Schedule of Events
March 16-17, 2022

Last revised: March 10, 2022

Wednesday, March 16

	Superior A	Veterans CD	Superior B
7:15 AM	**Registration Check-In / Networking / Exhibits Open**		
8:00 AM	**WELCOME** **Ed Verhamme**, Past President, International Association for Great Lakes Research **Henry Lickers**, Canadian Commissioner, International Joint Commission **Mary Mertz**, Director, Ohio Department of Natural Resources **The Honourable Elizabeth Dowdeswell**, Lieutenant Governor of Ontario		
8:45 AM	**Monitoring and progress in the St. Clair-Detroit River system** **M. Selzer** *St. Clair-Detroit River System Initiative Update and Charting the Course for the Future*	**Lake Erie Harmful and Nuisance Algal Blooms + Panel** **N. Zacharda** *The Great Lakes HABs Collaborative- linking science and management to reduce blooms*	**Insights on Lake Erie Emerging Contaminants of Concern** **A. Jefferson** *Plastic dynamics in Cleveland streams and beaches, with implications for Lake Erie*
9:00 AM	**N. Pozega** *An Update on the Status of the St. Clair River Area of Concern (Canada)*	**M. Burrows, M. Murray** *Addressing nutrient-related impacts in Lakes Erie and Ontario under the GLWQA: An assessment of progress to date.*	**R. Mirza** *Fate and Transport of Microplastics in the Detroit River Originating from the Detroit Wastewater Treatment Plant*
9:15 AM	**T. Baker, B. Baker** *Persistent contaminants of emerging concern in water, sediment, and fish in a Great Lakes urban-dominant watershed*	**M. Selzer** *Michigan's Active Adaptive Management Approach to Reduce Lake Erie Harmful Algal Blooms*	**S. Dutta** *Removal of pharmaceuticals and personal care products (PPCPs) using lab-scale drinking water biofilters using source water from Lake Erie watershed*
9:30 AM	**J. Serran** *Tipping the scales of progress: Ongoing remediation on the Canadian Detroit River Area of Concern restores beneficial uses*	**A. Parker** *Before reaching the big lake: cyanobacteria blooms in Michigan's inland lakes*	**J. Farver, S. Orlando** *Copper and Zinc in Boat Wash Wastewater from Lake Erie Marinas*
9:45 AM	**M. Fitzpatrick** *An ecological assessment of phytoplankton, zooplankton and microbial communities in the Detroit River Area of Concern*	**S. Bihn** *Animal Agriculture & Surface Water Quality in the Maumee Basin of Lake Erie*	**J. Ogorek** *An Exception Among Giants: Why Mercury Cycling in Lake Erie Differs from the other Great Lakes*
10:00 AM	**F. Foose, S. Noffke** *Contaminated Sediments of the Detroit River Area of Concern*	**K. Przybyla-Kelly** *Four lakes, four years: How does Cladophora biomass in Lake Erie weigh in against other Great Lakes?*	**R. Lepak, J. Ogorek, J. Hoffman, S. Janssen** *Exploring the Heterogenous Mercury Sources to Seston Across Lake Erie's Basins and Nearshore*
10:15 AM	**BREAK / EXHIBITS OPEN**		
10:30 AM	**K. Drouillar** *Fish movements confound beneficial use impairments #1 - fish consumption advisories*	**A. Sirviente** *Development of a Lake Erie Harmful Algal Bloom Early Warning System*	**State of smart Lake Erie: Innovation, collaboration and entrepreneurship for a Great Lake** **G. Pu** *Lake Erie Water Innovations from the perspective of the Water Innovation Postdoc*
10:45 AM	**M. Foose** Habitat Restoration in the Detroit River Area of Concern	**S. Newell** *Nitrogen availability as a driver of HABs and toxins: the missing piece for modeling?*	**J. Dawes, E. Hoffman** *Supporting the Smart Citizen Community Science Program with Interoperable Data*

