



# 17th Annual EPA Drinking Water Workshop: Small Systems Challenges and Solutions

Virtual Workshop  
August 31 – September 3, 2020

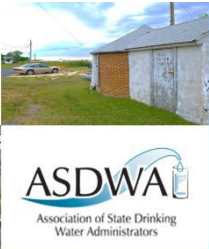


Sponsored by U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD) and Office of Water (OW)  
in partnership with the Association of State Drinking Water Administrators (ASDWA)

## [Additional Information and Registration](#)

### Pre-Workshop Training Sessions

Monday, August 31, 2020			
11:00 am – 3:00 pm ET	<b>T1. IN-DEPTH TRAINING: Sanitary Surveys–Filtration and Disinfection</b>	<b>T2. IN-DEPTH TRAINING: Corrosion Control Treatment Training</b>	<b>T3. IN-DEPTH TRAINING: Distribution System and Treatment Models</b>
Trainers:	<ul style="list-style-type: none"> <li>◆ Michael Finn, EPA-OW</li> <li>◆ Andrea Traviglia, EPA-Region 1</li> </ul>	<ul style="list-style-type: none"> <li>◆ Phil Brandhuber, BWQT</li> <li>◆ Dave Cornwell and Nancy NcTigue, Cornwell Engineering</li> <li>◆ Melinda Friedman, Confluence Engineering</li> <li>◆ Rebecca Slabaugh, Arcadis</li> <li>◆ Stacy Jones, IN DEM</li> <li>◆ Melanie Criswell, CO DPHE</li> </ul>	<ul style="list-style-type: none"> <li>◆ Thomas Speth, EPA-ORD</li> <li>◆ Jonathan Burkhardt, EPA-ORD</li> <li>◆ Robert Janke, EPA-ORD</li> <li>◆ Feng Shang, EPA-ORD</li> </ul>
Description: <i>Breaks will be provided</i>	<p>This training is intended for water professionals, state drinking water program staff, and technical assistance providers that conduct sanitary surveys. This half-day training will focus on evaluating filtration and disinfection technologies, including alternative treatment technologies as part of a sanitary survey. Presentations will include examples from surveys and exercises. There will be opportunities for open discussion among participants, and Q&amp;A with the presenters.</p>	<p>This training will provide an overview of internal corrosion control theory and technologies for drinking water systems, primacy agencies, and consultants to assist them in implementing corrosion control treatment (CCT). An overview of corrosion, including how and under what conditions it occurs; performing CCT assessment; and selecting and implementing the appropriate CCT will be discussed.</p>	<p>This training will include the following models:</p> <p><b>ETDOT:</b> Information generated from this suite of models will provide states and utilities a better understanding of the fundamentals of carbon adsorption for the removal of contaminants, including PFAS, and what that means to the operation, performance, and costs associated with this technology.</p> <p><b>EPANET:</b> This open source software application is used throughout the world to model water distribution systems and can be used for many different types of applications in distribution systems analysis. Continued development is occurring under an open source project site.</p>
3:00 pm ET	Adjourn		



