Academy Carriage House	209 Lawrence St	Methuen	1890
MET.359	Searles Estate - New Academy Wing	209 Lawrence St	Methuen	1985
MET.360	Searles Estate - Garage	209 Lawrence St	Methuen	c 1900
MET.361	Searles Estate - Wood Shed	209 Lawrence St	Methuen	c 1900

Inv. No.	Property Name	Street	Town	Year
MET.362	Searles Estate - Noel's Workshop	209 Lawrence St	Methuen	c 1900
MET.363	Searles Estate - Garage	209 Lawrence St	Methuen	c 1970
MET.364	Searles Estate - Office - Hobby	209 Lawrence St	Methuen	1911
MET.365	Searles Estate - Wellhouse	209 Lawrence St	Methuen	c 1900
MET.366	Searles Estate - Saint Claire Residence	209 Lawrence St	Methuen	1958
MET.367	Searles Estate - Administration Building	209 Lawrence St	Methuen	1900
MET.368	Searles Estate - Marie Rivier Pavilion	209 Lawrence St	Methuen	c 1890
MET.369	Searles Estate - ND Pavilion	209 Lawrence St	Methuen	c 1960
MET.370	Searles Estate - Italian Museum	209 Lawrence St	Methuen	c 1915
MET.804	Searles Estate - Cemetery	209 Lawrence St	Methuen	c 1900
MET.916	Searles Estate - Brick Tower	209 Lawrence St	Methuen	c 1900
MET.917	Searles Estate - Gate House	209 Lawrence St	Methuen	1900
MET.918	Searles Estate - Chime Tower	209 Lawrence St	Methuen	1896
MET.921	Searles Estate - Wall	209 Lawrence St	Methuen	r 1895
MET.929	Searles Estate Stone Arch Bridge	209 Lawrence St	Methuen	c 1830
MET.81	Waldo, George A. House	233 Lawrence St	Methuen	1825
MET.919	Bank of America Columns	233 Lawrence St	Methuen	c 1838
MET.310	Pollard House	241-247 Lawrence St	Methuen	1964
MET.80	First Baptist Church	253 Lawrence St	Methuen	1869
MET.79	Park Lodge	257 Lawrence St	Methuen	1910
MET.22	Corliss, Varnum Commercial Building	270 Lawrence St	Methuen	1886
MET.311	Robertson House	1 Locust Rd	Methuen	1951
MET.312	Berhan, William A. House	31 Locust Rd	Methuen	1951
MET.1708	Loosigian Farms Greenhouses and Farmstand	18 Lowell Blvd	Methuen	c 1980
MET.904	Spicket River Falls Dam	Lowell St	Methuen	1880
MET.909	Lowell Street Bridge	Lowell St	Methuen	
MET.914	Lowell Street Bridge over Spicket River	Lowell St	Methuen	1869
MET.925	Lowell Street Bridge over Spicket River	Lowell St	Methuen	1869
MET.313	Esso Gasoline Station	2 Lowell St	Methuen	1963
MET.314	Red Arrow Garage - Jenny Service Station	6 Lowell St	Methuen	c 1920
MET.315	Methuen Company Worker Housing	10-12 Lowell St	Methuen	c 1870
MET.316	Spicket River Boat House	13 Lowell St	Methuen	c 1911
MET.317	Methuen Company Worker Housing	14-16 Lowell St	Methuen	c 1870
MET.318	Stearns, Artemus W. - Webster, Samuel House	15 Lowell St	Methuen	r 1830
MET.319	Platt, Rylance House	17-19 Lowell St	Methuen	1898
MET.320	Methuen Company Worker Housing	18-20 Lowell St	Methuen	c 1870
MET.321	Methuen Company Worker Housing	23 Lowell St	Methuen	c 1860
MET.29	Central Fire Station	24 Lowell St	Methuen	1899

Inv. No.	Property Name	Street	Town	Year
MET.1224		32-34 Lowell St	Methuen	c 1900
MET.1225		36-38 Lowell St	Methuen	c 1850
MET.1226		37 Lowell St	Methuen	r 1925
MET.1227		40 Lowell St	Methuen	r 1955
MET.1228		41 Lowell St	Methuen	r 1965
MET.1229		43 Lowell St	Methuen	c 1870
MET.1230		45 Lowell St	Methuen	c 1875
MET.1231		47 Lowell St	Methuen	c 1850
MET.1232		49-51 Lowell St	Methuen	r 1935
MET.1233		53 Lowell St	Methuen	c 1860
MET.1234		54 Lowell St	Methuen	r 1850
MET.1235		55 Lowell St	Methuen	c 1850
MET.1236		56 Lowell St	Methuen	r 1915
MET.1237		57 Lowell St	Methuen	r 1925
MET.1238		58 Lowell St	Methuen	c 1843
MET.1239		59 Lowell St	Methuen	r 1965
MET.1240		61 Lowell St	Methuen	c 1850
MET.1241		61 1/2 Lowell St	Methuen	r 1915
MET.1242		62 Lowell St	Methuen	r 1935
MET.1243		63 Lowell St	Methuen	r 1915
MET.172		64 Lowell St	Methuen	c 1850
MET.1245		66-68 Lowell St	Methuen	r 1915
MET.1246		67-69 Lowell St	Methuen	r 1915
MET.1247		70 Lowell St	Methuen	r 1850
MET.504	Wheeler, Alice R. House	103 Lowell St	Methuen	c 1903
MET.173		107 Lowell St	Methuen	c 1915
MET.174		156 Lowell St	Methuen	c 1860
MET.178	Richardson Ferry House	367R Lowell St	Methuen	c 1730
MET.179	Smith, Moses G. House	387 Lowell St	Methuen	c 1875
MET.1712		395 Lowell St	Methuen	r 1865
MET.1711		397 Lowell St	Methuen	c 1915
MET.185	Sawyer, Aaron House	521 Lowell St	Methuen	c 1800
MET.1667	Cassin, Arnold House	523 Lowell St	Methuen	c 1925
MET.1668	Bartholomew, Harrison House	525 Lowell St	Methuen	c 1925
MET.1669	Cloutler, Gustave House	527 Lowell St	Methuen	c 1925
MET.505	Sawyer, Asa - Dowding, James N. House	615 Lowell St	Methuen	c 1838
MET.506	Griffin, Phineas M. House and Farm	625 Lowell St	Methuen	c 1880
MET.507	Griffin, Rufus Barn	647 Lowell St	Methuen	c 1850

Inv. No.	Property Name	Street	Town	Year
MET.523	Griffin, Rufus Garage	647 Lowell St	Methuen	
MET.524	Griffin, Rufus Shed	647 Lowell St	Methuen	
MET.508	Methuen Massachusetts Army National Guard Armory	679 Lowell St	Methuen	1913
MET.1670	Methuen Army National Guard Armory Garage	679 Lowell St	Methuen	1956
MET.186	Griffin, Asa - Dowding, Nathaniel House	709 Lowell St	Methuen	c 1750
MET.805	Bellevue Cemetery	170 May St	Methuen	1847
MET.792		1-3 Merrill St	Methuen	r 1925
MET.793		2 Merrill St	Methuen	r 1885
MET.794		4-6 Merrill St	Methuen	r 1885
MET.795		5 Merrill St	Methuen	r 1935
MET.796		8-10 Merrill St	Methuen	r 1885
MET.797		13-19 Merrill St	Methuen	r 1885
MET.798		16 Merrill St	Methuen	r 1885
MET.799		20-22 Merrill St	Methuen	r 1885
MET.1000		21-23 Merrill St	Methuen	r 1885
MET.1001		25 Merrill St	Methuen	r 1885
MET.1002		27-29 Merrill St	Methuen	r 1885
MET.145	Carlton House	20 Merrimack St	Methuen	1812
MET.144	Cross, John House	49 Merrimack St	Methuen	1708
MET.520	Sargent, Christopher School	160 Merrimack St	Methuen	1917
MET.149	Frye, James - Bradley, Leverett House	176-178 Merrimack St	Methuen	1775
MET.521	DeQuattro, Frank House	357 Merrimack St	Methuen	c 1920
MET.148	Gage - Messer, Ebenezer House	369 Merrimack St	Methuen	1763
MET.147	Russell, Frederick House and Farm	459 Merrimack St	Methuen	c 1845
MET.146	Wilson, Benjamin House	518 Merrimack St	Methuen	c 1804
MET.926	Methuen Town Forest Beach Pavilion	Methuen Town Forest	Methuen	r 1940
MET.1651	Methuen Town Forest Concession Building	Methuen Town Forest	Methuen	c 1930
MET.1652	Methuen Town Forest Office and Storage Building	Methuen Town Forest	Methuen	c 1930
MET.1653	Methuen Town Forest Bath House	Methuen Town Forest	Methuen	c 1930
MET.1654	Methuen Town Forest Shed	Methuen Town Forest	Methuen	r 1945
MET.409		2 Milk St	Methuen	r 1925
MET.410		3-5 Milk St	Methuen	c 1915
MET.411		6 Milk St	Methuen	r 1925
MET.412		7 Milk St	Methuen	c 1930
MET.413		8 Milk St	Methuen	r 1925
MET.414		9 Milk St	Methuen	c 1920

Inv. No.	Property Name	Street	Town	Year
MET.132	Buswell House	15 Milk St	Methuen	c 1785
MET.322	Graham, John M. House	4-10 Morrison Ct	Methuen	1876
MET.323	Carrozzi House	12 Morrison Ct	Methuen	1961
MET.324		16 Morrison Ct	Methuen	1960
MET.325		20-22 Morrison Ct	Methuen	1961
MET.326		21 Morrison Ct	Methuen	1962
MET.327	Donnelley, Fred House	24 Morrison Ct	Methuen	1960
MET.328		25 Morrison Ct	Methuen	1965
MET.329		28 Morrison Ct	Methuen	1963
MET.330		32 Morrison Ct	Methuen	1962
MET.331		36 Morrison Ct	Methuen	1962
MET.150	Phippen, Arthur W. House	1 Myona St	Methuen	c 1910
MET.190	Boles, Reuben - Morse, Amos House	40 Myrtle St	Methuen	c 1795
MET.1713	Dow, Thomas House	80 Myrtle St	Methuen	c 1776
MET.1671		105 Myrtle St	Methuen	r 1920
MET.509	Tyler Street Primitive Methodist Church	123 Myrtle St	Methuen	1915
MET.1705	Clegg, Hugh House	36 Nevins Rd	Methuen	c 1918
MET.1706	Hebblethwaite, Jonathan House	38 Nevins Rd	Methuen	1920
MET.530	Methuen Lebanese Cemetery Burial Vault	North Lowell St	Methuen	r 1920
MET.531	Saint Xenia Russian Orthodox Church	North Lowell St	Methuen	1996
MET.822	Methuen Lebanese Cemetery	North Lowell St	Methuen	c 1917
MET.823	Lithuanian National Catholic Cemetery	North Lowell St	Methuen	c 1914
MET.824	Polish National Catholic Cemetery	North Lowell St	Methuen	c 1927
MET.825	Saints Peter and Paul Russian Orthodox Cemetery	North Lowell St	Methuen	c 1914
MET.1710		11 North Lowell St	Methuen	r 1900
MET.181	Griffin, Enoch H. House	51 North Lowell St	Methuen	c 1800
MET.182	Wetherbee Tavern	73 North Lowell St	Methuen	r 1820
MET.183	Dennison, Maj. Gen. Daniel House	87 North Lowell St	Methuen	c 1750
MET.184	Whittier, John House	125 North Lowell St	Methuen	c 1777
MET.527	Elmwood Cemetery Stone Vault	130 North Lowell St	Methuen	r 1920
MET.528	Elmwood Cemetery Shed	130 North Lowell St	Methuen	c 1900
MET.529	Elmwood Cemetery Maintenance Facility	130 North Lowell St	Methuen	c 1960
MET.821	Elmwood Cemetery	130 North Lowell St	Methuen	c 1772
MET.510	Richardson, Edwin House	238 North Lowell St	Methuen	c 1885
MET.164		97 North St	Methuen	c 1840
MET.165	Emerson, Capt. Oliver House	133 North St	Methuen	1775
MET.166	Emerson, Day House	139 North St	Methuen	c 1808

Inv. No.	Property Name	Street	Town	Year
MET.511	Oakland Avenue School	Oakland Ave	Methuen	1910
MET.927	Kelley, Richard G. Memorial Bridge	Oakland Ave	Methuen	1935
MET.114	Craven, Jonathan House	47-49 Oakland Ave	Methuen	c 1890
MET.115	Emmanuel Primitive Methodist Church	105 Oakland Ave	Methuen	1904
MET.1535		Oakside Ave	Methuen	r 1965
MET.1506		5 Oakside Ave	Methuen	c 1970
MET.1507		7 Oakside Ave	Methuen	c 1960
MET.1508		11 Oakside Ave	Methuen	c 1960
MET.1509		63 Oakside Ave	Methuen	c 1960
MET.1510		65 Oakside Ave	Methuen	c 1960
MET.1511		69 Oakside Ave	Methuen	c 1960
MET.1512		73 Oakside Ave	Methuen	c 1960
MET.1513		74 Oakside Ave	Methuen	c 1950
MET.1514		78 Oakside Ave	Methuen	c 1950
MET.1515		82 Oakside Ave	Methuen	c 1950
MET.1516		83 Oakside Ave	Methuen	c 1950
MET.1517		86 Oakside Ave	Methuen	c 1950
MET.1518		87 Oakside Ave	Methuen	c 1950
MET.1520		91 Oakside Ave	Methuen	c 1970
MET.1521		95 Oakside Ave	Methuen	c 1950
MET.1522		99 Oakside Ave	Methuen	c 1965
MET.1523		115 Oakside Ave	Methuen	c 1920
MET.1524		119 Oakside Ave	Methuen	c 1950
MET.1525		123 Oakside Ave	Methuen	c 1935
MET.1526		130-132 Oakside Ave	Methuen	r 1925
MET.1527		134 Oakside Ave	Methuen	r 1925
MET.1528		138 Oakside Ave	Methuen	r 1925
MET.1529		142 Oakside Ave	Methuen	r 1925
MET.1530		148 Oakside Ave	Methuen	r 1925
MET.1531		150 Oakside Ave	Methuen	c 1910
MET.1532		152 Oakside Ave	Methuen	c 1915
MET.1533		154 Oakside Ave	Methuen	c 1950
MET.1534		158-164 Oakside Ave	Methuen	c 1910
MET.1288		1 Olive St	Methuen	r 1915
MET.1289		4 Olive St	Methuen	r 1915
MET.1290		5 Olive St	Methuen	r 1915
MET.1291		8 Olive St	Methuen	r 1915
MET.1292		9 Olive St	Methuen	r 1915

Inv. No.	Property Name	Street	Town	Year
MET.1293		12 Olive St	Methuen	r 1965
MET.1294		13 Olive St	Methuen	r 1915
MET.1295		17 Olive St	Methuen	r 1915
MET.1296		21 Olive St	Methuen	r 1915
MET.415		29 Olive St	Methuen	r 1925
MET.416		30 Olive St	Methuen	r 1915
MET.417		32 Olive St	Methuen	c 1915
MET.418		34 Olive St	Methuen	c 1915
MET.419		37 Olive St	Methuen	r 1935
MET.420		38 Olive St	Methuen	r 1945
MET.421		42 Olive St	Methuen	r 1935
MET.422		43 Olive St	Methuen	r 1925
MET.423		45 Olive St	Methuen	r 1985
MET.424		46 Olive St	Methuen	r 1935
MET.425		47 Olive St	Methuen	r 1925
MET.426		48 Olive St	Methuen	r 1935
MET.427		49 Olive St	Methuen	r 1935
MET.428		52-54 Olive St	Methuen	c 1915
MET.429		53 Olive St	Methuen	r 1935
MET.430		55 Olive St	Methuen	r 1935
MET.431		57 Olive St	Methuen	r 1925
MET.432		59 Olive St	Methuen	c 1930
MET.433		64 Olive St	Methuen	r 1935
MET.434		68 Olive St	Methuen	r 1935
MET.435		70 Olive St	Methuen	c 1915
MET.907	Osgood Street Bridge	Osgood St	Methuen	1831
MET.332	Lawrence Gas and Electric Company Building	2 Osgood St	Methuen	1920
MET.333	Helbick's Auto Body Shop	28 Osgood St	Methuen	c 1960
MET.334	Nutton Oil Company Building	28 Osgood St	Methuen	c 1936
MET.335		28 Osgood St	Methuen	c 1960
MET.336	Galloway Oil Company Office	28R Osgood St	Methuen	1980
MET.228	Methuen Company Storehouse #1	30 Osgood St	Methuen	r 1876
MET.229	Methuen Mill #4 - Jute Mill	45 Osgood St	Methuen	1870
MET.23	Methuen Company Cotton Textile Mills	47-55 Osgood St	Methuen	c 1826
MET.211	Methuen Company Textile Mill #B	47-55 Osgood St	Methuen	c 1870
MET.212	Methuen Company Textile Mill #C	47-55 Osgood St	Methuen	1882
MET.337		54 Osgood St	Methuen	c 1960
MET.231	Methuen Mill Worker Housing	58 Osgood St	Methuen	c 1800

Inv. No.	Property Name	Street	Town	Year
MET.28	Methuen Cotton Mills Storehouse	62 Osgood St	Methuen	c 1850
MET.232	Methuen Company Storehouse #4	66 Osgood St	Methuen	1879
MET.72	Mann, John W. House	9 Park St	Methuen	1876
MET.71	Clark, Elbridge A. House	10 Park St	Methuen	1875
MET.73	Phillips, Rev. John C. - Morrison, Daniel House	11 Park St	Methuen	c 1830
MET.338	Rollins, Amos House	12 Park St	Methuen	1870
MET.339	Currier, Daniel - Cluff, John House	14 Park St	Methuen	c 1830
MET.74	Preston, Henry House	15-19 Park St	Methuen	c 1840
MET.340	First Baptist Church Parsonage	30 Park St	Methuen	1877
MET.341	Gordon, J. Haskell House	36 Park St	Methuen	1873
MET.1248		3 Pearl Ct	Methuen	c 1860
MET.1249		4 Pearl Ct	Methuen	c 1860
MET.1250		5 Pearl Ct	Methuen	c 1860
MET.1251		7 Pearl Ct	Methuen	c 1860
MET.1252		10 Pearl Ct	Methuen	c 1870
MET.203	Marsh Corner Elementary School	Pelham St	Methuen	1917
MET.512	Bentley, Joseph Hair Company Shoddy Mill	Pelham St	Methuen	c 1895
MET.194	Mill Building, Old	29-31 Pelham St	Methuen	c 1820
MET.195	Fales, Albert S. House	33-35 Pelham St	Methuen	c 1818
MET.196	Pelham Street, 50	50 Pelham St	Methuen	c 1875
MET.513	Hutchins, Charles House	68 Pelham St	Methuen	c 1900
MET.514	Bagnell, William House	114 Pelham St	Methuen	c 1880
MET.197	Flahive, Maurice Double House	125-127 Pelham St	Methuen	c 1890
MET.198	Osgood, Joseph and Benjamin House	193 Pelham St	Methuen	c 1800
MET.199	Harris, Asa House	207 Pelham St	Methuen	c 1800
MET.200	Bodwell, Eliphalet House	231 Pelham St	Methuen	c 1770
MET.201	Messer, Wesley L. House	237 Pelham St	Methuen	c 1915
MET.202	Pelham Street, 262-264	262-264 Pelham St	Methuen	c 1920
MET.204	Morse, Moses House	311 Pelham St	Methuen	1762
MET.205	Marsh Corner Community Church	315 Pelham St	Methuen	1850
MET.206	Emerson, Joseph House	349 Pelham St	Methuen	c 1845
MET.515	Methuen Infirmary	423 Pelham St	Methuen	1934
MET.207	Old Town Farm	430 Pelham St	Methuen	c 1845
MET.1003		1 Phillips St	Methuen	r 1915
MET.1005		2-4 Phillips St	Methuen	c 1900
MET.1004		3 Phillips St	Methuen	r 1915
MET.1006		5-7 Phillips St	Methuen	r 1925
MET.109		6-8 Phillips St	Methuen	c 1915

Inv. No.	Property Name	Street	Town	Year
MET.1007		29-31 Phillips St	Methuen	r 1895
MET.1010		32-38 Phillips St	Methuen	c 1900
MET.1008		33-35 Phillips St	Methuen	r 1895
MET.1009		37-39 Phillips St	Methuen	r 1895
MET.1011		45-47 Phillips St	Methuen	c 1900
MET.1012		46 Phillips St	Methuen	r 1895
MET.1013		49-51 Phillips St	Methuen	c 1900
MET.1014		53-55 Phillips St	Methuen	c 1900
MET.1015		54 Phillips St	Methuen	r 1895
MET.1016		61-63 Phillips St	Methuen	c 1910
MET.1017		62 Phillips St	Methuen	r 1895
MET.1018		64-66 Phillips St	Methuen	r 1895
MET.1019		69 Phillips St	Methuen	r 1895
MET.1020		70 Phillips St	Methuen	r 1895
MET.1021		71-73 Phillips St	Methuen	r 1885
MET.1022		75 Phillips St	Methuen	r 1915
MET.1023		85 Phillips St	Methuen	r 1895
MET.1024		86 Phillips St	Methuen	r 1885
MET.1025		87 Phillips St	Methuen	r 1895
MET.1026		91-93 Phillips St	Methuen	r 1895
MET.1027		92-94 Phillips St	Methuen	r 1895
MET.1028		95-97 Phillips St	Methuen	r 1915
MET.1031		96 Phillips St	Methuen	r 1925
MET.1029		99-101 Phillips St	Methuen	r 1915
MET.1032		100-102 Phillips St	Methuen	r 1925
MET.1033		104 Phillips St	Methuen	r 1965
MET.1034		106 Phillips St	Methuen	r 1985
MET.1035		107-109 Phillips St	Methuen	r 1885
MET.1036		108 Phillips St	Methuen	r 1985
MET.1037		115-117 Phillips St	Methuen	r 1915
MET.1038		125 Phillips St	Methuen	r 1895
MET.1039		133 Phillips St	Methuen	r 1895
MET.1040		135-135 1/2 Phillips St	Methuen	r 1915
MET.1041		135-137 Phillips St	Methuen	r 1895
MET.1042		155-157 Phillips St	Methuen	r 1895
MET.1043		163-165 Phillips St	Methuen	r 1895
MET.1044		171-173 Phillips St	Methuen	c 1900
MET.1045		175-177 Phillips St	Methuen	r 1915

