**National Recreational Water Quality Workshop**

**April 6 – 8, 2021**

*This agenda is for live panel sessions and does not include time for viewing pre-recorded presentations. Pre-recorded presentations made available March 15.*

Tuesday, April 6th

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| **2:00 – 3:00 (EDT)** | | |
| **Plenary Session** | | |
| Presentation | Presenter | |
| *Welcome*  *Protection of Recreational Waters* | Mike Komp, Executive Director, Conservation Technology Information Center  Deborah Nagle, Director, Office of Science and Technology, US EPA | |
| *What are the Chances of Getting Sick After Swimming; Implications for Community Health?* | Sam Dorevitch, University of Illinois Chicago, School of Public Health | |
| *Tools of the Trade, Evolution of Beach Management* | Julie Kinzelman, University of Wisconsin-Parkside College of Natural and Health Sciences; City of Racine Public Health Department Laboratory, Retired | |
| **3:00 – 3:45 (EDT)** | | |
| **Session 1: *Risks to Recreation – Panel Discussion*** | **Chairs: Virginia Roberts, Centers for Disease Control and Prevention**  **Abhilasha Shrestha, University of Illinois Chicago** | |
| **Panelists** and their Pre-recorded Presentations | | |
| Presentation | | Presenter |
| *Integrating Children’s Exposure in Risk Assessment* | | Helena Solo-Gabriel, University of Miami |
| *Outbreaks Associated with Untreated Recreational Water — United States, 2009-2017* | | Mia Mattioli, Centers for Disease Control and Prevention in for Michele Hlavsa |
| *The One Health Harmful Algal Bloom System (OHHABS)* | | Virginia Roberts, Centers for Disease Control and Prevention |
| *Canine Mortalities in Michigan, Water Exposure* | | Susan Peters, Michigan Department of Health and Human Services |
| *The National Aquatic Resource Surveys*: *Findings on Algal Toxins and Pathogens across the Country* | | Sarah Lehmann, US EPA |
| **Break: 3:45 – 4:00 (EDT)** | | |
| **4:00 – 5:15 (EDT)** | | |
| **Poster Session** | | |
| * Authors in breakout rooms available for short presentations and questions | | |

Wednesday, April 7th

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| **2:00 – 3:00 (EDT)** | |
| **Session 2: *Advances in Monitoring: Approaches and Technology – Panel Discussions*** | **Chairs: Rachel Noble, University of North Carolina, Chapel Hill**  **Tracy Bone, US EPA** |
| **Panel A** and their Pre-recorded Presentations, Rachel Noble | |
| Presentation | Presenter |
| *Five Years of Enterococci qPCR in Chicago: Research to Practice* | Kendall Anderson, Beach Water Quality Project Manager Chicago Park District |
| *Towards a Quantitative Human Fecal Source Identification Recreational Water Quality Management Tool* | Orin Shanks, US EPA |
| *Using Next Generation qPCR to Monitor for Toxic Cyanobacteria* | Laura Webb, US EPA |
| *Derivation of the Equivalent qPCR Value for Escherichia coli to Existing Culture-based Water Quality Standards for Monitoring Beaches in Michigan* | Shannon Briggs, Michigan Department of Environment, Great Lakes, and Energy |
| **Panel B** and their Pre-recorded Presentation, Tracy Bone | |
| Presentation | Presenter |
| *Predictive Models and Fast Detection of Coliphages for a Paradigmatic Improvement in Rapid Assessment of Water Quality* | Anicet Blanch, University of Barcelona |
| *Portable System for Early Detection of Harmful Algal Bloom Toxins* | Sarah Bickman, MBio Diagnostics |
| *Use of Novel Autonomous Technology for Improved Water Quality Monitoring in High Priority Recreational and Shellfish Harvesting Waters* | Denene Blackwood, University of North Carolina Chapel Hill |
| *Antimicrobial Resistance in Wastewater Effluent Streams Discharging to Urban Coastal Waters* | Joshua Steele, Southern California Coastal Water Research Project |
| **3:00 – 3:45 (EDT)** | |
| ***Session 3: Notification and Risk Communication – Panel Discussion*** | **Chair: Shannon Briggs, Michigan Department of Environment, Great Lakes and Energy** |
| **Panelists** and their Pre-recorded Presentations | |
| Presentation | Presenter |
| *Beach Report Card and NowCast: Successes and Challenges of Public Water Quality Notifications* | Luke Ginger, Heal the Bay, Santa Monica, CA |
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| *Lake Erie Beach Monitoring and Public Notification Database: Beachguard* | Jenifer Hassinger, Ohio Department of Health |
| *Improving the Communication Strategy for the S.C. Beach Monitoring Program* | Lindsey Lachenmyer, South Carolina Department of Environmental Control |
| *Monitoring & Public Notification Program for Harmful Algal Blooms in Recreational Lakes* | Matthew Graul, East Bay Regional Park District, CA |
| **Break: 3:45 – 4:00 (EDT)** | |
| **4:00 – 5:15 (EDT)** | |
| **Poster Session** | |
| * Authors in breakout rooms available for short presentations and questions | |

