



CONNECTICUT

SECTION • AWWA

PFAS Planning, Piloting, and Full-Scale Experience Seminar

Aug 13, 2025

8:00 am-4:00 pm

Inn at Middletown
70 Main St, Middletown



PFAS Seminar
Planning, Piloting, & Full-Scale Experience
August 13, 2025
Agenda

8:00 – 8:40 Registration

Moderator: Max Grabinski, H2M architects + engineers

8:40 – 9:15 **Coast to Coast: Lessons Learned from Ocean Communities in Combating the Scourge of PFAS and the New EPA MCL's**

Pat Cole, PE, CME, CPWM, H2M architects + engineers

As Connecticut advances its program on emerging contaminants in drinking water, this presentation will review key compliance facets. We'll cover system scale, planning for treatment availability, and necessary resources. Immediate regulation implementation has led to a scramble for resources, even with a compliance timeline. Public relations risks of exceeding future MCLs must be addressed. Case studies covered will highlight the need for comprehensive planning and impacts of multiple contaminants and treatment processes. Thoughtful planning is crucial for water suppliers' infrastructure. Through analyzing these examples, H2M can offer valuable insights for Connecticut public water systems.

9:15 – 9:50 **The Promise of Pretreatment for PFAS Adsorption**

Asa Lewis, PhD, PE, Hazen and Sawyer

As costly adsorbent changeouts continue to drive up PFAS treatment costs for utilities across the country, adsorbent pretreatment may offer a cost-effective solution to prolonging changeout intervals. With a variety of water quality parameters inhibiting PFAS adsorption effectiveness by GAC and IX, installation of a pretreatment approach targeting removal of organic matter could yield big savings. This presentation will highlight piloting outcomes from two PFAS adsorption pilots where PFAS pretreatment was used to prolong PFAS breakthrough and decrease adsorbent changeout costs. Both conventional and advanced pretreatment trains will be discussed with relative impact on treatment cost and PFAS breakthrough.

9:50-10:10 BREAK

10:10 – 10:45 **Chain Reaction: Piloting the Future of PFAS Removal**

Joseph DiPiero, PE, H2M architects + engineers

As the EPA regulation sink in, many water suppliers are preparing PFAS treatment at many of their facilities. This presentation will be focused on what should be done to future proof the PFAS treatment system. While suppliers may be planning to address long chains with GAC they need to put themselves in a position that when short chains are regulated it's not a surprise and that there is a plan ready for that treatment that won't consist of a plant overhaul. This planning was conducted during pilot testing for a Water Authority of Great Neck North plant.

10:45-11:20 **Town of Westerly, RI Well Site PFAS Preliminary Evaluation**

Russell Ford, PhD, PE, BCCE, Jacobs Engineering

The Town of Westerly, RI's drinking water system is supplied by seven well sites and pump stations throughout the town, each ranging between 0.33 to 2.09 MGD. Westerly has recently detected PFAS compounds in the well system. To achieve compliance with the EPA's finalized MCLs, a preliminary evaluation of treatment options was performed which included conceptual cost estimates and layouts. The evaluation compared GAC and IX pressure vessel systems for each of the various well stations focusing on the following key elements: Site constraints, Sewer availability, Rinse and backwash requirements, and CAPEX/OPEX costs.

11:20-11:55 Enhancing Water Quality: Duxbury's PFAS Prioritization Plan

Alston Potts, PE, Apex Companies, LLC

In response to stringent EPA PFAS regulations, the Town of Duxbury, MA engaged Apex to develop a strategic plan for prioritizing PFAS treatment at all its well stations. This project involves comprehensive site assessments, media selection, supply and demand analysis, and cost analysis to address water quality challenges, including prioritization criteria. The initiative aims to enhance water safety and compliance, ensuring optimal treatment solutions for the Town's groundwater sources in a cost-effective manner aligned with available funding.

11:55-12:55 LUNCH

12:55-1:30 Pilot Testing of PFAS Removal in Three Surface Water Treatment Plants: Media Selection, Challenges, and Lessons Learned

Siyang Wang, Jacobs Engineering

In response to the EPA's 2024 PFAS regulations, water utilities must comply with new MCLs by April 2029. A nine-month pilot study at three surface water treatment plants tested eight media types for PFAS removal, revealing challenges like high head loss and flowrate issues in ion exchange columns. The study's findings offer valuable insights into media performance and operational strategies, guiding utilities in meeting regulatory deadlines.

1:30-2:05 Understanding Effectiveness of GAC for PFAS Removal on Surface Waters

Joe Nattress, PE, BCEE, CDM Smith

The 2024 USEPA PFAS regulations require all water utilities to meet a 4 ppt MCL for PFOA/PFOS by 2029. With this low MCL, many surface water utilities are impacted and will require PFAS treatment. This presentation will provide insight into challenges for PFAS treatment specific on surface water with GAC. Several case studies from recent pilot tests in the Northeastern US will be used to demonstrate impacts from water quality on treatment performance and media life before breakthrough. Lessons learned will be articulated for attendees to consider in their own PFAS treatment planning and testing.

2:05-2:25 BREAK

2:25-3:00 Full-Scale Pilot Study of GAC Media for PFAS Mitigation in Existing Gravity Filters

Anne Malenfant, PE, PMP, CDM Smith

PFAS in drinking water supplies has prompted utilities nationwide to investigate effective mitigation strategies in response to evolving regulatory standards. Kennebec Water District (KWD) initiated a full-scale pilot to study the ability of GAC to conduct "double duty" in the existing gravity filters for both PFAS and particulate reduction. We will discuss the performance, regulatory implications, retrofit versus new treatment process cost-benefit analyses, and the overall conclusions.

3:00-3:35 Start-up & Operation Considerations: Every Media Has Its Own Personality. Know your Media Before You Get Married To It

Scott A Grieco, PhD, PE, Kleinfelder

Did you know that each media (GAC, IX, Fluorosorb) has specific start-up requirements? What are they and how do you manage them effectively? This presentation describes differences in media manufacturing that result in important considerations during start-up and operation. This includes removing particulates, eliminating leachable chemicals, and stabilizing pH and corrosion ions. Have you considered particulate build-up and fouling? Can you backwash and clean all media? Are media disinfectant tolerant? Can you backwash media without hurting PFAS removal? Techniques to address these issues for different media will be presented. Understanding specifics of each media provides a better long-term media relationship