Inv. No.	Property Name	Street	Town	Year
MET.1046		189-191 Phillips St	Methuen	r 1915
MET.1047		197 Phillips St	Methuen	r 1895
MET.1048		203-205 Phillips St	Methuen	r 1915
MET.1049		207-209 Phillips St	Methuen	r 1915
MET.1050		211-213 Phillips St	Methuen	r 1915
MET.342	Methuen Company Worker Housing	1 Pine St	Methuen	c 1870
MET.1536		16 Pinewood Rd	Methuen	c 1930
MET.1537		20 Pinewood Rd	Methuen	c 1950
MET.1538		28-30 Pinewood Rd	Methuen	c 1925
MET.902	Davis, Capt. John Monument	Pleasant St	Methuen	1907
MET.905	Civil War Memorial	Pleasant St	Methuen	1888
MET.923	Civil War Memorial Park - Wardwell, F. A. Square	Pleasant St	Methuen	1888
MET.53	Searles, Edward Guesthouse	5 Pleasant St	Methuen	1900
MET.343	Norris, Rolf C. House	9 Pleasant St	Methuen	1924
MET.54	Tenney, J. Milton House	12 Pleasant St	Methuen	c 1905
MET.56	Gutterson, Branch G. - Peirce, Ella A. House	13 Pleasant St	Methuen	c 1845
MET.57	Peirce, Judge Albion G. House	15 Pleasant St	Methuen	c 1889
MET.215		16 Pleasant St	Methuen	c 1875
MET.55	Currier, Matthew - Howe, Christopher Double House	18-20 Pleasant St	Methuen	c 1810
MET.58	First Congregational Church	30 Pleasant St	Methuen	1855
MET.920	Tenney, Charles Stairway	35 Pleasant St	Methuen	c 1880
MET.62		36 Pleasant St	Methuen	c 1910
MET.60	Tenney Estate - Gate House	37 Pleasant St	Methuen	1830
MET.84	Tenney Estate - Grey Court Manor Ruins	37 Pleasant St	Methuen	1890
MET.63	Archibald, Edward A. House	38 Pleasant St	Methuen	c 1880
MET.64	Walton - Hartshorne House	40 Pleasant St	Methuen	c 1880
MET.61	Searles High School	41 Pleasant St	Methuen	1904
MET.65	Austin, Charles House	42 Pleasant St	Methuen	c 1840
MET.1695	Hunting, George A. - Gaunt, Henry Double House	43 Pleasant St	Methuen	c 1895
MET.67		45 Pleasant St	Methuen	c 1875
MET.66		46 Pleasant St	Methuen	c 1845
MET.1696	Barnard, Charles M. House	51 Pleasant St	Methuen	c 1901
MET.1697	Gaunt, Henry House	56 Pleasant St	Methuen	1902
MET.1698	Galle, Walter F. House	64 Pleasant St	Methuen	c 1930
MET.1699	Frisselle, Frank House	66 Pleasant St	Methuen	c 1931
MET.1700	McKone, John House	70 Pleasant St	Methuen	c 1930

Inv. No.	Property Name	Street	Town	Year
MET.344	Tenney Estate - Tenney High School	75 Pleasant St	Methuen	1952
MET.1701	Doykos, James House	76 Pleasant St	Methuen	1935
MET.68		86 Pleasant St	Methuen	c 1870
MET.1702	George, Edward B. House	96 Pleasant St	Methuen	c 1900
MET.516	Parry House	172 Pleasant St	Methuen	c 1860
MET.70		6 Pleasant View	Methuen	c 1885
MET.69		92 Pleasant View	Methuen	c 1870
MET.517	Saint Theresa Catholic Church Parish House	22 Plymouth St	Methuen	c 1936
MET.518	Saint Theresa Catholic Church	22 Plymouth St	Methuen	1935
MET.1297		436 Prospect St	Methuen	r 1915
MET.1298		446 Prospect St	Methuen	r 1935
MET.1299		448-460 Prospect St	Methuen	r 1915
MET.1300		451 Prospect St	Methuen	r 1915
MET.1302		452 Prospect St	Methuen	r 1915
MET.1301		453 Prospect St	Methuen	r 1915
MET.1303		455 Prospect St	Methuen	r 1915
MET.1304		456 Prospect St	Methuen	r 1965
MET.1305		457-459 Prospect St	Methuen	r 1915
MET.1306		460-460 1/2 Prospect St	Methuen	r 1935
MET.1307		461 Prospect St	Methuen	r 1935
MET.436		463 Prospect St	Methuen	r 1925
MET.437	Cutter, Dr. Arthur Double House	465-467 Prospect St	Methuen	c 1915
MET.438		468 Prospect St	Methuen	c 1915
MET.439	Stanchfield, Holman J. House	469 Prospect St	Methuen	c 1912
MET.440	Gillen, Michael House	470 Prospect St	Methuen	1911
MET.441		471 Prospect St	Methuen	c 1915
MET.442	Cregg, Matthew House	472 Prospect St	Methuen	1917
MET.443		473 Prospect St	Methuen	r 1965
MET.444	Stedman, William House	474 Prospect St	Methuen	c 1901
MET.445	Herbst, William House	476 Prospect St	Methuen	1909
MET.446	Corcoran, Cornelius House	477 Prospect St	Methuen	c 1920
MET.130	Dolan, Terence House	478 Prospect St	Methuen	c 1900
MET.447	Williams, Clarence House	479 Prospect St	Methuen	c 1920
MET.448	McGrath, James and William Double House	480-482 Prospect St	Methuen	c 1915
MET.449		481 Prospect St	Methuen	r 1955
MET.450	McAllister, Dr. John G. House	483 Prospect St	Methuen	c 1894
MET.451	Horne, James - Moulton, Rev. Arthur Double House	484-486 Prospect St	Methuen	c 1915

Inv. No.	Property Name	Street	Town	Year
MET.452	Frank, Dr. Charles - Hirsch, Frank House	485 Prospect St	Methuen	1935
MET.453	Burgill, Dr. Julian House	487 Prospect St	Methuen	1935
MET.454		489 Prospect St	Methuen	1918
MET.129		491 Prospect St	Methuen	c 1900
MET.455	Sullivan, James J. House	493 Prospect St	Methuen	c 1915
MET.456	Rhodes, Thomas House	495 Prospect St	Methuen	c 1922
MET.457	Hambleton, Fred House	497 Prospect St	Methuen	c 1921
MET.458	Schueler, Charles House	500 Prospect St	Methuen	c 1920
MET.1704	Clegg, Dr. Francis House	506 Prospect St	Methuen	1923
MET.459	Lyons, Herbert House	508 Prospect St	Methuen	c 1915
MET.125		510 Prospect St	Methuen	c 1850
MET.124		512 Prospect St	Methuen	c 1915
MET.123		526 Prospect St	Methuen	c 1840
MET.128	Buswell, J. E. House	535-537 Prospect St	Methuen	c 1875
MET.127		575 Prospect St	Methuen	1835
MET.126		585 Prospect St	Methuen	r 1805
MET.1655		600 Prospect St	Methuen	c 1900
MET.1656		603 Prospect St	Methuen	c 1915
MET.1657		605 Prospect St	Methuen	r 1925
MET.122	Simpson, James E. House	606 Prospect St	Methuen	c 1920
MET.121		610 Prospect St	Methuen	1913
MET.1660		612 Prospect St	Methuen	c 1920
MET.1658		615 Prospect St	Methuen	c 1900
MET.1659		616 Prospect St	Methuen	c 1915
MET.120	Farr, Alba A. House	620 Prospect St	Methuen	1867
MET.1661		621 Prospect St	Methuen	r 1965
MET.1662		625 Prospect St	Methuen	c 1900
MET.1663		631 Prospect St	Methuen	c 1900
MET.119	Davis, James House	635 Prospect St	Methuen	c 1721
MET.1664		637 Prospect St	Methuen	c 1915
MET.1665		641 Prospect St	Methuen	c 1920
MET.1666		649 Prospect St	Methuen	c 1930
MET.118	Swan, Asie House	669 Prospect St	Methuen	c 1720
MET.460		5 Quincy St	Methuen	c 1900
MET.461		6 Quincy St	Methuen	c 1900
MET.462		7 Quincy St	Methuen	c 1900
MET.463		10 Quincy St	Methuen	c 1900
MET.464		12 Quincy St	Methuen	c 1900

Inv. No.	Property Name	Street	Town	Year
MET.465		13 Quincy St	Methuen	r 1925
MET.466		15 Quincy St	Methuen	r 1925
MET.133		16 Quincy St	Methuen	c 1900
MET.134		17-19 Quincy St	Methuen	c 1890
MET.467		20 Quincy St	Methuen	r 1925
MET.135		21 Quincy St	Methuen	c 1905
MET.468		22 Quincy St	Methuen	c 1900
MET.136		23 Quincy St	Methuen	c 1905
MET.469		24 Quincy St	Methuen	c 1915
MET.470		25 Quincy St	Methuen	c 1900
MET.471		26 Quincy St	Methuen	c 1915
MET.472		27 Quincy St	Methuen	c 1915
MET.473		29 Quincy St	Methuen	r 1925
MET.474		30 Quincy St	Methuen	r 1925
MET.475		32 Quincy St	Methuen	c 1915
MET.476		34 Quincy St	Methuen	r 1935
MET.112		59 Railroad St	Methuen	c 1830
MET.345	Methuen Company Worker Housing	96-98 Railroad St	Methuen	c 1870
MET.346	Methuen Company Worker Housing	100-102 Railroad St	Methuen	c 1870
MET.347	Methuen Company Worker Housing	104-106 Railroad St	Methuen	c 1870
MET.348	Pearl, Joseph H. House	110-112A Railroad St	Methuen	1895
MET.349	Antrim, Esther - Perkins, Ann House	114-122 Railroad St	Methuen	c 1870
MET.350	Riverside Auto Body Shop	9 River St	Methuen	1951
MET.351	Riverside Auto Body Shop Storage Building	9 River St	Methuen	1965
MET.230	Methuen Veterans of Foreign Wars Post	26 River St	Methuen	1959
MET.26	Tenney - Methuen Mills Worker Housing	30 River St	Methuen	c 1831
MET.1206		887 Riverside Dr	Methuen	r 1955
MET.1207		889 Riverside Dr	Methuen	r 1955
MET.1208		893 Riverside Dr	Methuen	c 1945
MET.1209		895 Riverside Dr	Methuen	c 1945
MET.1210		897 Riverside Dr	Methuen	c 1945
MET.1211		899 Riverside Dr	Methuen	c 1945
MET.1212		901 Riverside Dr	Methuen	c 1945
MET.1213		903 Riverside Dr	Methuen	c 1945
MET.1214		905 Riverside Dr	Methuen	c 1955
MET.1215		907 Riverside Dr	Methuen	c 1955
MET.1216		909 Riverside Dr	Methuen	c 1955
MET.1217		921 Riverside Dr	Methuen	c 1945

Inv. No.	Property Name	Street	Town	Year
MET.908	Route 28 Bridge - Broadway Bridge	Route 28	Methuen	1912
MET.477		2 Russ St	Methuen	c 1915
MET.478		3 Russ St	Methuen	c 1915
MET.479		6 Russ St	Methuen	c 1930
MET.480		9 Russ St	Methuen	c 1930
MET.481		10 Russ St	Methuen	r 1935
MET.482		11 Russ St	Methuen	c 1930
MET.483		14 Russ St	Methuen	c 1930
MET.484		15 Russ St	Methuen	r 1955
MET.485		16 Russ St	Methuen	c 1930
MET.486		18 Russ St	Methuen	c 1930
MET.1142		19 Russ St	Methuen	r 1955
MET.1143		20 Russ St	Methuen	c 1930
MET.1144		24 Russ St	Methuen	r 1935
MET.208	Poor, G. P. House	57 Salem St	Methuen	c 1850
MET.912	Boston and Maine Spicket River Railroad Bridge	Spicket River	Methuen	1890
MET.915	Searles Dam	Spicket River	Methuen	1912
MET.1051		2-6 Spruce St	Methuen	c 1915
MET.1052		11 Spruce St	Methuen	r 1850
MET.1053		14-16 Spruce St	Methuen	r 1915
MET.1054		15-17 Spruce St	Methuen	r 1915
MET.1055		19 Spruce St	Methuen	r 1915
MET.1056		20 Spruce St	Methuen	r 1885
MET.1057		21-23 Spruce St	Methuen	r 1915
MET.1058		25 Spruce St	Methuen	r 1915
MET.1059		43 Spruce St	Methuen	r 1925
MET.1060		45 Spruce St	Methuen	r 1915
MET.214		2 Stevens St	Methuen	c 1900
MET.213		5 Stevens St	Methuen	c 1880
MET.44	Parker, Abbie S. - Sagar, Alfred House	6 Stevens St	Methuen	c 1894
MET.49	Parker, Abbie S. House	7 Stevens St	Methuen	c 1903
MET.1621	Howe, Joseph Sidney House	8 Stevens St	Methuen	c 1881
MET.45	Moore, Harry E. House	10 Stevens St	Methuen	1898
MET.1622		11-13 Stevens St	Methuen	c 1900
MET.46	White, A. Ernest House	14 Stevens St	Methuen	c 1903
MET.1623		15-17 Stevens St	Methuen	c 1900
MET.47	Carrow, Peter House	16 Stevens St	Methuen	c 1898
MET.48	Ropes, Charles A. House	18 Stevens St	Methuen	c 1872

Inv. No.	Property Name	Street	Town	Year
MET.1624	Helberg, Julius House	19 Stevens St	Methuen	c 1925
MET.1625	Hall, John W. House	21 Stevens St	Methuen	c 1875
MET.1626	Webster, Mark H. House	22 Stevens St	Methuen	c 1870
MET.1627		24 Stevens St	Methuen	r 1925
MET.1628		25 Stevens St	Methuen	c 1890
MET.1629		26 Stevens St	Methuen	r 1915
MET.1630		28 Stevens St	Methuen	r 1885
MET.1631		30 Stevens St	Methuen	r 1915
MET.1632		31 Stevens St	Methuen	c 1900
MET.1633		32 Stevens St	Methuen	c 1880
MET.1634		34 Stevens St	Methuen	r 1965
MET.1635	Nye, Herbert House	35 Stevens St	Methuen	c 1900
MET.1636	Hutchins, Arthur - Hoehn, Oscar House	2 Summit Ave	Methuen	1899
MET.1637		5 Summit Ave	Methuen	c 1920
MET.1638		7 Summit Ave	Methuen	c 1880
MET.1639		8 Summit Ave	Methuen	c 1915
MET.1640		9 Summit Ave	Methuen	r 1935
MET.1641		10 Summit Ave	Methuen	c 1910
MET.1642		11 Summit Ave	Methuen	c 1915
MET.1643		12 Summit Ave	Methuen	r 1925
MET.1308		3 Swan Ave	Methuen	r 1915
MET.1309		7 Swan Ave	Methuen	r 1915
MET.1145		92 Swan St	Methuen	r 1925
MET.1146		94 Swan St	Methuen	c 1900
MET.138		96-98 Swan St	Methuen	c 1890
MET.1147		100-102 Swan St	Methuen	r 1935
MET.1148		104-106 Swan St	Methuen	c 1915
MET.1149		108 Swan St	Methuen	c 1960
MET.1150		112-114 Swan St	Methuen	r 1915
MET.1151		118 Swan St	Methuen	r 1935
MET.1061		1 Tenney St	Methuen	r 1895
MET.1062		3 Tenney St	Methuen	r 1895
MET.1066		4 Tenney St	Methuen	r 1895
MET.1063		5-7 Tenney St	Methuen	r 1895
MET.1064		9 Tenney St	Methuen	r 1895
MET.1065		11 Tenney St	Methuen	r 1895
MET.1067		15-19 Tenney St	Methuen	r 1885
MET.1068		16 Tenney St	Methuen	c 1900

Inv. No.	Property Name	Street	Town	Year
MET.1069		20-22 Tenney St	Methuen	c 1900
MET.1070		25-27 Tenney St	Methuen	r 1885
MET.1072		26 Tenney St	Methuen	r 1885
MET.1073		28 Tenney St	Methuen	r 1885
MET.1071		29 Tenney St	Methuen	c 1900
MET.1074		30-32 Tenney St	Methuen	r 1885
MET.1075		35-37 Tenney St	Methuen	r 1895
MET.1076		39 Tenney St	Methuen	r 1885
MET.1077		39 1/2 Tenney St	Methuen	r 1895
MET.1078		45 Tenney St	Methuen	r 1885
MET.1079		46-48 Tenney St	Methuen	r 1925
MET.1080		47-49 Tenney St	Methuen	r 1885
MET.1082		50-52 Tenney St	Methuen	c 1915
MET.1081		51-53 Tenney St	Methuen	r 1895
MET.1083		54-56 Tenney St	Methuen	c 1915
MET.1084		63-65 Tenney St	Methuen	c 1900
MET.1085		71-73 Tenney St	Methuen	c 1900
MET.1086		77-81 Tenney St	Methuen	c 1900
MET.1087		83-85 Tenney St	Methuen	c 1900
MET.1088		90-94 Tenney St	Methuen	r 1895
MET.1090		95-97 Tenney St	Methuen	c 1900
MET.1089		96-98 Tenney St	Methuen	c 1910
MET.1091		99-101 Tenney St	Methuen	c 1900
MET.1092		100-102 Tenney St	Methuen	r 1895
MET.1093		104-106 Tenney St	Methuen	r 1895
MET.1094		108-110 Tenney St	Methuen	c 1910
MET.1095		112-114 Tenney St	Methuen	r 1895
MET.1096		116-118 Tenney St	Methuen	r 1895
MET.1097		126 Tenney St	Methuen	c 1910
MET.1098		130 Tenney St	Methuen	r 1850
MET.1099		136-138 Tenney St	Methuen	r 1895
MET.1100		140-142 Tenney St	Methuen	r 1895
MET.1101		141-143 Tenney St	Methuen	c 1910
MET.1102		144-146 Tenney St	Methuen	r 1915
MET.1104		147-149 Tenney St	Methuen	r 1895
MET.1103		148-150 Tenney St	Methuen	r 1915
MET.1105		151-153 Tenney St	Methuen	c 1910
MET.1106		152-154 Tenney St	Methuen	r 1915

Inv. No.	Property Name	Street	Town	Year
MET.1108		155-157 Tenney St	Methuen	r 1895
MET.1107		156-158 Tenney St	Methuen	r 1915
MET.1109		160-162 Tenney St	Methuen	r 1925
MET.1110		161-163 Tenney St	Methuen	c 1910
MET.1111		164-166 Tenney St	Methuen	r 1925
MET.1112		167-169 Tenney St	Methuen	r 1895
MET.1113		168-170 Tenney St	Methuen	c 1910
MET.1114		172-174 Tenney St	Methuen	c 1910
MET.1115		175-177 Tenney St	Methuen	r 1895
MET.1116		176-178 Tenney St	Methuen	c 1910
MET.1117		179 Tenney St	Methuen	c 1890
MET.1118		180-182 Tenney St	Methuen	c 1910
MET.1119		184-186 Tenney St	Methuen	c 1910
MET.1120		185 Tenney St	Methuen	r 1895
MET.1121		191-193 Tenney St	Methuen	r 1895
MET.1122		192-194 Tenney St	Methuen	r 1915
MET.1123		199-201 Tenney St	Methuen	r 1895
MET.1124		200-202 Tenney St	Methuen	c 1910
MET.1125		208-210 Tenney St	Methuen	r 1895
MET.1126		216-218 Tenney St	Methuen	r 1895
MET.1127		224-226 Tenney St	Methuen	r 1895
MET.1128		21 1/2-23 1/2 Thornton Ct	Methuen	c 1900
MET.1129		25 1/2-27 1/2 Thornton Ct	Methuen	c 1900
MET.1130		29 Thornton Ct	Methuen	c 1900
MET.1539		1-3 Tower St	Methuen	r 1925
MET.1540		2-4 Tower St	Methuen	c 1925
MET.1541		5-7 Tower St	Methuen	r 1975
MET.1542		6-8 Tower St	Methuen	c 1925
MET.1543		9-11 Tower St	Methuen	c 1925
MET.1544		10-12 Tower St	Methuen	c 1925
MET.1545		13-15 Tower St	Methuen	c 1925
MET.1546		14-16 Tower St	Methuen	c 1925
MET.1547		17-19 Tower St	Methuen	c 1925
MET.1548		20 Tower St	Methuen	c 1925
MET.1549		21-23 Tower St	Methuen	c 1925
MET.1550		22 Tower St	Methuen	c 1925
MET.1551		25-27 Tower St	Methuen	c 1925
MET.1552		29 Tower St	Methuen	c 1925