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11:00 AM	**T. Heatlie** *Habitat Restoration within Coastal Areas of the St. Clair-Detroit River System (SCDRS)*	**J. Chaffin** *Microcystin production and biodegradation rates in the western basin of Lake Erie*	**E. Verhamme** *Smart Lake Erie Watershed Initiative - Coming in 2022*
11:15 AM	**T. Tucker** *The Great Lakes Phragmites Collaborative: Supporting science and management of an invasive grass in the St. Clair-Detroit River System*	**Panel Discussion**	**K. Caslow** *Low cost, real-time water quality buoys for monitoring expansion in Lake Erie*
11:30 AM	**E. Rosema** *Science and Monitoring Guide Recovery of Fisheries Habitat and Populations in the St. Clair-Detroit Rivers System*		**C. Lee** *Low cost, networked sensor buoys for a scalable algae monitoring program*
11:45 AM	**G. Kennedy** *Quantifying Physical Maturation of Artificial Spawning Reefs in the St. Clair-Detroit River System*		**G. Anderson** *HAB prediction using the water microbiome*
12:00 PM	**R. Hunter** *Assessing constructed spawning habitat use by adult Lake Sturgeon through sibship reconstruction*		
12:15 PM	**LUNCH / EXHIBITS OPEN**		
1:00 PM	**PLENARY** **Chris Korleski**, Director, U.S. Environmental Protection Agency *The Great Lakes and the GLRI : Past, Present, and (Mostly) Future* (Introduction/Q&A Moderation by **Christopher Winslow**, The Ohio State University Sea Grant College Program)		
2:00 PM	**Monitoring and Progress, cont.** **R. Debruyn** *What we know from 15 years of ichthyoplankton sampling in the St. Clair-Detroit River System*	**State of community science: Credible data and innovative partnerships** **M. Herzog** *Smart Community Science: Credible Water Quality Monitoring for Lake Erie Communities*	**State of smart Lake Erie, cont.** **S. Bickman** *Rapid detection of microcystin and cylindrospermopsin toxins generated from harmful algal blooms*
2:15 PM	**A. Briggs** *Year One of a Collaborative Lake St. Clair Fishery Assessment*	**R. Lawson, A. Paine** *Turning Citizen Science into Action*	**J. Berg** *Payment for Delivered Ecosystem Services to Improve Runoff Quality from Agricultural Lands*
2:30 PM	**J. Chiotti** *Identifying and characterizing juvenile lake sturgeon (Acipenser fluvescens, Rafinesque, 1817) occupancy hot spots within the St. Clair-Detroit River System*	**E. Diesing** *Clinton River Citizen Science*	**G. Cutrell** *Evaluation of Edge-of-Field Nitrate Sensors in the Maumee River Basin, OH*
2:45 PM	**S. Keretz** *Species distribution modeling for native and invasive mussels in the St. Clair and Detroit rivers*	**S. Guiher** *Connecting Communities to Lake Erie With TMACOG's Student Watershed Watch*	**C. Kozora, M. Corcoran** *Field Monitoring for Nutrients via Remote Deployment with Telemetry*
3:00 PM	**K. Towne** *Targeted Early Detection for Aquatic Invasive Species in the St. Clair-Detroit River System*	**B. Hohman** *Monitoring to Communication*	**T. Hintz** *Remote Monitoring, Simplified*
3:15 PM	**D. Keffer** *Sea Lamprey Assessment in the St. Clair-Detroit River System 2011-2021*	**B. Turner, J. Grieser** *Showcasing Volunteer Involvement in Stream Restoration*	**B. Wong** *Real-time Flood Maps from On-site Sensors*
3:30 PM	**R. Young, J. McCarter** *An update on Grass Carp monitoring and control in Lake Erie*	**M. Jabot** *Development of a citizen science monitoring program for Lake Erie Tributaries*	**G. Meiri** *Utilizing data analytics to detect pollution in watersheds and river basins and support timely event response*
