



Great Lakes HABs Collaboratory

Linking Science and Management to Reduce Harmful Algal Blooms

2019-2020 HABs Collaboratory Request for Proposals

The Great Lakes HABs Collaboratory is offering funding to facilitate collaboration on projects relating to Great Lakes HABs. Projects can range from research focusing on knowledge gaps to outreach products designed to communicate the latest HABs science to a broader audience. Applicants are encouraged to be creative in choice of projects. Funding is intended to provide resources to pursue innovative projects/media campaigns. There is \$15,000 available for funding and it is anticipated that 1 to 3 proposals will be funded. The minimum request for each proposal is \$5,000 and maximum request is \$15,000. For winning proposals, funding will generally be disbursed with half as an upfront payment and the last half upon completion.

How to Apply:

To apply, send proposals (see guidelines, below) to gl.habs.collaboratory@gmail.com by 5:00 P.M. (eastern) on Friday March 22th. For questions regarding the proposal and eligibility, please contact Ken Gibbons (kgibbons@glc.org). For questions regarding eligible content, please contact Silvia Newell (silvia.newell@wright.edu) or Michelle Selzer (SELZERM@michigan.gov).

Guidelines:

Proposals should include a list of primary collaborators and the topic(s) to be addressed. For topics, applicants are encouraged to consult the General Science Needs referenced by the Great Lakes Water Quality Agreement Annex 4 Objectives and Targets Task Team or Research Needs identified in the Harmful Algal Blooms and Hypoxia in the Great Lakes Research Plan and Action Strategy: An interagency report. A copy of the general science needs and consolidated list of Research Needs can be found below. Applicants from across the Great Lakes Basin or from organizations conducting research on Great Lakes HABs are encouraged to submit proposals.

For research projects, proposals should identify the knowledge gaps being addressed and articulate how results will inform lake management. Applicants are encouraged to provide a letter of support from a management agency clearly articulating the necessity of the proposed research project.

For media campaigns, applicants are encouraged to provide details on the topic(s) covered, the proposed media, and intended audience. Potential media include fact sheets, videos, story maps, etc. Media campaigns can cover the “current knowledge” of a topic or highlight a specific research effort designed to fill a knowledge gap. Applicants are encouraged to provide a letter of support from a member of the scientific community actively working on the focus of the proposal stating that the proposal’s deliverable(s) will be reviewed for accuracy.

Proposals should be no more than 2 pages in length. Applicants are encouraged to include collaborators from multiple institutions. A budget and timeline should be included in the proposal. Projects should be completed by May 2020.

General criteria for review:

Proposals will be evaluated based on:

- Letters of support
- Relation to HAB Collaboratory [Charter Priorities](#) and [Work Plan](#).
- Involvement of students and/or junior staff.
- Collaboration among institutions.
- Feasibility of completing the proposed project on time and within a reasonable budget.

Specific Criteria for review:

For Research Projects:

- Addressing and/or synthesizing activities that the federal agencies are implementing in the Great Lakes to address knowledge gaps identified in the [Harmful Algal Blooms and Hypoxia in the Great Lakes. Research Plan and Action Strategy: An interagency Report](#).
- Ability to demonstrate innovative use of funds to initiate research related to Annex 4 General Science Needs.

For Media Campaigns

- Innovative use of media to disseminate latest HABs science.
- Ability to complement current suite of [HABs Collaboratory products](#).
- Sufficient details on planned deliverable(s) and intended audience(s).

General Science Needs from Annex 4 and select Research Needs from HABHRCA (see HABHRCA's full list [here](#))

- Information on the role of various forms of nitrogen in toxin production and in determining the HAB species that bloom.
- Information on the triggers for toxin production and the relationship to HAB biomass.
- Information to elucidate the impact of invasive species (e.g., dreissenid mussels) on the algal community and their role in cyanotoxin production and concentration.
- Information on the impact of lake physics on the impacts of HAB species, e.g., effect of wind and currents concentrating the algae.
- Toxicity information on algal toxins that occur in the Great Lakes.
- Information on the impacts of HABs and toxins on the ecosystem, important fish species (e.g., walleye and yellow perch), and the food web.
- Evaluate the impact of climate change and shifting hydrology.
- Develop the ability to identify algal species from satellites.
- Develop new probes to measure algal toxins and Dissolved Reactive Phosphorus.
- Develop an improved understanding of Sediment Oxygen Demand (SOD) and the relationship and lag time between nutrient loading and SOD.
- Develop an improved understanding of the impact of sediment resuspension on nutrient loading and movement.
- Determine the relative effects of legacy sediment and nutrient loads, and lag-times, on HABs, including contributed loads from stream and tributary systems.
- Develop control technologies to mitigate nitrogen and phosphorus movement in agricultural production systems and devise models to assess nitrogen and phosphorus life cycles in actively managed agricultural systems.

- Develop improved forecast models that integrate and identify relationships among nutrient concentration information, bloom timing, algal biomass, species composition, chlorophyll-*a*, pigments, algal growth, genomics, and toxicity.

Eligibility:

Each applicant must be able to enter into a contract with the Great Lakes Commission and must be able to provide demonstrated administrative capacity to submit reports of project expenses, activities, and other supporting documentation as required.

The GLC, as an equal opportunity employer and recipient of federal funding, complies with applicable federal and state laws prohibiting discrimination. It is the policy of the Great Lakes Commission that no person employed by or doing business with the GLC shall be discriminated against, as an employee or applicant for employment, because of race, color, national origin, religion, age, sex, height, weight, sexual orientation, marital status, partisan considerations or a disability or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position.