



## U.S. EPA's 2016 Recreational Waters Conference

April 12–15, 2016  
New Orleans, Louisiana

### Agenda

#### Tuesday, April 12, 2016 (Preconference Meetings and Activities)

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##### *Conde-Frontenac*

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|-------------|---|
| 8:00–6:00   | Registration  |
| 8:00–10:00  | Introduction to Federal and State Programs that Protect Human Health in Recreational Waters |
| 10:30–12:00 | Evaluating Water Quality at your Beach through Sanitary Surveys and Monitoring Data         |
| 1:30–3:00   | Data Submission and Verification  |
| 1:30–3:00   | Rapid Method: Quantitative Polymerase Chain Reaction  |
| 3:30–5:00   | Predictive Tools Forum  |
| 3:30–5:00   | qPCR Continued—Implementation Experiences   |

#### Wednesday, April 13, 2016

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##### *Ile de France Ballroom*

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|-------------|---|
| 7:00–4:00   | Registration  |
| 8:30–10:00  | <b>Session 1: Welcome Speakers</b><br><i>Session Chair: Tracy Bone, U.S. Environmental Protection Agency</i>  |
| 8:30–8:45   | EPA Welcome<br><i>Tracy Bone, U.S. Environmental Protection Agency</i>  |
| 8:45–9:05   | Protection of Recreational Waters<br><i>Ellen Gilinsky, U.S. Environmental Protection Agency</i>  |
| 9:05–9:45   | The Continuing Recovery and Renaissance of Lake Pontchartrain and Its Rivers<br><i>Andrea Bourgeois-Calvin, Lake Pontchartrain Basin Foundation</i> |
| 9:45–10:00  | Q & A   |
| 10:00–10:20 | <b>BREAK</b>  |

**10:20–11:50**

**Session 2: Trends in Beach Management**

**Session Chair: Julie Kinzelman, Racine Department of Health**

- 10:20–10:35 The Broader Context of Beach Monitoring  
*John Wathen, U.S. Environmental Protection Agency*
- 10:35–10:50 Providing and Promoting Recreational Water Quality Information through Mobile and Social Technology  
*Trevor McProud, New York City Department of Health and Mental Hygiene*
- 10:50–11:05 Monitoring, Detection, and Management of Hazardous Algal Blooms in Freshwater Lakes East of San Francisco Bay  
*Matthew Graul, East Bay Regional Park District*
- 11:05–11:20 Digging in: Understanding the Causes, Impacts, and How Best to Address Excessive Seaweed Accumulation on Maine's Coastal Beaches  
*Keri Kaczor, University of Maine Cooperative Extension, Maine Sea Grant*
- 11:20–11:35 The Changing Geographic Distribution of Climate-Sensitive Pathogens in Recreational Water  
*Jonathan Yoder, Centers for Disease Control and Prevention*
- 11:35–11:50 Q & A

**11:50–1:20**

**LUNCH (on your own)**

**1:20–2:50**

**Session 3: Recreation Water Monitoring and Implementation Challenges/Successes**

**Session Chair: John Griffith, Southern California Coastal Water Research Project**

- 1:20–1:35 Monitoring Beaches Statewide in Michigan for *E. coli* with qPCR (USEPA Draft Method C)  
*Shannon Briggs, Michigan Department of Environmental Quality*
- 1:35–1:50 Rapid Analyses of Water Quality at Five Chicago Beaches, 2015  
*Abhilasha Shrestha, University of Illinois, School of Public Health*
- 1:50–2:05 Application of Rapid qPCR-Based Tests for Enterococci (Method 1611) in Hawaiian Coastal Waters  
*Marek Kirs, University of Hawaii*
- 2:05–2:20 Multi-Laboratory Survey of U.S. EPA Enterococci qPCR Methods Acceptability for Analyses of U.S. Coastal and Inland Waters  
*Richard Haugland, U.S. Environmental Protection Agency*
- 2:20–2:35 Towards Field-Portable Instrumentation for Real-Time Water Quality Monitoring Using Digital Droplet PCR  
*Kevan Yamahara, Monterey Bay Aquarium Research Institute*
- 2:35–2:50 Q & A

