



Inorganics Treatment: Arsenic and Nitrate

June 25, 2024 from 2 to 3 p.m. ET

**Optional Q&A session
from 3 to 3:30 p.m. ET**

A certificate of
attendance will
be offered for
this webinar

Biological Nitrate Treatment: Innovations and Challenges

Asher Keithley, EPA's Office of Research and Development

This presentation will focus on a biological nitrate treatment pilot study conducted at a water treatment plant. The study used an innovative denitrification system and nitrogen gas sparging to lower dissolved oxygen concentration, and it sometimes achieved complete denitrification. This discussion will also focus on the challenges of matching the acetic acid feed to a variable influent nitrate concentration and addressing clogging by bacterial flocs. The treatment approach showed promise; however, reactor design enhancements are needed to bring this technology to small systems.

Arsenic Refresher

Simoni Triantafyllidou, EPA's Office of Research and Development

This presentation will provide an overview of arsenic chemistry and treatment considerations. Arsenic accumulation in the distribution system and potential release back to the water will also be discussed, based on retrospective data analysis from EPA's arsenic demonstration program.

An Arsenic Case Study in California: Oasis Mobile Home Park

Maria Alberty, EPA's Region 9

This presentation will provide an overview of EPA Region 9's enforcement case with Oasis Mobile Home Park for violation of the Arsenic Rule. Key topics will include environmental justice, enforcement, technical conditions, and community and stakeholder engagement. The unique challenges and successes of trying to bring a small public water system back into compliance will also be discussed.

Registration: us02web.zoom.us/webinar/register/8017110667107/WN_o3rg7g5EQ6KozQukSyp4tw

Who should attend?

The series is designed for state, tribal, and territory personnel responsible for drinking water regulations compliance and treatment technologies permitting. System operators, technical assistance providers, local government personnel, and others may also benefit.

Looking for more webinars?

EPA's Small Drinking Water Systems Webinar Series is typically held on the last Tuesday of the month from 2 to 3:30 p.m. ET.

epa.gov/water-research/small-drinking-water-systems-webinar-series



About the Presenters



Asher Keithley, Ph.D.

EPA's Office of Research and Development

Asher is a general engineer with EPA's Office of Research and Development, Center for Environmental Solutions and Emergency Response, Water Infrastructure Division. Their research focuses on drinking water treatment of inorganics and contaminants of emerging concern, such as manganese and nitrate. They are particularly interested in biological drinking water treatment processes. Asher is a licensed Professional Engineer in the state of Ohio.



Simoni Triantafyllidou, Ph.D.

EPA's Office of Research and Development

Simoni is an environmental engineer with EPA's Office of Research and Development, Center for Environmental Solutions and Emergency Response, Water Infrastructure Division. Her research and technical support efforts revolve around aquatic chemistry, drinking water quality and treatment, corrosion science, inorganic contaminants, and sustainable drinking water infrastructure such as premise plumbing and distribution systems.



Maria Alberty

EPA's Region 9

Maria is an environmental protection specialist with EPA Region 9, Enforcement and Compliance Assurance Division in San Francisco, California. Maria is a credentialed drinking water inspector, and she leads cross-organizational teams to evaluate public water systems and ensure that those systems achieve and maintain public health and environmental compliance under the Safe Drinking Water Act. Prior to enforcement, she was a contracting officer for 18 years at EPA and NASA.

