

- b) Is the facility covered by an individual NPDES permit for other discharges? yes no
If yes, Permit Number: _____
- c) Is there a pending NPDES application on file with EPA for this discharge? yes no
If yes, date of submittal: _____ and permit number, if available _____

7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water.
Map attached? See Attachment A - MBTA Everett Facility Site Map

B. Discharge Information (attach additional sheets as needed):

1. Name of receiving water into which discharge will occur: Mystic River
Freshwater Marine Water
State Water Quality Classification Class B
Type of Receiving Water Body (e.g., stream, river, lake, reservoir, estuary, etc.) River (Salt)

2. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing to flow, treatment units, outfalls, and receiving water(s). **Line drawing or flow diagram attached?** See Attachment B - Dynamometer Discharge

3. Describe the discharge activities for which the owner/applicant is seeking coverage (e.g., building cooling, process line cooling, etc.) The facility uses two (2) engine dynamometers. Non-contact cooling water is discharged from both dynamometers at one outfall.

4. Number of Outfalls 1 Latitude and Longitude to the nearest second for each Outfall. See EPA's siting tool at http://www.epa.gov/tri/reporting/siting_tool. Attach additional pages if necessary.

Outfall # 1	Latitude <u>42.395955</u>	Longitude <u>-71.066697</u>
Outfall #	Latitude _____	Longitude _____
Outfall #	Latitude _____	Longitude _____

5. For each Outfall provide the following discharge information:

Outfall # 1

a) Maximum Daily Flow 0.013 MGD Average Monthly Flow 0.0065 MGD
NOTE: EPA will use the flow reported here as the facility's permitted effluent flow limit.

b) Maximum Daily Temperature 80 °F Average Monthly Temperature 73 °F

c) Maximum Monthly pH 9.15 s.u. Minimum Monthly pH 6.21 s.u.

d) Outfall's discharge is: continuous intermittent seasonal

Outfall # _____

a) Maximum Daily Flow _____ MGD Average Monthly Flow _____ MGD
NOTE: EPA will use the flow reported here as the facility's permitted effluent flow limit.

b) Maximum Daily Temperature _____ °F Average Monthly Temperature _____ °F

c) Maximum Monthly pH _____ s.u. Minimum Monthly pH _____ s.u.

d) Outfall's discharge is: continuous intermittent seasonal

Outfall # _____

a) Maximum Daily Flow _____ MGD Average Monthly Flow _____ MGD
NOTE: EPA will use the flow reported here as the facility's permitted effluent flow limit.

b) Maximum Daily Temperature _____ °F Average Monthly Temperature _____ °F

c) Maximum Monthly pH _____ s.u. Minimum Monthly pH _____ s.u.

d) Outfall's discharge is: continuous intermittent seasonal

6. Is the source of the NCCW potable water? yes no

If yes, EPA will calculate a Total Residual Chlorine effluent limit for your facility.

7. Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 2.9 MGD
Attach any calculation sheets used to support stream flow and/or dilution calculations. See Attachment C –
NPDES Estimated 7Q10 (as reported in in 2014NCCW GP)

8. For facilities that discharge to Massachusetts surface waters:

a) Submit the completed engineering calculation of the surface water temperature rise as shown in Attachment B of the General Permit. Calculation attached? See Attachment D – Surface Water Temperature Rise Calculations

b) Does the discharge occur in an Area of Critical Environmental Concern (ACEC)? yes no

c) If yes, provide the name of ACEC _____

Note: See Part 3.4 and Appendix 1 of the General Permit for more information on ACEC.

C. Chemical Additives

1. Are any non-toxic neutralization and/or dechlorination chemicals used in the discharge(s)? yes no

2. If yes, attach a listing of each chemical used. Include the chemical name and manufacturer; maximum and average daily quantity used on a monthly basis, as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for typically acceptable aquatic organism).

