



Optimization of Manganese Greensand Filtration
In-Person Training Including A Tour of Bellingham Water Treatment Plant !!

MWWA Course ID # MWWA 22-004

Many Massachusetts public water systems have installed manganese removal treatment to comply with the MassDEP's health standard of 0.3 mg/L. Many of these treatment systems utilize pressure filters using what is commonly referred to as greensand media.

This half day class will focus on the proper operation of pressure greensand media filters. It will provide a review of the chemistry of manganese greensand and provide useful information on proper operation and troubleshooting tips. Following the classroom portion of the training, attendees will be given a tour of Bellingham's Wrentham Rd. greensand filtration plant.

This course is approved for **3.0 TCHs** and is an excellent opportunity for anyone who operates a greensand facility. Space is limited so be sure to register early!

Learning Objectives:

- Review the MA regulations and chemistry of manganese.
- Learn what manganese greensand is and how it works.
- Discuss proper operation of greensand media and share troubleshooting tips.
- Tour Bellingham's Wrentham Rd. greensand WTP.

LOCATION: Bellingham Police Dept.
30 Blackstone St., Bellingham, MA 02019

DATE: Thursday, May 5th, 2022

TIME: 8:00 AM – 12:00 PM

COST: \$75 Members / \$135 Nonmembers

INSTRUCTORS: James Cray, P.E., Project Manager, Wright-Pierce
Chelsey Wilkins, Project Engineer, Layne – A Granite Company

AGENDA:

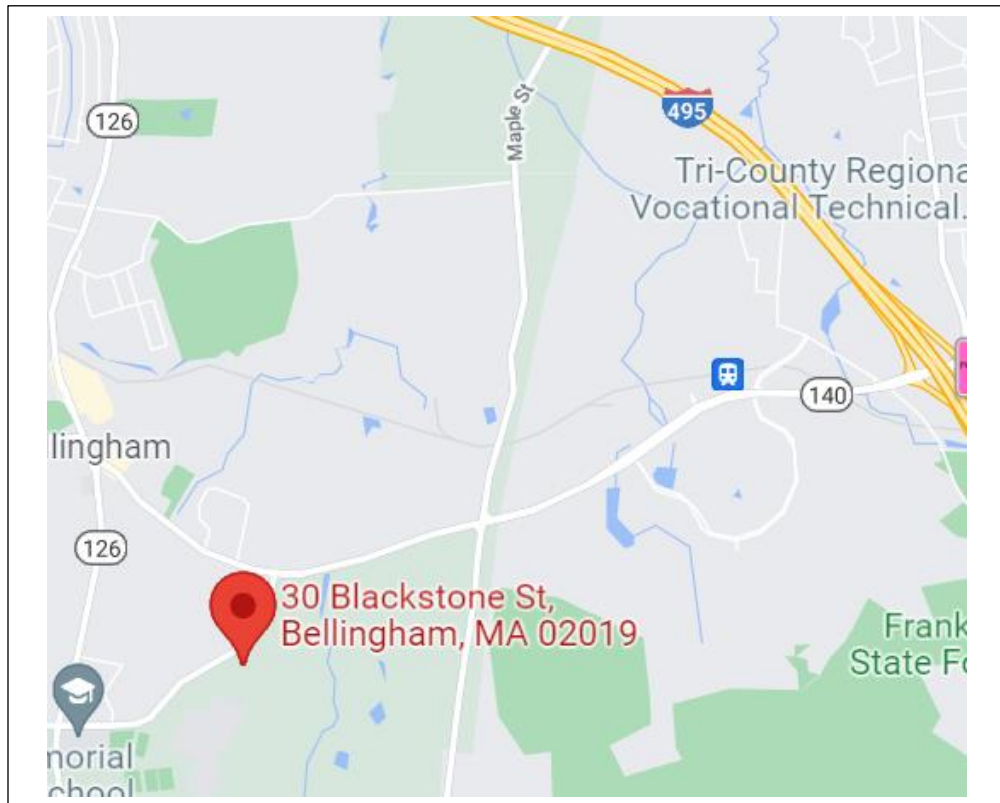
8:00 AM – 8:15 AM	Registration & Introductions
8:15 AM – 8:45 AM	Review of Manganese Regulations (J. Cray) Chemistry of Manganese (J. Cray)
8:45 AM – 9:45 AM	Manganese Greensand Treatment – Types of Filter Media & How They Work (C. Wilkins)
9:45 AM – 10:00 AM	Break
10:00 AM – 10:30 AM	Overview of Bellingham's Wrentham Rd. WTP (J. Cray)
10:45 AM – 11:45 AM	Tour of the Wrentham Rd. WTP
11:45 AM– 12:00 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.

**Bellingham Police Department
30 Blackstone Street, Bellingham, MA 02019**



COVID Protocols:

Participation in this training constitutes an agreement to follow any COVID protocols that may be in place during this training. Phone numbers for each attendee will be required for contract tracing. Note that COVID-19 is a highly contagious disease that comes with the risk of severe illness and death, and there is always the inherent risk of exposure when in public spaces. Full information on COVID-19, can be found on the Centers for Disease Control's website. By participating in this training, you assume all risks related to the exposure to COVID-19.

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.