Inv. No.	Property Name	Street	Town	Year
MET.1553		35 Tower St	Methuen	c 1925
MET.1554		37 Tower St	Methuen	c 1930
MET.1555		48 Tower St	Methuen	c 1940
MET.1556		52 Tower St	Methuen	c 1950
MET.1557		55 Tower St	Methuen	c 1930
MET.1558		56 Tower St	Methuen	c 1925
MET.1559		59 Tower St	Methuen	c 1930
MET.1560		60 Tower St	Methuen	c 1950
MET.1561		61 Tower St	Methuen	c 1925
MET.1562		65 Tower St	Methuen	c 1925
MET.1563		66 Tower St	Methuen	c 1935
MET.1564		69 Tower St	Methuen	c 1925
MET.1565		70 Tower St	Methuen	c 1925
MET.1566		72 Tower St	Methuen	c 1940
MET.1567		73 Tower St	Methuen	c 1925
MET.1568		74 Tower St	Methuen	c 1925
MET.1569		76 Tower St	Methuen	c 1955
MET.1570		78 Tower St	Methuen	c 1925
MET.1571		80 Tower St	Methuen	c 1925
MET.1572		86-88 Tower St	Methuen	c 1925
MET.1645		5 Tremont St	Methuen	c 1875
MET.1646		6 Tremont St	Methuen	c 1900
MET.1647		7 Tremont St	Methuen	c 1970
MET.1648		10 Tremont St	Methuen	c 1900
MET.50		11 Tremont St	Methuen	c 1850
MET.1649		15 Tremont St	Methuen	c 1900
MET.1573		18 Tudor St	Methuen	c 1955
MET.1574		20 Tudor St	Methuen	c 1955
MET.1575		22 Tudor St	Methuen	c 1955
MET.1576		24 Tudor St	Methuen	c 1955
MET.1577		36 Tudor St	Methuen	c 1960
MET.1578		39 Tudor St	Methuen	c 1940
MET.1579		44 Tudor St	Methuen	c 1955
MET.1580		46 Tudor St	Methuen	c 1950
MET.1581		49 Tudor St	Methuen	c 1925
MET.1582		50 Tudor St	Methuen	c 1955
MET.1583		51 Tudor St	Methuen	c 1925
MET.1584		52 Tudor St	Methuen	c 1930

Inv. No.	Property Name	Street	Town	Year
MET.1585		56 Tudor St	Methuen	c 1965
MET.1586		61 Tudor St	Methuen	c 1930
MET.1587		72 Tudor St	Methuen	c 1960
MET.519	Messer, James House	169 Tyler St	Methuen	c 1800
MET.525	Messer, James Barn	169 Tyler St	Methuen	c 1800
MET.188	Whittier House	179 Tyler St	Methuen	1766
MET.189	Harris, Henry J. House	191 Tyler St	Methuen	c 1910
MET.352	Hall, Charles H. House	39 Union St	Methuen	1876
MET.353	Hall, Charles H. Garage	49 Union St	Methuen	1951
MET.27	Methuen Railroad Station	55 Union St	Methuen	c 1907
MET.233	Manchester and Lawrence Railroad Freight House	55 Union St	Methuen	c 1850
MET.1253		74-74 1/2 Union St	Methuen	c 1870
MET.1254		79 Union St	Methuen	c 1915
MET.1255	Mount Carmel Roman Catholic Church	82 Union St	Methuen	1924
MET.1256	Mount Carmel Roman Catholic Parochial School	82 Union St	Methuen	1926
MET.1257	Mount Carmel Roman Catholic Church House	82 Union St	Methuen	c 1925
MET.1258		85 Union St	Methuen	r 1850
MET.1310		17 Vermont St	Methuen	r 1915
MET.1311		26 Vermont St	Methuen	r 1915
MET.1312		27 Vermont St	Methuen	r 1915
MET.1313		30 Vermont St	Methuen	r 1915
MET.1314		34 Vermont St	Methuen	r 1915
MET.1315		35 Vermont St	Methuen	r 1915
MET.1316		38 Vermont St	Methuen	r 1915
MET.1317		39 Vermont St	Methuen	r 1915
MET.1318		43 Vermont St	Methuen	r 1915
MET.1319		46 Vermont St	Methuen	r 1915
MET.1152		90 Vermont St	Methuen	c 1925
MET.1153		93 Vermont St	Methuen	c 1915
MET.1154		94 Vermont St	Methuen	r 1925
MET.1155		96 Vermont St	Methuen	r 1925
MET.1156		97 Vermont St	Methuen	r 1925
MET.1157		98 Vermont St	Methuen	r 1925
MET.1158		99 Vermont St	Methuen	r 1925
MET.1159		101 Vermont St	Methuen	r 1935
MET.1160		113 Vermont St	Methuen	r 1925
MET.1161		115 Vermont St	Methuen	r 1925

Inv. No.	Property Name	Street	Town	Year
MET.1162		117 Vermont St	Methuen	c 1915
MET.1163		118 Vermont St	Methuen	r 1945
MET.1164		120 Vermont St	Methuen	r 1945
MET.1165		121 Vermont St	Methuen	r 1935
MET.928	Haverhill - Methuen Boundary Marker	Washington St	Methuen	r 1840
MET.151	Howe, Christopher - Foster, Joel House	51 Washington St	Methuen	c 1841
MET.152	Currier, Nathan House	222 Washington St	Methuen	c 1840
MET.153	Richardson, Charles House and Cider Mill	240 Washington St	Methuen	1834
MET.522	Winwar and Son Soap Factory	3 West Ayer St	Methuen	c 1940
MET.193		87 West St	Methuen	r 1835
MET.192	Gardner, Joseph House	115 West St	Methuen	1868
MET.1650		2 Williams St	Methuen	r 1965
MET.1131		1-3 Willow St	Methuen	r 1895
MET.1132		2 Willow St	Methuen	r 1885
MET.1133		4-6 Willow St	Methuen	r 1915
MET.1134		5-7 Willow St	Methuen	r 1915
MET.1135		8 Willow St	Methuen	r 1915
MET.1136		10-12 Willow St	Methuen	r 1915
MET.1137		16 Willow St	Methuen	r 1915
MET.1138		18-20 Willow St	Methuen	r 1895
MET.1139		22-24 Willow St	Methuen	r 1915
MET.187	Martin, George J. House	10 Winchester St	Methuen	c 1925

Appendix E

Stormwater Management Plan Modifications

STORMWATER MANAGEMENT PLAN

AMENDMENT LOG

Tighe&Bond

Amend. No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name/Signature)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Appendix F

Reference Documents

Pollutant Impacts on Water Quality

Sediment	Sediment is a common component of stormwater, and can be a pollutant. Sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. Sediment can transport other pollutants that are attached to it including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids (TSS), a common water quality analytical parameter.
Nutrients	Nutrients including nitrogen and phosphorous are the major plant nutrients used for fertilizing landscapes, and are often found in stormwater. These nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. For example, nutrients have led to a loss of water clarity in Lake Tahoe. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.
Bacteria and Viruses	Bacteria and viruses are common contaminants of stormwater. For separate storm drain systems, sources of these contaminants include animal excrement and sanitary sewer overflow. High levels of indicator bacteria in stormwater have led to the closure of beaches, lakes, and rivers to contact recreation such as swimming.
Oil and Grease	Oil and grease includes a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Sources of oil and grease include leakage, spills, cleaning and sloughing associated with vehicle and equipment engines and suspensions, leaking and breaks in hydraulic systems, restaurants, and waste oil disposal.
Metals	Metals including lead, zinc, cadmium, copper, chromium, and nickel are commonly found in stormwater. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood) contain metals, which enter stormwater as the surfaces corrode, flake, dissolve, decay, or leach. Over half the trace metal load carried in stormwater is associated with sediments. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.
Organics	Organics may be found in stormwater at low concentrations. Often synthetic organic compounds (adhesives, cleaners, sealants, solvents, etc.) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways.
Pesticides	Pesticides (including herbicides, fungicides, rodenticides, and insecticides) have been repeatedly detected in stormwater at toxic levels, even when pesticides have been applied in accordance with label instructions. As pesticide use has increased, so too have concerns about the adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.
Gross Pollutants	Gross Pollutants (trash, debris and floatables) may include heavy metals, pesticides, and bacteria in stormwater. Typically resulting from an urban environment, industrial sites and construction sites, trash and floatables may create an aesthetic "eye sore" in waterways. Gross pollutants also include plant debris (such as leaves and lawn-clippings from landscape maintenance), animal excrement, street litter, and other organic matter. Such substances may harbor bacteria, viruses, vectors, and depress the dissolved oxygen levels in streams, lakes and estuaries sometimes causing fish kills.
Vector Production	Vector production (e.g., mosquitoes, flies, and rodents) is frequently associated with sheltered habitats and standing water. Unless designed and maintained properly, standing water may occur in treatment control BMP's for 72 hours or more, thus providing a source for vector habitat and reproduction (Metzger, 2002).

Source: California Stormwater Quality Association, Stormwater BMP Handbook, 2003.

Potential pollutants likely associated with specific *municipal facilities*

Municipality Facility Activity	Potential Pollutants								
	Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Building and Grounds Maintenance and Repair	X	X	X	X	X	X	X	X	X
Parking/Storage Area Maintenance	X	X	X	X	X	X	X		X
Waste Handling and Disposal	X	X	X	X	X	X	X	X	X
Vehicle and Equipment Fueling			X	X		X	X		
Vehicle and Equipment Maintenance and Repair				X		X	X		
Vehicle and Equipment Washing and Steam Cleaning	X	X	X	X		X	X		
Outdoor Loading and Unloading of Materials	X	X	X	X		X	X	X	X
Outdoor Container Storage of Liquids		X		X		X	X	X	X
Outdoor Storage of Raw Materials	X	X	X			X	X	X	X
Outdoor Process Equipment	X		X	X		X	X		
Overwater Activities			X	X	X	X	X	X	X
Landscape Maintenance	X	X	X		X			X	X

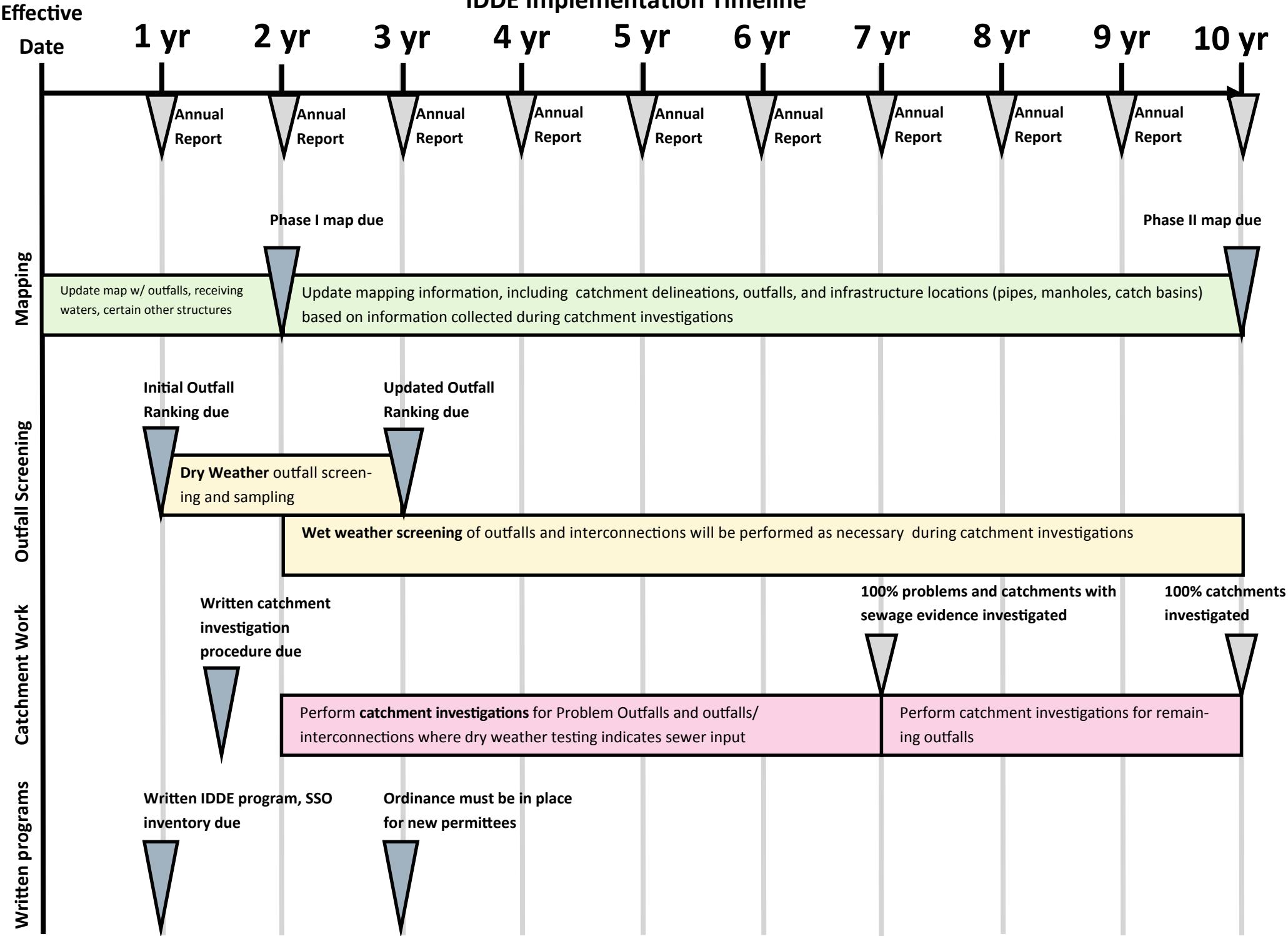
Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>)(slightly modified)

Potential pollutants likely associated with *municipal activities*

Municipal Program	Activities	Potential Pollutants								
		Sediment	Nutrients	Trash	Metals	Bacteria	Oil & Grease	Organics	Pesticides	Oxygen Demanding Substances
Roads, Streets, and Highways Operation and Maintenance	Sweeping and Cleaning	X		X	X		X			X
	Street Repair, Maintenance, and Striping/Painting	X		X	X		X	X		
	Bridge and Structure Maintenance	X		X	X		X	X		
Plaza, Sidewalk, and Parking Lot Maintenance and Cleaning	Surface Cleaning	X	X			X	X			X
	Graffiti Cleaning	X	X		X			X		
	Sidewalk Repair	X		X						
	Controlling Litter	X		X		X	X			X
Fountains, Pools, Lakes, and Lagoons Maintenance	Fountain and Pool Draining		X					X		
	Lake and Lagoon Maintenance	X	X	X		X			X	X
Landscape Maintenance	Mowing/Trimming/Planting	X	X	X		X			X	X
	Fertilizer & Pesticide Management	X	X						X	
	Managing Landscape Wastes			X					X	X
	Erosion Control	X	X							
Drainage System Operation and Maintenance	Inspection and Cleaning of Stormwater Conveyance Structures	X	X	X		X		X		X
	Controlling Illicit Connections and Discharges	X	X	X	X	X	X	X	X	X
	Controlling Illegal Dumping	X	X	X	X	X	X	X	X	X
	Maintenance of Inlet and Outlet Structures	X		X	X		X			X
Waste Handling and Disposal	Solid Waste Collection		X	X	X	X	X	X		X
	Waste Reduction and Recycling			X	X					X
	Household Hazardous Waste Collection			X	X		X	X	X	
	Controlling Litter			X	X	X		X		X
	Controlling Illegal Dumping	X		X		X	X		X	X
Water and Sewer Utility Operation and Maintenance	Water Line Maintenance	X				X	X			
	Sanitary Sewer Maintenance	X				X	X			X
	Spill/Leak/Overflow Control, Response, and Containment	X	X			X		X		X

Source: California Stormwater BMP Handbook (<http://www.cabmphandbooks.com/>)

IDDE Implementation Timeline



Tips for Organizing and Conducting Volunteer Clean-up Events

By: Jen Drocak –Acting Coordinator / Volunteer, Manchester Urban Ponds Restoration Program (UPRP)

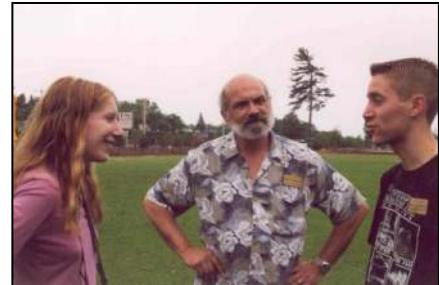
Step 1: Plan Your Clean-Up Event

A. Land and / or Shore? Determine the Location(s): Determine where, in proximity to the waterbody, your group wishes to concentrate its efforts on during a clean-up event. To find heavily-littered areas, and / or areas that are prone to illegal dumping, walk along the shore, in advance, to identify location(s) for the clean-up event. Identify accessible paths along the shoreline and / or on public trails that are easy for people to walk. The location(s) may be largely determined by public (or lake / homeowner association) access points such as a public beach, boat-launch, or park. If the location is large, consider identifying smaller locations within the larger location which can be managed by individual group leaders and groups. Determining the location(s) will provide you with an idea of the footwear that may be needed for the task based upon the terrain. If the clean-up event will be located at a beach or a dry area, sandals or sneakers may be adequate. If it will be located in a wetland or mucky area, knee-boots may be appropriate. If it will be located in water, hip-boots may be most appropriate. Determining the location(s) will also provide you with a sense of how many volunteers your group is seeking for the clean-up event.



The UPRP typically focuses clean-up efforts in the parks adjacent to the ponds by skirting around the ponds themselves. This involves differing terrain, and thus footwear. There have been occasions, however, where one or more volunteers have also used a small fishing boat to retrieve trash from the water that is too deep to obtain via hip-waders.

B. Obtain Landowner Permission: Whether the location(s) of your clean-up event is / are municipally-owned or privately-owned, determine who owns the property in advance in order to obtain permission. If you do not know who the property owner is, visit your municipality's on-line assessor's website to review the tax map(s) and property card(s) associated with the area. It is typically easy to obtain permission to organize a clean-up on municipally-owned / public land. If the location(s) are on privately-owned land, talk to the land owner(s) and explain why you are organizing a clean-up in that area, along with the benefits of doing so. Obtain permission from them in writing, if you can, by considering they sign a form. Verbal permission may be adequate, however.



The UPRP organizes clean-up events on land owned by Public Works and Parks, Recreation, and Cemetery Departments. We have not had to seek private landowner permission. We simply notify the Manchester Public Works Department and Parks, Recreation, and Cemetery Department of the dates of the clean-up events.

C. Determine the Task(s) at Hand: Determine what you will request of your volunteers. Will it be the removal of trash only? If so, will it be the removal of large items only or all items including the minutia? Will it be the removal of yard waste only? Graffiti removal or other vandalism? All of the above? Determining the task(s) at hand will provide you with an idea of the supplies (and hours) you will need to perform the task(s).



The UPRP typically removes trash only. We typically do not pick up the minutia (cigarette butts, bottle caps, etc.) due to the large volume of trash we collect and the limited amount of time and volunteers we have at each clean-up event.

D. Determine the Check-In Location: Based upon the chosen location(s) of the clean-up event, consider and determine the most appropriate location for volunteers to initially gather to check in and obtain supplies, as well as to reconvene at the end of the clean-up event. This may be a kiosk, boat-launch, or specific location on a beach or in a park. Try to stay away from busy roads or areas that are difficult to access.

The UPRP typically requests that volunteers meet in one central / well-known location such as a kiosk in a parking lot or boat-launch. We have kept the initial meeting location at each clean-up event consistent over the years.



E. Determine the Most Appropriate Age(s) of Your Volunteers: Based upon the task(s) at hand, determine the most appropriate age(s) of your volunteers. Are you seeking adults only? Children? Both? Do you have tasks that all can partake in, or are the tasks age-specific?

The UPRP generally seeks volunteers of all ages for clean-up events and encourage everyone, despite their age or ability, to participate in a manner of how they most feel comfortable.

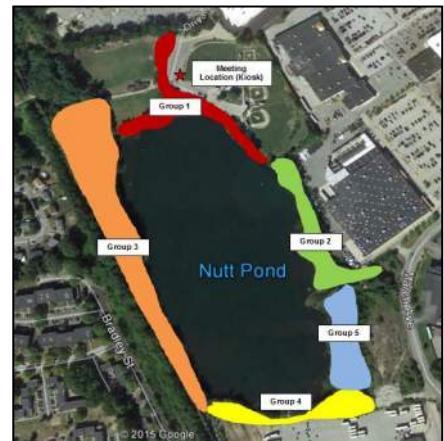


F. Determine the Desired Number of Volunteers: Based upon the number and location(s) that are chosen for the clean-up event, determine the desired number of volunteers to partake in the event.

The UPRP typically splits the area adjacent to the ponds into several areas, or groups of volunteers.

G. Create Map(s) of the Location(s) OR Plan on Designating a “Group Leader” for Each Location: If the location(s) is / are large enough to break into more than one group during the clean-up event, consider making aerial photographic “maps” (or using topographic maps) of each group’s area, indicating on the map the original meeting location, and the group’s start and end point.

The UPRP has created aerial maps to use in the past. However, what we consider to be more helpful is having a “group leader” (returning volunteer or someone familiar with the area) lead a small group of other volunteers in each designated area.



Step 2: Schedule Your Clean-Up Event

A. Choose a Date: Choose a date for the clean-up event at a time of year that makes the most sense to your group. Keep in mind that while lakes and ponds have year-round residents, the majority of residents are likely seasonal and may not arrive for the season, or on or around Memorial Day weekend. Thus, a late-spring or late-fall cleanup may not be the most appropriate time as it may not garner the most volunteers. An early or mid-summer cleanup may be the most appropriate. Consider, perhaps, scheduling the event in conjunction with an annual lake association meeting or holiday barbecue. Also consider scheduling the date of the clean-up event at least a month in advance to allow time to prepare (gather supplies and recruit volunteers). Lastly, consider a rain date.



The UPRP typically schedules annual pond and park cleanups on Saturday mornings during the last two weeks in April and the first one or two weeks in May. This is because a) this time of year is typically after the snow has melted and b) this time of year is typically before “leaf-in” (and in the case of some of these areas, this is important, as the areas are overtaken with thick stands of invasive species). We do not offer rain dates.

B. Choose a Time: Determine the amount of time it may take to clean up the area(s) of your choosing. Will it take one hour? Two hours? More? This is also a factor of the number of volunteers that attend (typically the more volunteers that attend the least amount of time the clean-up will take). If you believe the area(s) may take more than two hours, it may be best to schedule a two-part clean-up event. Also consider the time of day most appropriate to your group, especially if it is scheduled in conjunction with (or before or after) another event such as an annual meeting or holiday barbecue.



