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 https://www.dropbox.com/sh/0xa4rlazldn7xk4/AACegx86p-xa6sqnJVy36j2Pa?dl=0
- 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. Mike/Santina introduce Paris Collingsworth and Josh Tellier, who will give a final presentation from the webinars

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.

Breakout Room 1 Notes

Breakout Room 2 Notes

Breakout Room 3 Notes

Breakout Room 4 Notes

Breakout Room 5 Notes

- 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?

- Spatial coverage of shipboard and fixed-location sampling
- Temporal frequency of observations
- Data availability and quality standards
- 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

- 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?
  - Are some communication products more suitable for particular audiences? Could communication products be tweaked to make them more suitable for different audiences (possible talking points: e.g., include both metric and imperial units; allow for an ability to zoom in on different locations)?
  - 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 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.

3:00 pm Summit Wrap-Up and Closing Remarks