



Understanding and Treating Iron & Manganese

MWWA Course Seminar (Course ID # MWWA 11-003)

In 2014 MassDEP set a health standard for manganese of 0.3 mg/L and over 120 public water systems in the state exceeded this limit. Manganese, and its common counterpart of iron, have been an aesthetic headache for water purveyors for decades. Now that manganese removal is required for many systems in the state, it is important for managers and operators to understand the nuances of the various treatment technologies available.

This half day class will review the chemistry and occurrences of iron and manganese and provide an overview of the treatment technologies of media, membrane and biological filtration. The training will include an overview and tour of the Webster treatment facility. This course is approved for **3.0 TCH** (Training Contact Hours) for MA Water Operators.

Learning Objectives:

- To become familiar with the occurrence and regulations of iron and manganese in Massachusetts.
- To understand the chemistry of iron and manganese and the various treatment options available.
- To learn about the treatment process used in the town of Webster

LOCATION: Gladys Kelly Public Library, 2 Lake St., Webster, MA 01570

DATE: Thursday 28, March 28, 2024

TIME: 8:30 AM – 12:30 PM

COST: \$75 MWWA Members, \$135 Nonmembers

INSTRUCTORS: Margaret Finn, MassDEP
Rich Protasowicki, P.E. Vice President, Tighe & Bond Inc.
Derek Belanger, P.E., Senior Engineer, Tighe & Bond Inc.

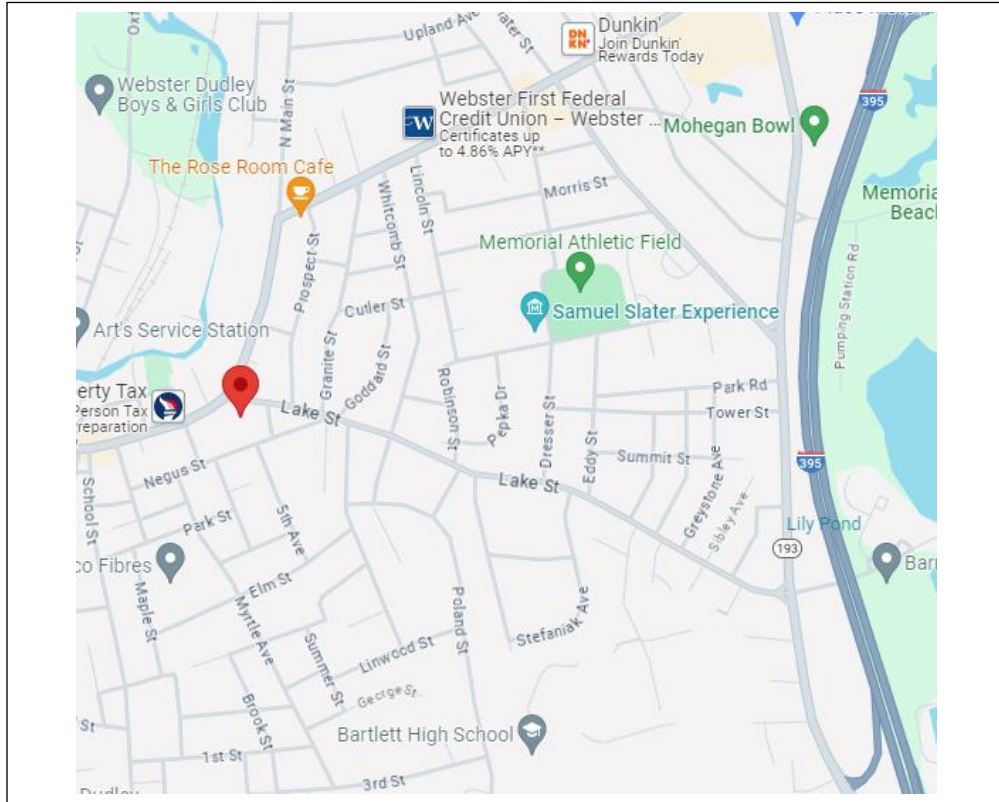
AGENDA: 8:30 AM – 8:45 AM	Registration & Introductions
8:45 AM – 9:15 AM	Regulations and Occurrence of Iron & Manganese in Massachusetts, (M. Finn)
9:15 AM – 10:15 AM	General Chemistry of Iron and Manganese Overview of Treatment Options <ul style="list-style-type: none">• Sequestration• Ion Exchange• Pressure Media• Membrane Filtration
10:15 AM – 10:30 AM	Break
10:30 AM – 11:00 AM	Overview of Webster Treatment Plant (D. Belanger)
11:00 AM – 11:15 AM	Travel to Webster treatment plant
11:15 AM–12:15 PM	Tour of Webster WTP
12:15 – 12:30 PM	Conclusions, Assessment Questions & Course Evaluations

Registrations must be done on-line (www.masswaterworks.org). If you need registration assistance, please email adminmwwa@masswaterworks.org or call 978-263-1388.

ATTENDANCE & TCH POLICY: Participants must attend 90% of the program and complete an assessment and a session evaluation form to be eligible for TCHs. TCHs will be issued only if full payment has been received.

See next page for training location map and important participant information.

Glady Kelly Public Library
2 Lake St., Webster, MA 01570



Photograph and Information Release:

Participation in this training constitutes an agreement by the attendee to allow the Massachusetts Water Works Association (MWWA) to use and distribute the participant's image in any MWWA-related publication or social media site.