

Tuesday, September 27th

8:30 – 10:00 a.m. | Stardust Main Ballroom

Opening Plenary

Opening remarks: Mike Molnar, IDNR

Welcome to Michigan City: Mayor Chuck Oberlie

EPA State of the Lake: Judy Beck

GLBA Welcome: David Rockwell

Carp Comments: John Goss, White House Carp Czar

10:15 – 11:45 a.m. | Stardust 1

Resource Extraction Impacts on Water Quality

Rick Henderson, Environmental Resource Management Division, *Michigan's Regulations for Natural Gas Development*

Grenetta Thomassey, Tip of the Mitt Watershed Council, *Natural Gas Drilling and Water*

Steve Roy, Geologist and Mining Team Leader US EPA Region 5, *The Federal Role in Metal Extraction in the Lake Michigan Basin*

Emily Whittaker, Yellow Dog Watershed Preserve, Inc., *Metal Resource Extraction in the Upper Peninsula*

10:15 – 11:45 a.m. | Stardust 2

The Lake Michigan Biodiversity Conservation Strategy

Douglas Pearsall, The Nature Conservancy, *Providing on-line access to results and supporting information*

10:15 – 11:45 a.m. | Stardust 3

Dunes and Wetlands: Threats from Invasives

Marcus H. Key, National Park Service, *National Park Service Combats Invasive Species with Education*

Laura Bourgeau-Chavez, Michigan Tech Research Institute, *Detecting and Mapping Invasive Phragmites australis in the Coastal Great Lakes*

D.M. Galbraith, U.S. Geological Survey, Great Lakes Science Center, *Invasive Phragmites in Great Lakes coastal corridors: combining a habitat suitability model with near-shore bathymetry for a vulnerability-based decision support tool*

Katherine Glassner Shwayder, Great Lakes Commission, *Building Capacity for the Management and Control of Phragmites australis*

Shaun Howard, The Nature Conservancy, *Controlling Invasive Plants Throughout Eastern Lake Michigan: Establishing effective, efficient, collaborative management of terrestrial invasives*

10:15 – 11:45 a.m. | Suncoast A & B

Sources and Sinks of Fecal Bacteria in the Great Lakes

Donna Ferguson, *Assessing Natural Sources and Regrowth of Enterococcus in Urban Runoff Impacting Coastal Beaches in San Diego*

Bin Chen, Purdue University Calumet, *E.coli Source Tracking Using Multispectral Laser Imaging*

Michael J. Sadowsky, BioTechnology Institute, University of Minnesota, *Development of a Practical Pyrosequencing-based Microbial Source Tracking Method (PyroMiST)*

Murulee N. Byappanahalli, USGS, *Environmental Sources of Fecal Indicator Bacteria*

Charles C. Tseng, Purdue University Calumet, *Generation of Mass Genome Sequencing Based E. coli DNA Markers for Microbial Source Tracking*

12:00 – 1:00 p.m. | **Lunch Stardust Main Ballroom**

For registered participants only

1:15 – 2:45 p.m. | Stardust 1

Models / GIS

Charlie Peters, USGS, Wisconsin Water Science Center, *Integration and Coordination of Multiple Tributary and Near-Shore Monitoring Efforts and the Use of Technology to Enhance these Efforts*

Colin Brooks, Michigan Tech Research Institute, *Mapping Cladophora Extent in Lake Michigan Using Multi-scale Satellite Imagery*

Robert Shuchman, Michigan Tech Research Institute, *Satellite Based Retrievals of Chlorophyll, Dissolved Organic Carbon and Suspended Minerals for Lake Michigan*

David T. Soong, U.S. Geological Survey, *Using a Hydrological Simulation Program-FORTRAN (HSPF) rainfall-runoff model to simulate streamflow and water-quality in the Kalamazoo River watershed*

Lacy Mason, University of Michigan, *Great Lakes GIS, the Lakebed Alteration Decision Support Tool and the Great Lakes Aquatic Habitat Framework: How spatial data is used to support assessment, classification and management of aquatic habitats.*

1:15 – 2:45 p.m. | Stardust 2

Carp

Dave Wethington, U.S. Army Corps of Engineers, *Great Lakes & Mississippi River Interbasin Study (GLMRIS)*

Sandra Morrison, USGS, *USGS Asian Carp Control Research*

Kate Glassner-Shwayder, Great Lakes Commission, *Envisioning a Chicago Area Waterway System for the 21st Century*