3:45 PM	**BREAK / EXHIBITS OPEN**		

	Superior A	Veterans CD	Superior B
4:00 PM	**Monitoring and Progress, cont.** **J. Fisher** *Assessing the Assessment: Long-Term Fisheries Monitoring in the St. Clair-Detroit River System*	**Lake Erie hypoxia: State of the science and approaches to track future progress** **S. Kosek-Sills, S. Wortman, P. Gledhill** *Policy Perspectives and Management Challenges in Addressing Hypoxia in the Central Basin of Lake Erie*	**Ecological modeling of Lake Erie** **M. Rowe, C. Stow, R. Beletsky, P. Alsip** *Simulation of inter-annual variation in Lake Erie hypoxia timing and extent with a physical dissolved oxygen model*
4:15 PM	**C. Hilling** *How well are we measuring fishery responses to habitat restoration in the St. Clair-Detroit River System?*	**J. Senko** *Development of an electrochemical approach to monitor sediment biogeochemistry*	**P. Alsip** *Modeling suspended sediment and light attenuation in Lake Erie*
4:30 PM	**Remediation to restoration to revitalization: Examining the current state of Lake Erie AOCs** **J. Lehnen** *Accelerated Progress in New York's Areas of Concern*	**C. Gluck** *Quantification of Sediment Color Changes During Hypoxia in Lake Erie's Central Basin*	**S. Bocaniov** *Long-term phosphorus mass-balance analysis reveals a major role of in-lake processes in the re-eutrophication of Lake Erie*
4:45 PM	**L. Garrity** *Delisting Progress in Ohio's Areas of Concern*	**C. Kitchens** *Nearshore to Offshore Distribution of Manganese With Respect to Hypoxia in the Central Basin of Lake Erie*	**A. Galloway** *Predicting Dreissenid Mussel Abundance in Nearshore Waters using Underwater Imagery and Deep Learning*
5:00 PM	**M. Mills** *10 Years Post-Remediation Progress Evaluated and Impacts on Restoration in the Ashtabula River Area of Concern*	**K. McCabe** *Distribution of Phosphorus and Nitrogen with Respect to Seasonal Hypoxia in Lake Erie's Central Basin*	**Z. Xia** *In situ grazing rates on lake seston by invasive dreissenid mussels: a control volume experiment*
5:15 PM	**A. Binion-Zuccaro, M. Kern** *Otter Creek Great Lakes Legacy Act Cleanup: Advancing Progress in the Maumee Area of Concern (AOC), Ohio*	**C. Stow** *Seasonal stratification and hypolimnetic hypoxia in and around Lake Erie's central basin*	**R. Valipour** *High-resolution modeling to simulate mussels' nutrient recycling and Cladophora growth in Lake Erie*
5:30 PM	**J. Telep, E. Soehnlen** *The Burning River 53 Years Later: Historical Improvements in the Cuyahoga River Area of Concern*		**Z. Hassan** *Assessment of Climate Change Impacts on Cleveland (Ohio) Urban Streamflow*
5:45 PM	**A. Bellamy** *Examining fish tumors and deformities in Ohio AOCs to assess effectiveness of management actions*		**J. Heck, J. Jalbrzikowski** *The International Great Lakes Datum: Foundational Infrastructure for Monitoring Lake Levels*
6:00 PM	**B. Sparks-Jackson** *Science-based decisions guide the development of ecological restoration projects in the Maumee River*		