**2:50–3:10**

**BREAK**

**3:10–4:40**

**Session 4: Citizen Science**

***Session Chair: Ibrahim Goodwin, U.S. Environmental Protection Agency***

- 3:10–3:25      Keeping It Real: Creating and Managing Citizen Monitoring Programs for the Collection of Actionable Data Concerning Contact Recreation Water Quality Standards and Watershed Management  
*Erick Burres, California State Water Resources Control Board, Clean Water Team*
- 3:25–3:40      The Surfrider Foundation's Blue Water Task Force: Citizen Science Applied to Enhance the Coverage and Effectiveness of State and Local Beach Programs  
*Mara Dias, Surfrider Foundation*
- 3:40–3:55      How's the Water? Using Community Science to Measure Fecal Indicator Bacteria and Improve Water Quality in the Hudson River Watershed  
*Dan Shapley, Riverkeeper*
- 3:55–4:10      Leveraging Volunteer Hours for Water Quality Restoration  
*Michael Meyer, Chattahoochee Riverkeeper*
- 4:10–4:25      Our MS4 Permit—Reframing the Permit's Ownership through Citizen Science  
*Jennifer McDonnell, Arlington County Department of Environmental Services*
- 4:25–4:40      Q & A

**4:40–7:00**

**Poster Session (*Foyer of Ile de France Ballroom*)**

Thursday, April 14, 2016

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*Ile de France Ballroom*

**8:00–4:00**      **Registration**

**8:30–10:00**      **Session 5: Epidemiology and Quantitative Microbial Risk Assessment**  
*Session Chair: John Ravenscroft, U.S. Environmental Protection Agency*

8:30–8:45      Acute Illness Associated with Ocean Exposure and Fecal Indicator Bacteria during Dry and Wet Weather: A Longitudinal Cohort Study of Surfers in San Diego, California  
*Ayse Ercumen, University of California—Berkeley*

8:45–9:00      Development of Site-Specific REC Criteria for a Tidal Creek using Peer-Reviewed, Stakeholder-Led QMRA Process  
*Dustin Bambic, Paradigm Environmental*

9:00–9:15      Preliminary Evidence for Asymptomatic Norovirus Infection Transmission Associated with Swimming at a Tropical Beach  
*Timothy Wade, U.S. Environmental Protection Agency*

9:15–9:30      Evaluation of the Dry and Wet Weather Recreational Health Risks in a Semi-Enclosed Marine Embayment in Southern California  
*Sunny Jiang, University of California—Irvine*

9:30–9:45      Human-Associated Fecal qPCR Measurements and Simulated Risk of GI Illness in Recreational Waters Contaminated with Raw Sewage  
*Alexandria Boehm, Stanford University*

9:45–10:00      Q & A

**10:00–10:30**      **BREAK**

**10:30–12:00**      **Session 6: Advances in Alternative Indicators and Measurement**  
*Session Chair: Stephen Weisberg, Southern California Coastal Water Research Project*

10:30–10:45      Evaluation of Three Culture-Based Methods for Enumeration of Coliphage from Ambient Waters  
*Asja Korajkic, U.S. Environmental Protection Agency*

10:45–11:00      Coliphage Levels in the Effluents of Wastewater Treatment Plants Discharging Nearby Great Lakes Beaches  
*Marirosa Molina, U.S. Environmental Protection Agency*

11:00–11:15      Advances in Measurements and Indicators for Determining Shellfish Growing Area Classifications Adjacent to Wastewater Treatment Plant Outfalls  
*Yaping Ao, U.S. Food and Drug Administration*

11:15–11:30      Coliphages as Indicators of Gastrointestinal Illness in Recreational Waters: A Pooled Analysis of Six Prospective Marine Beach Cohorts  
*Jack Colford, Jr., University of California—Berkeley*

11:30–11:45      EPA's Development of Recreational Water Quality Criteria for Coliphage: Updates and Experts Coliphage Workshop Overview  
*Sharon Nappier, U.S. Environmental Protection Agency*

11:45–12:00      Q & A

**12:00–1:30**      **LUNCH (on your own)**

**1:30–3:00**      **Session 7: Pollution Source Identification, Tracking, and Sanitary Surveys**  
**Session Chair: Orin Shanks, U.S. Environmental Protection Agency**