1:15 – 2:45 p.m. | Stardust 3

Watershed Education, Outreach, and Collaboration

Leslie Dorworth, Indiana/Illinois Sea Grant, *Calumet Higher Environmental Education Program: A regional dialogue among colleges to build a biodiversity literate workforce*

Erin Argyilan, Indiana University Northwest, *Collaborative Curriculum Development through The Great Lakes Innovative Stewardship Through Education Network (GLISTEN) of Northwest Indiana*

Jeff Martinka, Sweet Water: Southeastern Wisconsin Watersheds Trust, Inc., *Starting from Zero - Creating a Successful Regional Water Quality Collaborative*

1:15 – 2:45 p.m. | Suncoast A & B

Implementation of Rapid Analytical Methods for Fecal-Indicator Bacteria

Mark Citriglia, Northeast Ohio Regional Sewer District, *Molecular Madness, Implementation of Quantitative Polymerase Chain Reaction at a Wastewater Laboratory in Ohio*

Salvatore Cali, University of Illinois-Chicago, *Process Analysis for Four Swimming Water Quality Analytical Techniques*

Ember Vannoy, University of Illinois-Chicago, *Measures of Water Quality at Two Chicago Beaches: A Comparison of Three Rapid Methods*

Tamara Anan'eva, City of Racine, Wisconsin, *Investigation of qPCR inhibition occurrence across geographically-distributed recreational waters*

Richard Montagna, Rheonix, Inc., *Automatic and Rapid Molecular Detection of E. coli and Enterococci in Raw Recreational Water Samples Using the Fully Automated Rheonix CARD Technology Platform*

2:45 – 3:00 p.m. | Gold Coast Area with Exhibitors

Break

3:00 – 4:30 p.m. | Stardust 1

Pollution Prevention Actions for Toxics

Yakuta Bhagat, Grand Valley State University, *Factors influencing fish communities in drowned river mouth systems of Lake Michigan*

Peter C. Van Metre, USGS, Pavement Sealcoat, *Polycyclic Aromatic Hydrocarbons, and the Environment*

Lin Kaatz Chary, Great Lakes Green Chemistry Network, *The Great Lakes Green Chemistry Network: Innovative Collaborations to Restore and Protect the Great Lakes from Toxic Chemicals*

3:00 – 4:30 p.m. | Stardust 2

Climate Change – Lake Levels, Green Infrastructure, and Adaptation

Jia Wang, NOAA, *Temporal and spatial variability of Great Lakes ice cover, 1973-2010*

John F. Walker, USGS, *Estimating climate change impacts on streamflow in the Lake Michigan basin using the USGS PRMS watershed model*

Paul Schmid, Purdue University, *Severe weather climatology – A land-use based green solution possible?*

Dr. Abigail Derby Lewis, *The Field Museum, Conserving Coastal Habitats in Chicago Wilderness: A Regional Climate Change Adaptation Initiative*

3:00 – 4:30 p.m. | Stardust 3

Water Conservation and the Great Lakes Compact

Howard W. Reeves, USGS Michigan Water Science Center, *Assessment of Water Availability and Use for the U.S. Great Lakes Basin*

Ron McAhron, Indiana Department of Natural Resources, *Indiana Compact Update*

3:00 – 4:30 p.m. | Suncoast A & B

Predictive Tools: Method Advancements and Expansion of Application

John B. Wathen, U.S. EPA, Office of Water, *An Update on EPA's New or Revised Recreational Water Quality Criteria*

Michael Fienen, USGS, *New Statistical Techniques for Predictive Water Quality Modeling at Great Lakes Beaches*

Adam Mednick, Wisconsin DNR, *Implementing Predictive Models on a Broader Scale: Current Efforts in Wisconsin*

Cathy Breitenbach, Chicago Park District, *Implementing Predictive Models at Five Chicago Beaches*

David Rockwell, University of Michigan & NOAA, *Beach Water Quality Management Decision Support Systems for Forecasting Probability of Exceeding E. coli Levels*

5:00 – 7:30 p.m. | Stardust Main Ballroom

Poster Session

5:00 – 7:30 | Stardust 3

EPA Demo on Communicating Beach Conditions at the National Level: Modernized Beaches

