Assessing Hypoxia in Lake Erie
CIGLR Summit October 26, 2021
All times are Central Daylight Time

Pre-Meeting Reminders
All attendees received an email on Oct. 19, 2021 about the meeting that includes:
- A short survey on interest in a special issue of JGLR
- A reminder to watch recordings if you have not already seen them
- A reminder to review Monitoring and Modeling Summary Tables. Add information about how your organization uses other the resources listed, as appropriate (see columns L, M, N in each sheet).

9:30 a.m. Meeting Overview and Introductions
9:30 a.m. Welcome remarks - Greg Dick, CIGLR Director
9:40 a.m. Webinar presentation - Paris Collingsworth and Josh Tellier
10:00 a.m. Review purpose of the workshop
10:10 a.m. Summarize key outcomes from previous webinars on Monitoring & Modeling Data Products
10:20 a.m. Review instructions for the group for breakouts

10:30-11:30 a.m. Breakout Session 1
Each breakout room has the same questions and is organized by a moderator and designated note-taker. All participants can access the notes to help deposit links etc.

Charge questions
● What are the 3-4 current, key sources of monitoring or modeling data that are most critical to organizations who want to know the timing and extent of hypoxia in Lake Erie?
● Where are there overlapping efforts for monitoring or modeling hypoxia in Lake Erie?
● What data gaps exist for monitoring or modeling hypoxia in Lake Erie, currently?
● How can current monitoring and modeling programs be enhanced or modified to streamline data collection and sharing, and fill data gaps?
     o Spatial coverage of shipboard and fixed-location sampling
     o Temporal frequency of observations
     o Data availability and quality standards
     o How can technological advances in observing systems complement long-term monitoring and ongoing datasets?

11:30 a.m. Break
Please stay in the breakout room with your camera and microphone off. If you log out of Zoom, you can re-enter the main room and we will help you rejoin your breakout.

12:15 to 1:45 p.m. Breakout Session 2
Remain in same breakout groups, discuss question prompts and prepare a summary from both sessions.

Charge questions
● What is the status of hypoxia in Lake Erie, as we understand it?

○ Which particular locations have the greatest known impacts? Which locations have the greatest uncertainty? (can be informed by data gaps above)
○ Are particular times of year worse?
○ Is monitoring set up to answer this question?
● How do we share the information with stakeholders?
○ Which communication products are most helpful, currently, and how are they disseminated (e.g., from agency to agency, from agency to particular stakeholder groups, from agency to public)?
○ Could the most helpful communication products be tweaked to make them more suitable for different audiences (e.g., include both metric and imperial units; allow for an ability to zoom in on different locations; revise with a 0-10-type criterion; add in particular metrics for different groups)?
○ Are there key communications products that do not currently exist but could have a major, positive impact on stakeholders' health and livelihood? Is anyone considering producing those?
● Could a routine assessment of hypoxia be done? Which metrics are most appropriate for the data available?
○ Compare these metrics for describing hypoxia, with emphasis on potential biases, compatibility with the GLWQA Objective, and suitability for both stakeholders and the parties.
○ What are the advantages and shortcomings of different metrics? (areal extent, spatial location, volume, average DO concentration, duration of hypoxic conditions, etc.)
○ What are the advantages and challenges of adopting an ensemble of metrics and approaches?
○ What design characteristics should be considered, e.g., transects perpendicular to shore, same stations to historic sampling, frequency of sampling events?
○ How can we incorporate these metrics into communications products?
● What can we learn from hypoxia monitoring/modeling programs outside Lake Erie and are there examples that we should follow?

Before leaving breakout room, ensure the group has agreed upon 1-2 highlights for each of the main bullets from the morning and afternoon breakouts.

1:45 p.m. Break

2:00 p.m. Report-Out from Breakouts and General Discussion
Return to main room. Round robin sharing of highlights from each breakout. Further discussion as needed.

By 2:45 p.m.: All participants answer: What are the top 3-5 recommendations for U.S. EPA and ECCC to be able to routinely assess hypoxia? What are the top 3-5 recommendations for sharing information with stakeholders? Individuals answer this via a Google form.