3. Was the listing submitted with the facility's 2008 NCCWGP NOI? yes no

D. NCCW Source Water Information

1. State the source of the NCCW (e.g., municipal water supply, private well, surface water withdrawal, etc.).

Source MWRA (Everett) Name of Source Water Massachusetts Water Resource Authority

2. Is the source water registered/permitted under MA Water Management Act or NHDES User Registration Rule (ENV WQ 2202)? yes no If yes, registration number _____

3. If the source water is groundwater (non-municipal well water), see Appendix 9 of the General Permit and submit effluent (and receiving water hardness) test results, as required in Part 5.4 of the General Permit.

Test results attached?

4. Does the facility use both a primary and backup source of NCCW? yes no If yes, **attach information** that identifies and explains the primary and backup sources of NCCW and how often the backup supply was used in the past three years.

E. Best Technology Available for Cooling Water Intake Structures (CWISs)

If the facility's discharge is covered by this General Permit and the facility **withdraws non-contact cooling water from a surface water**, you are subject to the BTA requirements at Part 4.2 of the General Permit.

1. Are you subject to the BTA requirements of the General Permit? yes no
- a) If no, explain _____ and skip to F.
- b) If yes, was the facility-specific BTA description submitted with the facility's 2008 NCCW GP NOI?
yes no
- c) If yes, does that description accurately describe the facility current operations and practices? yes no

2. If the facility is subject to the General Permit's BTA requirements and is requesting coverage under the NCCWGP for the first time, or if you answered "No" to question E.1.c. above, attach the facility-specific BTA description as required in Part 4.2 of the General Permit. For additional information and guidance, see Section IV of the Fact Sheet.

Include in your description:

- a) Measures to meet the General Permit Part 4.3.a general BTA requirements, including documentation that describes the facility's monitoring program for impinged fish and/or invertebrate; or the required alternative monitoring plan frequency and/or protocol.
- b) A characterization of the source water body's aquatic life habitat in the vicinity of each CWIS during the seasons when the CWIS may be in use.
- c) The attributes of the current CWIS.
- d) The design measures of the CWIS.
- e) The operation measures of the CWIS.
- f) The historical occurrence of impinged fish for the past five years.
- g) If applicable, a demonstration that the facility's intake rate is commensurate with a closed-cycle recirculation system.
- h) Other components to reduce impingement and/or entrainment of aquatic life.

3. Provide the following information for each CWIS to support your attached facility-specific BTA description:

- a) The design capacity of the of the CWIS _____ MGD
- b) Maximum monthly average intake of the CWIS during the previous five years _____ MGD
- c) The month in which this flow reported in 3.b. occurred _____
- d) The maximum through-screen design intake velocity _____ feet/second (fps)

4. For facilities where the CWIS is located on a freshwater river or stream, provide the following information:

- a) The source water's annual mean flow in MGD as available from USGS or other appropriate source
_____ MGD
- b) The design intake flow as a % of the source water's annual mean flow _____ %
Attach calculations if equal to or less than 5% of annual mean flow.
- c) The source water's 7Q10 _____ MGD
- d) The design intake flow as a percent of the source water's 7Q10 _____ %

5. Provide a map showing the location of each cooling water intake structure; NCCW Outfall(s) and CWIS features referred to in the BTA description. **Map attached?**

F. Endangered Species Act Eligibility Information

Using the instructions in Appendix 2 of the NCCW GP, which of the following criteria apply to your facility? USFWS

Criteria: A B C

1. If you selected USFWS criteria B, has consultation with the U.S. Fish and Wildlife Service been completed?

yes no

2. If consultation with US Fish & Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received?
yes no

3. Attach documentation of ESA eligibility for USFWS as required at Part 3.4 and Appendix 2 of the General Permit.
Documentation attached? See Attachment E – Official USFWS Endangered Species List

4. Please indicate if your facility **directly intakes water for non-contact cooling** from any of the following waterbodies:
 Merrimack River
 Connecticut River
 Piscataqua River
 Taunton River

EPA will consult with the National Marine Fisheries Service on cooling water intakes covered under this permit in areas (in the above waterbodies) of the endangered Shortnose Sturgeon and Atlantic Sturgeon.