The UPRP has realized that 1 ½ - 2 hours is a sufficient amount of time to allot to clean-up events. We also realize that volunteers typically do not have the time or patience to commit to any more time in one day than that. We have also typically scheduled the clean-up events from 9:00AM to 11:00AM, with a meeting time of no later than 8:50AM. Early-morning clean-up events afford volunteers to have the remainder of the day for other things.

Step 3: Determine and Obtain Necessary Supplies

A. Determine the Necessary Supplies: Determining the task(s) at hand will determine your necessary supplies. If your clean-up event is strictly a trash removal cleanup, you may only need to obtain latex gloves and trash bags. If your clean-up event also includes yard-waste removal, you may need to obtain paper yard-waste bags, rakes and / or other tools.

Since the UPRP clean-up events are strictly focused on trash-removal, the only supplies we must procure are latex gloves (medium sized) and trash bags. We also have a few hand-held trash-grabbers since some volunteers find them helpful in reaching difficult areas and / or to prevent excessive bending.



B. Obtain the Necessary Supplies: Determine how you will obtain the necessary supplies. Does your group have a budget? Will your group be purchasing your supplies? Will your group fundraise to purchase supplies? Will your group borrow supplies, from perhaps the town or city?

The UPRP typically obtains supplies from the Manchester Parks, Recreation, and Cemetery Department. These supplies typically only include latex gloves and trash bags, but have included, in the past, rakes, other tools and yard waste bags. We also typically have a large container of hand-sanitizer available.

C. Obtain a First-Aid Kit: Consider obtaining one or more First Aid kits (for one or more groups of volunteers) in case it is needed. It is better to be proactively safe!

The UPRP has one First-Aid kit for use.

D. Consider Providing Water and Snacks: If your group has the financial means, consider providing water and snacks to your volunteers for afterwards. If your group does not have the financial means, consider soliciting donations from local establishments or having your group bake some treats, and bring a large cooler of ice water (or iced-tea) and some paper (or reusable plastic) cups.



The UPRP does not regularly provide water and snacks to volunteers since we do not have a budget to do so. On occasion, we have been able to obtain donations for yogurt snacks from Stonyfield Farm. On occasion we have also brought or made a baked good.

Step 4: Determine Your Waste Disposal Options

A. Determine Your Waste Disposal Options: At the end of your clean-up event, determine how and where you will dispose of the trash that was collected. Is there a dumpster on site that your group has permission to use? Are there already trash and / or recycling carts on site that your group has permission to use? If not, consider contacting your municipality's Highway Department, Parks & Recreation Department, or Road Agent, at least a month in advance, who may be able to coordinate trash and / or recycling pickup from your municipality's vendor (i.e. Waste Management, Pinard, etc.). Determine when the trash and / or recycling will be picked up and what the requirements for pickup are (especially with items such as vehicular tires and batteries, etc.). In addition, consider recruiting volunteers with pick-up trucks, especially if your group is cleaning multiple areas, and trash must be stockpiled in one area at the end of the event. Similarly, if you cannot obtain trash pick-up services, volunteers with pick-up trucks, and a municipal sticker (or permission) may be able to haul the trash and / or recycling to your local landfill or transfer station for free.



The UPRP typically sends notification of the clean-up schedule to the Manchester Public Works Director as soon as the dates are calendared. The Public Works Director, or staff, has coordinated with Manchester's solid waste collection staff to collect the trash on the Monday following the cleanup event (which have been held on Saturdays). While there have been a few times the Public Works Department has made one or more 95-gallon recycling carts available for the clean-up events, they are generally not available, and therefore, recycling is not typically sorted from other debris. All (tied / secure) bags of trash have been neatly placed in the same locations over the years; typically underneath or adjacent to the informational kiosks. Trash collected that does not fit into bags is also neatly placed adjacent to the bagged trash. We also recruit volunteers with pick-up trucks so that trash from different areas of the cleanup can be taken to one designated location at the end of the event. In addition, one of our volunteers separates steel and other scrap metal and takes it to a scrap metal recycling facility.

Step 5: Advertise Your Clean-Up Event / Recruit Volunteers

A. Determine Any Project Partners: In addition to volunteers who live around the waterbody, and any other residents of the town, determining any existing local groups or clubs that may be able to assist with the clean-up event is always helpful. Is there a local middle school, high school, or even college (if nearby) environmental club? A local chapter of the Student Conservation Association (SCA)? Any other organization, volunteer group, or club? A lot of these groups and / or clubs seek new community service projects and can help you garner additional / new volunteers.



The UPRP has partnered with the Student Conservation Association, local high school ecology clubs, local boy-scout troops, trout-fishing clubs, geo-cashing groups, and others in the past. This has helped garner additional / new volunteers.

B. Determine the Best Way(s) to Advertise Your Clean-Up Event: Determine the target audience of volunteers and consider the best way(s) to advertise your clean-up event. Is it by e-mail? Website? Post-card? Posting of a flyer on a community bulletin board and / or kiosk? An annual lake association newsletter? An advertisement in a local newspaper? TV? Radio? facebook / social media? All of the above? Remember, printed materials and postage cost money, as typically do newspaper and radio advertisements. If your group has available funds for this, that is one thing. If not, instead of

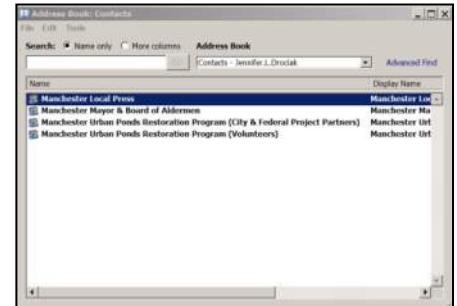


simply placing a paid advertisement in a newspaper, try reaching out to a local news reporter to see if s/he will write a story about your cleanup (or write and submit an op-ed piece). This is usually good, free, advertisement. Also determine the most appropriate time to advertise for the clean-up event. Will you be advertising only once, or multiple times before the event?

The UPRP has typically advertised clean-up events in the following manners: 1) The UPRP webpage, 2) The City of Manchester website “Calendar of Events”, 3) the UPRP facebook page, and 4) E-newsletter / e-mail. Local newspapers are also always gracious to cover the event(s) in a story beforehand. The UPRP typically sends posts the clean-up events on the website, and sends out an e-mail approximately three weeks in advance of the cleanup. The UPRP will then send weekly e-mails.

C. Create an E-Mail Distribution List: If you don't already have an e-mail distribution list, consider creating one. This may include names and e-mail addresses of lake association members, conservation commissioners, selectmen, municipal employees / department heads and others you know who may be interested. You can add to this with each clean-up event your group coordinates. If you have access to Constant Contact, Mailer, Mail Chimp, or other similar e-mail platform, this may be easier and more appropriate to use. If not, e-mail is a good starting place.

The UPRP has an e-mail distribution list which consists of approximately 200 individuals consisting of city aldermen, city department heads, conservation commissioners, media contacts, active school groups and other environmental organizations, and former volunteers. With every e-mail sent, an option is sent to opt-out of receiving e-mails by having a name and e-mail address removed from the list. This list is updated at least twice a year.



D. Before You Mail, Post, (or Hit the Send Button): Before you mail or post your flyer, or hit the send button to your e-mail distribution list, be sure to include the Who, What, Where, When, Why, and How to ensure all information is readily available. Why are you seeking volunteers? Who are you seeking as volunteers? What tasks are you seeking of volunteers? Where (general location and specific meeting location) are you seeking volunteers? When (date / time) are you seeking volunteers? Is there a rain date? How will the tasks be conducted? What should the volunteers wear or bring? What will be provided? Are you requesting an RSVP? For more information, who should they contact? Prepare your volunteers by letting them know what time to arrive, what to wear (clothes that can get dirty or wet, long pants, work gloves, boots or sturdy shoes, etc.), what to bring (sunscreen, insect repellant, water) and what to do in case of bad weather (rain date or cancellation information / phone number).



For Example: Seeking volunteers of all ages to assist in an annual trash clean-up at Black Brook and Blodget Park in Manchester on Saturday, April 23, 2016 from 9:00AM – 11:00AM. Volunteers will partner to clean the park and skirt the edges of the brook and wetland complex to remove accumulated trash. Please dress appropriately for weather as no rain date is scheduled. Latex gloves and trash bags will be provided, but please wear knee-boots, or hip-waders if you have them. No RSVP necessary. For more information, please visit www.manchesternh.gov/urbanponds or contact Jen Drocak at email@gmail.com or (603) #### - #####. We look forward to seeing you there!

Step 6: Conduct Your Clean-Up Event

A. Arrive Early: Consider arriving 15 minutes to one hour earlier than your volunteers so that you can set up at your check in location. Consider setting up the following: “Clean-Up Attendance Sheet”, water and / or refreshments, first aid and safety, trash bags and clean-up supplies, organizational information (flyers, fact sheets, reports, etc.). Consider also walking around the location(s) to identify any new trash and / or safety concerns that may have accrued / arisen since your last visit.

The UPRP coordinator(s) typically meet on-site approximately 15-30 minutes in advance of volunteers to set up trash bags, latex gloves, and the "Clean-Up Attendance Sheet". We also survey the site to identify any new trash or safety hazards to relay to volunteers.

B. Welcome Your Volunteers and Ask Them to Sign-In:

Welcome each volunteer upon arrival and ask that they sign a "Clean-Up Attendance Sheet" so that your group may account for number of volunteers and volunteer hours contributed to the clean-up event. Consider leaving the "Clean-Up Attendance Sheet" at the check-in location for those volunteers who may have to leave (and sign out) earlier than the full allotted time.

The UPRP "Clean-Up Attendance Sheet" typically notes the location and date of the event, and has room to tally the number of volunteers, number of volunteer hours, number of bags of trash and other debris. It also has fields for volunteers to print their name, address, and e-mail, and note the time they checked in, and the time they checked out.

Manchester Urban Ponds Restoration Program 2016 Clean-Up Attendance Sheet				
Location:	Date:	Hours at Site:	# Volunteers:	# Volunteer Hours
Name (Please Print)	Address	E-Mail	Time In	Time Out
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F. Provide Necessary Supplies to Your Volunteers: Ensure your volunteers have ample supplies for the duration of the clean-up event. If they did not bring their own work gloves, request that they take two pairs of Latex gloves (in case one pair rips), and more than one trash bag, depending on the designated location(s). If your group is also removing yard waste, provide your volunteers with rakes and lawn-waste bags. Request that they return any unused pair of gloves, trash bags, and any supplies to you at the end of the clean-up event. Consider also leaving supplies out in a designated location along with the "Clean-Up Attendance Sheet" for volunteers who may show up late.



Many of the UPRP bring their own work gloves. We then issue two pairs of Latex gloves to each volunteer as well as multiple trash bags, depending on the specific area they will be cleaning up. We request that all unused supplies be returned at the end of the clean-up.

G. Provide Your Volunteers with Instructions for the Clean-Up Event: Provide your volunteers with instructions for the clean-up event such as what they will be retrieving (large trash only, all trash, etc.) what not to pick up (hypodermic needles, cigarette butts, etc.), if they are to separate trash from recycling or not (in which case they may carry two bags at once – different colors may be helpful - one for trash and one for recycling), what is considered recyclable if they are separating recycling from trash (this differs in each community and some vendors may not accept unclean / dirty recyclables from clean-up events), etc. Also provide your volunteers with safety tips and a general schedule of the clean-up event including the location to reconvene at the end and where to place trash. Ensure everyone knows there to focus their efforts and then to stop.

The UPRP typically only picks up large items, and does not typically separate trash from recycling, due to limited means. However, we have done so in the past and have provided volunteers with two trash bags – one for recycling, and one for trash.

H. Make It Fun! Play One or More Games While You're at It! Why not make things fun while you're out there picking up trash? Consider playing one or more games (especially if some of the volunteers are children) such as a scavenger hunt, who can find the most interesting or unusual piece of trash, who can find the largest piece of trash, who collects the most trash, etc. Consider offering a prize and / or certificate to the winner(s) of one or more of the games you play.

The UPRP has, for many years, asked volunteers to find the "Most Interesting or Unusual Piece of Trash" at each clean-up event. At the end of the clean-up, volunteers will place their found items in one location for "judging" by the coordinator(s) of the clean-up event. Certificates and / or prizes have been awarded to the winner(s), and photos have been taken. We have found some really interesting and unusual pieces of trash over the years, and have kept a list!



I. Relinquish Groups of Volunteers / Group Leader(s) to Designated Area(s): If you are separating volunteers into more than one group for your clean-up event, relinquish the groups to their designated location(s). If you don't have a group leader for each group, relinquish them with their maps in hand. If you have a group leader be sure to introduce the volunteers in each group to their group leader before relinquishing them to their designated location(s). Remember to consider that not all locations may need the same number of volunteers.

The UPRP typically asks one or more returning volunteers if they would agree to be group leaders. Not all locations require the same amount of volunteers, however. This is decided based upon the area of the designated location(s), as well as the amount of trash to be removed in the designated location(s). For example, one small area along the shoreline may only require two volunteers, but a larger area in another location with a lot of trash may require 4-6 or more volunteers.



J. Reconvene at Initial Check-In Area at Designated Time: After the allotted period of time has elapsed for the clean-up event, reconvene at your initial check-in area. Account for all volunteers that did not sign out early.

The UPRP always meets at our initial check-in area. We then account for each group leader and group of volunteers (who did not sign out early) to ensure all have safely returned.



K. Count Full Bags of Trash (or Weigh All Trash): Count all full bags of trash that were collected and returned. If one or more bags are returned and are not considered full, consider consolidating them to make full bags of trash. That way, your measurements of “full bags” collected for this, and any other clean-up events, are consistently measured / counted. If your group has access to a scale, you consider weighing your bags of trash, and any other trash, to account for pounds of trash collected. Another option is to ask if the vendor who is charged with collecting the trash after the event can inform your group of the weight of the collection when the truck enters the scale at the weigh-station before drop-off at the refuse facility.



Since trash collected at UPRP clean-up events has not been weighed by a scale, and trash has been weighed by vendor truck only occasionally, to be consistent, we always count full bags at the site, and consolidate bags of trash that are returned not full in order to make full bags.

L. Account for and Count Other Items: Account for and count the quantity of other items of trash collected that cannot fit into bags.

The UPRP always accounts for and counts any trash that is collected that cannot be bagged. This typically includes vehicular tires, shopping carts, wood debris, construction debris, or any other items that have been illegally dumped.



M. Share the Data with Volunteers: Once you have tallied the final numbers of bags of trash and other items collected during the clean-up event, announce them to your volunteers so they know just how much trash and other debris they removed from the area, know how important their contribution of time and efforts were, and have immediate results of their work!



N. Tally Final Numbers on Clean-Up Attendance Sheet: Once you have tallied everything collected, write these numbers on your “Clean-Up Attendance Sheet”.

O. Take Photographs: To commemorate the success of your clean-up event, take a photo of the trash collected, and of the group of volunteers who helped collect it!

The UPRP always photographs the trash collected (in and out of bags), as well as takes a group photograph in front of or aside the trash collected.



P. Award a Prize, or Two, or Three: If you played one or more games during the clean-up event, consider awarding a certificate or prize to your winner(s) and photographing them with their winning piece of trash!

The UPRP has, for many years, asked volunteers to find the “Most Interesting or Unusual Piece of Trash” at each clean-up event. At the end of the clean-up, volunteers will place their found items in one location for “judging” by the coordinator(s) of the clean-up. Certificates and / or prizes have been awarded to the winner(s), and photos have been taken.



Q. Thank the Volunteers: Before parting ways, be sure to thank your volunteers for their assistance! Encourage them to volunteer again. Be sure to individually thank any special guests (aldermen / selectmen, city employees, media, etc.).

At the end of each clean-up event, the UPRP notes upcoming clean-up events in order to encourage volunteers to return for the next event.



Above Left: Volunteers at the 100th Cleanup of the Manchester Urban Ponds Restoration Program.

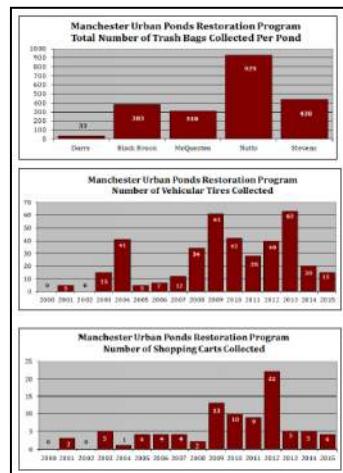
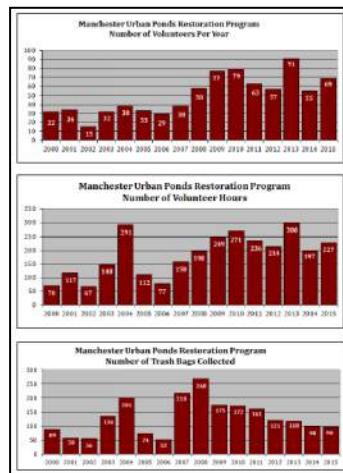
Above Right: Cake served to volunteers at the 100th official cleanup of the Manchester Urban Ponds Restoration Program .

R. Consider Having a Picnic / Cookout / or Lunch: If you have the financial means, consider having a picnic / cookout / lunch afterwards to celebrate your accomplishment. Or, consider soliciting local vendors for food donations in exchange for sponsor / partnership recognition at your clean-up event. If you’re not able to make or supply lunch, consider encouraging volunteers to bring a brown-bag lunch for afterwards.

Step 7: Follow Up After the Clean-Up Event

A. Update Your Electronic Records: Now is the time to transpose the information collected on the “Clean-Up Attendance Sheet” into an electronic record-retention system if you have access to one. Perhaps you have access to a database. If not, consider using a Microsoft Excel workbook / spreadsheet system to track measurements from your clean-up events. Now is also the time to update your existing e-mail distribution list with the names and e-mail addresses of those volunteers who participated in your clean-up event.

The UPRP has consistently used Microsoft Excel to track clean-up measurements. In the first worksheet of the workbook, we account for the number of our clean-up event, the location, date, hours spent at the event, numbers of bags of trash collected at the event, number of volunteers at the event, number of volunteer hours at the event, total value of volunteer time for the event, and other items retrieved at the event. For each year tracked, we created a "total" line with auto-calculations to account for the total of each year. To account for the value of volunteer time, we use figures taken from www.independentsector.org. In the second worksheet of the workbook, we account for pond cleanup attendees, where, for each clean-up event, we list the location, date, names (in alphabetical order), address, and hours at event. Similarly, for each year tracked, we created a "total" line. In the third worksheet of the workbook, we have created graphs based upon each year's total metrics. We then transpose these graphs to a Microsoft Word document, then an Adobe PDF document, and post on our website, and at the kiosks.



B. Follow Up With an E-mail or Thank-You Note: It is always nice to follow up with your new (and / or returning) volunteers by sending them a formal personalized thank-you via e-mail or US Postal Service. Besides, who doesn't like receiving a letter in the letter box, especially in this electronic day-in-age?

The UPRP, has, on occasion, sent personalized thank-you cards in the mail. Typically, however, we send a group thank-you via e-mail and attach photographs taken at the event(s), as well as re-cap tallies from the clean-up event(s).



C. Consider Writing an Article for Your Newsletter or the Newspaper: Consider writing an article for your newsletter, if you have one, or a local newsletter or newspaper, summarizing the event with photographs and tallies from the event. Volunteers who helped out at your clean-up event will feel proud of their accomplishment and the results. This is a good way to garner publicity about your group and its event as well as garner additional volunteers in the future.

The UPRP has often written newspaper articles and / or shared summary information about the clean-up events (at the end of the season) listing sponsors / project partners and volunteers, and including photographs of volunteers at the event, via an electronic newsletter.



From 2000 - 2005 **The Manchester Urban Ponds Restoration Program** (UPRP) was part of the Supplemental Environmental Projects Plan (SEPP) which was part of an agreement between the City of Manchester, NH Department of Environmental Services, and the US Environmental Protection Agency to address combined sewers in the City. Seven (7) waterbodies in Manchester have been evaluated and monitored for restoration potential. Specific restoration projects to meet the program's goals have also been identified, funded, and completed through this project. Since 2000, the Manchester Urban Ponds Restoration Program has organized 101 clean-up events. Over the past 15 years, 800 volunteers have spent 2,298.50 hours collecting 2,093 bags of trash! This does not include the items illegally "dumped" such as shopping carts (91), tires (388), car batteries, other car parts, construction debris, and other items. In addition, the value of volunteer time spent at these clean-ups has amounted to over \$54,000 over the past 15 years! The Manchester Urban Ponds Restoration Program was awarded an EPA "Environmental Merit Award" in 2011. More information on the Manchester Urban Ponds Restoration Program can be found by visiting www.manchesternh.gov/urbanponds.



Jen Drocak lives in Manchester, NH and holds a Bachelor of Science degree in Environmental Conservation from the University of New Hampshire. She is employed with the New Hampshire Department of Environmental Services where she has worked as a program specialist for the Pollution Prevention Program, a restoration specialist for the NH Coastal Program where she established a monitoring program for pre- and post-restoration projects in NH's salt marshes, and as the Volunteer River Assessment Program Coordinator where she provided technical assistance to approximately 200 volunteers who collected water quality samples for surface water quality assessments on NH's rivers and streams. Jen has also worked for the Wastewater Engineering Bureau as a grants management specialist and is currently working for the Land Resources Management Bureau as a compliance specialist. Since 2000, Jen has also been involved with the Manchester Urban Ponds Restoration Program, and has served as acting coordinator since 2006 where she largely coordinates annual clean-up events and water quality monitoring.

Appendix G

Annual Reports & Reporting Requirements

Annual Reports

The City will submit annual reports each year of the Small MS4 permit term, 90 days from the close of the reporting period (i.e., September 28). The reporting period will be a one-year period commencing on the permit effective date, and subsequent anniversaries thereof, except that the first annual report under the 2016 General Permit shall also cover the period from May 1, 2018 to the permit effective date, July 1, 2018. Under the 2016 General Permit, annual reports will consist of a simple update provided to EPA and more robust documentation included in Appendix F of this SWMP.

