



## May 15, 2017 Meeting Summary

The Great Lakes Commission's HABs (Harmful Algal Blooms) Collaboratory held its second in-person meeting in Ann Arbor, Michigan. During the meeting, which was held at the NOAA-Great Lakes Environmental Research Laboratory, nearly thirty members of the Collaboratory received updates from topical subgroups, assessed the first year of the HABs Collaboratory, and discussed future priorities.

Key priorities emerging from the meeting include:

- Complete subgroup fact sheets for unveiling at the September Ohio Sea Grant HABs conference
- Continue the HABs Collaboratory webinar series including "Field Season Plans", a webinar directed at the general public, and "Manager/Agency talk" webinars
- Provide more updates to promote past webinar videos
- Holding a 1-2 h in person meeting of the Collaboratory at the 2018 IAGLR or another well attended regional conference
- Strengthening research and communication of research in areas beyond western Lake Erie
- Expanding HABs Collaboratory participation to include more manager, policy makers and the interested public

### Updates from Topical Subgroups

During this session, each topical subgroup updated Collaboratory members on the current progress of the group and future direction. Subgroups received feedback on their draft factsheets and discussed how they could ensure a consistent message across factsheets. Overall, the subgroups agreed finishing their products by September 1<sup>st</sup> and unveiling them at the Understanding Algal Blooms: State of Science conference was a good target for the group.

### Toxicity of HABs

Group members: Pattama Ulrich, Greg Boyer, Jen Mou, Jiyoung Lee, Mary Skopec, Chris Winslow, and Heather Raymond

The Toxicity of HABs subgroup is looking to inform various audiences about exposure to cyanobacterial toxins. The goal of the subgroup is to build a tool to communicate a common message with scientific consensus. Since cyanobacterial toxins affect a diverse audience, the subgroup decided to create 4 fact sheets (public drinking water, private drinking water, public recreation, private recreation) that will contain information tailored to its specific audience. Currently, the subgroup is reviewing draft fact sheets. The group hopes to publish factsheets at the State of Lake Erie meeting in Toledo on September 14<sup>th</sup>. The Collaboratory can help the subgroup by sending any existing factsheets to Chris Winslow ([winslow.33@osu.edu](mailto:winslow.33@osu.edu)) or Ken Gibbons ([kgibbons@glc.org](mailto:kgibbons@glc.org)). Also, anyone interested in joining the group or willing to review draft factsheets should contact Chris or Ken

Gary Kolhepp, Sarah Bartlett, and Alexandra Rafalski are interested in reviewing the fact sheets.

## Cures to HABs

Group members: Justin Chaffin, Dion Dionysiou, and Joe DePinto

The Cures to HABs subgroup is looking to create a factsheet for the public that will dispel the myth that a 'cure' to Lake Erie HABs is available through either chemical or physical treatments. The beginning of the factsheet will state that the correct cure for HABs is a reduction in nutrient loading. Next, the factsheet will explain why chemical and physical treatments will not work for Lake Erie by highlighting scaling issues and environmental concerns. The group is also considering creating a diagram that highlights why chemical and physical treatments will not work on the lake. Finally, the group will briefly discuss what will cure HABs. Potential topics include: BMPs, removing CSOs, and wetland restoration. Since the subgroup is currently small, additional participants would be helpful.

## Sources of Nutrients

Group members: John Bratton, Rebecca Muenich, Dale Robertson, Sandy Eberts, Pattama Ulrich, Santina Wortman, Margaret Kalcic, Doug Kane, Laura Johnson, Kristen Fussell, and Jeff Reutter.

The group has built consensus about which sources of nutrients they would like to identify in this factsheet and have decided to create a two-sided factsheet. The factsheet will identify major sources of phosphorus, the relative magnitude of these sources, and where to get more information about these sources. This factsheet is intended for the educated members of the general public. Some of the biggest challenges for the group are determining the right amount of simplification, what period of time to show, and handling areas of active research. The group intends to finish by the end of the summer, which will coincide with the September conference release date.

## Role of Nitrogen

Group members: Silvia Newell, Joe DePinto, Kateri Salk, Mark McCarthy, Elizabeth Finzer, Brian Austin, Mary Skopec, Justin Chaffin, Laura Johnson, and Craig Stow.

The goal of the subgroup is to develop a product that explains the important role of nitrogen (N) in Great Lakes HABs. The subgroup has decided that the best way to do that is to create a handout that explains the role of nitrogen in HAB formation. Content of the handout will include information on how nitrogen enters the Great Lakes, the different forms of nitrogen, the effect of nitrogen on HABs, strategies to reduce nitrogen loading, and future directions for nitrogen research. To help explain the different forms of nitrogen and bioavailability, the subgroup is creating an infographic that will easily explain this concept to the public. Finally, the subgroup looks for input on identifying key managers and how to distribute their handout.

## One year later: looking back and looking forward

During this session, Victoria Pebbles from the Great Lakes Commission gave an overview of the Collaboratory highlighting what has been accomplished in the past year and gave a preview of plans for the upcoming year. Participants then went into breakout groups to discuss the past year of the Collaboratory and ideas for improvement (discussion was aided by having question prompts). The breakout groups then reconvened to present to the larger group and continue discussion. Feedback was mostly around four main topics: events, topics, collaborative network, and future ideas.

The most popular event for the HABs Collaboratory was the webinars. Overall, there was broad support for both the short and in-depth webinars. The group would like the webinar series to continue. Some ideas for webinars are a "Field Day" (using the speed talk format people give a brief overview of what they plan to do this summer), a webinar geared towards the public (science boiled down and is accessible to the general public, also invite government representatives to this webinar), and "Manager/Agency talk" (lake managers and representatives from agencies discuss what gaps in knowledge need to be filled). In addition to webinar topics, the group suggested doing a press release after webinars that would summarize the talks, which would allow people who missed the webinar to be able to quickly catch up. The other Collaboratory event the group gave feedback on was the in-person meetings. For future meetings, it was suggested to have a shorter meeting (1-2 hours) that would occur during a well-attended conference, such as IAGLR or State of Lake.

When discussing topics covered by the HABs Collaboratory, the group agreed that western Lake Erie HABs were well covered. The group was interested in expanding topics to include HABs from across the Great Lakes and expanding to include inland lakes and HABs from lakes outside the Great Lakes Basin. There was also interest in expanding the topics from research projects to include management and agency perspective. The group is very interested in learning more about what research questions will help lake managers and agency employees.

As for future directions, in the upcoming year of the Collaboratory the group is interested in expanding the intended audience to include policy makers and the public. Currently, the Collaboratory has focused on linking scientists and most communication has been done through the email list serve. To reach the public, the group would like to include more information about HABs on the Collaboratory website to help the public better understand the problem of HABs. Information could be displayed in a story map or other interactive site. Another method for reaching the public may be using social media, such as facebook, twitter, reddit AMA, etc. Other suggested additions to the website are including a roster of HABs Collaboratory members and an interactive map showing where members are conducting research.

The group also discussed the desirability of funding to support future product development. Currently, we have funding for GLC staff support but not for member participation. In the future, the GLC may be able to distribute mini grants to support product development. Another possible route for funding is for research groups to leverage the HABs Collaboratory in the broader impacts section of grant proposals, funding specific product development through research grants while drawing on the Collaboratory to expand the reach of these products.