U.S. EPA’s 2016 Recreational Waters Conference
April 12–15, 2016
New Orleans, Louisiana
Agenda

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

Conde-Frontenac
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

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

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

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

*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 Gretsch, Minnesota Department of Health

4:45–5:00  Q & A
**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*

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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Developing and Implementing a &quot;Healthy Beaches Action Plan&quot;</td>
<td>Sarah U'Ren, <em>The Watershed Center Grand Traverse Bay</em></td>
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<td>8:20</td>
<td><em>E. coli</em> Decrease in Southern and Western Lake Michigan: Management, Meteorology, or Mussels?</td>
<td>Richard Whitman, formerly with <em>U.S. Geological Survey</em></td>
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<td>8:40</td>
<td>Turbulence and Triumph: Tackling the Complex Challenges Related to Healthy Beaches</td>
<td>Kathleen Bell, <em>University of Maine School of Economics</em></td>
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<td>9:00</td>
<td>The Multidimensional Benefits to Beach Remediation and Restoration</td>
<td>Greg Kleinheinz, <em>University of Wisconsin—Oshkosh</em></td>
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<td>9:20</td>
<td>Q &amp; A</td>
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### 9:30–10:15

**BREAK**

### 10:15–11:45

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

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<tr>
<td>10:15</td>
<td>Implementing Predictive Models: Practical Advice and New Tools</td>
<td>Adam Mednick, <em>University of Wisconsin Sea Grant Institute</em></td>
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<td>10:30</td>
<td>California Beach Water Quality Nowcasting</td>
<td>Leslie Griffin, <em>Heal the Bay</em></td>
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<td>10:45</td>
<td>Predictive Modeling and Forecasting of Water Quality at Recreational Beaches along Gulf of Mexico Coast</td>
<td>Zhiqiang Deng, <em>Louisiana State University</em></td>
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<td>11:00</td>
<td>Using Probabilities of Enterococci Exceedance and Logistic Regression to Evaluate Long-Term Weekly Beach Monitoring Data</td>
<td>Jay Fleisher, <em>Nova Southeastern University</em></td>
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<td>11:15</td>
<td>Development of a Predictive Spatial Model to Understand the Connection between Rainfall Events and Beach Water Quality</td>
<td>Lance Larson, <em>Natural Resources Defense Council</em></td>
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<td>11:30</td>
<td>Q &amp; A</td>
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### 11:45–12:00

**Conference Wrap-Up**