Per Section 4.4.b of the 2016 General Permit, the annual reports shall contain the following information:

- i. A self-assessment review of compliance with the permit terms and conditions.*
- ii. An assessment of the appropriateness of the selected BMPs.*
- iii. The status of any plans or activities required by part 2.1 and/ or part 2.2, including:*
 - Identification of all discharges determined to be causing or contributing to an exceedance of water quality standards and description of response including all items required by part 2.1.1;*
 - For discharges subject to TMDL related requirements, identification of specific BMPs used to address the pollutant identified as the cause of impairment and assessment of the BMPs effectiveness at controlling the pollutant (part 2.2.1. and Appendix F) and any deliverables required by Appendix F;*
 - For discharges to water quality limited waters a description of each BMP required by Appendix H and any deliverables required by Appendix H.*
- iv. An assessment of the progress towards achieving the measurable goals and objectives of each control measure in part 2.3 including:*
 - Evaluation of the public education program including a description of the targeted messages for each audience; method of distribution and dates of distribution; methods used to evaluate the program; and any changes to the program.*
 - Description of the activities used to promote public participation including documentation of compliance with state public notice regulations.*
 - Description of the activities related to implementation of the IDDE program including: status of the map; status and results of the illicit discharge potential ranking and assessment; identification of problem catchments; status of all protocols described in part 2.3.4.(program responsibilities and systematic procedure); number and identifier of catchments evaluated; number and identifier of outfalls screened; number of illicit discharges located; number of illicit discharges removed; gallons of flow removed; identification of tracking indicators and measures of progress based on those indicators; and employee training.*
 - Evaluation of the construction runoff management including number of project plans reviewed; number of inspections; and number of enforcement actions.*
 - Evaluation of stormwater management for new development and redevelopment including status of ordinance development (2.3.6.a.ii.), review and status of the street design assessment (2.3.6.b.), assessments to barriers to green infrastructure (2.3.6.c), and retrofit inventory status (2.3.6.d.)*

- *Status of the O&M Programs required by part 2.3.7.a.*
- *Status of SWPPP required by part 2.3.7.b. including inspection results.*
- *Any additional reporting requirements in part 3.0.*

v. *All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term, including but not limited to all data collected pursuant to part 2.3.4. The permittee shall also provide a description of any additional monitoring data received by the permittee during the reporting period.*

vi. *Description of activities for the next reporting cycle.*

vii. *Description of any changes in identified BMPs or measurable goals.*

viii. *Description of activities undertaken by any entity contracted for achieving any measurable goal or implementing any control measure.*

Permit Year 1

(May 1, 2018 – June 30, 2019)

April Locke

From: Emily J. Scerbo
Sent: Monday, September 30, 2019 5:16 PM
To: 'stormwater.reports@epa.gov'; frederick.civian@mass.gov
Cc: Gagnon, Stephen J.; Laurenza, Daryl
Subject: Small MS4 General Permit Annual Report | Methuen, MA | MA041210
Attachments: Methuen PY1 SSO Inventory.pdf; outfallInventory.pdf; Methuen Annual Report_Final.pdf; Methuen Signature Page.pdf

Please find attached the electronic submittal for the NPDES Phase II Small MS4 General Permit Annual Report for the City of Methuen, MA (NPDES Permit Number MA041210) for Permit Year 1 of the 2016 General Permit. The certification page and supplemental information are attached separately.

Thank you,

Emily J. Scerbo, PE | Project Manager | Senior Technical Specialist – Stormwater Management

Tighe & Bond | 120 Front St Suite 7| Worcester, MA 01608 | 508.471.9606 | 617.549.7573 (cell)

www.tighebond.com | Follow us on: [Twitter](#) [Facebook](#) [LinkedIn](#)

Tighe&Bond

Year 1 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: May 1, 2018-June 30, 2019

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Fax Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address and an explanation of why it is not posted on the web:

Part II: Self Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4.

Impairment(s)

Bacteria/Pathogens Chloride Nitrogen Phosphorus
 Solids/ Oil/ Grease (Hydrocarbons)/ Metals

TMDL(s)

In State: Assabet River Phosphorus Bacteria and Pathogen Cape Cod Nitrogen
 Charles River Watershed Phosphorus Lake and Pond Phosphorus

Out of State: Bacteria/Pathogens Metals Nitrogen Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Year 1 Requirements

Develop and begin public education and outreach program

Identify and develop inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years

- The SSO inventory is attached to the email submission
- The SSO inventory can be found at the following website:

SSO records are kept at the Engineering office at City Hall. All SSOs were reported to MassDEP.

Develop written IDDE plan including a procedure for screening and sampling outfalls

IDDE ordinance complete

Identify each outfall and interconnection discharging from MS4, classify into the relevant category, and priority rank each catchment for investigation

- The priority ranking of outfalls/interconnections is attached to the email submission
- The priority ranking of outfalls/interconnections can be found at the following website:

Construction/ Erosion and Sediment Control (ESC) ordinance complete

Develop written procedures for site inspections and enforcement of sediment and erosion control measures

Develop written procedures for site plan review

Keep a log of catch basins cleaned or inspected

Complete inspection of all stormwater treatment structures

Annual Requirements

- Annual opportunity for public participation in review and implementation of SWMP
- Comply with State Public Notice requirements
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- All curbed roadways have been swept a minimum of one time per year

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)Annual Requirements*Public Education and Outreach**

- Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Phosphorus (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)Annual Requirements*Public Education and Outreach**

- Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release and phosphorus-free fertilizers
- Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Potential structural BMPs

Any structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP in each annual report

Solids, Oil and Grease (Hydrocarbons), or MetalsAnnual Requirements

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads
- Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings

Use the box below to input additional details on any unchecked boxes above or any additional information you would like to share as part of your self assessment:

Year 1 Requirements, Stormwater Ordinances, Regulations, and Written Procedures (Various MCM3, MCM 4, and MCM 5 requirements): The City has controlled stormwater runoff per the 2003 General Permit from the majority of land development projects that currently require local permitting (though Planning, Zoning, or Conservation), however the City has drafted an Ordinance to capture the small number of projects disturbing one or more acres that could possibly circumvent local requirements for construction site runoff control and post-construction stormwater management. Likewise, the City has corrected illicit discharges discovered in the past, but a new Ordinance has been drafted to give the City authority to require private property owners to remove illicit connections and explicitly prohibit future illicit discharges and dumping to the MS4. The City intends to adopt these Ordinances as soon as possible. Written procedures formalizing review procedures, site inspections, and enforcement will be developed after the new Ordinances are in place.

Year 1 Requirements, Inspect all stormwater treatment structures: Mapping of structural BMPs and stormwater treatment structures is not due until Permit Year 2. Therefore, BMPs were not inspected during Permit Year 1. This will begin after City-owned structural BMPs and treatment structures have been identified and mapped as part of Phase I mapping efforts and SOPs for inspection and maintenance are developed as part of the City-wide Good Housekeeping Program Plan in Permit Year 2.

Bacteria Annual Requirements, Pet Waste for Dog Owners: The City plans to begin distributing educational materials to pet owners with dog licenses next year using the "Dog Waste and Surface Water Quality" brochure from MassDEP (posted on City website). Education to Septic System Owners: 95% of the City is sewered. The City plans to post information on the City website for the small percentage of residents still on septic systems.

Phosphorus, Solids, Metals Good Housekeeping: All streets are swept at least once annually, and priority areas are swept twice annually. The town anticipates increasing the street sweeping frequency in target watersheds in future Permit Years to meet phosphorus, solids, and copper impairment requirements, dependent on available resources.

Phosphorus Annual Requirement, Potential Structural BMPs: For new stormwater BMPs, such as the new rain garden at Martin Park, key information about BMP effectiveness is calculated and submitted with design and as-built plans. Mapping of structural BMPs and stormwater treatment structures is not due until Permit Year 2. Therefore, BMPs have not been inventoried and phosphorus removal estimated. This will begin during Permit Year 3, after City-owned structural BMPs and treatment structures have been identified and mapped as part of Phase I mapping efforts.

Solids and Metals, Good Housekeeping: Catch basin cleaning data collection and cleaning & inspection SOPs will be developed as part of the City-wide Good Housekeeping Program Plan in Permit Year 2. This will address priority watersheds and procedures to address catch basins that require more frequent cleaning.

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

Yes No

If yes, describe below, including any relevant impairments or TMDLs:

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed during the reporting period: 4

Below, report on the educational messages completed during the first year. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.

BMP:Education and Outreach to Residents (Multi-media Methods)

Message Description and Distribution Method:

A brochure on proper pet waste management was posted on the City's website. This was used to satisfy the pet waste education requirement per Appendix H for discharges to waters impaired for phosphorus and bacteria/pathogens.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

The brochure is available to all visitors on the City's website.

Message Date(s): Ongoing

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:Education and Outreach to Residents (Multi-media Methods)

Message Description and Distribution Method:

A brochure on proper usage of slow-release fertilizer was posted on the City's website. Additionally, announcements for City leaf and yard waste pickup were posted on the City's website and Facebook page in the Fall and Spring. These materials were used to satisfy the annual Spring and Fall messaging requirements per Appendix H for discharges to waters impaired for phosphorus.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

The brochure and announcement are available to all visitors on the City's website and the 4,120 people that

follow the City of Methuen's Facebook page. The November 26, 2018 Yard Waste Collection Announcement had 30 Likes, 15 Comments, and 48 shares. Similar metrics are available for other posts.

Message Date(s): Ongoing; Facebook posts were published on 11/26/2018, 4/17/2019, and 9/11/2019

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:Education and Outreach to Residents (Multi-media Methods)

Message Description and Distribution Method:

A message to residents on stormwater topics of significance such as illegal dumping and reporting, pesticide and fertilizer use, sweeping walkways after snow melt, and auto care were included in the 2018 Water Quality Report. Additionally, information about the NPDES permit program was included.

Targeted Audience: Residents; Businesses, Institutions, Commercial Facilities; Industrial Facilities

Responsible Department/Parties: DPW

Measurable Goal(s):

The 2018 Water Quality Report is available to all visitors on the City Water Department's website and the audience is intended to be all water customers.

Message Date(s): 2018

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:Education and Outreach to Residents (Multi-media Methods)

Message Description and Distribution Method:

The DPW maintains "Mutt Mitt" stations at Riverside Park that include messaging regarding proper disposal of pet waste.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Maintain signage and supplies for collection and disposal of pet waste. Keep trash barrels from being full.

Message Date(s): Ongoing.

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:[Message name here]

Message Description and Distribution Method:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) during the reporting period:

The NOI was posted to the City website with an invitation to submit comments and questions to Steve Gagnon. During Permit Year 2, the Town will provide an opportunity for public review of the SWMP online.

Was this opportunity different than what was proposed in your NOI? Yes No

Describe any other public involvement or participation opportunities conducted during the reporting period:

- A Household Hazardous Waste Collection Day was held on April 20, 2019 by the City of Methuen Department of Public Works.
- The City of Methuen allowed residents to dispose of Christmas trees in two different City locations during the entire month of January.
- A volunteer group known as Keep Methuen Beautiful organizes community clean up events and maintains an active Facebook group to keep Methuen's roadways and waterways clean.
- The City sponsors and participates in events held by the Clean River Project, a non-profit organization dedicated to the cleaning and preservation of rivers, lakes, and streams. Events are held in Methuen to help clean the Merrimack River.
- The City's DPW personnel participate in the Merrimack Valley DPW/Stormwater Collaborative. Multiple meetings were held to discuss local MS4 planning efforts, grant opportunities, good housekeeping, and workplace safety.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Below, report on the number of SSOs identified in the MS4 system and removed during this reporting period.

Number of SSOs identified: 0

Number of SSOs removed: 0

Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified since 2013.

Total number of SSOs identified: 2

Total number of SSOs removed: 2

MS4 System Mapping

Describe the status of your MS4 map, including any progress made during the reporting period (phase I map due in year 2):

The City has made significant progress in mapping of the stormwater system for Phase I and Phase II requirements and developing a GIS base map of outfalls, catch basins, drainage manholes, receiving waters, and known connectivity. The GIS base map identified impaired water bodies within the City. Mapping updates are ongoing and the City is improving data collection practices in DPW operations. Note that the current outfall inventory does not have outfall IDs; the City has requested this information from the previous stormwater consultant.

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses.

- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

Below, report on the number of outfalls/interconnections screened during this reporting period.

Number of outfalls screened:

Below, report on the percent of total outfalls/ interconnections screened to date.

Percent of total outfalls screened: 0

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

Not applicable

Below, report on the number of catchment investigations completed during this reporting period.

Number of catchment investigations completed this reporting period: 0

Below, report on the percent of catchments investigated to date.

Percent of total catchments investigated:

Optional: Provide any additional information for clarity regarding the catchment investigations below:

No catchment investigations were completed in Permit Year 1 as investigations of problem catchments are not required to begin until Permit Year 2. Additionally, the City has not identified any problem catchments. In 2004, the City retained CDM to inspect and screen all known outfalls. At that time 7 of the 500 screened were found to have elevated fecal coliform. In 2008 the City and consultants investigated these 7 catchment areas using drain inspection procedures developed by Boston Water & Sewer Commission, including dye testing to confirm one suspected cross connection. Additional work was completed to address suspected illicit discharges; however it is unclear if confirmatory sampling was conducted. This will need to be addressed as part of the IDDE Program.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

Not applicable

Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed during this reporting period.

Number of illicit discharges identified: 0

Number of illicit discharges removed: 0

Estimated volume of sewage removed: N/A [UNITS]

Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed since the effective date of the permit.

Total number of illicit discharges identified: 8

Total number of illicit discharges removed: 8

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

Seven (7) illicit discharges were discovered on Caswell Avenue in 2007 by the DPW. An additional one (1) illicit discharge was found during construction of a drainage project on Jackson Street in 2010.

Employee Training

Describe the frequency and type of employee training conducted during the reporting period:

The City's DPW personnel regularly participate in the Merrimack Valley Stormwater Collaborative. City staff attended monthly Merrimack Valley DPW/Stormwater Collaborative meetings, where the overall purpose and scope of the MS4 Program and IDDE Plan were discussed. Meeting dates include 12/12/18, 1/3/19, 2/6/19, and 5/1/19. The City did not do any in-house IDDE training with DPW staff this year but plans to do a refresher in Permit Year 2.

MCM4: Construction Site Stormwater Runoff Control

Below, report on the construction site plan reviews, inspections, and enforcement actions completed during this reporting period.

Number of site plan reviews completed: 97

Number of inspections completed: 62

Number of enforcement actions taken: 0

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance Development

Describe the status of the post-construction ordinance required to be complete in year 2 of the permit term:

Post-construction requirements of the General Permit will be added to the draft Ordinance and Regulations in Permit Year 2.

As-built Drawings

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites required to be complete in year 2 of the permit term:

The required submission of as-built drawings to ensure long term operation and maintenance of completed construction sites is not required to be completed until the end of Permit Year 2. The City will review existing ordinances and regulations and determine where updates or additions are needed to meet the requirements of the General Permit. This will be completed during Permit Year 2.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

Preparation for the Street Design and Parking Lots Report has not yet begun as this requirement is due in Permit Year 4.

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

Preparation for the Green Infrastructure Report has not yet begun as this requirement is due in Permit Year 4.

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

Preparation for the Retrofit Properties Inventory has not yet begun as this requirement is due in Permit Year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

During Permit Years 1 and 2, data will be collected during catch basin cleanings using an iPad application. In

+

If complete, attach the catch basin cleaning optimization plan or the schedule to gather information to develop the optimization plan:

- The catch basin cleaning optimization plan or schedule is attached to the email submission
- The catch basin cleaning optimization plan or schedule can be found at the following website:

Not applicable

Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins during this reporting period.

Number of catch basins inspected: 1183

Number of catch basins cleaned: 1183

Total volume or mass of material removed from all catch basins: 324.02 tons

Below, report on the total number of catch basins in the MS4 system, if known.

Total number of catch basins:

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

To be addressed in Permit Year 2, City-wide Good Housekeeping Program Plan.

Street Sweeping

Describe the status of the written procedures for sweeping streets and municipal-owned lots:

Written procedures and frequency for street and parking lot sweeping will be formalized during development of a written operation and maintenance plan in Permit Year 2. All streets were swept at least once during Permit Year 1, with about 40 miles of streets swept more frequently.

Report on street sweeping completed during the reporting period using one of the three metrics below.

Number of miles cleaned: 230

Volume of material removed: [] [UNITS]

Weight of material removed: [] [UNITS]

If applicable:

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

N/A

Winter Road Maintenance

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

Written procedures for winter road maintenance are not required to be completed until the end of Permit Year 2. The City will review existing winter road maintenance practices and establish written procedures. This will be completed during Permit Year 2.

Inventory of Permittee-Owned Properties

Describe the status of the inventory, due in year 2 of the permit term, of permittee-owned properties, including parks and open spaces, buildings and facilities, and vehicles and equipment, and include any updates:

The City possesses institutional knowledge of City-owned properties to be included in the inventory. The City will develop a written inventory during Permit Year 2.

O&M Procedures for Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment

Describe the status of the operation and maintenance procedures, due in year 2 of the permit term, of permittee-owned properties (parks and open spaces, buildings and facilities, vehicles and equipment) and include maintenance activities associated with each:

Operation and maintenance procedures associated with the properties included in the inventory will be formalized during development of a written operation and maintenance plan in Permit Year 2.

Stormwater Pollution Prevention Plan (SWPPP)

Describe the status of any SWPPP, due in year 2 of the permit term, for permittee-owned or operated facilities including maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater:

The City has identified three (3) facilities in need of a SWPPP, including the Highway facility, transfer station, and Water Maintenance building. The Town will prepare these in accordance with the General Permit by June 30, 2020.

Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period.

Number of site inspections completed: N/A

Describe any corrective actions taken at a facility with a SWPPP:

N/A

O&M Procedures for Stormwater Treatment Structures

Describe the status of the written procedure for stormwater treatment structure maintenance:

Written procedures for operation and maintenance of stormwater treatment structures will be formalized during development of a written Operation and Maintenance Program in Permit Year 2. Written procedures are in place for the Rain Garden and accepted Subdivision infrastructure.

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above.

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 2 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Complete system mapping Phase I
- Begin investigations of catchments associated with Problem Outfalls
- Develop or modify an ordinance or other regulatory mechanism for post-construction stormwater runoff from new development and redevelopment
- Establish and implement written procedures to require the submission of as-built drawings no later than two years after the completion of construction projects
- Develop, if not already developed, written operations and maintenance procedures
- Develop an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; review annually and update as necessary
- Establish a written program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner
- Develop and implement a written SWPPP for maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater
- Enclose or cover storage piles of salt or piles containing salt used for deicing or other purposes
- Develop, if not already developed, written procedures for sweeping streets and municipal-owned lots
- Develop, if not already developed, written procedures for winter road maintenance including storage of salt and sand
- Develop, if not already developed, a schedule for catch basin cleaning
- Develop, if not already developed, a written procedure for stormwater treatment structure maintenance
- Develop a written catchment investigation procedure (*18 months*)

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually

Provide any additional details on activities planned for permit year 2 below:

The City acknowledges the Permit Year 2 requirements in the General Permit and intends to complete as many activities as possible based on funding, staff availability, and City support.

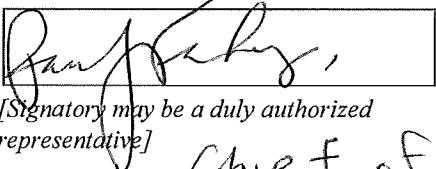
Part V: Certification of Small MS4 Annual Report 2019

40 CFR 144.32(d) 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 gather and evaluate 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, I certify that 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.