6:15 PM	**POSTER SESSION** **K. Fite -** *Understanding microcystin accumulation in Lake Erie's food web* **M. Smith -** *Novel Use of Water Treatment Residuals for Phosphate Removal in the Upper Cuyahoga River Watershed* **J. Berg -** *Living or Nature-Based Shorelines in Sandusky Bay, Ohio: Designs for Water Quality and Habitat Improvements* **D. Peters -** *Zooplankton Grazing on Picoplankton and Nanoplankton During Harmful Algal Blooms* **L. Collis -** *Grazing by Meso- and Microzooplankton During Harmful Algal Blooms in western Lake Erie* **J. Lehnen -** *South Shore Lake Erie Coastal Resilience Data Assessment* **M. Piczak** - *Harmful algal bloom effects on fish habitat use and community structure within Lake Erie* **D. Neelon, H. Boesinger** - *Communicating Water Quality and Promoting Environmental Stewardship* **C. Helmer** - *Investigating eutrophication as a driver of methanogenesis in the western basin of Lake Erie* **J. Stoll** - *Does zinc limit organic phosphorus remineralization in stream biofilms?* **M. Summers** - *Removal of Cyanotoxins from Drinking Water through Biological Filtration* **K. Panozzo** - *Mapping Conservation Practices to Evaluate Water Quality Benefits in the Maumee River Watershed* **B. Henderson-Dean, C. Condon, H. Vangen** - *Monitoring Antibiotic Resistant Populations as a Correlative to Water Quality*		

Thursday, March 17

	Superior A	Veterans CD	Superior B
7:15 AM	**Registration Check-In / Networking / Exhibits Open**		
8:30 AM	**WELCOME** **Max Herzog**, Program Manager, Cleveland Water Alliance **Justin M. Bibb**, Mayor, City of Cleveland		
8:45 AM	**A systems view of Lake Erie Biogeochemistry** **F. Yuan** *Dynamics of carbon and sulfur in the nearshore waters of Lake Erie*	**Living Lab Ontario - part of the Canadian Agroecosystem Living Laboratories network** **P. Joosse** *Abstract Title: Canada's Nationwide Network of Agroecosystem Living Labs*	**Building a Lake Erie monitoring program to inform biological condition** **D. Kane** *CLEVELAND ROCKS(alt): Increases in Cuyahoga River Chloride Concentrations during the last 4 Decades*
9:00 AM	**H. Henderson** *Sea chest sees it best: pCO2 and water quality monitoring in Lake Erie's western basin using a ship-mounted flowthrough system*	**T. Ryan** *The Living Lab-Ontario Project*	**N. Manning** *Nitrogen loading trends for several Lake Erie tributaries at multiple temporal scales*
9:15 AM	**H. Moore** *Influence of temperature and nutrients on primary production and phytoplankton biomass*	**C. Parsons** *Assessing the impact of continuous cover on biogeochemical cycling and stream health in Lake Erie headwaters*	**D. Robertson** *Use of SPARROW model results and limited tributary monitoring to estimate loading from the entire Great Lakes Basin*
9:30 AM	**K. Bosse** *Remote Sensing as a tool to assess the impact of COVID-19 shutdown on Lake Erie*	**A. Bartlett** *Using aquatic ecological endpoints to assess agricultural practices in the Lake Erie Basin*	**D. Bade** *Annual maximum microcystin concentrations in Western Lake Erie predicted by early season total phosphorus concentrations*
9:45 AM	**Lake Erie Field Year 2019 results - CSMI** **P. Collingsworth, K. Fussell, C. Winslow** *Overview of Lake Erie CSMI activities in 2019*	**Lake Erie Literacy and Education** **M. Kowalski** *Shipboard Science on the R/V Lake Guardian*	**E. Reavie** *Long-term data clarify the nature of Lake Erie's hypoxia*
10:00 AM	**B. Lesht** *Lake-wide Measurements of Primary Productivity During the 2019 Lake Erie CSMI Field Year*	**S. Insley** *Lake Erie-Great Lake, Great Opportunity*	**A. Karatayev** *Long-term dynamics of Lake Erie benthos: One lake, three distinct communities*
10:15 AM	**BREAK / EXHIBITS OPEN**		