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## Agenda

Tuesday, September 1, 2020		
11:00 am – 12:00 pm ET	<b>SESSION 1 – OPENING PLENARY</b> <i>Moderators: Thomas Speth and Michelle Latham, EPA-ORD</i>	
11:00 am	Keynote Address(es) <i>Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, EPA-ORD</i> <i>Jennifer McLain, Director, EPA-OW/OGWDW</i>	
11:50 am	Workshop Review and Logistics	
12:00 pm ET	Break/Transition	
12:30 pm – 2:30 pm ET	<b>SESSION 2A – MONITORING &amp; DISTRIBUTION I: Disinfectants and Disinfection Byproducts (DBPs)</b> <i>Moderator: Alan Roberson, ASDWA</i>	<b>SESSION 2B – SOURCE &amp; TREATMENT I: Per- and Polyfluoroalkyl Substances (PFAS)</b> <i>Moderator: Thomas Speth, EPA-ORD</i>
12:30 pm	<b>Evaluating Impacts of Sampling Design on Drinking Water Quality Monitoring Program Outcomes</b> ◆ <i>Nelson da Luz, University of Massachusetts Amherst</i>	<b>PFAS in the U.S.: Occurrence, Fate, Transport, and Exposure</b> ◆ <i>Susan Glassmeyer, EPA-ORD</i>
1:00 pm	<b>DBP Compliance Assistance Program in Oklahoma</b> ◆ <i>Candy Thompson, OK DEQ</i>	<b>Be Careful What You Wish for: Finding PFAS in all the Wrong Places</b> ◆ <i>David Dani, CO DPHE</i>
1:30 pm	<b>Considerations and Challenges for Controlling DBP Risks in Small Systems</b> ◆ <i>Stig Regli, EPA-OW</i>	<b>Assessment of Full-Scale PFAS Treatment and Design Implications</b> ◆ <i>N. Scott Alderman, NYSDOH</i>
2:00 pm	Panel Q&A	Panel Q&A
2:30 pm	Break/Transition	
3:30 pm – 5:30 pm ET	<b>SESSION 3A – MONITORING &amp; DISTRIBUTION II: Pathogens and Disinfection</b> <i>Moderator: Laura Boczek, EPA-ORD</i>	<b>SESSION 3B – SOURCE &amp; TREATMENT II: Source Water Quality and Protection</b> <i>Moderator: Sarah Bradbury, EPA-OW</i>
3:30 pm	<b>Returning Plumbing to Safe Use After Extended Shutdowns or Low Occupancy: Large Buildings, Standards, Considerations, and Gaps (COVID-19)</b> ◆ <i>Andrew Whelton, Purdue University</i>	<b>Effects of Algicide Exposure on Cyanobacterial Responses to Water Treatment</b> ◆ <i>Nicholas Dugan, EPA-ORD</i>
4:00 pm	<b>Guidance for Monitoring <i>Legionella pneumophila</i> in Drinking Water Distribution Systems</b> ◆ <i>Mark LeChevallier, Dr. Water Consulting, LLC</i>	<b>Source Water Protection: Leveraging Resources for Planning and Implementation</b> ◆ <i>Karen Wirth, EPA-OW</i>
4:30 pm	<b>Characterization of Reported Legionellosis Outbreaks in Drinking Water Systems-United States, 2001-2017</b> ◆ <i>Nicole Tucker, EPA-OW</i>	<b>Developing Source Water Protection Plans Case Study and Leveraging with National Water Quality Initiatives</b> ◆ <i>Jessica Montana, IA DNR</i>
5:00 pm	Panel Q&A	Panel Q&A
5:30 pm ET	Adjourn	