Thursday, April 8th

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| **2:00 – 3:00 (EDT)** | |
| ***Session 4: Restoring Waters to Recreational Use – Panel Discussion*** | **Chairs: Orin Shanks, US EPA**  **Julie Kinzelman, University of Wisconsin-Parkside College of Natural and Health Sciences; City of Racine Public Health Department Laboratory, Retired** |
| **Panel A** and their Pre-recorded Presentations, Orin Shanks | |
| Presentation | Presenter |
| *Tracking Land-based Sources of Nutrients and Microbial Contamination in a Pacific Northwest Estuarine Watershed* | Amy Zimmer-Faust, Southern California Coastal Water Research Project |
| *Ambient Water Quality Thresholds for Human-associated HF183: Effect of Water Temperature, Aging, and Co-contamination with Gull Feces* | Jeffrey Soller, Soller Environmental |
| *MERA – an Integrated, Transdisciplinary Study of Water Quality and Human Health at a Tropical Beach* | Valerie Harwood, University of South Florida |
| *EPA’s New Sanitary Survey App for Marine and Freshwaters* | Samantha Fontenelle, US EPA |
| **Panel B** and their Pre-recorded Presentations, Julie Kinzelman | |
| *The Florida Department of Environmental Protection’s MST Toolbox in Action* | David Whiting, Florida Department of Environmental Protection |
| *Lessons Learned on Remediation Options for Harmful Algal Blooms (HABs) in Recreational Lakes* | Rebecca Tuden, East Bay Regional Park District, CA |
| *Identifying Septic Pollution Exposure Routes During a Waterborne Norovirus Outbreak -- A New Application for Human-associated Microbial Source Tracking qPCR* | Mia Mattioli, Centers for Disease Control and Prevention |
| *Sky Harbor Beach Restoration: Impacts on E. coli Levels Over a Three-Year Period* | Cindy Hakala, Minnesota Department of Health |
| **3:00 – 4:00 (EDT)** | |
| ***Session 5: Building Partnerships in Recreational Water Monitoring and Remediation – Panel Discussion*** | **Chairs: Lesley D’Anglada, US EPA and Ibrahim Goodwin, US EPA** |
| **Panel A** and their Pre-recorded Presentations, Lesley D’Anglada | |
| Presentation | Presenter |
| *Utah’s Joint Harmful Algal Bloom and E. coli Recreational Water Quality Advisory Program* | Kate Fickas, Utah Division of Water Quality |
| *Integrating HAB Detection Technologies with a Regional Observing System in the Great Lakes* | Tim Davis, Bowling Green State University |
| *Development of a Multifaceted Statewide Strategy for the Monitoring and Assessment of Freshwater Harmful Algal Blooms in California* | Jayme Smith, Southern California Coastal Water Research Project |
| **Panel B** and their Pre-recorded Presentations, Ibrahim Goodwin | |
| Presentation | Presenter |
| *Citizen Science at the EPA: Streamlining Water Quality Testing and Future Visions* | Jay Benforado, US EPA |
| *Citizen and Community Evolvement to Make a More Swimmable California* | Erick Burres, California Water Quality Monitoring Council |
| *A Water Quality Standards Perspective on Swimming in An Urban Waterway – The Anacostia River* | Ed Dunne, District of Columbia, Department of Energy and Environment |
| *Building Partnerships to Enhance Public Health Protection at the Beach Through the Surfrider Foundation’s Blue Water Task Force* | Mara Dias, Surfrider Foundation |
| **Break: 4:00 – 4:15 (EDT)** | |
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| **4:15 – 4:45 (EDT)** | |
| ***Session 6: What’s Next? Emerging Concerns – Panel Discussion*** | **Chair: John Griffith, Southern California Coastal Water Research Project** |
| **Panelists** and their Pre-recorded Presentations | |
| Presentation | Presenter |
| *How well do Coliphages Predict the Presence and Concentrations of Human Enteric Viruses in Water and Wastewater?* | Mark Sobsey, University of North Carolina |
| *Risk-based Water Quality Threshold for Coliphage in Surface Waters of Different Temperatures* | Alexandria Boehm, Stanford |
| *EPA’s Development of Recreational Water Criteria for Coliphage* | Kaedra Jones, ICF |
| *Large-scale Patterns of Antimicrobial Resistance Genes and Fecal Indicator Bacteria in United States Rivers and Streams* | Scott Keely, US EPA |
| *Pathogenic Vibrio Species in Southern California Coastal Waters* | Rachel Diner, University of California San Diego |
| *International Comparison of Antibiotic Resistance Genes and Microbial Communities from Wastewater Treatment Plant Final Effluents and Receiving Environments* | Ayella Maile-Moskowitz, Virginia Tech |
| **4:45 – 5:00 (EDT)** | |
| ***Meeting Summary*** | **Steve Weisberg, Southern California Coastal Water Research Project** |
| ***5:00 – 5:15 (EDT)*** | |
| ***EPA Closing Remarks*** | **Sara Hisel-McCoy, US EPA** |