Name: James P. Jajuga

Title: City Mayor

Signature: 

Date: 9/30/19

[Signatory may be a duly authorized representative]

Chief of Staff

Chief ~~Administrative~~ Operations Officer

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Harris Brook	42.73108	-71.235682	PELHAM ST
	Low	Harris Brook	42.730967	-71.235663	PELHAM ST
	Low	Tributary to Wetland to Merrimack River MA	42.691083	-71.2373	GRIFFIN BROOK DR
	Low	Outside Receiving	42.738621	-71.23721	HAMPSHIRE RD
	Low	Wetland to Tributary to Harris Brook	42.734924	-71.235001	FREDRICK AVE
	Low	Outside Receiving	42.725727	-71.240827	VARNIAI ST
	Low	Outside Receiving	42.724884	-71.23958	VARNIAI ST
	High	Outside Receiving	42.724859	-71.231879	THOMAS RD
	Low	Isolated Wetland off of Arrowwood Street	42.721388	-71.231846	ARROWWOOD ST
	Low	Outside Receiving	42.708701	-71.233604	PHEASANT HILL LN
	Low	Outside Receiving	42.709295	-71.242093	TYLER ST
	Low	Wetland to Bartlett Brook MA84A-36	42.702465	-71.236017	CROSS COUNTRY
	Low	Tributary to Bartlett Brook	42.703779	-71.236313	CROSS COUNTRY
	Low	Outside Receiving	42.702922	-71.235081	CROSS COUNTRY
	Low	Wetland to Bartlett Brook MA84A-36	42.703329	-71.234053	CROSS COUNTRY
	Low	Wetland to Bartlett Brook MA84A-36	42.703681	-71.233506	CROSS COUNTRY
	Low	Tributary to Bartlett Brook	42.70423	-71.235746	SUGAR PINE LA
	Low	Wetland to Tributary to Bartlett Brook	42.705083	-71.234827	CROSS COUNTRY
	Low	Outside Receiving	42.705151	-71.232081	CROSS COUNTRY
	Low	Wetland to Tributary to Bartlett Brook	42.699777	-71.232796	CROSS COUNTRY
	Low	Wetland to Tributary to Bartlett Brook	42.700723	-71.232796	CROSS COUNTRY
	Low	Wetland to Bartlett Brook	42.698669	-71.23998	CROSS COUNTRY
	Low	Outside Receiving	42.688891	-71.242571	WHEELER ST
	Low	Outside Receiving	42.741049	-71.223367	CROSS COUNTRY
	Low	Outside Receiving	42.742505	-71.223763	HAMPSHIRE RD
	Low	Outside Receiving	42.742518	-71.2238	HAMPSHIRE RD
	Low	Outside Receiving	42.736373	-71.222956	FOX RUN LN
	Low	Outside Receiving	42.734178	-71.224656	CROSS COUNTRY
	Low	Wetland to Tributary to Harris Brook	42.734325	-71.227972	CROSS COUNTRY
	Low	Outside Receiving	42.734174	-71.229095	BRIDLE PATH LN
	Low	Tributary to Harris Brook	42.735503	-71.227764	CROSS COUNTRY
	Low	Outside Receiving	42.73605	-71.221389	BRIDGHAM ST
	Low	Outside Receiving	42.733232	-71.229588	BRIDLE PATH LN
	High	Outside Receiving	42.729514	-71.225014	SEVOIAN DR
	Low	Outside Receiving	42.730174	-71.228385	BLUEBERRY LN
	High	Wetland to Tributary to Harris Brook	42.73042	-71.22555	SEVOIAN DR
	Low	Wetland to Tributary to Harris Brook	42.733905	-71.224565	CAMPUS RD
	Low	Outside Receiving	42.731664	-71.226415	QUAIL RUN DR
	Low	Wetland to Tributary to Harris Brook	42.733823	-71.227776	QUAIL RUN DR
	Low	Outside Receiving	42.733717	-71.227661	QUAIL RUN DR
	Low	Outside Receiving	42.734194	-71.227742	SEVOIAN DR
	Low	Outside Receiving	42.734376	-71.226402	SEVOIAN DR
	Low	Outside Receiving	42.723361	-71.222704	MULBERRY CIR
	High	Outside Receiving	42.725514	-71.228454	TEMPLE DR
	High	Outside Receiving	42.725056	-71.23103	THOMAS RD
	High	Wetland to Tributary to Mystic Pond	42.726303	-71.228683	PEARLS ST
	High	Wetland to Tributary to Mystic Pond	42.727432	-71.222601	PELHAM ST
	Low	Wetland to Tributary to Mystic Pond	42.719999	-71.221007	DEANA RD
	High	Outside Receiving	42.720887	-71.227636	JEWEL CIR
	High	Wetland to Tributary to Mystic Pond	42.722034	-71.226958	TEMPLE DR
	High	Wetland to Tributary to Mystic Pond	42.722966	-71.225378	TEMPLE DR
	Low	Outside Receiving	42.712775	-71.224107	RIVERVIEW AVE
	Low	Outside Receiving	42.714199	-71.223466	AVALON CT
	Low	Outside Receiving	42.714723	-71.223384	ABBEY RD
	Low	Wetland to Tributary to Bartlett Brook	42.717514	-71.222561	FOREST ST
	Low	Outside Receiving	42.716228	-71.23109	WESTWIND DR
	Low	Outside Receiving	42.713676	-71.22844	WESTWIND DR
	Low	Isolated Wetland off of Freeport Avenue	42.707706	-71.223556	FREEPORT AVE
	Low	Tributary to Bartlett Brook	42.70744	-71.226184	TYLER ST
	Low	Tributary to Bartlett Brook	42.709016	-71.225403	CROSS COUNTRY
	Low	Tributary to Bartlett Brook	42.709012	-71.225457	CROSS COUNTRY
	Low	Outside Receiving	42.710713	-71.227171	WESTWIND DR
	Low	Outside Receiving	42.710558	-71.227211	WESTWIND DR
	Low	Isolated Wetland off of Pheasant Hill Lane	42.708264	-71.227869	PHEASANT HILL LN
	Low	Outside Receiving	42.70868	-71.230132	PHEASANT HILL LN
	Low	Wetland to Bartlett Brook	42.707167	-71.228697	CONTE DR

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.703469	-71.223395	BEAN ST
	Low	Outside Receiving	42.703064	-71.222959	BEAN ST
	Low	Outside Receiving	42.704186	-71.224052	LOWELL ST
	Low	Outside Receiving	42.705023	-71.226794	APPALOOSA DR
	Low	Outside Receiving	42.705606	-71.228538	APPALOOSA DR
	Low	Outside Receiving	42.706568	-71.227946	CROSS COUNTRY
	High	Bartlett Brook MA84A-36	42.705426	-71.224459	CROSS COUNTRY
	High	Bartlett Brook MA84A-36	42.704378	-71.223475	NORTH LOWELL ST
	High	Bartlett Brook MA84A-36	42.704527	-71.223554	NORTH LOWELL ST
	High	Bartlett Brook MA84A-36	42.704584	-71.223484	NORTH LOWELL ST
	High	Bartlett Brook MA84A-36	42.704584	-71.223484	NORTH LOWELL ST
	Low	Wetland to Tributary to Merrimack River MA	42.6989	-71.224819	LOWELL BLVD
	Low	Wetland to Tributary to Merrimack River MA	42.698809	-71.224925	LOWELL BLVD
	Low	Wetland to Tributary to Merrimack River MA	42.698691	-71.226854	AUSTIN ST
	Low	Outside Receiving	42.69079	-71.229354	GRIFFIN BROOK DR
	Low	Tributary to Wetland to Merrimack River MA	42.69091	-71.231512	GRIFFIN BROOK DR
	Low	Tributary to Wetland to Merrimack River MA	42.690908	-71.23143	GRIFFIN BROOK DR
	Low	Tributary to Wetland to Harris Brook	42.743207	-71.218333	HAMPSHIRE RD
	Low	Harris Brook	42.740969	-71.213547	CROSS ST
	Low	Wetland to Harris Brook	42.740236	-71.213491	CROSS ST
	Low	Harris Brook	42.742989	-71.211228	HAMPSHIRE RD
	Low	Spicket River	42.743305	-71.209284	I-93
	Low	Outside Receiving	42.743643	-71.21293	HAMPSHIRE RD
	Low	Outside Receiving	42.734655	-71.215551	ORMONDE RD
	Low	Outside Receiving	42.737446	-71.212979	TIFFANY LN
	Low	Outside Receiving	42.737587	-71.211508	CROSS ST
	Low	Outside Receiving	42.738095	-71.212685	TIFFANY LN
	Low	Wetland to Harris Brook	42.737309	-71.220057	SHELDON ST
	Low	Wetland to Tributary to Mystic Pond	42.729164	-71.210628	PELHAM ST
	Low	Outside Receiving	42.731845	-71.213106	CROSS COUNTRY
	Low	Outside Receiving	42.727709	-71.219937	LEXINGTON AVE
	Low	Wetland to Tributary to Mystic Pond	42.723669	-71.219885	CONCORD AVE
	Low	Wetland to Tributary to Mystic Pond	42.726628	-71.214168	SPENCER ST
	Low	Tributary to Wetland to Mystic Pond	42.726147	-71.211025	FRANK S GILES RD
	Low	Outside Receiving	42.714917	-71.211077	I-93
	Low	Outside Receiving	42.712937	-71.212019	GILES ST
	Low	Outside Receiving	42.714726	-71.218015	SABRINA CT
	Low	Outside Receiving	42.708297	-71.210493	I-93
	Low	Outside Receiving	42.707322	-71.211313	I-93
	Low	Outside Receiving	42.707519	-71.210252	I-93
	Low	Outside Receiving	42.706856	-71.211356	I-93
	Low	Outside Receiving	42.706663	-71.211389	I-93
	Low	Outside Receiving	42.70703	-71.210118	I-93
	Low	Outside Receiving	42.706739	-71.210046	I-93
	Low	Outside Receiving	42.707474	-71.21014	SMITH AVE
	Low	Outside Receiving	42.709504	-71.213475	CHARLET DR
	Low	Outside Receiving	42.70708	-71.216353	OBSERVATORY RD
	Low	Outside Receiving	42.706338	-71.218344	CROSS COUNTRY
	Low	Outside Receiving	42.706637	-71.218853	YOUNGFARM RD
	Low	Outside Receiving	42.706546	-71.210019	I-93
	Low	Outside Receiving	42.706279	-71.209966	I-93
	Low	Outside Receiving	42.706128	-71.211279	I-93
	Low	Outside Receiving	42.705966	-71.211402	I-93
	Low	Merrimack River MA84A-03	42.702839	-71.211985	RIVERSIDE DR
	Low	Merrimack River MA84A-03	42.703559	-71.213919	RIVERSIDE DR
	Low	Merrimack River MA84A-03	42.703552	-71.213877	RIVERSIDE DR
	Low	Merrimack River MA84A-03	42.703545	-71.21384	RIVERSIDE DR
	Low	Outside Receiving	42.704974	-71.213273	CROSS COUNTRY
	Low	Outside Receiving	42.705004	-71.213487	LOWELL ST
	Low	Merrimack River MA84A-03	42.703042	-71.215749	CROSS COUNTRY
	Low	Merrimack River MA84A-03	42.702229	-71.216993	LOWELL ST
	Low	Mill Pond	42.70202	-71.219067	LOWELL ST
	Low	Spicket River	42.743061	-71.20861	HAMPSHIRE RD
	Low	Spicket River	42.742643	-71.208697	I-93
	Low	Spicket River	42.741995	-71.208026	I-93
	Low	Spicket River	42.741324	-71.20735	I-93

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Spicket River	42.740729	-71.206717	I-93
	Low	Wetland to Tributary to Spicket River	42.739914	-71.20595	I-93
	Low	Outside Receiving	42.74195	-71.204257	HAMPSHIRE RD
	Low	Wetland to Spicket River	42.740309	-71.198741	CROSS COUNTRY
	Low	Wetland to Tributary to Spicket River	42.738906	-71.20592	I-93
	Low	Wetland to Tributary to Spicket River	42.738208	-71.20543	I-93
	Low	Spicket River	42.73769	-71.204153	I-93
	Low	Spicket River	42.737032	-71.203703	I-93
	Low	Wetland to Tributary to Spicket River	42.736731	-71.204843	I-93
	Low	Wetland to Tributary to Spicket River	42.736712	-71.204843	I-93
	Low	Wetland to Tributary to Spicket River	42.736043	-71.204804	I-93
	Low	Wetland to Tributary to Spicket River	42.735797	-71.204858	I-93
	Low	Wetland to Tributary to Spicket River	42.73632	-71.203152	I-93
	Low	Wetland to Tributary to Spicket River	42.735759	-71.202663	I-93
	Low	Wetland to Tributary to Spicket River	42.734882	-71.203128	I-93
	Low	Wetland to Tributary to Spicket River	42.735052	-71.203108	I-93
	Low	Wetland to Tributary to Spicket River	42.735286	-71.202121	I-93
	Low	Wetland to Tributary to Spicket River	42.735158	-71.201968	I-93
	Low	Wetland to Tributary to Spicket River	42.734824	-71.202065	I-93
	Low	Wetland to Tributary to Spicket River	42.734192	-71.20114	I-93
	Low	Wetland to Tributary to Spicket River	42.734864	-71.205173	I-93
	Low	Wetland to Tributary to Spicket River	42.734538	-71.205291	I-93
	Low	Tributary to Spicket River	42.734417	-71.205514	I-93
	Low	Wetland to Tributary to Spicket River	42.735224	-71.205036	I-93
	Low	Tributary to Wetland to Spicket River	42.729151	-71.204045	I-93
	Low	Tributary to Wetland to Spicket River	42.729812	-71.203603	I-93
	Low	Wetland to Tributary to Spicket River	42.731423	-71.20493	I-93
	Low	Wetland to Tributary to Spicket River	42.731059	-71.204851	I-93
	Low	Wetland to Tributary to Spicket River	42.730752	-71.204812	I-93
	Low	Wetland to Tributary to Spicket River	42.732078	-71.205121	I-93
	Low	Wetland to Tributary to Spicket River	42.731862	-71.205072	I-93
	Low	Wetland to Tributary to Spicket River	42.732198	-71.203023	I-93
	Low	Wetland to Tributary to Spicket River	42.731899	-71.203035	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.732561	-71.205344	I-93
	Low	Wetland to Tributary to Spicket River	42.733231	-71.202948	I-93
	Low	Wetland to Tributary to Spicket River	42.730529	-71.20291	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.73053	-71.202943	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.731064	-71.202111	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.73178	-71.202152	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.731751	-71.201064	ROUTE 213
	Low	Wetland to Tributary to Spicket River	42.731421	-71.201087	ROUTE 213
	Low	Spicket River	42.731539	-71.200442	ROUTE 213
	Low	Spicket River	42.731553	-71.199696	ROUTE 213
	Low	Outside Receiving	42.73184	-71.198589	ROUTE 213
	Low	Outside Receiving	42.731548	-71.198566	ROUTE 213
	Low	Wetland to Spicket River	42.733088	-71.199172	ROUTE 213
	Low	Outside Receiving	42.73258	-71.198362	ROUTE 213
	Low	Spicket River	42.733425	-71.200135	ROUTE 213
	Low	Outside Receiving	42.726778	-71.201545	MYSTIC ST
	Low	Outside Receiving	42.724347	-71.19938	MAGUIRE ST
	Low	Tributary to Mystic Pond	42.723194	-71.203377	CROSS COUNTRY
	Low	Outside Receiving	42.724132	-71.206888	I-93
	Low	Outside Receiving	42.723389	-71.207349	I-93
	Low	Outside Receiving	42.724386	-71.207689	I-93
	Low	Wetland to Tributary to Mystic Pond	42.725129	-71.207333	I-93
	Low	Wetland to Tributary to Mystic Pond	42.724751	-71.206502	I-93
	Low	Outside Receiving	42.726201	-71.20547	I-93
	Low	Outside Receiving	42.727018	-71.207171	I-93
	Low	Wetland to Tributary to Mystic Pond	42.726673	-71.207409	I-93
	Low	Outside Receiving	42.727784	-71.207641	I-93
	Low	Outside Receiving	42.726685	-71.204671	I-93
	Low	Outside Receiving	42.726797	-71.20373	I-93
	Low	Tributary to Wetland to Spicket River	42.727444	-71.203311	I-93
	Low	Outside Receiving	42.727167	-71.205098	I-93
	Low	Outside Receiving	42.727291	-71.206208	I-93
	Low	Outside Receiving	42.727778	-71.204794	I-93

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Tributary to Wetland to Spicket River	42.728444	-71.204341	I-93
	Low	Outside Receiving	42.720793	-71.204298	EDGEWOOD TERR
	Low	Tributary to Wetland to Mystic Pond	42.721053	-71.204742	EDGEWOOD TERR
	Low	Outside Receiving	42.721805	-71.201618	PENOBCOTT CIR
	Low	Outside Receiving	42.719314	-71.201312	OAKLAND AVE
	Low	Wetland to Tributary to Mystic Pond	42.719129	-71.198968	GERVAIS WAY
	Low	Wetland to Tributary to Merrimack River MA	42.712764	-71.203894	RICHARD AVE
	High	Wetland to Tributary to Merrimack River MA	42.716232	-71.207338	WOODBURN DR
	High	Wetland to Tributary to Merrimack River MA	42.716227	-71.207304	WOODBURN DR
	Low	Tributary to Wetland to Merrimack River MA	42.7149	-71.205331	WOODBURN DR
	Low	Wetland to Tributary to Merrimack River MA	42.713457	-71.200401	SHADY LN
	Low	Outside Receiving	42.714951	-71.201222	BOORNAZIAN RD
	Low	Outside Receiving	42.71635	-71.204474	CAPITAL ST
	Low	Tributary to Merrimack River MA84A-03	42.701448	-71.20075	CROSS COUNTRY
	Low	Tributary to Merrimack River MA84A-03	42.703069	-71.201244	CROSS COUNTRY
	Low	Tributary to Merrimack River MA84A-03	42.703153	-71.201201	CROSS COUNTRY
	Low	Tributary to Merrimack River MA84A-03	42.7031	-71.201166	CROSS COUNTRY
	High	Outside Receiving	42.70416	-71.199543	CROSS COUNTRY
	Low	Outside Receiving	42.703341	-71.202471	BURNHAM RD
	Low	Outside Receiving	42.702256	-71.203123	CROSS COUNTRY
	Low	Merrimack River MA84A-03	42.700585	-71.203953	RIVERSIDE DR
	High	Tributary to Merrimack River MA84A-03	42.701097	-71.201572	RIVERSIDE DR
	Low	Outside Receiving	42.734339	-71.189978	ROUTE 213
	Low	Outside Receiving	42.734143	-71.189755	ROUTE 213
	Low	Outside Receiving	42.734305	-71.189528	ROUTE 213
	Low	Wetland to Tributary to World End Pond	42.738005	-71.186597	KIMBALL CIR
	Low	Outside Receiving	42.738756	-71.190663	BARTLETT RD
	Low	Outside Receiving	42.738945	-71.196561	BROADWAY ST
	Low	Outside Receiving	42.73011	-71.191022	CROSS COUNTRY
	Low	Outside Receiving	42.730799	-71.192033	CROSS COUNTRY
	Low	Outside Receiving	42.731626	-71.191126	BROADWAY ST
	Low	Outside Receiving	42.73172	-71.191129	BROADWAY ST
	Low	Outside Receiving	42.731421	-71.191549	ROUTE 213
	Low	Tributary to Wetland to Spicket River	42.731449	-71.191786	ROUTE 213
	Low	Wetland to Spicket River	42.731477	-71.192667	ROUTE 213
	Low	Wetland to Spicket River	42.731708	-71.193017	ROUTE 213
	Low	Tributary to Wetland to Spicket River	42.731905	-71.192203	ROUTE 213
	Low	Outside Receiving	42.73161	-71.1974	ROUTE 213
	Low	Outside Receiving	42.731837	-71.197409	ROUTE 213
	Low	Outside Receiving	42.732205	-71.197328	ROUTE 213
	Low	Outside Receiving	42.731562	-71.195493	ROUTE 213
	Low	Outside Receiving	42.73187	-71.193893	ROUTE 213
	Low	Outside Receiving	42.73184	-71.19353	ROUTE 213
	Low	Outside Receiving	42.732409	-71.19432	ROUTE 213
	Low	Tributary to Wetland to Spicket River	42.732016	-71.192177	ROUTE 213
	Low	Tributary to Wetland to Spicket River	42.732191	-71.191937	ROUTE 213
	Low	Outside Receiving	42.733	-71.192442	ROUTE 213
	Low	Outside Receiving	42.733284	-71.191443	BROADWAY ST
	Low	Tributary to Wetland to Spicket River	42.732008	-71.191233	BROADWAY ST
	Low	Tributary to Wetland to Spicket River	42.732375	-71.191458	ROUTE 213
	Low	Outside Receiving	42.732339	-71.190513	NEVINS RD
	Low	Tributary to Wetland to Spicket River	42.732204	-71.191327	CROSS COUNTRY
	Low	Tributary to Wetland to Spicket River	42.732362	-71.191427	CROSS COUNTRY
	Low	Outside Receiving	42.733062	-71.190651	ROUTE 213
	Low	Outside Receiving	42.728922	-71.194216	CROSS COUNTRY
	Low	Outside Receiving	42.724813	-71.18797	RIVER RD
	High	Outside Receiving	42.723943	-71.186953	UNION ST
	Low	Outside Receiving	42.725192	-71.188767	RIVER RD
	Low	Outside Receiving	42.725224	-71.188799	RIVER RD
	Low	Spicket River MA84A-10	42.727358	-71.190438	LOWELL ST
	Low	Spicket River MA84A-10	42.727228	-71.190248	LOWELL ST
	Low	Spicket River MA84A-10	42.726043	-71.187618	GLEASON ST
	Low	Spicket River MA84A-10	42.727699	-71.190014	LOWELL ST
	Low	Spicket River MA84A-10	42.727084	-71.188429	RIVER ST
	Low	Spicket River MA84A-10	42.727345	-71.188336	RIVER ST
	Low	Spicket River MA84A-10	42.727369	-71.188263	RIVER ST