## Wednesday September 2, 2020

11:00 am – 1:00 pm ET	<b>SESSION 4A – MONITORING &amp; DISTRIBUTION III: Corrosion and Lead</b> <i>Moderator: Darren Lytle, EPA-ORD</i>	<b>SESSION 4B – SOURCE &amp; TREATMENT III: Extremely Small Systems</b> <i>Moderator: Michelle Latham, EPA-ORD</i>
11:00 am	<b>Updating Corrosion Control Guidance</b> ♦ <i>France Lemieux, Health Canada</i>	<b>A Framework for Comparing the Sustainability of Centralized vs. POU/POE Treatment for Small Systems</b> ♦ <i>Kaycie Lane, University of Massachusetts Amherst</i>
11:30 am	<b>Lowering Lead Limits on Faucets and Endpoint Devices: Reducing the Q Criteria in NSF/ANSI/CAN 61</b> ♦ <i>Kathryn Foster, NSF International</i>	<b>Actions to Increase Water Access on the Navajo Nation During COVID-19 Outbreak</b> ♦ <i>David Harvey, IHS</i>
12:00 pm	<b>Lead Service Line Identification and Close Examination of Sequential Profile Data</b> ♦ <i>Valerie Bosscher, EPA-Region 5</i>	<b>SAFER Effort</b> ♦ <i>Michelle Frederick, CA EPA-Waterboards</i>
12:30 pm	Panel Q&A	Panel Q&A
1:00 pm ET	Break/Transition	
2:00 pm – 4:00 pm ET	<b>SESSION 5A – MONITORING &amp; DISTRIBUTION IV: Water Quality Changes</b> <i>Moderator: Michael Finn, EPA-OW</i>	<b>SESSION 5B – SOURCE &amp; TREATMENT IV: Contaminant Removal</b> <i>Moderator: Kevin Letterly, ASDWA</i>
2:00 pm	<b>Planning for Source Water and Treatment Changes</b> ♦ <i>Melinda Friedman, Confluence Engineering</i>	<b>Biological Treatment and Nitrate</b> ♦ <i>Asher Keithley, EPA-ORD</i>
2:30 pm	<b>Predicting Water Quality in Distribution Systems: Monitoring of Nitrification Using Machine Learning</b> ♦ <i>Vicente Gomez-Alvarez, EPA-ORD</i>	<b>Consolidated Management of Nitrate Treatment</b> ♦ <i>Chad Seidel, Corona Environmental Consulting</i>
3:00 pm	<b>Lead Particulate Release</b> ♦ <i>Darren Lytle, EPA-ORD</i>	<b>Industry Trends Affecting Drinking Water Treatment Unit Standards</b> ♦ <i>Stefan Buck, NSF International</i>
3:30 pm	Panel Q&A	Panel Q&A
4:00 pm ET	Adjourn or Transition (transition for primacy agency staff and communications focus group)	
4:30 pm – 5:30 pm ET	<b>SESSION 6A – TECHNICAL FOCUS GROUPS I: Primacy Agency Staff Breakout Discussions</b> <i>Primacy agency staff only (federal, state, territory, tribal, local)</i>	<b>SESSION 6B – COMMUNICATIONS FOCUS GROUP I: Targeted Communication and Outreach Discussion</b> <i>Open to all attendees</i>
	<b>Group 1: Oversight Program Impacts Due to COVID-19</b> <i>Facilitators: Michael Finn, EPA-OW and Alan Roberson, ASDWA</i>	Focused on targeted communication efforts between EPA and the states, this group will discuss communication needs and alternative approaches to facilitate outreach, taking into account the different needs of small systems operators.  <i>Facilitators: Michelle Latham, EPA-ORD and Mark Verbsky, OH EPA</i>
	<b>Group 2: Corrosion</b> <i>Facilitators: Darren Lytle, EPA-ORD and Ashley Voskuhl, OH EPA</i>	
	<b>Group 3: Analytics and Laboratory Issues</b> <i>Facilitators: Steve Wendelken, EPA-OW and Hunter Adams, City of Wichita Falls (TX)</i>	
	<b>Group 4: Legionella and Other Microbial Issues</b> <i>Facilitators: Laura Boczek, EPA-ORD and Wendi Wilkes, ASDWA</i>	
	<b>Group 5: Workforce and Operator Certification</b> <i>Facilitators: Deborah Vacs Renwick, EPA-OW and David Money, TN DEC</i>	
5:30 pm ET	Adjourn	