Wednesday, September 28th

7:00 – 8:15 a.m. | Suncoast A & B

Special GLBA Session: Physical and Hydrological Aspects of Beaches

Mary-Louise Byrne, *Winter Sand Transport at Great Lakes Locations: a Comparison of Point Pelee National Park and Sauble Beach, Ontario, Canada*

Zhongfu Ge, USGS, *Contributions of Hydrodynamic Processes to the Diel Pattern of Bacteria Concentration in the Beach Water*

Allan Crowe, *The Hydrogeology of Beaches in the Great Lakes*

Clare Robinson, *Importance of Dynamic Groundwater-Lake Interactions on Beach Water Quality*

7:30 – 8:30 a.m. | Gold Coast Area with Exhibitors

Registration and Breakfast

8:30 – 10:00 a.m. | Stardust 1

Emerging and Legacy Chemicals in our Fish: Ecological and Human Health

David Krabbenhoft, USGS, *Mercury and Methylmercury in the Water Column, Sediments and Biota across the Great Lakes*

Patrick Ferguson, Ball State University, *Pharmaceutical Abundance and Toxic Effects in Near-Shore Habitats of Lake Michigan*

Russell G. Kreis Jr., EPA, *Post Audit of Lake Michigan Lake Trout PCB Model Forecasts*

Elizabeth Murphy, EPA, *Status and Trends of Legacy and Emerging Contaminants Identified through the Great Lakes Fish Monitoring and Surveillance Program*

8:30 – 10:00 a.m. | Stardust 2

Wetland/Watershed Health and Collaboration

Dr. Peter Avis, Indiana University Northwest, *Predicting Restoration Success in Northwest Indiana*

Cherie LeBlanc Fisher, USDA, *Urban Waters: A New Partnership in Northwest Indiana*

Lisa R Fogarty, USGS, *Conceptual Model for Lake Michigan Nearshore Ecosystem and Relevance to Lake Michigan LaMP Goals.*

Judy Beck, EPA, Jeff Edstrom, *Environmental Consulting & Technology Inc., Enhancing Opportunities for Interactive Watershed Management Reporting*

8:30 – 10:00 a.m. | Stardust 3

Nutrients/TMDL's

Bopi Biddanda, Grand Valley State University, *Production and Respiration in a Changing Lake Michigan Watershed: Linking Historic Data to Real-time Observations*

Dale M. Robertson, USGS, *Allocation of Nutrient Inputs to Lake Michigan by Source and River Basin Using SPARROW Watershed Models*

Glenn J. Warren, EPA, *Significant Lake Michigan Open Lake Nutrient Changes*

Harvey A. Bootsma, *University of Wisconsin-Milwaukee, Nearshore phosphorus dynamics in Lake Michigan: Major sources, fluxes, and sinks*

8:30 – 10:00 a.m. | Suncoast A & B

Demonstrations of beach remediation and what we have learned from sanitary survey data

Shannon Briggs, Water Resources Division, Michigan Dept. of Environmental Quality, *An Update on Great Lakes Restoration Initiative Beach Projects in Michigan*

Sarah U'Ren, The Watershed Center Grand Traverse Bay, *The Grand Traverse Region's Healthy Beaches Program - Education, Monitoring and Restoration*

Melissa Soline, Great Lakes and St. Lawrence Cities Initiative, *Beach Remediation and the Triple Bottom Line for our Communities - Demonstrations of Beach Remediation*

Mike Gardner, Sigurd Olson Environmental Institute - Northland College, *Chequamegon Bay Clean Beach Challenge*

Peter G. Pittner, Miller Engineers & Scientists, *Improving Water Quality at Beaches by Reducing Stormwater Impacts with Naturalized Design*

10:00 – 10:15 a.m. | Gold Coast Area with Exhibitors

Break

10:15 – 11:45 a.m. | Stardust 1

Next Steps in AOC Monitoring and Restoration

Anne Kominowski, Indiana Department of Environmental Management, *NRDA-GLLA Dredging of the Grand Calumet River, Indiana.*

Thomas P. Simon, Indiana State University, *Condition of the Grand Calumet River Area of Concern*

Jeff Edstrom, Environmental Consulting & Technology, Inc., *AOC Data Management System*

10:15 – 11:45 a.m. | Stardust 2

Fish Species Health / Lake Michigan Food Web

James G. Wiener, University of Wisconsin-La Crosse, *Mercury in the Great Lakes Region—A Multi-media Synthesis on Contamination, Bioaccumulation, Exposure, and Ecological Risks*