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Spicket River MA84A-10	42.727252	-71.188327	RIVER ST
	Low	Spicket River MA84A-10	42.727375	-71.18846	RIVER ST
	High	Wetland to Tributary to Spicket River	42.71775	-71.191181	MARC AVE
	Low	Outside Receiving	42.722192	-71.197564	BELMONT AVE
	Low	Wetland to Tributary to Spicket River	42.718828	-71.190208	ALMONY ST
	High	Tributary to Wetland to Spicket River	42.71338	-71.192022	VINCENT AVE
	High	Tributary to Wetland to Spicket River	42.712591	-71.193011	VINCENT AVE
	High	Tributary to Wetland to Spicket River	42.712354	-71.193739	VINCENT AVE
	High	Tributary to Wetland to Spicket River	42.713847	-71.193149	CROSS COUNTRY
	High	Wetland to Tributary to Spicket River	42.715198	-71.193389	EMSLEY TER
	High	Wetland to Tributary to Spicket River	42.716185	-71.190787	EAST CAPITOL ST
	Low	Outside Receiving	42.706733	-71.192349	ELM ST
	High	Outside Receiving	42.707912	-71.192739	ODILE ST
	High	Tributary to Wetland to Spicket River	42.709025	-71.193117	FRANCELLA RD
	Low	Wetland to Tributary to Merrimack River MA	42.706987	-71.195497	GLENWOOD ST
	High	Tributary to Wetland to Spicket River	42.709962	-71.193324	WOODLAND ST
	High	Outside Receiving	42.711273	-71.193261	HIDEAWAY LN
	High	Tributary to Wetland to Spicket River	42.712036	-71.193766	HIDEAWAY LN
	High	Tributary to Wetland to Spicket River	42.711984	-71.193842	HIDEAWAY LN
	High	Tributary to Wetland to Spicket River	42.711502	-71.193887	HIDEAWAY LN
	Low	Outside Receiving	42.698308	-71.189787	RIVERSIDE DR
	Low	Outside Receiving	42.698403	-71.190001	RIVERSIDE DR
	Low	Outside Receiving	42.700438	-71.19352	RIVERSIDE DR
	Low	Outside Receiving	42.700518	-71.19351	RIVERSIDE DR
	Low	Merrimack River MA84A-03	42.69966	-71.19743	DALE ST
	Low	Outside Receiving	42.791551	-71.181957	AYERS VILLAGE RD
	Low	Outside Receiving	42.792128	-71.182948	AYERS VILLAGE RD
	Low	Outside Receiving	42.784664	-71.179881	HAMPSTEAD ST
	Low	Outside Receiving	42.786888	-71.181832	HAMPSTEAD ST
	Low	Outside Receiving	42.779546	-71.17915	MORGAN DR
	Low	Outside Receiving	42.768367	-71.182237	BROOKSIDE CT
	Low	Outside Receiving	42.770054	-71.175938	HAROUN LN
	High	Isolated Wetland off of Coachman Lane	42.764064	-71.175861	COACHMAN LN
	Low	Outside Receiving	42.761487	-71.182759	COPLEY DR
	Low	Wetland to Tributary to World End Pond	42.762357	-71.183581	COPLEY DR
	Low	Isolated Wetland off of Copley Drive	42.763759	-71.183729	COPLEY DR
	High	Wetland to Tributary to Hawkes Brook	42.765318	-71.176036	BALMORAL DR
	High	Outside Receiving	42.766406	-71.182219	BROOKSIDE CT
	High	Outside Receiving	42.756744	-71.178706	ARGILLA RD
	High	Outside Receiving	42.757371	-71.178686	HERITAGE LN
	High	Outside Receiving	42.757366	-71.175701	ARGILLA RD
	High	Outside Receiving	42.759883	-71.180968	OLD HOMESTEAD RD
	Low	Outside Receiving	42.760648	-71.181875	COPLEY DR
	Low	Outside Receiving	42.734868	-71.176293	PLEASANT ST
	Low	Wetland to Tributary to Spicket River	42.735067	-71.177089	STILLWATER RD
	Low	Outside Receiving	42.735895	-71.176043	ROYAL RD
	Low	Wetland to Tributary to Spicket River	42.736641	-71.179431	STRONGWATER RD
	Low	Outside Receiving	42.736222	-71.180146	WINTER HILL LN
	Low	Isolated Wetland off of Autumn Lane	42.735242	-71.182074	AUTUMN LN
	Low	Outside Receiving	42.735691	-71.181666	CROSS COUNTRY
	Low	Isolated Wetland off of Autumn Lane	42.735513	-71.182857	COCHRANE CIR
	Low	Outside Receiving	42.734585	-71.18618	ROUTE 213
	Low	Outside Receiving	42.737716	-71.179576	ROUTE 213
	Low	Outside Receiving	42.737339	-71.179255	ROUTE 213
	Low	Outside Receiving	42.738161	-71.178666	ROUTE 213
	Low	Outside Receiving	42.738172	-71.178652	ROUTE 213
	Low	Wetland to Tributary to World End Pond	42.737588	-71.184006	KIMBALL CIR
	Low	Wetland to Tributary to World End Pond	42.737888	-71.185878	KIMBALL CIR
	Low	Outside Receiving	42.732391	-71.184301	COCHRANE ST
	Low	Outside Receiving	42.726506	-71.17789	CROSS COUNTRY
	Low	Spicket River	42.723628	-71.180652	CROSS COUNTRY
	High	Outside Receiving	42.723699	-71.186015	UNION ST
	High	Outside Receiving	42.723714	-71.186079	UNION ST
	High	Spicket River MA84A-10	42.724832	-71.184354	BROADWAY ST
	Low	Spicket River	42.723914	-71.181697	CROSS COUNTRY
	High	Spicket River MA84A-10	42.725091	-71.183248	MORRISON CT

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	High	Spicket River MA84A-10	42.719897	-71.182678	FRENCH ST
	High	Spicket River MA84A-10	42.721113	-71.181787	BROADWAY ST
	High	Outside Receiving	42.720215	-71.185889	RAILROAD ST
	High	Outside Receiving	42.720518	-71.185996	RAILROAD ST
	High	Outside Receiving	42.721102	-71.186158	CROSS COUNTRY
	High	Outside Receiving	42.720875	-71.186205	RAILROAD ST
	High	Spicket River MA84A-10	42.721358	-71.181971	BROADWAY ST
	Low	Outside Receiving	42.775094	-71.175433	YVONNE LN
	Low	Outside Receiving	42.775542	-71.173359	HAMPSTEAD ST
	Low	Hawkes Brook	42.776498	-71.171649	NORTH ST
	Low	Outside Receiving	42.777487	-71.170124	ATKINSON ST
	High	Wetland to Hawkes Brook	42.767573	-71.16477	MAPLE ST
	High	Outside Receiving	42.767607	-71.168268	WATERFORD CIR
	High	Outside Receiving	42.767536	-71.168494	WATERFORD CIR
	High	Outside Receiving	42.767081	-71.171094	MAPLE ST
	Low	Outside Receiving	42.767575	-71.175261	HAMPSTEAD ST
	Low	Outside Receiving	42.765413	-71.170133	STONEY BROOK RD
	Low	Outside Receiving	42.763639	-71.168677	NORWICH LN
	High	Outside Receiving	42.765763	-71.168803	NORWICH LN
	Low	Outside Receiving	42.764732	-71.16713	SHEARSON DR
	Low	Outside Receiving	42.764956	-71.167746	SHEARSON DR
	High	Outside Receiving	42.766115	-71.164407	BARRETT CIR
	Low	Wetland to Hawkes Brook	42.766124	-71.166043	BARRETT CIR
	High	Outside Receiving	42.765846	-71.172388	HAYMEADOW RD
	High	Outside Receiving	42.765924	-71.172443	HAYMEADOW RD
	High	Isolated Wetland off of Haymeadow Road	42.765805	-71.173372	MAPLE ST
	High	Tributary to Hawkes Brook	42.765643	-71.175436	MAPLE ST
	High	Outside Receiving	42.763926	-71.175125	CROSS COUNTRY
	Low	Outside Receiving	42.76035	-71.164635	ROLLING RIDGE LA
	Low	Wetland to Tributary to Bare Meadow Brook	42.759811	-71.166481	ROLLING RIDGE LA
	Low	Outside Receiving	42.759976	-71.166704	ROLLING RIDGE LA
	Low	Outside Receiving	42.752927	-71.165886	DRUID HILL RD
	Low	Outside Receiving	42.752984	-71.165878	DRUID HILL RD
	Low	Outside Receiving	42.751785	-71.171311	CROSS COUNTRY
	Low	Outside Receiving	42.75173	-71.170652	CROSS COUNTRY
	Low	Outside Receiving	42.75162	-71.17071	CROSS COUNTRY
	Low	Outside Receiving	42.751701	-71.171448	CROSS COUNTRY
	Low	Outside Receiving	42.752059	-71.172781	TREETOP WAY
	Low	Outside Receiving	42.75103	-71.174576	TYLER AVE
	Low	Outside Receiving	42.75334	-71.165475	BRAMBLE HILL RD
	High	Outside Receiving	42.745235	-71.165163	WASHINGTON ST
	High	Outside Receiving	42.745182	-71.16523	WASHINGTON ST
	Low	Isolated Wetland off of Howe Street	42.748571	-71.174562	CROSS COUNTRY
	Low	Outside Receiving	42.77485	-71.174964	CROSS COUNTRY
	Low	Outside Receiving	42.740132	-71.169902	PLEASANT ST
	Low	Outside Receiving	42.741151	-71.172506	ROUTE 213
	Low	Outside Receiving	42.73973	-71.174126	ROUTE 213
	Low	Isolated Wetland off of 213 West	42.740138	-71.174481	ROUTE 213
	Low	Isolated Wetland off of 213 West	42.740495	-71.173646	ROUTE 213
	Low	Outside Receiving	42.73983	-71.175077	ROUTE 213
	Low	Outside Receiving	42.743938	-71.166067	ROUTE 213
	Low	Outside Receiving	42.742824	-71.169993	ROUTE 213
	High	Outside Receiving	42.737166	-71.1681	JACKSON ST
	High	Tributary to Searles Pond	42.737124	-71.172926	PLEASANT ST
	High	Wetland to Tributary to Searles Pond	42.737524	-71.171906	JEFFERSON RD
	Low	Outside Receiving	42.738715	-71.171424	PLEASANT ST
	Low	Outside Receiving	42.738327	-71.174805	WEST BEDFORD ST
	Low	Outside Receiving	42.732373	-71.1657	JACKSON ST
	Low	Outside Receiving	42.732932	-71.166946	CROSS COUNTRY
	Low	Isolated Wetland off of East Street	42.726436	-71.174907	EAST ST
	Low	Outside Receiving	42.727307	-71.174635	JANE RD
	High	Outside Receiving	42.764772	-71.16213	HALL ST
	Low	Outside Receiving	42.759794	-71.158772	SABLE RUN LN
	Low	Outside Receiving	42.761169	-71.159118	SABLE RUN LN
	Low	Outside Receiving	42.760132	-71.158398	SABLE RUN LN
	Low	Isolated Wetland off of Sable Run Lane	42.761653	-71.157283	CROSS COUNTRY

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.755584	-71.155235	ROCK HILL PL
	Low	Tributary to Bare Meadow Brook	42.753821	-71.158486	WASHINGTON ST
	High	Tributary to Bare Meadow Brook	42.751762	-71.156334	SPRING VALLEY RD
	Low	Outside Receiving	42.752778	-71.163451	BRAMBLE HILL RD
	Low	Outside Receiving	42.746348	-71.155686	ROUTE 213
	Low	Outside Receiving	42.746914	-71.154736	ROUTE 213
	Low	Outside Receiving	42.747001	-71.153566	ROUTE 213
	Low	Outside Receiving	42.74583	-71.157904	ROUTE 213
	Low	Outside Receiving	42.746058	-71.156871	ROUTE 213
	Low	Outside Receiving	42.745243	-71.159383	ROUTE 213
	Low	Outside Receiving	42.745224	-71.159958	ROUTE 213
	Low	Outside Receiving	42.74493	-71.161113	ROUTE 213
	Low	Outside Receiving	42.745149	-71.162407	ROUTE 213
	Low	Outside Receiving	42.745573	-71.163368	ROYAL OAKS
	Low	Outside Receiving	42.747686	-71.158917	CHAUSSE DR
	Low	Outside Receiving	42.748156	-71.160928	TARA JEAN DR
	Low	Isolated Wetland off of Washington Street	42.750075	-71.161167	WASHINGTON ST
	Low	Wetland to Tributary to Bare Meadow Brook	42.742012	-71.159222	PLEASANT VALLEY ST
	Low	Tributary to Wetland to Bare Meadow Brook	42.741933	-71.158635	PLEASANT ST
	Low	Tributary to Wetland to Bare Meadow Brook	42.741935	-71.158948	PLEASANT VALLEY ST
	Low	Tributary to Wetland to Bare Meadow Brook	42.742017	-71.158855	PLEASANT VALLEY ST
	Low	Wetland to Tributary to Bare Meadow Brook	42.742035	-71.157351	PLEASANT VALLEY ST
	Low	Wetland to Tributary to Bare Meadow Brook	42.742301	-71.156303	CROSS COUNTRY
	Low	Wetland to Tributary to Bare Meadow Brook	42.742237	-71.157229	CROSS COUNTRY
	Low	Wetland to Tributary to Bare Meadow Brook	42.742245	-71.157696	CROSS COUNTRY
	Low	Outside Receiving	42.744579	-71.164267	ROUTE 213
	Low	Outside Receiving	42.743929	-71.164181	ROUTE 213
	Low	Wetland to Tributary to Bare Meadow Brook	42.742225	-71.159814	CROSS COUNTRY
	Low	Wetland to Tributary to Bare Meadow Brook	42.742227	-71.158873	CROSS COUNTRY
	High	Outside Receiving	42.735804	-71.155526	MILK ST
	High	Outside Receiving	42.735775	-71.155532	MILK ST
	High	Outside Receiving	42.737438	-71.155842	CROSS COUNTRY
	High	Tributary to Merrimack River MA84A-04	42.736012	-71.15944	WABON CIR
	Low	Tributary to Merrimack River MA84A-04	42.736085	-71.159744	TECH CIR
	Low	Outside Receiving	42.736651	-71.161737	ARBOR GLEN LN
	High	Outside Receiving	42.738111	-71.156611	CROSS COUNTRY
	High	Tributary to Spicket River	42.729749	-71.164391	BROOK ST
	High	Tributary to Spicket River	42.729713	-71.164397	BROOK ST
	Low	Tributary to Spicket River	42.723985	-71.158731	CURTIS ST
	High	Outside Receiving	42.726045	-71.162011	OAK KNOLL RD
	High	Outside Receiving	42.726372	-71.162111	EAST ST
	High	Tributary to Spicket River	42.726803	-71.162286	QUEEN AVE
	High	Tributary to Spicket River	42.728256	-71.163331	QUEEN AVE
	High	Tributary to Spicket River	42.726025	-71.16105	JACKSON ST
	Low	Outside Receiving	42.724019	-71.163364	JEFFREY ST
	Low	Outside Receiving	42.723654	-71.162934	JEFFREY ST
	Low	Outside Receiving	42.755904	-71.146463	JUDITH E LN
	Low	Outside Receiving	42.757337	-71.147733	JUDITH E LN
	Low	Outside Receiving	42.757798	-71.149322	JUDITH E LN
	Low	Outside Receiving	42.756907	-71.152038	OLD FERRY DR
	Low	Outside Receiving	42.757215	-71.153058	OLD FERRY DR
	Low	Outside Receiving	42.753589	-71.145327	OLD FERRY DR
	Low	Outside Receiving	42.751758	-71.151707	MAPLE RIDGE RD
	Low	Outside Receiving	42.751424	-71.152464	CROSS COUNTRY
	Low	Outside Receiving	42.753461	-71.153063	OLYMPIC VILLAGE DR
	High	Outside Receiving	42.746869	-71.151332	ROUTE 213
	Low	Outside Receiving	42.746061	-71.149299	ROUTE 213
	High	Outside Receiving	42.740783	-71.142559	ANDERSON DR
	High	Bare Meadow Brook MA84A-18	42.742508	-71.151434	OAKMEADOW LN
	High	Bare Meadow Brook MA84A-18	42.743648	-71.149068	CHIPPY LN
	High	Bare Meadow Brook MA84A-18	42.743147	-71.150604	OAK ST
	High	Bare Meadow Brook MA84A-18	42.743383	-71.147192	CHIPPY LN
	High	Bare Meadow Brook MA84A-18	42.743405	-71.145927	CHIPPY LN
	High	Bare Meadow Brook MA84A-18	42.743382	-71.144933	ANDERSON DR
	Low	Outside Receiving	42.743155	-71.14289	ROUTE 213
	High	Bare Meadow Brook MA84A-18	42.743461	-71.14432	ROUTE 213

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.733984	-71.142621	CELIA CIR
	Low	Wetland to Bare Meadow Brook	42.734101	-71.14819	BAREMEADOW ST
	Low	Wetland to Bare Meadow Brook	42.734088	-71.147971	BAREMEADOW ST
	High	Outside Receiving	42.736422	-71.147656	LONGVIEW TER
	Low	Outside Receiving	42.736981	-71.142889	LADY SLIPPER LN
	High	Outside Receiving	42.736479	-71.148442	OAKCREST CIR
	Low	Outside Receiving	42.730173	-71.145529	ASHFORD ST
	Low	Outside Receiving	42.730388	-71.149387	BISHOP ST
	Low	Outside Receiving	42.731127	-71.147046	WINTERGREEN CIR
	High	Outside Receiving	42.722976	-71.143412	BUCO AVE
	Low	Outside Receiving	42.72488	-71.152122	SWAN ST
	Low	Tributary to Merrimack River MA84A-04	42.727034	-71.15097	ALDERBROOK LN
	Low	Outside Receiving	42.726581	-71.151181	CARRIAGE WAY
	High	Tributary to Merrimack River MA84A-04	42.722454	-71.147343	CROSS COUNTRY
	High	Bare Meadow Brook MA84A-18	42.756635	-71.13311	RENFREW ST
	Low	Outside Receiving	42.757924	-71.136882	GARDEN AVE
	Low	Outside Receiving	42.758109	-71.134696	CROSS COUNTRY
	Low	Merrimack River MA84A-04	42.758659	-71.131603	MERRIMACK ST
	Low	Merrimack River MA84A-04	42.759016	-71.131729	MERRIMACK ST
	Low	Outside Receiving	42.747323	-71.135156	FENWICK CIR
	Low	Outside Receiving	42.749466	-71.132742	I-495
	Low	Outside Receiving	42.750177	-71.133485	I-495
	Low	Outside Receiving	42.749436	-71.133787	I-495
	Low	Outside Receiving	42.749387	-71.133706	I-495
	Low	Outside Receiving	42.749431	-71.134596	I-495
	Low	Outside Receiving	42.749431	-71.134596	I-495
	Low	Outside Receiving	42.749254	-71.134844	I-495
	Low	Outside Receiving	42.746353	-71.13843	I-495
	High	Bare Meadow Brook MA84A-18	42.745294	-71.140371	PLEASANT VALLEY ST
	High	Bare Meadow Brook MA84A-18	42.74524	-71.140648	PLEASANT VALLEY ST
	Low	Outside Receiving	42.746131	-71.14107	OLD FERRY RD
	Low	Outside Receiving	42.740536	-71.138766	FRYE RD
	Low	Tributary to Bare Meadow Brook	42.74078	-71.139311	CROSS COUNTRY
	Low	Tributary to Bare Meadow Brook	42.742016	-71.140176	CROSS COUNTRY
	High	Bare Meadow Brook MA84A-18	42.743595	-71.140708	I-495
	Low	Outside Receiving	42.742779	-71.141966	I-495
	Low	Outside Receiving	42.742438	-71.141559	I-495
	Low	Wetland to Tributary to Bare Meadow Brook	42.741425	-71.140479	I-495
	Low	Outside Receiving	42.74103	-71.140598	I-495
	Low	Outside Receiving	42.740292	-71.13977	I-495
	Low	Outside Receiving	42.739712	-71.139606	I-495
	Low	Outside Receiving	42.741057	-71.140836	I-495
	High	Outside Receiving	42.7398	-71.141181	I-495
	Low	Tributary to Bare Meadow Brook	42.742622	-71.140209	I-495
	Low	Wetland to Tributary to Merrimack River MA	42.73507	-71.132099	VARNUM AVE
	Low	Wetland to Tributary to Merrimack River MA	42.73625	-71.135005	DERRY RD
	Low	Outside Receiving	42.738601	-71.137667	CROSS COUNTRY
	Low	Tributary to Bare Meadow Brook	42.739429	-71.138525	CROSS COUNTRY
	Low	Tributary to Bare Meadow Brook	42.737393	-71.136931	CROSS COUNTRY
	Low	Outside Receiving	42.73887	-71.140066	DERRY RD
	Low	Outside Receiving	42.736287	-71.138459	BOOTH RD
	Low	Outside Receiving	42.735259	-71.139278	APPLE CREST DR
	Low	Outside Receiving	42.728884	-71.136973	I-495
	Low	Merrimack River MA84A-04	42.725323	-71.131214	CROSS COUNTRY
	Low	Merrimack River MA84A-04	42.724594	-71.131915	RIVERVIEW BLVD
	High	Outside Receiving	42.723799	-71.140095	PERKINS RD
	Low	Merrimack River MA84A-04	42.756807	-71.13064	MERRIMACK ST
	Low	Merrimack River MA84A-04	42.755829	-71.130037	MERRIMACK ST
	Low	Merrimack River MA84A-04	42.754506	-71.129273	MERRIMACK ST
	Low	Outside Receiving	42.754024	-71.129072	MERRIMACK ST
	Low	Merrimack River MA84A-04	42.751031	-71.125343	MERRIMACK ST
	Low	Outside Receiving	42.746362	-71.122801	FERRY RD
	Low	Outside Receiving	42.746428	-71.121291	FERRY RD
	Low	Outside Receiving	42.745885	-71.121597	FERRY RD
	Low	Outside Receiving	42.745944	-71.121641	FERRY RD
	Low	Outside Receiving	42.745601	-71.120761	FERRY RD

