



U.S. EPA's National Beach Conference Agenda

April 20–22, 2009
Huntington Beach, California

Sunday, April 19, 2009 (Pre-Conference Meetings and Activities)

- 1:00–4:00 **Beach Management 101 for State or Local Beach Managers** (Fountain Room)
5:00–7:00 **Regional and State Meetings**

Monday, April 20, 2009

- 7:00–5:00 Registration

Session I: Welcome Speakers

- 8:30–8:50 **EPA Welcome**
Ephraim King, USEPA OST
- 8:50–9:10 **State Welcome**
Alexis Strauss, Water Management Division Director for USEPA Region 9
- 9:10–9:40 **“Riding the Wave...”**
Laird Hamilton, Professional Surfer and Clean Water Advocate
- 9:40–10:00 **“...of Emerging Science”**
Steve Weisberg, SCCWRP
- 10:00–10:20 **Break**

Session II: Changes in Policy: Perspectives from Around the World

- 10:20–12:00 Session Chairs:
Lars Wilcut (USEPA OST)
Richard Whitman (USGS)
- 10:20–10:40 **EPA's Beach Program: Emerging Science, Emerging Policy**
Lars Wilcut, USEPA OST
- 10:40–11:00 **Canadian Recreational Water: New Water Quality Guidelines and Research Activities**
Tom Edge, Environment Canada
- 11:00–11:20 **European Bathing Waters—Experiences from Scotland, UK**
Calum McPhail, Scottish Environment Protection Agency



11:20–11:40 **Tribal Experience with Beach Management: Grand Portage Tribe**
Margaret Watkins, Grand Portage Tribe

11:40–12:00 **Policies and Practices of Beach Monitoring in the Great Lakes**
Richard Whitman, USGS

12:00–1:30 **Lunch** (on your own)

Session III: Between a Rock and a Hard Place—Impacts of Infrastructure and Climate Change on Beaches

1:30–3:10 Session Chair: Julie Kinzelman,
Racine Health Department

1:30–1:45 **Beaches Done Badly: Dealing with Historic Infrastructure**
Greg Kleinheinz, UW-Oshkosh

1:45–2:00 **Alamitos Bay Circulation Study**
Weixia Jin, Moffatt & Nichol
Tom Leary, City of Long Beach, CA

2:00–2:15 **Engineering Controls for Improving Storm Water Quality and Beach Health**
Roger Miller, Miller Engineers & Scientists

2:15–2:30 **Stormwater Infrastructure Improvements: City of Los Angeles Innovative Approaches to BMP Designs for Clean Beaches**
Wing Tam, City of Los Angeles

2:30–2:35 **Q&A**

2:35–2:50 **Climate Changes Impacts on Beaches: Common Themes with the Water and Sanitation Sector**
Katrina Charles, University of Surrey, United Kingdom

2:50–3:05 **Estimating the Potential Economic Impacts of Climate Change on Southern California Beaches**
Linwood Pendleton, The Ocean Foundation

3:05–3:10 **Q&A**

3:10–3:30 **Break**

Session IV: Notifying the Public (and Other Agencies)—Panel Discussion

3:30–5:00 Session Chair: John Wathen, USEPA
Denise Keehner, USEPA
Larry Honeybourne, Orange County Health Care Agency
Mark Gold, Heal the Bay
Pat Brennan, Orange County Register
Melissa Soline, Great Lakes and St. Lawrence Cities Initiative
Stephen Leatherman, Florida International University

6:00–8:00 *Poster Session*
Sponsored by Crystal Diagnostics

**Tuesday, April 21, 2009**7:30–4:00 **Registration****Session V: Sanitary Surveys and Source Tracking**

8:30–10:10 Session Chair: Shannon Briggs, Michigan Department of Environmental Quality

8:30–8:50 Lake Michigan Beaches—Identifying Contamination Sources through the Use of the US EPA/GLRC Standardized Sanitary Survey ToolJulie Kinzelman, Racine Health Department
Greg Kleinheinz, UW-Oshkosh**8:50–9:10 Sanitary Surveys—Marine Waters**

Shannon Berry, South Carolina Department of Health and Environmental Control

9:10–9:30 Volunteers for Healthy Great Lakes Beaches

Lyman Welch, Great Lakes Beach Alliance

9:30–9:50 Microbial Source Tracking: Using Lines of Evidence Through a Multi-Tiered Approach to Identify Human Fecal Contamination

Angela Coulliette, Michigan State University

9:50–10:10 The Nose Knows—Tracking and Identifying Illegal Discharges to Surface Waters

Scott Reynolds, Tetra Tech-Michigan

10:10–10:30 **Break****Session VI: Forecasting and Predictive Modeling**

10:30–12:30 Session Chair: Holly Wirick, USEPA Region 5

10:30–10:45 Implementing the Use of Predictive Models for Beach Closure and Advisory Decisions

Donna Francy, USGS

10:45–11:00 Predicting *E. coli* for Large-scale Areas: Applications in Selected Indiana, Illinois, and Wisconsin Regions

Meredith Nevers, USGS

11:00–11:15 A Model of Fecal Indicator Organisms and Viruses at Avalon Bay, Catalina Island, CA, Provides Insight into Sources and Fate

Alexandria Boehm, Stanford University

11:15–11:30 Tidal Saltwater Wetlands and Coastal Water Quality

Stanley Grant, UC Irvine

11:30–11:45 Stability and Accuracy of Statistical Models for Predicting Beach Closures: Five Years of SwimCast Application in Lake County, Illinois

Greg Olyphant, Indiana University

11:45–12:00 A Model of Microbial Water Quality at a Non-Point Source Recreational Beach

John Wang, University of Miami

12:00–12:15 Predictive Modeling of Remote Beaches—Louisiana's Experience

Robert Wagner, Quantitative Ecological Services, Inc.



