

U.S. Environmental Protection Agency  
Long Term 2 Enhanced Surface Water Treatment Rule: Monitoring Data Analysis, Occurrence  
Forecasts, Binning, and the Microbial Toolbox; Public Meeting

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November 15, 2012  
EPA East Building, Room 1153  
1201 Constitution Avenue, NW  
Washington, DC 20460

**Meeting Objectives:**

- Provide a brief overview of the LT2 rule’s monitoring and binning requirements, and the microbial toolbox.
- Present the Round 1 *Cryptosporidium* occurrence results and binning estimates.
- Present analysis of the effectiveness of using *Escherichia coli* as a screen for small system *Cryptosporidium* monitoring.
- Explore differences in results produced by methods 1623 and 1623.1 and the implications for Round 2 binning outcomes.
- Discuss an occurrence model that may adequately explain Round 1 data, how that model could be used to predict Round 2 results at the national level, and the modeling issues and assumptions.
- Explore the use of the microbial toolbox tools, challenges in the use of the tools, and the potential of the addition of new tools to the toolbox.

**Meeting Procedures:**

- People are participating in this meeting both in person and via telephone.
- Please speak only when recognized by the facilitator.
- The facilitator may request a break at any time during the meeting.
- It is critical to effective public process that we all respect each other’s values and legitimacy of interests.
- There will be an opportunity for clarifying questions at the end of each presentation.
- Thank you in advance for adhering to these meeting procedures and for your participation.

**8:00 – 8:30**                      Arrival – Please arrive early enough to process through security, and bring photo identification to obtain a pass. Attendees will be screened through a metal detector.

**8:30 –8:45**                      Welcome, Introductions, Meeting Objectives, Procedures, and Agenda  
*Objective: Review desired outcomes and agenda.*

Philip S. Oshida, Acting Division Director, Office of Groundwater and  
Drinking Water, Standards and Risk Management Division

Rob Greenwood, Ross Strategic, facilitator

**8:45 – 9:15**

Overview of LT2 Monitoring, Bin Boundaries, and Toolbox Options, and the 6-year review process

*Objective: Provide an overview of the history and basis for the LT2 monitoring, bin boundaries and toolbox options. Provide brief overview of the 6-year review process.*

Presenter: Kenneth Rotert, Office of Groundwater and Drinking Water, Standards and Risk Management Division  
(20 min + 10 min clarifying questions)

**9:15 – 10:15**

Occurrence Analysis and Round 1 Binning Estimates

*Objectives: Review Cryptosporidium occurrence estimates from Round 1 monitoring and binning outcomes.*

Presenters: Lili Wang, Office of Groundwater and Drinking Water, Standards and Risk Management Division;  
Alexa Obolensky, Obolensky Consulting  
(40 min + 20 min clarifying questions)

**10:15 - 10:30**

**BREAK**

**10:30 – 10:55**

E. coli Effectiveness as a Small System Screen

*Objective: Discuss the implications from Round 1 monitoring on using E. coli as a screen for small systems for Round 2 monitoring.*

Presenter: Stig Regli, Office of Groundwater and Drinking Water, Standards and Risk Management Division  
(15 min + 10 min clarifying questions)

**10:55 – 11:40**

Matrix Spike Recoveries

*Objectives: Compare matrix spike recoveries between method (1623), and the improved method (1623.1), as well as discuss how the distribution of matrix spike recoveries varies across matrices and laboratories.*

Presenter: Carrie Miller, Office of Groundwater and Drinking Water, Standards and Risk Management Division;  
Jerry Ongerth, University of Wollongong, New South Wales, Australia  
(30 min + 15 min clarifying questions)

**11:40 –12:55**                    **Lunch (on your own)**

**12:55 – 1:45**

Modeling Results and Implications for Round 2 Results

*Objectives: Discuss the estimated outcomes for monitoring and binning based on Round 2 modeled results using the existing method, an improved method, and different occurrence assumptions. Explore the implications of the improved method with a Bin 2 boundary alteration.*

Presenter: Mike Messner, Office of Groundwater and Drinking Water, Standards and Risk Management Division  
(30 min + 20 min clarifying questions)

**1:45 – 2:00**

**BREAK**

**2:00 – 3:30**

Microbial Toolbox

*Objective: Discuss what data are available to inform levels of removal/inactivation credit that systems should get for existing and new tools, and what new tools may be available. Explore overall utility experience with using the microbial toolbox options.*

Presenter: Mike Finn, Office of Groundwater and Drinking Water, Drinking Water Protection Division;  
Dave A. Cornwell, Environmental Engineering and Technology, Inc.;  
Angela Cross , New Mexico Environment Department and Jennifer Bunton, Iowa Department of Natural Resources  
(60 min + 30 min clarifying questions)

**3:30 – 4:30**

**Questions and Discussion**

**1. What additional data analysis/information are you aware of regarding monitoring, occurrence forecasts, binning, *E. coli* as a screen and the microbial toolbox?**

- a. Alternative data analyses approaches to inform occurrence and binning forecasts?
- b. Alternative microbial toolbox options and associated credits?
- c. How to determine credits associated with toolbox options (new or revised for existing toolbox options)?
- d. Use of different screen criteria to avoid *Cryptosporidium* monitoring?

**2. What have we learned about the topics described above from the implementation of the LT2 rule? From other data sources?**

- a. LT2 Round 1 source water monitoring and binning results?
- b. What have been some of the challenges and/or observed effectiveness (i.e., their respective credit allocation) with existing toolbox options?
- c. Use of *E. coli* as a screen for small systems *Cryptosporidium* monitoring?

**3. Taking into account today's presentations and discussions,**

- a. What is your view on how a model that may adequately explain Round 1 data could be used to predict Round 2 results?
  - i. What benefits/limitations do you see in using this approach?
- b. What do you see as the potential benefits/limitations of using method 1623.1 for Round 2 binning?

**4. What are your perspectives on how to proceed with Round 2 monitoring?**

**4:30-4:45**

**Wrap up/Next Steps**

Philip S. Oshida, Acting Division Director, Office of Groundwater and Drinking Water, Standards and Risk Management Division

**4:45-5:00**

**Adjourn**