G. National Historic Properties Act Eligibility

1. Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? yes no

2. Have any State or Tribal Historic Preservation Officers been consulted in this determination? yes no
If yes, attach the results of the consultation(s).

3. Which of the three National Historic Preservation Act scenarios listed in Appendix 3, Section C have you met?
 1 2 3

H. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any analytical data used to support the application. Attach any certification(s) required by the General Permit.

I. Signature Requirements

The NOI must be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the noncontact cooling water (NCCW) system; (2) the discharge consists solely of NCCW (to reduce temperature) and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product (other than heat) or finished product; (4) if the discharge of noncontact cooling water subsequently mixes with other wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for noncontact cooling water; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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 certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature  Date 1/23/2025

Printed Name and Title Cosette DeCoste, Manager of Water Resources

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

Attachment A

MBTA Everett Maintenance Facility Site Map



Attachment A

MBTA Everett Maintenance Facility Site Map



Discharge point from facility (Lat, Long): 42.395955, -71.066697

Receiving Water: Mystic River

Approximate distance to receiving water: 1,000 ft

D.M.H.
R. 17.56
(17.56)
I=13.6

NEW 6" CISP W/6"
FLAP GATE @ C.B.
FLAP GATE INCLUDED
WITH PRICE OF PIPE

NEW 10" CISP

EXISTING 8" V.C. LINE TO
BE REPLACED WITH 85'
OF 12" R.C.P.

NEW 125' OF 12" R.C.P.

D.M.H. TO BE
ABD.

C.B. TO BE
ABD.

C.B.
R. 17.98
(18.10)
I=11.9
TO BE ADJ.

M.H.
R. 19.47
(19.47)
I=11.5-12

EMERGENCY EXIT
D.M.H. TO BE REMOVED
AS PART OF BLDG.
CONSTRUCTION.

BUS

NEW ADDITION

LINE TO
BE ABD.
NEW 6"
CISP
NEW 6"
CISP

TIED INTO
6" line

access
point

C.B.

C.B.
R. 18.46
(18.46)

I=10.3

D.M.H.
R 18.91
(18.91)