12:15–12:30 **Q&A**

12:30–2:00 **Lunch** (on your own)

Session VII: Quantitative Microbial Risk Assessment

2:00–3:45 Session Chair: Joan Rose, Michigan State University

2:00–2:20 **QMRA for Recreational Waters**
Joan Rose, Michigan State University

2:20–2:40 **Quantitative Microbial Risk Assessment: Its Role Beyond Criteria to Risk Management**
Nick Ashbolt, USEPA

2:40–3:00 **Microbial Risk Assessment of the Chicago Area Waterways**
Geeta Rijal, Metropolitan Water Reclamation District of Greater Chicago

3:00–3:20 **A Framework for QMRA: A New WERF-Funded Study**
Stefan Wuertz, UC Davis
Graham McBride, National Institute of Water and Atmospheric Research, New Zealand

3:20–3:40 **Quantitative Microbial Risk Assessment: A Primer and Potential Applications for Nationally Applicable Water Quality Criteria**
Jeffrey Soller, Soller Environmental

3:40–3:45 **Q&A**

3:45–3:55 **Break**

3:55–4:10 **EPA Update on Recreational Criteria Development Efforts**
Denise Keehner, USEPA OST

Session VIII: Debate

4:10–5:30 Session Chair: Ibrahim Goodwin, USEPA

Is the BEACH Act Investment Equal to the Risk Posed to Human Health?: Should money that's spent on monitoring and public notification be spent on prevention and remediation?

<u>West Team</u>	<u>East Team</u>
USC	Wake Forest
Michigan State	Mary Washington

7:30 **Beach bonfire**

Wednesday, April 22, 2009

7:30–1:00 **Registration**

Session IX: Remediation, TMDLs, and Economics

8:30–9:50 Session Chair: Joel Hansel, USEPA Region 4

8:30–8:50 **A Balanced Approach to Developing and Implementing Control Measures for Bacteria Impairment in the Los Angeles Region**
Renee Purdy, Los Angeles Regional Water Quality Control Board



- 8:50–9:10 **A Policy Comparison of Bacterial Pollution Management at Two Swimming Beaches in Southern California Using a Joint Physical-Behavioral-Economic Simulation Analysis**
Justin Warren, Stanford University
- 9:10–9:30 **Use of a Watershed Model to Characterize and Prioritize Bacteria Sources for Mitigation in New Hampshire Coastal Beach Watersheds**
Sonya Carlson, New Hampshire Department of Environmental Sciences
Caycee Dalton
- 9:30–9:50 **Remediation Experience in Myrtle Beach**
Shannon Berry, South Carolina Department of Health and Environmental Control
- 9:50–10:10 **Break**
- Session X: *Rapid Methods and Alternative Indicators***
- 10:10–11:35 Session Chair: Helena Solo-Gabriele, University of Miami
- 10:10–10:25 **Emerging Detection Methods for Microbial Contaminants and HAB Toxins**
Kelly Goodwin, NOAA
- 10:25–10:40 **A Complete Microbial Community Approach to Monitoring and Source Tracking Coastal-Zone Pollution**
Eric Dubinsky, Lawrence Berkeley National Laboratory
- 10:40–10:55 **Testing and Validating Rapid Analytical Methods for Assessments of Recreational Water Quality**
Rebecca Bushon, USGS
- 10:55–11:10 **Impact of Urban Runoff on the qPCR Signal of *Enterococci* and Other Alternative Fecal Indicators at a Tropical Beach**
Marirosa Molina, USEPA NERL ERD
- 11:10–11:25 **California's Approach to Evaluating and Implementing Rapid Measurement Methods for Beach Water Quality Monitoring**
John Griffith, SCCWRP
- 11:25–11:35 **Q&A**
- 11:35–1:00 **Lunch** (on your own)
- Session XI: *Epidemiological Studies Underway***
- 1:00–3:00 Session Chair: Tim Wade, USEPA
- 1:00–1:20 **Health Effects and Water Quality at Marine Beach Sites: Results from the National Epidemiologic and Environmental Assessment of Recreational Water**
Tim Wade, USEPA
- 1:20–1:40 **Screening Candidate Water Quality Indicators for Associations with Swimming-Related Illness**
Jack Colford, UC Berkeley
- 1:40–2:00 **The BEACHES Study: Health Effects and Exposures from Non-point Source Microbial Contaminants in Subtropical Recreational Marine Waters**
Lora Fleming, University of Miami



2:00–2:20 **Contact with Beach Sand, Concentrations of Fecal Indicators, and Enteric Illness Risk**
Christopher Heaney, UNC Chapel Hill

2:20–2:40 **Epidemiological Studies in the UK**
David Kay, CREH Aberystwyth University, United Kingdom

2:40–3:00 **Estimating the Health Risks of Limited Contact Water Recreation**
Sam Dorevitch, University of Illinois

3:00–3:20 **Break**

Session XII: Putting it All Together: Where Do We Go from Here?

3:20–5:00 Session Chair: Steve Weisberg, SCCWRP

Denise Keehner, USEPA

Shannon Briggs, Michigan Department of Environmental Quality

Mark Gold, Heal the Bay

Julie Kinzelman, Racine Health Department

Alexandria Boehm, Stanford University

Grace Chan, Los Angeles County Sanitation Districts

Session XIII: Conference Wrap Up

5:00–5:15 **Workshop summary and future directions of the EPA BEACH Program**