**Thursday, September 3, 2020**

11:00 am – 1:00 pm ET	<b>SESSION 7A – MONITORING &amp; DISTRIBUTION V: Methods and Analytics</b> <i>Moderator: Gregory Carroll, EPA-OW</i>	<b>SESSION 7B – SOURCE &amp; TREATMENT V: Managing Contaminants</b> <i>Moderator: Darren Lytle, EPA-ORD</i>
11:00 am	<b>Latest on PFAS Methods</b> ♦ Christopher Impellitteri, EPA-ORD	<b>Residuals: Arsenic and Other Contaminants</b> ♦ Simoni Triantafyllidou, EPA-ORD
11:30 am	<b>New York State’s Laboratory Accreditation Program Certification for PFOA/PFOS and PFAS Methods</b> ♦ Victoria Pretti, NYSDOH	<b>EPA’s Support Tools for Managing Cyanotoxins</b> ♦ Katherine Foreman, EPA-OW
12:00 pm	<b>Method to Measure Monochloramine</b> ♦ Thomas Waters and Matthew Alexander, EPA-OW	<b>ASDWA's New Source Water PFAS Toolkit and Guide</b> ♦ Deirdre White, ASDWA ♦ Ashley Arayas, The Cadmus Group
12:30 pm	Panel Q&A	Panel Q&A
1:00 pm ET	Break/Transition	
2:00 pm – 4:00 pm ET	<b>SESSION 8A – MONITORING &amp; DISTRIBUTION VI: Distribution System Best Practices</b> <i>Moderator: Deborah Vacs Renwick, EPA-OW</i>	<b>SESSION 8B – SOURCE &amp; TREATMENT VI: Implementing Innovative Treatments</b> <i>Moderator: Wendi Wilkes, ASDWA</i>
2:00 pm	<b>Impacts of Residual Requirements in Pennsylvania</b> ♦ Lisa Daniels, PA DEP	<b>Reuse in North Texas: Direct Potable Reuse to Indirect Potable Reuse</b> ♦ Hunter Adams, City of Wichita Falls (TX)
2:30 pm	<b>Ohio’s Updated Optimal Corrosion Control Treatment Review Process</b> ♦ Ashley Voskuhl and Anne Karney, OH EPA	<b>Design and Permitting for Removal of Multiple Metals</b> ♦ Michelle De Haan, Park City (UT) Water Division ♦ Nathan Lunstad, UT DEQ
3:00 pm	<b>Practical Insights from Theoretical Lead Solubility Modeling</b> ♦ David Wahman, EPA-ORD	<b>State Permitting Issues for Innovative Technologies</b> ♦ Eugene Leung, CA EPA-Waterboards
3:30 pm	Panel Q&A	Panel Q&A
4:00 pm ET	Adjourn or Transition (transition for primacy agency staff and communications focus group)	
4:30 pm – 5:30 pm ET	<b>SESSION 9A – TECHNICAL FOCUS GROUPS II: Primacy Agency Staff Breakout Discussions</b> <i>Primacy agency staff only (federal, state, territory, tribal, local)</i>	<b>SESSION 9B – COMMUNICATIONS FOCUS GROUP II: Targeted Communication and Outreach Discussion</b> <i>Open to all attendees</i>
	<b>Group 1: DBPs and Distribution Systems</b> <i>Facilitators: Deborah Vacs Renwick, EPA-OW and Jackie Logsdon, KY EEC</i>	Focused on targeted communication efforts between EPA and the states, this group will discuss communication needs and alternative approaches to facilitate outreach, taking into account the different needs of small systems operators.  <i>Facilitators: Michelle Latham, EPA-ORD and Mark Verbsky, OH EPA</i>
	<b>Group 2: PFAS and Other Contaminants of Emerging Concern</b> <i>Facilitators: Tom Speth, EPA-ORD and David Dani, CO DPHE</i>	
	<b>Group 3: Iron and Manganese – Transitioning from Sequestration to Removal</b> <i>Facilitators: Asher Keithley, EPA-ORD and Diane Moles, IO DNR</i>	
	<b>Group 4: Lead Service Line Inventory and Materials Evaluation</b> <i>Facilitators: Alan Roberson, ASDWA; Kurt Souza, CA EPA; and Steve Elmore, WI DNR</i>	
	<b>Group 5: Considering and Implementing Source and Treatment Changes</b> <i>Facilitators: Michael Finn, EPA-OW and Kevin Letterly, ASDWA</i>	
5:30 pm ET	Adjourn	