I=10.7

2000 GAL STORAGE
TANKS, SEE BO/M-1

1000 GAL
OIL STOR
SEE BO,

Attachment B
Dynamometer Discharge

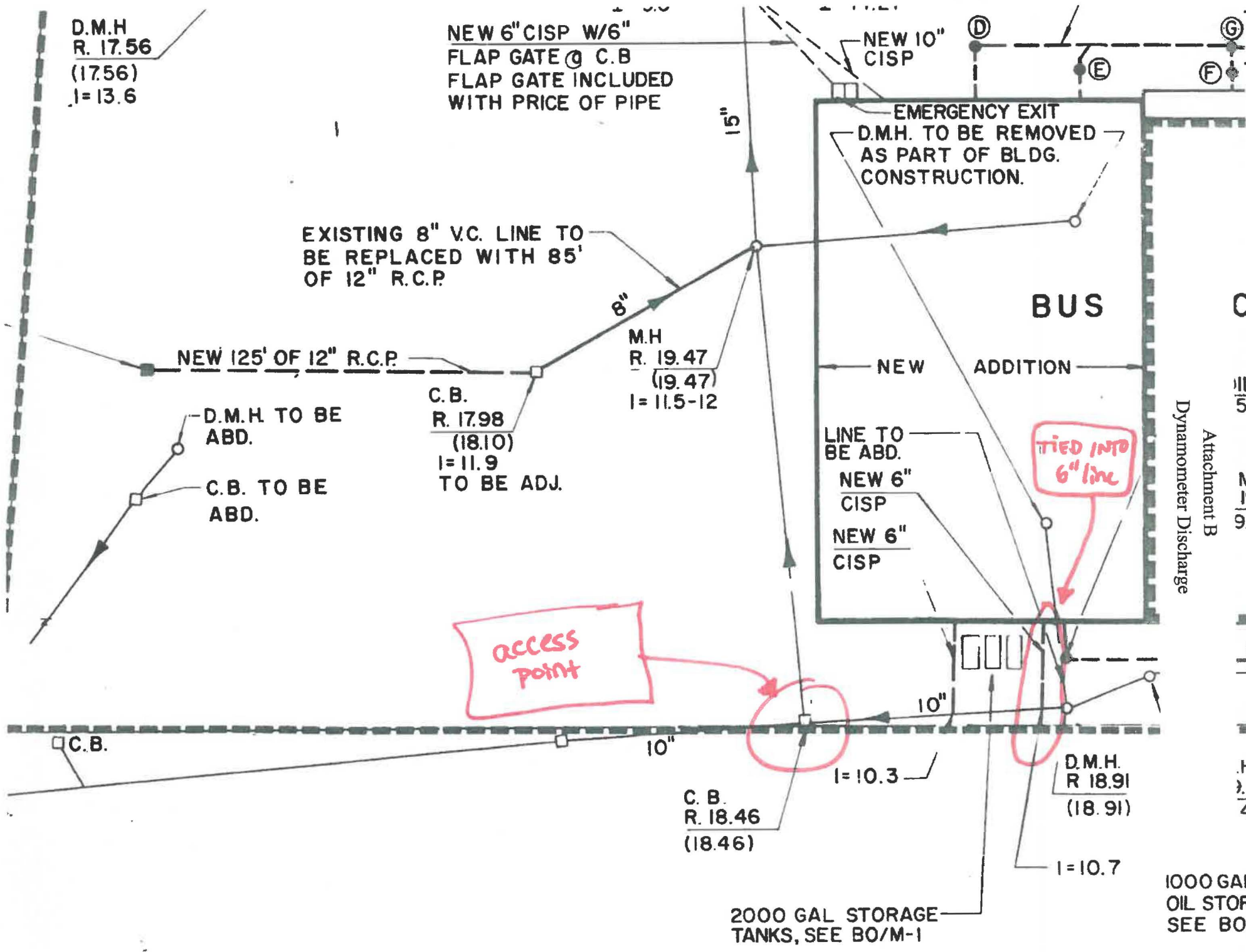
C

11/5

2-1/6

T

F
2/4



Attachment C
NPDES NCCW ESTIMATED 7Q10

Facility	Permit No.	Receiving Water (Watershed)	7Q10 (MGD)	7Q10 (cfs)
Ashland Hercules Water Technologies Chicopee	MAG250848	Connecticut River	1235	1910
Baker Commodities North Billerica	MAG250026	Concord River	16.1	24.9
Chemplastia Florence	MAG250960	Mill River (Connecticut)	3.2	4.8
Communications & Power Industries - Beverly Microwave Division Beverly	MAG250520	Unnamed Trib to Bass River (North Coastal)	0.01	0.01
Concrete Block Insulating Systems, Inc. West Brookfield	MAG250121	Wetlands leading to Quaboag River (Chicopee)	0.11	0.17
Eastern Point Condos Shrewsbury	MAG250018	Lake Quinsigamond (Blackstone)	Lake	
Eastport Bayside LLC Harborview Place Plymouth	MAG250020	Plymouth Harbor	Marine	
Fall River Tool & Die Fall River	MAG250017	Sucker Brook (Mount Hope Bay)	0.04	0.06
Flo Chemical Ashburnham	MAG250957	Phillips Brook (Nashua)	0.04	0.07
Fortifiber Corp. Attleboro	MAG250033	Bungay River (Ten Mile)	0.16	0.24
Four-in-One Chelmsford	MAG250244	Tributary to River Meadow Brook (SuAsCo)	0.01	0.01
Gutierrez Company Westford	MAG250976	(SuAsCo)	Wetland	
Haartz Corporation Acton	MAG250006	Conant Brook (SuAsCo)	0.01	0.01