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.745706	-71.122482	FERRY RD
	Low	Outside Receiving	42.740336	-71.120662	BARRVIEW CIR
	Low	Outside Receiving	42.740566	-71.120656	CARRIE AVE
	Low	Outside Receiving	42.740249	-71.12171	CROSS COUNTRY
	Low	Outside Receiving	42.740703	-71.122991	CLEMENTI LN
	Low	Outside Receiving	42.739535	-71.122023	CLEMENTI LN
	Low	Outside Receiving	42.740231	-71.122516	CLEMENTI LN
	Low	Merrimack River MA84A-04	42.73447	-71.12265	WINGATE AVE
	High	Isolated Wetland off of Riley Avenue	42.737963	-71.126436	RILEY AVE
	High	Isolated Wetland off of Riley Avenue	42.738123	-71.126716	ADAM CT
	High	Outside Receiving	42.737584	-71.124727	BONANNO CT
	Low	Outside Receiving	42.738926	-71.121411	CLEMENTI LN
	Low	Outside Receiving	42.73022	-71.12822	GOLF AVE
	Low	Outside Receiving	42.732403	-71.129659	CROSS COUNTRY
	Low	Merrimack River MA84A-04	42.728971	-71.1276	RIVERDALE ST
	Low	Merrimack River MA84A-04	42.733453	-71.12383	RIVER EDGE PL
	Low	Merrimack River MA84A-04	42.73251	-71.124983	MERRILINE AVE
	Low	Outside Receiving	42.726994	-71.130175	JAYSON ST
	Low	Outside Receiving	42.738098	-71.243996	HAMPSHIRE RD
	Low	Outside Receiving	42.724252	-71.250951	LINDSAY LN
	Low	Isolated Wetland off of Dracut Street	42.724454	-71.251155	CROSS COUNTRY
	Low	Wetland to Tributary to Harris Brook	42.728879	-71.243538	CROSS COUNTRY
	Low	Outside Receiving	42.724792	-71.24589	COUNTRY LAKE RD
	Low	Outside Receiving	42.724673	-71.245713	COUNTRY LAKE RD
	Low	Outside Receiving	42.716246	-71.244479	MYRTLE ST
	Low	Wetland to Harris Brook	42.739538	-71.23123	HAMPSHIRE RD
	Low	Wetland to Harris Brook	42.739506	-71.23135	HAMPSHIRE ST
	Low	Tributary to Wetland to Harris Brook	42.736325	-71.230436	BRIDLE PATH LN
	Low	Outside Receiving	42.731394	-71.226374	QUAIL RUN DR
	High	Outside Receiving	42.721469	-71.229822	ARROWWOOD ST
	Low	Outside Receiving	42.708076	-71.227417	CROSS COUNTRY
	Low	Outside Receiving	42.711674	-71.2318	TYLER ST
	Low	Outside Receiving	42.68939	-71.234284	GRIFFIN BROOK DR
	Low	Outside Receiving	42.690316	-71.232363	GRIFFIN BROOK DR
	Low	Merrimack River MA84A-03	42.701584	-71.209359	CROSS COUNTRY
	Low	Outside Receiving	42.710558	-71.198096	CROSS COUNTRY
	Low	Outside Receiving	42.706563	-71.191438	CROSS COUNTRY
	High	Outside Receiving	42.755935	-71.169175	CAMERON ST
	Low	Outside Receiving	42.728861	-71.153378	CROSS COUNTRY
	Low	Outside Receiving	42.788657	-71.183585	HAMPSTEAD ST
	Low	Merrimack River MA84A-03	42.701503	-71.209683	RIVERSIDE DR
	Low	Tributary to Harris Brook	42.733955	-71.208666	CROSS ST
	Low	Wetland to Tributary to Harris Brook	42.733223	-71.208312	CROSS ST
	High	Tributary to Wetland to Harris Brook	42.727275	-71.226869	PELHAM ST
	Low	Tributary to Wetland to Merrimack River MA	42.68919	-71.235856	GRIFFIN BROOK DR
	Low	Tributary to Wetland to Merrimack River MA	42.690888	-71.237249	GRIFFIN BROOK DR
	Low	Outside Receiving	42.734309	-71.231962	CROSS COUNTRY
	Low	Outside Receiving	42.720325	-71.209784	I-93
	Low	Outside Receiving	42.715006	-71.218322	CROSS COUNTRY
	Low	Outside Receiving	42.736235	-71.182867	CROSS COUNTRY
	High	Outside Receiving	42.725386	-71.182453	CROSS COUNTRY
	High	Spicket River MA84A-10	42.724786	-71.184574	BROADWAY ST
	Low	Wetland to Tributary to Searles Pond	42.738186	-71.174518	CROSS COUNTRY
	Low	Outside Receiving	42.755853	-71.155045	CROSS COUNTRY
	High	Outside Receiving	42.739097	-71.157789	CROSS COUNTRY
	Low	Tributary to Merrimack River MA84A-04	42.736273	-71.160829	PART RIDGE RD
	Low	Tributary to Bare Meadow Brook	42.753357	-71.145376	CROSS COUNTRY
	Low	Tributary to Bare Meadow Brook	42.737525	-71.137405	DERRY RD
	Low	Tributary to Bare Meadow Brook	42.737516	-71.137389	DERRY RD
	Low	Outside Receiving	42.736215	-71.138326	BOOTH RD
	Low	Wetland to Tributary to Merrimack River MA	42.735152	-71.133327	MERRIMACK ST
	Low	Wetland to Tributary to Merrimack River MA	42.735464	-71.133863	MERRIMACK ST
	Low	Outside Receiving	42.732178	-71.141369	OAKHILL DR
	Low	Tributary to Merrimack River MA84A-04	42.728665	-71.142153	DELMONT ST
	Low	Wetland to Tributary to Merrimack River MA	42.728405	-71.142148	CROSS COUNTRY
	Low	Outside Receiving	42.740913	-71.122868	CROSS COUNTRY

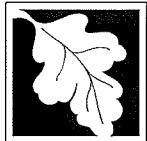
Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.718981	-71.239781	CROSS COUNTRY
	Low	Outside Receiving	42.721006	-71.239468	CROSS COUNTRY
	Low	Outside Receiving	42.720532	-71.237098	CROSS COUNTRY
	Low	Outside Receiving	42.720905	-71.237164	CROSS COUNTRY
	Low	Tributary to Bartlett Brook	42.72049	-71.236408	CROSS COUNTRY
	Low	Outside Receiving	42.719907	-71.235579	CROSS COUNTRY
	Low	Outside Receiving	42.738485	-71.228912	CROSS COUNTRY
	Low	Outside Receiving	42.71707	-71.22288	CROSS COUNTRY
	Low	Outside Receiving	42.717103	-71.222982	CROSS COUNTRY
	Low	Outside Receiving	42.707942	-71.211161	I-93
	High	Tributary to Merrimack River MA84A-03	42.704439	-71.199037	CROSS COUNTRY
	High	Tributary to Wetland to Spicket River	42.713992	-71.189081	CEMETARY
	Low	Outside Receiving	42.769585	-71.172278	CROSS COUNTRY
	Low	Outside Receiving	42.769339	-71.172278	CROSS COUNTRY
	Low	Outside Receiving	42.768554	-71.17274	CROSS COUNTRY
	High	Outside Receiving	42.768303	-71.172633	CROSS COUNTRY
	High	Outside Receiving	42.767356	-71.171963	CROSS COUNTRY
	High	Outside Receiving	42.775002	-71.160098	CROSS COUNTRY
	High	Outside Receiving	42.775195	-71.160432	CROSS COUNTRY
	High	Outside Receiving	42.740254	-71.141116	I-495
	Low	Outside Receiving	42.70565	-71.19297	CROSS COUNTRY
	Low	Outside Receiving	42.738886	-71.140178	I-495
	High	Outside Receiving	42.739015	-71.141432	I-495
	Low	Outside Receiving	42.728838	-71.137855	CROSS COUNTRY
	Low	Outside Receiving	42.730362	-71.139303	CROSS COUNTRY
	Low	Outside Receiving	42.722905	-71.137648	I-495
	Low	Tributary to Wetland to Merrimack River MA	42.724	-71.136894	I-495
	Low	Outside Receiving	42.713358	-71.237921	CROSS COUNTRY
	Low	Outside Receiving	42.712972	-71.240843	CROSS COUNTRY
	Low	Wetland to Tributary to Bartlett Brook	42.712651	-71.241556	CROSS COUNTRY
	Low	Tributary to Bartlett Brook	42.715171	-71.239141	CROSS COUNTRY
	High	Outside Receiving	42.71711	-71.194897	FULTON ST EXT
	Low	Wetland to Tributary to Bartlett Brook	42.717546	-71.242603	ARROWWOOD ST
	Low	Tributary to Bartlett Brook	42.717904	-71.243141	ARROWWOOD ST
	Low	Outside Receiving	42.720106	-71.242586	ARROWWOOD ST
	Low	Outside Receiving	42.719544	-71.242753	ARROWWOOD ST
	Low	Outside Receiving	42.717831	-71.237573	HEARTWOOD ST
	Low	Outside Receiving	42.717477	-71.237763	HEARTWOOD ST
	Low	Outside Receiving	42.75361	-71.159559	ARCHIBALD ST
	Low	Tributary to Merrimack River MA84A-04	42.734235	-71.132013	BRADLEY AVE
	High	Outside Receiving	42.742522	-71.125347	NEWBURY AVE
	High	Outside Receiving	42.742427	-71.125444	NEWBURY AVE
	Low	Wetland to Tributary to Spicket River	42.734808	-71.178442	
	High	Wetland to Hawkes Brook	42.766743	-71.169411	MAPLE ST
	Low	Tributary to Wetland to Merrimack River MA	42.711841	-71.200214	
	Low	Tributary to Wetland to Spicket River	42.728164	-71.199599	CC
	Low	Outside Receiving	42.732799	-71.128595	CROSS COUNTRY
	Low	Outside Receiving	42.754839	-71.169423	TRETRUNK LN
	High	Outside Receiving	42.767234	-71.16814	WATERFORD CIR
	High	Wetland to Hawkes Brook	42.767087	-71.167838	MAPLE ST
	Low	Outside Receiving	42.714868	-71.218304	CROSS COUNTRY
	Low	Outside Receiving	42.757209	-71.165062	HILLVIEW DR
	Low	Outside Receiving	42.757186	-71.165252	CC
	Low	Outside Receiving	42.717801	-71.237648	HEARTWOOD ST
	Low	Tributary to Wetland to Bartlett Brook	42.717632	-71.237917	HEARTWOOD ST
	Low	Tributary to Wetland to Bartlett Brook	42.717454	-71.237915	HEARTWOOD ST
	Low	Outside Receiving	42.716037	-71.24012	
	Low	Outside Receiving	42.714443	-71.239094	ARROWWOOD ST
	Low	Outside Receiving	42.751676	-71.181953	CC
	Low	Outside Receiving	42.750394	-71.180698	CC
	Low	Outside Receiving	42.751799	-71.17613	CC
	Low	Outside Receiving	42.750697	-71.178742	CC
	Low	Outside Receiving	42.717497	-71.205974	OAKLAND AVE
	Low	Outside Receiving	42.783978	-71.176364	CC
	Low	Outside Receiving	42.785684	-71.177429	CC
	Low	Outside Receiving	42.784977	-71.177283	CC

Outfall and Interconnection Inventory and Initial Ranking

Structure ID*	Initial Rank	Receiving Waterbody	Latitude	Longitude	Location
	Low	Outside Receiving	42.785124	-71.177931	PATRICK WAY
	Low	Outside Receiving	42.774365	-71.153961	PINE TREE DR
	Low	Outside Receiving	42.774277	-71.154414	MUIRFIELD LN
	Low	Wetland to Tributary to Hawkes Brook	42.773577	-71.154503	MUIRFIELD LN
	Low	Outside Receiving	42.773722	-71.153583	PINE TREE DR
	High	Tributary to Wetland to Hawkes Brook	42.775332	-71.155375	CC
	High	Tributary to Wetland to Hawkes Brook	42.77534	-71.155351	CC
	High	Outside Receiving	42.775368	-71.154823	CC
	High	Outside Receiving	42.775162	-71.154773	CC
	Low	Outside Receiving	42.775027	-71.154365	CC
	Low	Outside Receiving	42.744763	-71.143841	SUMMIT PLACE
	Low	Outside Receiving	42.744778	-71.143803	SUMMIT PLACE
	Low	Outside Receiving	42.74653	-71.14374	SUMMIT PLACE
	Low	Outside Receiving	42.746515	-71.143705	SUMMIT PLACE
	Low	Outside Receiving	42.746621	-71.144151	SUMMIT PLACE
	Low	Outside Receiving	42.748626	-71.144841	SUMMIT PLACE
	Low	Outside Receiving	42.748584	-71.1476713	SUMMIT PLACE
	High	Outside Receiving	42.7576138	-71.1746865	
	High	Wetland to Tributary to Searles Pond	42.7365116	-71.1728767	HANCOCK CIR
	Low	Spicket River	42.740678	-71.2043293	SPICKET COMMONS
	Low	Outside Receiving	42.7400259	-71.2042165	SPICKET COMMONS
	Low	Outside Receiving	42.7396939	-71.2038929	SPICKET COMMONS
	Low	Outside Receiving	42.7405337	-71.20185	SPICKET COMMONS
	Low	Outside Receiving	42.7417658	-71.1616551	TARGET
	Low	Outside Receiving	42.7416577	-71.1601407	TARGET
	Low	Outside Receiving	42.7416206	-71.2036646	
	Low	Outside Receiving	42.7484936	-71.1336996	RUSSELL FARM DR
	Low	Outside Receiving	42.7497298	-71.1301325	RUSSELL FARM DR
	Low	Outside Receiving	42.749381	-71.1295701	RUSSELL FARM DR
	Low	Outside Receiving	42.7168828	-71.2326259	ASHLEY LANE
	High	Outside Receiving	42.7414223	-71.1660389	MANN ORCHARDS
	High	Outside Receiving	42.7415703	-71.1658964	MANN ORCHARDS
	Low	Tributary to Merrimack River MA84A-04	42.7405286	-71.1643653	MANN ORCHARDS
	Low	Tributary to Merrimack River MA84A-04	42.7408905	-71.1646952	MANN ORCHARDS
	Low	Tributary to Merrimack River MA84A-04	42.7408835	-71.1648232	MANN ORCHARDS
	Low	Tributary to Merrimack River MA84A-04	42.7409077	-71.1647423	MANN ORCHARDS
	Low	Outside Receiving	42.7396609	-71.203964	SPICKET COMMONS
	Low	Wetland to Tributary to Spicket River	42.7395775	-71.2038995	SPICKET COMMONS
	Low	Outside Receiving	42.7257362	-71.18696	
	Low	Outside Receiving	42.7257436	-71.1868478	GLEASON ST
	Low	Outside Receiving	42.7472332	-71.1263946	SUMMERS CROSSING
	Low	Outside Receiving	42.7475717	-71.1264404	SUMMERS CROSSING
	Low	Tributary to Merrimack River MA84A-04	42.7311454	-71.1415816	CC
	Low	Outside Receiving	42.7386024	-71.1599207	FITZGERALD WAY
	Low	Outside Receiving	42.705355	-71.2063401	HEATHER DRIVE
	Low	Outside Receiving	42.7302751	-71.2106771	IRVING GAS STATION
	Low	Outside Receiving	42.7302798	-71.2101679	IRVING GAS STATION
	Low	Outside Receiving	42.7301322	-71.2099315	IRVING GAS STATION
	Low	Outside Receiving	42.7301266	-71.2098909	IRVING GAS STATION
	Low	Tributary to Wetland to Hawkes Brook	42.773634	-71.1533342	PINE TREE DRIVE
	Low	Wetland to Tributary to Hawkes Brook	42.7729621	-71.1533139	PINE TREE DRIVE
	Low	Wetland to Tributary to Hawkes Brook	42.7729512	-71.1532867	PINE TREE DRIVE
	Low	Outside Receiving	42.772306	-71.1529709	PINE TREE DRIVE
	Low	Outside Receiving	42.7711991	-71.1519331	PINE TREE DRIVE
	Low	Outside Receiving	42.7426565	-71.1743987	CORNELIE ROAD
	Low	Outside Receiving	42.7372225	-71.2319611	KRISTEN LANE
	Low	Outside Receiving	42.7330494	-71.1282408	
	Low	Outside Receiving	42.732926	-71.1283705	
	Low	Outside Receiving	42.7328257	-71.1284745	

*Structure ID is not in current City geodatabase; working with prior consultant to export that data ASAP.



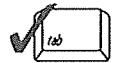
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program
Sanitary Sewer Overflow (SSO)/Bypass
Notification Form

FOR DEP USE ONLY

Tax Identification Number

A. Reporting Facility

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Facility Information

City of Methuen

Reporting Sewer Authority

Permit #

2. Authorized Representative Transmitting Form:

Stephen

Gagnon

678-983-8550

First Name

Last Name

Telephone No.

Chief Engineer

Title

sjgagnon@ci.methuen.ma.us

E-mail Address

B. Phone Notifications:

See DEP Regional Office telephone and fax numbers at the end of this form.

1. MassDEP staff contacted:

Voice Mail

first name

12-2-13

Date

last name

10:02

Time

am pm

2. EPA staff contacted:

Voice Mail - George

first name

12-2-13

Date

last name

10:15

Time

am pm

3. Board of Health contacted:

William

First Name

12-2-13

Date

last name

11:40

Time

am pm

4. Others notified (select all that apply):

Conservation Commission

Harbormaster

Shellfish Warden

Division of Marine Fisheries

Downstream Drinking Water Supplier

Watershed Association

Beach Resource Manager

Other:

Lawrence WTP
(specify)

C. SSO Information

1. SSO Discovered:

12-1-13

Date

6:30

Time

am pm

By: Homeowner

2. SSO Stopped:

12-2-13

Date

7:00

Time

am pm

3. SSO Discharge from: Sanitary Sewer Manhole Pump Station

Backup into Property

Other:

(specify)

4. SSO Discharge to: Ground Surface (no release to surface water)

Direct to Receiving Water

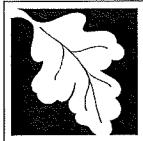
Merrimack River

(surface water)

Catch basin to Receiving Water

(surface water)

Backup into Property Basement



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program
Sanitary Sewer Overflow (SSO)/Bypass
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C. SSO Information (cont.)

Location: 804 Riverside Dr.
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 7,050 Gallons

Method of Estimating Volume: Estimated 5 GPM X 1,410 Min

6. Cause of SSO Event:

Rain Event Pump Station Failure Insufficient Capacity in System
 Treatment Unit failure
 Sewer System Blockage: Pipe Collapse Root Intrusion Grease Blockage
 Other: _____ (Specify)

7. Corrective Actions Taken:

Contractor hired to jet sewer main.

Impact Area cleaned and/or disinfected: Yes No

The area will be disinfected by 4:00PM 12-2-13.

Corrective Actions Completed: Yes No

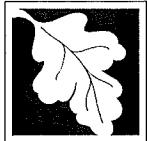
D. Comments/Attachments/Follow-up

I wish to provide (select all that apply):

Attachment Additional comments below: No additional comments or attachments

Additional comments and planned actions:

The blockage consisted of trash (nip bottles and foam pipe insulation) and some grease. It is not clear how the trash entered the sewer main.



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E. Certification Statement

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 gather and evaluate 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.

12-2-13

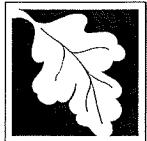
Date Signed

Signature of Authorized Representative

Please keep a copy of this report for your records. When submitting additional information, include the MassDEP Incident Number from this report.

MassDEP Regional Office and EPA Telephone and Fax Numbers:

Northeast Region	Phone: 978-694-3215	Fax: 978-694-3499
Southeast Region	Phone: 508-946-2750	Fax: 508-947-6557
Central Region	Phone: 508-792-7650	Fax: 508-792-7621
Western Region	Phone: 413-784-1100	Fax: 413-784-1149
EPA Contact	Phone: 617-918-1870	Fax: 617-918-0870
DEP 24-hour emergency	Phone: 888-304-1133	



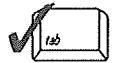
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A. Reporting Facility

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1. Facility Information

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Reporting Sewer Authority

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2. Authorized Representative Transmitting Form:

Stephen

First Name

Gagnon

Last Name

978-983-8550

Telephone No.

Chief Engineer

Title

sjgagnon@ci.methuen.ma.us

E-mail Address

B. Phone Notifications:

See DEP Regional Office telephone and fax numbers at the end of this form.

1. MassDEP staff contacted:

Voice Mail

first name

1/19/16

Date

last name

11:30

Time

am pm

2. EPA staff contacted:

George

first name

1/19/16

Date

Harding

last name

11:30

Time

am pm

3. Board of Health contacted:

Brian

First Name

1/19/16

Date

LaGrasse

Last Name

3:05

Time

am pm

4. Others notified (select all that apply);

Conservation Commission

Harbormaster

Shellfish Warden

Division of Marine Fisheries

Downstream Drinking Water Supplier

Watershed Association

Beach Resource Manager

Other:

Lawrence DPW (Blockage in Lawrence)
(specify)

C. SSO Information

1. SSO Discovered:

1/16/16

Date

10:30

Time

am pm

By: Homeowner

2. SSO Stopped:

1/16/16

Date

3:00

Time

am pm

3. SSO Discharge from: Sanitary Sewer Manhole Pump Station

Backup into Property

Other:

(specify)

4. SSO Discharge to: Ground Surface (no release to surface water)

Direct to Receiving Water

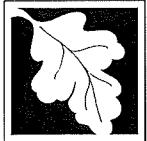
Merrimack River

(surface water)

Catch basin to Receiving Water

(surface water)

Backup into Property Basement



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program
Sanitary Sewer Overflow (SSO)/Bypass
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C. SSO Information (cont.)

Location: 800 Riverside Dr.
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 13,500 Gallons

Method of Estimating Volume: Estimated 50 GPM X 270 Min.

6. Cause of SSO Event:

Rain Event Pump Station Failure Insufficient Capacity in System

Treatment Unit failure

Sewer System Blockage: Pipe Collapse Root Intrusion Grease Blockage

Other: _____
(Specify)

7. Corrective Actions Taken:

The City of Lawrence jetted their main downstream and relieved the blockage.

Impact Area cleaned and/or disinfected: Yes No

Overflow occurred during an heavy rain event.

Corrective Actions Completed: Yes No

D. Comments/Attachments/Follow-up

I wish to provide (select all that apply):

Attachment Additional comments below: No additional comments or attachments

Additional comments and planned actions:

The blockage was in the City of Lawrence and backed out of the last manhole in Methuen.



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E. Certification Statement

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 gather and evaluate 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.

1/19/16

Signature of Authorized Representative

Date Signed

Please keep a copy of this report for your records. When submitting additional information, include the MassDEP Incident Number from this report.

MassDEP Regional Office and EPA Telephone and Fax Numbers:

Northeast Region	Phone: 978-694-3215	Fax: 978-694-3499
Southeast Region	Phone: 508-946-2750	Fax: 508-947-6557
Central Region	Phone: 508-792-7650	Fax: 508-792-7621
Western Region	Phone: 413-784-1100	Fax: 413-784-1149
EPA Contact	Phone: 617-918-1870	Fax: 617-918-0870
DEP 24-hour emergency	Phone: 888-304-1133	

Permit Year 2

(July 1, 2019 – June 30, 2020)

Permit Year 3
(July 1, 2020 – June 30, 2021)

Permit Year 4
(July 1, 2021 – June 30, 2022)

Permit Year 5

(July 1, 2022 – June 30, 2023)

Permit Year 6

(July 1, 2023 – June 30, 2024)

Appendix H

Phosphorus Source Identification Report (due June 30, 2022)