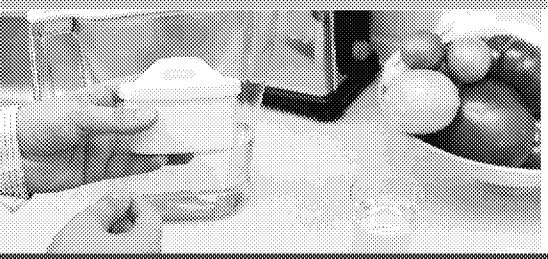
EPA

*Small Systems Monthly Webinar Series*

The U.S. Environmental Protection Agency's Office of Research and Development and Office of Water invite you to a **free webinar**



# Lead Management in Homes and Buildings

A certificate of attendance for one contact hour will be offered for this webinar

**March 26, 2019 from 2:00 to 3:00 pm ET** | **Optional Q&A session from 3:00 to 3:30 pm ET**

## Destabilizing of Lead Pipe Scales in a Long-Term Vacant Home in Cincinnati

This presentation discusses a case study of an unoccupied house where uniform $PbO_2$ scales are common. The study shows how the mineralogy of these lead pipe scales can change over extended time periods during which there is no water flow or contact with disinfectant residual, resulting in dramatically increased drinking water lead levels. Regular hourly flushing of the premise plumbing and service line for a one-year period reduced lead concentrations but did not return them to pre-vacancy levels. Conversion of Pb(IV) scales is a potential problem for neighborhoods with similar scale mineralogy with older vacant/foreclosed homes that might be reoccupied.

## Lead Scale Observations from the Field: Actual vs. Predicted

Theoretical chemical models that industry uses to predict scale formations within drinking water distribution systems (DWDS) are built on the assumption of equilibrium with simple scale-forming lead minerals. However, these systems can contain variables not accounted for, and a disconnect can arise. The actual mechanisms controlling lead release are assessed based on a scale analysis survey from a variety of Midwestern systems. When possible, this data is coupled with water lead levels to estimate the efficacy of those scales in reducing lead levels. Frequently, the actual mechanisms controlling lead release were unpredictable using equilibrium solubility modeling, and only recognized by analyzing the scale from an in-service pipe.

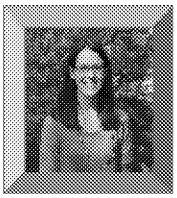
## Consumer Tool for Identifying Point of Use Filters Certified to Reduce Lead

This presentation will introduce a new consumer tool that can be used to identify point of use (POU) drinking water filters certified to reduce lead. There are several American National Standards Institute accredited third-party certification bodies that evaluate POU drinking water filters for lead reduction. This tool provides the certification bodies' approved marks and the text that indicates a filter has been certified for lead reduction capabilities.

### Presented by **Mike DeSantis, Ph.D.**

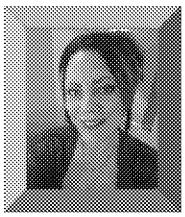
Mike is a geologist with Pegasus Technical Services, Inc. in Ohio. He has worked with EPA's National Risk Management Research Lab since 2005 on the characterization of corrosion solids and their effects on drinking water quality in lead, copper and iron piping. Mike has a Ph.D. in geology from the University of Cincinnati, a M.S. in geology from the University of Idaho, and a B.A. in biology with specialization in marine science from Boston University.

### Presented by **Jennifer Tully**



Jennifer is a geologist with Pegasus Technical Services Inc. in Ohio. She aids in the EPA Office of Research and Development's (ORD) examination of drinking water pipe corrosion scales and deposits, along with developing sampling plans to investigate the occurrence of lead in drinking water. Prior, she spent 3 years in the Office of Water as an ORISE participant and aided in the implementation of the third unregulated contaminant monitoring rule (UCMR 3) and the rule development process for UCMR 4. Jennifer has an M.S. in geology and a B.S. in geology with a minor in biology.

### Presented by **Michelle Latham**



Michelle is a biologist with EPA's Safe and Sustainable Water Resources Research Program, serving as the technical communications and outreach lead since 2014. From 2008-2014, she served as the technical communications lead for the Water Supply and Water Resources Division. Michelle co-leads this small systems webinar series, is on the committee for EPA's annual small systems workshop, and leads a small systems communications workgroup with the states. Michelle has an M.Ed., a B.S. in biology, and a B.L.A. from Xavier University, an A.A.S. from Shoreline, and a C.G. in medical laboratory technology from the Naval School of Health Sciences.

**Registration:** https://register.gotowebinar.com/register/8915024293693159179

### Who should attend?

State primacy agencies, Tribes, community planners, technical assistance providers, academia, and water systems interested in issues facing community water systems and solutions to help solve them.

### Looking for more webinars?

This webinar is part of EPA's Monthly Small Systems Webinar Series: *Challenges and Treatment Solutions for Small Drinking Water Systems*. A webinar will be held each month in 2018.

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