Facility	Permit No.	Receiving Water (Watershed)	7Q10 (MGD)	7Q10 (cfs)
Harodite Industries Taunton	MAG250032	Three Mile River (Taunton)	6.1	9.4
Harrison Specialty	MAG250554	Neponset River (ACEC)	6.9	10.6
Hazen Paper Housatonic	MAG250973	Housatonic	45	69
Hazen Paper Hoyoke	MAG250872	Connecticut River	1147	1775
Jen-Coat , Inc. Westfield	MAG250856	Westfield River	37	57
Kiddie-Fenwal, Inc. Ashland	MAG250946	Cold Spring Brook (SuAsCo)	0.23	0.36
Lewcott Corporation Millbury	MAG250969	Blackstone River	27.2	42.1
MBTA Everett Shops Everett	MAG250005	Mystic River	2.9	4.4
MGH Institute of Health Professions Charlestown	MAG250019	Boston Harbor	Marine	
MIT Cambridge	MAG250971	Charles	13.8	21.3
Norfolk & Dedham Mutual Fire Insurance Co., Dedham	MAG250034	Charles River	8.3	12.9
Norwood Theatre Norwood	MAG250981	Neponset	0.01	0.01
OFS Fitel Corp Sturbridge	MAG250003	Hobbs Brook (Quinebaug)	0.08	0.13
Parkview Condominiums Winchester	MAG250009	Aberjona River (Mystic)	0.74	1.16
Photofabrication Engineering, Inc. Milford	MAG250033	Quarry (Charles)	Quarry	
Pond View Place Chelmsford	MAG250978	Stoney Brook (Merrimack)	2.1	3.2

Facility	Permit No.	Receiving Water (Watershed)	7Q10 (MGD)	7Q10 (cfs)
Riverdale Mills Northbridge	MAG250279	Blackstone River	29	45
Saint-Gobain Containers Milford	MAG250911	Charles River	Wetlands	
Simonds Industries Fitchburg	MAG250022	Nashua	6.0	9.3
Sinclair Mfg. Corp., Norton	MAG250030	Charley Brook (Taunton)	0.19	0.29
Steinerfilm, Inc. Williamstown	MAG250037	Broad Brook (Hoosic)	0.52	0.8
Union Wharf Boston	MAG250979	Boston Harbor	Marine	
United County Industries Millbury	MAG250014	Blackstone River	24.9	38.5
The Weetabix Company, Inc. Clinton	MAG250759	South Nashua River	1.71	2.64
Weston Corporate Center	MAG250979	Charles	Quarry	

(9/27/2013)

Attachment D

Surface Water Temperature Rise Calculations (revised)

For intakes from other than surface water:

MBTA's Everett Facility uses potable water supply as the source of NCCW. The NCCW is discharged at a maximum temperature of 80°F (T_p). The facility discharges to the Mystic River (salt) which is a Class B waterbody, with an average measured temperature of 52°F (T_r) and a 7Q10 of 2.9 MGD (m_r). The facility's maximum allowed discharge under the permit is 0.013 MGD (m_p).

Note: The 2024 average temperature of Mystic River (salt) is estimated at 52°F based on the average water temperatures reported by [SeaTemperature.org](https://seatemperature.org) which records water temperatures in Boston Harbor. The lowest water temperature in March of 2024 was reported at 36.2°F. The highest water temperature was logged in August of 2024 at 68.8°F.

Calculation:

$$T_F = \frac{m_p T_p + m_r T_r}{m_p + m_r} = \frac{(0.013 \text{ MGD} * 80^\circ\text{F}) + (2.9 \text{ MGD} * 52^\circ\text{F})}{0.013 + 2.9 \text{ MGD}} = \frac{151.84 \text{ MGD} * ^\circ\text{F}}{2.913 \text{ MGD}} = 52.12 \text{ } ^\circ\text{F}$$

$$\Delta T_r = T_F - T_r = 52.12 \text{ } ^\circ\text{F} - 52^\circ\text{F} = \mathbf{0.12 \text{ } ^\circ\text{F}}$$