



# Safe and Sustainable Water Resources: Webinar Series

*A monthly webinar series focused on EPA water research*



## Fecal Waste Contaminates Our Waterways: Molecular Technologies Offer New Solutions

*Method development and application of microbial source tracking tools*

**Wednesday, December 17<sup>th</sup>, 2014 | 12:00–1:00 PM EST**

Phone lines will open at 11:45 AM. For registration information, please contact [sswr@epa.gov](mailto:sswr@epa.gov).

Waterborne disease transmission resulting from contact with surface waters contaminated with fecal pollution continues to be a public and ecological health issue nationwide. General fecal indicators typically used to assess fecal pollution levels do not provide information about particular sources. The development and application of Microbial Source Tracking technologies that can discriminate between different animal pollution sources could greatly enhance water quality management on a national scale. This webinar will provide an overview of EPA's research activities and discuss potential method applications.

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### **Presented by: Orin Shanks, EPA geneticist**

Dr. Orin C. Shanks is a geneticist at the United States Environmental Protection Agency in the Office of Research and Development. His primary research area is the application of DNA-based molecular technologies for environmental microbiology. Over the years, he has investigated and published works on the identification of host-associated genetic markers of fecal pollution, development of quantitative real-time PCR methods, fate and transport of nucleic acids, as well as utility of molecular methods for recreational water quality management. Dr. Shanks received his undergraduate and Master's degrees from the University of Wyoming and his Ph.D. from Oregon State University.