10:30 AM	**A. Bramburger** *Phytoplankton Stable Isotope Signatures of Lake Erie, 2019*	**D. Murduck** *Equity in Teaching Students the Importance of the Great Lakes*	**L. Burlakova** *Lake Erie Monitoring: Can video imagery help delineate benthic habitats?*
10:45 AM	**C. Marshall, P. Boynton** *Lake Erie Temporal Rotifer Community Dynamics of CSMI 2019*	**A. Greene** *Learn About Lake Erie... Virtually! Ohio Sea Grant/Stone Laboratory Offer Virtual Field Trips to Teachers and Students Grades 5-12*	**S. Daniel** *Challenges to DNA barcoding: an ecologist's perspective*
11:00 AM	**J. Watkins** *Seasonal succession of zooplankton in Lake Erie in 2019*	**Community Science and Outreach** **P. Lawrence** *Development of an EcoHealth Report Card for Western Basin of Lake Erie*	**S. Figary** *Using zooplankton to track ecosystem condition in Lake Erie*
11:15 AM	**L. Eaton** *Zooplankton Community Dynamics in the Central Basin of Lake Erie*	**R. Miltner, K. Heyob** *Monitoring for agency: Considerations for developing an effective citizen science program*	**E. Whitmore-Stolar, J. Connolly** *Non-native zooplankton of Lake Erie: new data and updates*
11:30 AM	**A. Elgin** *Dreissenid mussels in Lake Erie: Population assessment, body condition, and reproductive status*	**B. Alford** *Monitoring Harmful Algal Blooms in Lake Erie Using Charter Fishing Captains*	

Thursday, March 17, 2022 (continued)

	Superior A	Veterans CD	Superior B
11:45 AM	**A. Hrycik** *Assessment of Lake Erie Dreissena populations with video methods*	**G. Parent-Doliner, R. Gill** *Stronger Together: Spotlight on Lake Erie Guardians*	**J. Bailey** *Changes in zooplankton phenology in Western Lake Erie, 1995-2020*
12:00 PM	**S. Ludsin** *Overview of the 2019 CSMI program designed to understand harmful algal bloom & hypoxia impacts on Lake Erie's webs*	**J. Bader** *Smart Citizen Science Curriculum Project*	**J. Hood** *Western Lake Erie zooplankton dynamics are shaped by winter ice cover and summer cyanobacteria blooms*
12:15 PM	**LUNCH / EXHIBITS OPEN**		
1:00 PM	**PLENARY** **Bill Zawiski**, Water Quality Group Supervisor, Ohio Environmental Protection Agency *The Cuyahoga River: From Flame to Fame* (Introduction by **Christopher Winslow**, The Ohio State University Sea Grant College Program; Q&A Moderation by **Ken Gibbons**, LimnoTech) **Wrap-Up: Ed Verhamme**, Past President, International Association for Great Lakes Research **Closing:** Henry Lickers, Canadian Commissioner, International Joint Commission		
2:00 PM	**CSMI, cont.** **K. Benesh** *Preliminary findings from the Lake Erie CSMI regarding stable isotope-based measures of food web changes associated with harmful algal blooms*	**Community Science and Outreach, cont.** **M. App** *Enabling Student and Citizen Scientists with Universal Data Access*	**Building a Lake Erie monitoring program, cont.** **K. Lang** *Quantifying changes in Lake Erie grass carp mortality rates to assess management success*
2:15 PM	**R. Budnik** *Cyanobacteria bloom effects on the feeding ecology of western Lake Erie's fish assemblage*	**W. Carr** *Reducing Trash in Toledo's Waterways Using Trash Traps*	**R. Miltner** *Defining and establishing an aquatic life use for Lake Erie*
2:30 PM	**K. Bowen** *Western Lake Erie harmful algal blooms and zooplankton spatial distribution during CSMI 2019*	**J. Bartolotta, S. Bixler** *Skip the Straw, Ban the Bag: Does it really work?*	**S. Kosek-Sills** *Ohio's State of the Lake – Lake Erie Quality Index*
