



**Great Lakes Beach Association Annual Meeting**  
3<sup>rd</sup> Annual Meeting  
In conjunction with Lake Michigan: State of the Lake '03 Conference  
Muskegon, Michigan



**October 21, 2003**

5:00 pm – 7:00 pm                      Poster Session and Reception at the GVSU Lake Michigan Center  
740 W. Shoreline Drive, Muskegon, Michigan

**October 22, 2003**

Annual meeting, oral presentations and posters on display at the Holiday Inn, Muskegon Harbor, 939 Third Street, Muskegon, Michigan.

8:00 am - 8:15 am                      **Welcome & Overview**

8:15 am - 8:45 am                      **A National Summary of State Beach Programs under the BEACH Act**  
Charles Kovatch, U.S. Environmental Protection Agency

8:45 am - 9:15 am                      **Report for U. S. Environmental Protection Agency's Great Lakes Beach Monitoring Program 1998-2002**  
David Rockwell, Great Lakes National Program Office

9:15 am - 9:30 am                      Break

9:30 am -10:30 am                      **Beach Monitoring Updates from the Great Lakes States**  
Coordinator: Shannon Briggs, Michigan Department of Environmental Quality

10:30 am - 11:00 am                      **Ontario Perspective of Great Lakes Beach Issues**  
Atul Jain, Senior Safe Water Consultant, Ministry of Health and Long-Term Care, Ontario, CA  
Hal Leadlay, Science Liaison Officer, Office of the Regional Science Advisor, Environment Canada - Ontario Region

11:00 am -11:30 am                      **National Epidemiological and Environmental Assessment of Recreational Water Study**  
Alfred P. Dufour<sup>1</sup>, Rebecca L. Calderon<sup>2</sup>, Michael J. Beach<sup>3</sup>, Timothy J. Wade<sup>2</sup>, Elizabeth A. Sams<sup>2</sup>; 1. National Exposure Research Laboratory, Cincinnati, OH; 2. National Health and Environmental Effects Laboratory, Chapel Hill, NC; 3. Centers for Disease Control and Prevention, Atlanta, GA. Epi Studies-NHEERL

11:30 am -noon                          Great Lakes Beach Association business

Noon    Adjourn

NOTE: The GLBA Annual Meeting is part of the Lake Michigan: State of the Lake '03 Conference (Breakout Session 4). Registration options include: GLBA only, GLBA special registration that includes the Lake Michigan Conference.



## Great Lakes Beach Association Annual Meeting Posters



### **Beach Water Quality Models: Lessons Learned about Water Quality Predictive Models for Bradford and South Shore Beaches in Milwaukee**

M. E. Bruesch and P. Biedrzycki

City of Milwaukee Health Department Division of Disease Control and Prevention  
(414) 286-5744, (414) 286-5164 (fax), [mbrues@milwaukee.gov](mailto:mbrues@milwaukee.gov)

### **Persistence and Growth of *Escherichia coli* and Enterococci in *Cladophora* in Nearshore Water and Beach Sand of Lake Michigan**

M. N. Byappanahalli, D. A. Shively, M. B. Nevers, M. J. Sadowsky, and R. L. Whitman

Lake Michigan Ecological Research Station, United States Geological Survey, Porter, Indiana  
46304

### **Concentrations of *Escherichia coli* in water and bed sediments in Maumee Bay, Toledo and Oregon, Ohio**

D. S. Francy, A. M. Gifford, P. Struffolino, and D. F. Dwyer

U.S. Geological Survey, 6480 Doubletree Avenue, Columbus, Ohio 43229, 614/430-7769  
(telephone), 614/430-7777 (fax), [dsfrancy@usgs.gov](mailto:dsfrancy@usgs.gov)

### **Occurrence of Indicator Bacteria and Enteric Viruses in Michigan Tributaries**

T. M. Jenkins<sup>1</sup>, T. M. Scott<sup>1</sup>, M. R. Woodall<sup>2</sup>, and J. B. Rose<sup>1,2</sup>

Michigan State University, <sup>1</sup>Dept. of Crops and Soil Sciences and <sup>2</sup>Dept. of Fisheries and Wildlife,  
East Lansing MI 48824

### **Evaluating the Efficacy of a Storm Sewer Outfall Re-engineered for the Reduction of Bacterial Contamination to Surface Water**

J. L. Kinzelman<sup>1,2</sup>, R. J. Van Swol<sup>3</sup>, and R. C. Bagley<sup>1</sup>

<sup>1</sup>City of Racine Health Department, Racine, WI, <sup>2</sup>Univ. of Surrey, Guildford, UNITED KINGDOM, <sup>3</sup>Univ. of Wisconsin, Milwaukee, WI.

### **GIS-Based Hydrologic Modeling of a Watershed that Drains into Lake Michigan: Example from the Watershed of the East Little Calumet River**

G. C. Korinek<sup>1,2,3</sup>, G. A. Olyphant<sup>2,3</sup>

<sup>1</sup>United States Geological Survey, Lake Michigan Ecological Research Station, Porter, IN.;

<sup>2</sup>Department of Geological Sciences, Indiana University, Bloomington, IN.; <sup>3</sup>Indiana Geological Survey, Bloomington, IN

### **Seasonal Persistence of *Escherichia coli* and Enterococci in Backshore Sand at the Groundwater Table of Two Lake Michigan Beaches**

D. A. Shively, R.L. Whitman, M. B. Nevers, M. N. Byappanahalli

Lake Michigan Ecological Research Station, United States Geological Survey, Porter, Indiana  
46304

### ***Escherichia coli* Source Detection on Lake Michigan Swimming Beaches in Lake County, Illinois**

W.J. Soucie<sup>1</sup> and M. Pfister<sup>2</sup>

Central Lake County Joint Action Water Agency, Lake Bluff, IL 60044<sup>1</sup> Lakes Management Unit,  
Lake County Health Department, Waukegan, IL<sup>2</sup>

**Determining *E. coli* densities in Suspended Sediment**

P. S. Struffolino<sup>1</sup>, D. F. Dwyer<sup>1</sup>, D. S. Francy<sup>2</sup>, and A. M. Gifford

<sup>1</sup>University of Toledo, <sup>2</sup>United States Geological Survey

**Tools for the Management of 65 State Park Beaches on the Great Lakes, Atlantic Ocean and inland Waters of New York State**

K. Terbush

**Social Dimensions of Water Quality Monitoring and Public Notification at Wisconsin Great Lakes Public Beaches under the 2000 Federal BEACH Act**

B. J. Vail

Wisconsin Department of Natural Resources, PO Box 7921, 101 S. Webster St, WT/2  
Madison, WI 53707

**Protecting Lake Michigan Water Quality: Addressing Beach Issues In 2003**

J. T. Zmuda, Z. Abedin, and B. Sawyer

Metropolitan Water Reclamation District of Greater Chicago

Lue-Hing R&D Complex, 6001 W. Pershing Road, Cicero, IL 60804-4112

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