

## Water Research Webinar Series

# Science to Support and Implement Microbial Water Quality Criteria



A certificate of attendance will be provided for attending this webinar

Wednesday, February 26, 2020 from 2:00 to 3:00 pm ET

Registration: <https://register.gotowebinar.com/register/1379401513416302595>

An important goal of EPA's Clean Water Act is to protect and restore waters for recreational use. In response, the Agency routinely publishes and/or updates recommended Ambient Water Quality Criteria (AWQC). The EPA Office of Research and Development (ORD) maintains an active research program to support this effort, strengthening the scientific basis of existing methods, as well as developing new procedures, tools and health effects assessments. This webinar will describe these research efforts, with Dr. Kevin Oshima (ORD) providing an overview of ORD research activities, including: 1) human health risks associated with fecal indicator and pathogen measurements in fresh and marine waters, 2) fecal indicator and pathogen method development and characterization to support AWQC applications in fresh and marine waters through laboratory and field testing including field case studies, and 3) predictive modeling for fecal indicators and pathogens to support AWQC development in fresh and marine waters through laboratory and field studies. Dr. Orin Shanks (ORD) will then provide additional details on research activities related to the development and implementation of quantitative human-associated microbial source tracking technologies including the public release of draft EPA Methods 1696/1697 and the development of virus-based crAssphage methods.

### Presenters:

#### Dr. Kevin Oshima (Contact: [oshima.kevin@epa.gov](mailto:oshima.kevin@epa.gov))

Dr. Oshima is the Director of the Watershed and Ecosystem Characterization Division with EPA's Office of Research and Development (ORD)/Center for Environmental Measurements and Modeling (CEMM). He also served as a Branch Chief in ORD for over ten years. Prior to joining EPA, he was a professor at New Mexico State in environmental virology, a staff scientist for Pall Corporation, and he conducted fish virology research with the U.S. Fish and Wildlife Service. Dr. Oshima's research background has focused on public health water microbiology methods. Since joining ORD, he has been particularly active in research that supports AWQC.

#### Dr. Orin C. Shanks (Contact: [shanks.orin@epa.gov](mailto:shanks.orin@epa.gov))

Dr. Shanks is a Senior Research Scientist with the EPA in ORD's CEMM. His primary research is the development, validation, and implementation of molecular technologies for environmental water quality management. Over the years, he has investigated the identification of host-associated genetic markers of fecal pollution, fate and transport of nucleic acids, utility of molecular methods for water quality monitoring, and has developed quantitative real-time polymerase chain reaction (PCR) methods. Dr. Shanks received his undergraduate and Master's degrees from the University of Wyoming and his Ph.D. from Oregon State.