2:45 PM	**W. Currie** *Findings from the whole-lake lower trophic food web survey for the 2019 Erie CSMI*	**A. Alford** *Increasing Island (Wild) Life Knowledge Through Community Engagement and Science: The Lake Erie Islands Nature and Wildlife Center*	**Designing and evaluating wetlands to optimize environmental and ecological benefits** **L. Kinsman-Costello, J. Kerns** *The H2Ohio Initiative Wetlands Monitoring Program: Assessing Nutrient Removal in Diverse Wetland Projects*
3:00 PM	**S. Provo** *Distribution of Larval Coregonines in Southern Lake Erie*	**M. Cross** *Estimating population size of a threatened turtle using community and citizen science*	**G. Keny** *An Anthropological View of HAB Mitigation in Lake Erie*
3:15 PM	**T. Yang** *Diets of Age-0 Walleye Reflect Food Web Changes in Western Lake Erie*	**R. MacDonald, F. McCarthy** *Harvesting of wild rice by indigenous people during the Nipissing Flood event in the Erie basin: reconciling geological and archaeological records at the Middle Woodland Fitzgerald Site*	**S. Jacquemin** *Nurtrient removal potential of restored wetlands: Lessons from Grand Lake St. Marys watershed for H2Ohio*
3:30 PM	**Z. Amidon** *Lake Whitefish Egg, Larvae, and Juvenile Monitoring in Lake Erie Reveals Critical Survival Window*		**R. Mendonca, R. Hamza** *Developing Integrated and Continuously Updated Data Infrastructure for heterogenous wetland monitoring data*
3:45 PM	**BREAK / EXHIBITS OPEN**		

	Superior A	Veterans CD	Superior B
4:00 PM	**CSMI Facilitated Discussion** *Facilitated discussion focused on better understanding and communication of the research results to LAMP partners as well as discussing science needs for Lake Erie with a focus on the priority setting process that will lead to research and project planning for the 2024 Lake Erie CSMI field year.*	**Agricultural practices and water quality** **A. Rahman** *Soil accumulation and edge-of-field loss of phosphorus to surface water under diverse agricultural management practices in Ohio*	**S. Ogundeji** *Object-Based Classification of Unmanned Aerial Vehicle (UAV)/Drone Imagery to monitor H2Ohio Wetlands*
4:15 PM		**D. Mathie** *Phosphorus cycling during high flow events in the Maumee River watershed: A Lagrangian analysis*	**J. Berkowitz** *A multi-scale framework for evaluating wetlands in a nutrient reduction context*
4:30 PM		**N. Zhang** *Impact of hydraulic fracturing induced landscaping change on regional surface water quality in eastern Ohio*	**A. Sakas** *Landscape Scale Restoration to Address Lake Erie Harmful Algae Blooms*
4:45 PM		**F. Michel, J. Ziss** *Use of Composts to Improve Nutrient Retention and Provide Slow Release Crop Fertility for degraded soils in the Lake Erie Watershed*	**B. Arvai** *H2Ohio Sandusky Bay Restoration Initiative Nutrient Reduction Wetlands – Design Elevations using the Twin Limit Marsh Model*
5:00 PM		**R. Islam** *Performance of bio-based dipolar adsorbent to control edge-of-field phosphorus loss*	**K. Kratt** *Coastal Water Quality Modeling in Support of the Sandusky Bay Initiative*
5:15 PM		**S. Kosek-Sills** *Agricultural BMP Implementation Through H2Ohio Programs*	**J. Villa, G. Bohrer, T. Yazbeck** *Understanding the role of microtopography and nutrient runoff in P accumulation rates of a freshwater estuarine wetland in Lake Erie*
5:30 PM		**W. Hemker, J. Hoorman, J. Blakeman** *Reducing Phosphorus Runoff and Harmful Algal Blooms in Lake Erie Using Vegetated Solutions in Farm Production*	**G. Bohrer** *Methane emissions and carbon sequestration in a Lake Erie estuarine wetland*