AGENDA

2022 Great Lakes BEACH CONFERENCE

Muskegon, MI | October 31-November 2

Monday

October 31

11:30 AM	**REGISTRATION (open all afternoon)**

12:30 PM **BEACH 101 –** *Shannon Briggs and members of the Michigan Lab Network (MiNet)*
Learn from success stories on how to prepare a sampling plan, consider options for lab testing, communicate results to the public, and when to use rapid methods and source tracking to improve beach water quality.

1 PM **SANITARY SURVEYS –** *Lexi Porter and Katelyn Anderson, Annis Water Resources Institute, Grand Valley State University (AWRI-GVSU)*
This session will train beach managers to use the USEPA's sanitary survey app, Survey123, and download data, including harmful algal bloom and foam pictures and results. Learn how to use data from sanitary surveys and routine monitoring data to identify sources of pollution. Sanitary surveys lead to corrective actions and successful remediation efforts. Survey123 provides a platform to digitally link sanitary survey data with photos of site conditions that can be used to document current conditions, alert others of conditions that may be hazardous, and create a historical record for future reference.

2 PM **RAPID TESTING WITH DRAFT METHOD C –** *MiNet Members*
Working with qPCR and ddPCR to determine beach status – How To's and Lessons Learned
Panelists: Matt Flood, Michigan State University (MSU); Josh Sharp, Northern Michigan University; Mike Swain, Oakland County Health Division
epa.gov/cwa-methods/other-clean-water-act-test-methods-microbiological

3 PM	**BREAK**

3:15 PM **SOURCE TRACKING –** *MiNet Members*
Using microbial source tracking (MST) to identify causes of fecal contamination at beaches
Panelists: Matt Flood, MSU; Tami Sivy, Saginaw Valley State University; Michael Eslick, Public Health Muskegon County

4:15 – **WASTEWATER MONITORING DISCUSSION**
5:30 PM Advances, emerging issues, and approaches for wastewater surveillance in Michigan
Panelists: Nishita D'Souza, MSU; Penny Jane Nowlin, Regional Laboratory North West Health; Kelly Geith, MDHHS; Russ Faust, Oakland County Health Dept; Jeff Ram, Wayne State University

6 – 8 PM	**NETWORKING RECEPTION AND POSTER SESSION/STUDENT POSTER COMPETITION**

Tuesday Morning
November 1

7:30 AM	**REGISTRATION AND CONTINENTAL BREAKFAST**

8:30 AM **Opening Remarks**
Shannon Briggs, Michigan Department of Environment, Great Lakes, and Energy (EGLE)

9 AM **Welcome**
Dr. Rick Rediske, Annis Water Resources Institute, Grand Valley State University (AWRI-GVSU)

9:15 AM **Student Poster Awards,** *Shannon Briggs, EGLE*

9:30 AM **Highlights of Local Health Department Beach Testing Program**
Michael Eslick, Public Health Muskegon County

10 AM	**BREAK**

10:15 AM **REMEDIATION –** *Moderator: Gregory Kleinheinz, R.S., Ph.D. University of Wisconsin*

10:16 The Economic Benefits of Great Lakes Beach Reengineering
Matthew Winden, University of Wisconsin – Whitewater

10:36 Implementing Avian Deterrents at Lake St. Clair Metropark Beach
Annette DeMaria, Environmental Consulting & Technology

10:56 **Discussion/Take-away for Economic Benefits and Avian Deterrents**

11:10 Appraisal of EPA qPCR method variations to reduce interferences by Great Lakes region water samples
Richard Haugland and Stephani Hertel, United States Environmental Protection Agency

11:30 **Discussion/Take-away for EPA qPCR method variations**

Tuesday Afternoon
November 1

11:45 PM	**NETWORKING LUNCH**

1 PM   **LAB FOCUS –** *Moderator: Dr. Joan Rose, Michigan State University*

    1:03   Implementing molecular testing methods in a water quality laboratory: A Lab Manager's perspective
Brian Scull, Grand Valley State University

    1:23   Creating a Community of Practice to implement new approaches to water quality assessment: The Michigan Network for Environmental Health and Technology (MiNET)
Erin Dreelin, Michigan State University

1:45 PM   *E. coli* **METHODS** - *Moderator: Shannon Briggs, EGLE*

    1:46   Validity Assessment of Michigan's Proposed qPCR Threshold Value for Monitoring *E. coli* Contamination
James McNair, AWRI-GVSU

    2:06   Muskegon County Beach Monitoring: A Review and Application of Beach Closure Decision Matrix Utility
Lexi Porter, AWRI-GVSU

2:30 PM	**BREAK**

2:40 PM   **SOURCE TRACKING –** *Moderator: Shannon Briggs, EGLE*

    2:41   Identifying useful Microbial Source Tracking Markers for use in the Great Lakes Region
Matt Flood, MSU

    3:01   Using Watershed Characteristics for Improving Fecal Source Identification
John Hart, AWRI-GVSU

    3:21   Pathogens in Water: A New Conceptual Fecal Impairment Framework
John Hart, AWRI-GVSU

    3:41   Mitchell Creek Source Tracking Study Analysis – Year 1 Results
Rebecca Ives, MSU

    4:01   Using MST Markers to Determine the Source of Fecal Indicator Bacteria on 3 Great Lakes Beaches
Dr. Richard Rediske, AWRI-GVSU

4:30 PM   **SAFETY**
Presenter: *Bob Pratt Benjamin, Great Lakes Surf Rescue Project*

5 PM	**DINNER ON OWN**
	Optional Dinner Discussions
	   • Inland Lake Data Discussion – Pigeon Hill Brewing Company
	   • others – to be determined

Wednesday
November 2

8 AM	**NETWORKING BREAKFAST**

9 AM   **HARMFUL ALGAL BLOOMS -** *Moderator: Rick Rediske, AWRI-GVSU*

9:02   Harmful Algal Blooms in Michigan's Recreational Waters
Aaron Parker, EGLE

9:32   Cyanobacteria: New Problems from Old Organisms
Rick Rediske, AWRI - GVSU

10:02   Algal Bloom Impacts on Beach Monitoring: Exploring 2018-2022 Trends in Climate and Harmful Algal Bloom Presence on Public Beaches in Muskegon County, Michigan
Renee Tardani, AWRI-GVSU

10:32   **Discussion/Take-away**

10:50 AM	**BREAK**

11 AM   **NEW METHODS**- *Moderator: Kevin B. Strychar, AWRI-GVSU*

11:01   Developing and Using Image Flow Cytometry (IFCM) to Detect Escherichia coli (E. coli) along Coastal Beaches of Lake Michigan
Katelyn Anderson, AWRI – GVSU

11:21   What You Resist Will Persist: Understanding the Importance of Pathogen-Specific Survival in Surface Waters
Kara Dean, Michigan State University

11:41   Image Flow Cytometry (IFCM) used to identify Escherichia coli (E. coli) on fruit, foliar, and soil samples from blueberry (Vaccinium corymbosum, Linnaeus 1753) trees grown near coastal habitats in Michigan
Kevin B. Strychar, AWRI-GVSU

12 PM	**ADJOURN**

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