Mohamed Faisal, Michigan State University, *Fish Health Challenges in Lake Michigan*

Sergiusz Czesny, University of Illinois, *Does spatiotemporally variable prey base in the Great Lakes affect lake trout egg fatty acid signatures?*

P.W. Seelbach, USGS, *Characterization of Habitat and Food Webs in Great Lakes Rivermouth Ecosystems*

10:15 – 11:45 a.m. | Stardust 3

Watershed Academy and Planning Commissions

Martin Jaffe, University of Illinois at Chicago, *The Illinois Green Infrastructure Study*

Angela Pierce, Bay-Lake Regional Planning Commission, *Wisconsin Lake Michigan Water Trail*

Gary Korb, Southeastern Wisconsin Regional Planning Commission & UW-Extension, *Environmental Corridors, Buffer Enhancements and Adoption Challenges*

Joe Exl, Senior Water Resource Planner, *Northwest Indiana's Green Infrastructure Network*

10:15 – 11:45 a.m. | Suncoast A & B

Methods and Studies of Pathogens at Beaches

João Brandaõ, Portuguese National Institute of Health, Lisbon, Portugal, *Pathogenic Fungi: an unacknowledged risk at coastal resorts? New Insights on Microbiological Sand Quality in Portugal.*

Irene Xagorarakis, *Human and Animal Viruses at Saginaw Bay Beaches*

Erin Stelzer, *Comparison of Filtration Systems for Concentrating Pathogens and Pathogen Indicators in Recreational Waters*

Sheridan K. Haack, *Occurrence and Variability of Bacterial Pathogen Genes at Twelve Representative Great Lakes Beaches*

Lisa R. Fogarty, *Methicillin-Resistant Staphylococcus aureas (MRSA) Detected at Great Lakes Beaches*

12:00 – 1:30 p.m. | Stardust Main Ball Room

Lunch: Presentation by Cam Davis: Senior Advisor to the EPA Administrator

1:45 – 3:15 p.m. | Stardust 1

Waterborne Toxins and Stressors

Lyman C. Welch, Alliance for the Great Lakes, *Emerging Contaminant Threats and the Great Lakes*

Riley, S.C., Great Lakes Science Center, *Botulism Type E Toxin in Northern Lake Michigan*

Megan Hines, Nelson Institute of Environmental Studies, *Developing Data Management Tools for Volunteers and the General Public for Reporting Botulism and Algal Events around the Great Lakes*

Lauren E. Riga, M.S., Environment, Law & Economics Institute, *Key Policy Implications for Addressing Legacy and Emerging Water Resource Stressors*

1:45 – 3:15 p.m. | Stardust 2

National Ocean Plan: Panel

Representatives from: Council of Great Lakes Governors, Illinois Coastal Management Program, EPA, Sault Tribe, and Indiana DNR.

1:45 – 3:15 p.m. | Stardust 3

Harbors/Recreation: Clean and Green Marina Programs

Scudder D. Mackey, Ph.D. et al. , Habitat Solutions, *IJC International Upper Great Lakes Study – Water-Level Linkages between Lake Michigan/Huron Economic and Environmental Indicators*

Chuck Pistis, Michigan Sea Grant Extension, *Great Lakes Clean Marina Programs and the Green Marina Outreach and Education Project*

Cathy McGlynn et al., Northeast Illinois Invasive Plant Partnership, *Clean Boats, Clean Waters Pilot Program in Illinois and Indiana*

Vicky Harris et al., Wisconsin Sea Grant, *First Year Results of the Wisconsin Clean Marina Program*

1:45 – 3:15 p.m. | Suncoast A & B

Communicating Beach Water Quality to the Public

Bill Kramer, U.S. EPA, *Communication of Beach Conditions at the National Level: Modernized Beaches*

Christine Manninen, Great Lakes Commission, *myBeachCast: Publishing Beach Data to Smartphones*

Carl Lindquist, Superior Watershed Partnership and Land Trust, *Communicating Beach Water Quality: Engaging the Public by Providing Access to Data with User-friendly Online Tools*

Emelia McAuliff, Wisconsin DNR, *From Surveillance to Improved Decision Making: Improving Beach Quality Data and Information in Wisconsin*

Krystyn Tully, Lake Ontario Waterkeeper, Ontario's Swim Guide: *Getting Information to the Public*