- 1:30–1:45      Florida Beach Geomorphology and Beach Management Practices  
Correlate with Enterococci Percent Exceedances  
*Helena Solo-Gabriele, University of Miami*
- 1:45–2:00      Source Tracking of Ankle-Depth Water Quality Impairment at Freshwater  
Beaches in Ontario, Canada  
*Thomas Edge, Environment Canada*
- 2:00–2:15      Sources of Enterococci and their Relation with Environmental Factors at an  
Inland Beach  
*Asli Aslan, Georgia Southern University*
- 2:15–2:30      Temporal Stability of Fecal Bacteria and Microbial Source Tracking Markers  
in Water: Implications for Source Allocation Using MST Markers  
*Mia Mattioli, Emory University*
- 2:30–2:45      Exploring the Microbiome for New Approaches to Microbial Source  
Tracking  
*Sandra McLellan, University of Wisconsin—Milwaukee*
- 2:45–3:00      Q & A

**3:00–3:30**      **BREAK**

**3:30–5:00**      **Session 8: Harmful Algal Blooms Impact**  
**Session Chair: Virginia Roberts, Centers for Disease Control and Prevention**

- 3:30–3:45      Cyanobacterial Blooms in Freshwater and Potential Health Impact in the  
United States  
*Jiyoung Lee, Ohio State University*
- 3:45–4:00      Application of a Linked Hydrodynamic-Harmful Algal Bloom Model for  
Assessment of Management Scenarios to Impaired Long Island  
Embayments  
*Raghav Narayanan, Anchor QEA*
- 4:00–4:15      Recreational Risk Management of Surface Waterbodies: Cyanobacteria  
Surveillance in Massachusetts  
*Michael Celona, Massachusetts Department of Public Health*
- 4:15–4:30      Cyanotoxin Ambient Water Quality Criteria for Recreational Waters  
*John Ravenscroft, U.S. Environmental Protection Agency*
- 4:30–4:45      Anatoxin-a Poisoning in a Dog Associated with Exposure to a Minnesota  
Lake, June 2015  
*Stephanie Gretsich, Minnesota Department of Health*
- 4:45–5:00      Q & A

Friday, April 15, 2016

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*Ile de France Ballroom*

**7:30–12:00**      **Registration**

**8:00–9:30**      **Session 9: Restoration and Remediation of Beaches**  
*Session Chair: John Wathen, U.S. Environmental Protection Agency*

- 8:00–8:20      Developing and Implementing a "Healthy Beaches Action Plan"  
*Sarah U'Ren, The Watershed Center Grand Traverse Bay*
- 8:20–8:40      *E. coli* Decrease in Southern and Western Lake Michigan: Management,  
Meteorology, or Mussels?  
*Richard Whitman, formerly with U.S. Geological Survey*
- 8:40–9:00      Turbulence and Triumph: Tackling the Complex Challenges Related to  
Healthy Beaches  
*Kathleen Bell, University of Maine School of Economics*
- 9:00–9:20      The Multidimensional Benefits to Beach Remediation and Restoration  
*Greg Kleinheinz, University of Wisconsin—Oshkosh*
- 9:20–9:30      Q & A

**9:30–10:15**      **BREAK**

**10:15–11:45**      **Session 10: Predictive Modeling and Forecasting**  
*Session Chair: Mike Cyterski, U.S. Environmental Protection Agency*

- 10:15–10:30      Implementing Predictive Models: Practical Advice and New Tools  
*Adam Mednick, University of Wisconsin Sea Grant Institute*
- 10:30–10:45      California Beach Water Quality Nowcasting  
*Leslie Griffin, Heal the Bay*
- 10:45–11:00      Predictive Modeling and Forecasting of Water Quality at Recreational  
Beaches along Gulf of Mexico Coast  
*Zhiqiang Deng, Louisiana State University*
- 11:00–11:15      Using Probabilities of Enterococci Exceedance and Logistic Regression to  
Evaluate Long-Term Weekly Beach Monitoring Data  
*Jay Fleisher, Nova Southeastern University*
- 11:15–11:30      Development of a Predictive Spatial Model to Understand the Connection  
between Rainfall Events and Beach Water Quality  
*Lance Larson, Natural Resources Defense Council*
- 11:30–11:45      Q & A

**11:45–12:00**      **Conference Wrap-Up**