Release date: October 1, 2019

**Lake Champlain Basin Program Announcement**

**Request for Proposals**

*Internal phosphorus loading management study for Missisquoi Bay*

The Lake Champlain Basin Program and New England Interstate Water Pollution Control Commission are pleased to announce a Request for Proposals (RFP) to identify phosphorus-rich areas within the riverine deltas and elsewhere in the Quebec- and Vermont-portions of Missisquoi Bay and evaluate options for in-lake phosphorus management to reduce ongoing loading from these sediments. The successful applicant will propose a project that completes the outputs described in the attached RFP according the required project timeline. Up to $250,000is available to support this project, and it is anticipated that one successful project will be chosen.

This work is applicable to the Clean Water Goal of the LCBP’s long-term management plan - [*Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*](http://plan.lcbp.org). This project is supported by funds awarded to the New England Interstate Water Pollution Control Commission on behalf of the Lake Champlain Basin Program by the US Environmental Protection Agency.

This RFP is available on the Lake Champlain Basin Program website ([lcbp.org/grants](http://lcbp.org/grants)). To receive a copy of the RFP via U.S. Postal Service, contact the Lake Champlain Basin Program office at (802) 372-3213 or toll free at (800) 468-LCBP in New York and Vermont.

Applicants must submit proposals in electronic format ONLY. Please see the RFP and the attached proposal format information for complete details.

**DEADLINE NOTICE:**

Electronic versions of proposals must be RECEIVED by grants@lcbp.org no later than:

**November 21, 2019**

**Late, incomplete, or non-electronic proposals will not be considered**.

Successful applicants will be notified in February 2020. Although LCBP reserves the right to make no awards, we anticipate granting one award from this RFP.

**Lake Champlain Basin Program Request for Proposals**

*Internal phosphorus loading management study for Missisquoi Bay*

**0. Overview**

Congress designated Lake Champlain as a resource of national significance with the Lake Champlain Special Designation Act of 1990. The Special Designation Act also established the Lake Champlain Basin Program (LCBP) and authorized it to receive direct support from US EPA under the Clean Water Act. The LCBP coordinates and funds efforts that benefit the Lake Champlain Basin’s water quality, fisheries, wetlands, wildlife, recreation, and cultural resources. The LCBP works in partnership with government agencies from New York, Vermont, and Québec, private organizations, local communities, businesses and citizen groups. These partners lead collaborative, non-partisan actions to address water quality and environmental challenges that cross political boundaries in a multi-national watershed. Management efforts are guided by the comprehensive management plan [*Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*](http://plan.lcbp.org).

Since 1992, the New England Interstate Water Pollution Control Commission (NEIWPCC) has served as the primary program administrator of LCBP at the request of the Lake Champlain Steering Committee, and administers the program’s personnel and finances. NEIWPCC is a congressionally authorized not-for-profit interstate organization whose membership includes all six New England states and New York State and whose mission is to help its member states to realize their individual and collective clean water program goals.

**I. Project background**

The bi-national Missisquoi Bay is a shallow, eutrophic bay in Lake Champlain that suffers from persistent cyanobacteria blooms in summer months due to elevated phosphorus concentrations. These cyanobacteria blooms impact human health and recreation and can impact the Lake Champlain ecosystem. The bay is one of nine Lake Champlain segments identified in the [2016 Total Maximum Daily Load for Phosphorus](https://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=79000) which defines annual allocations for phosphorus loading. In addition to annual external inputs of phosphorus, legacy phosphorus adsorbed in bay sediments also can contribute to the bioavailable pool of phosphorus for cyanobacteria growth under certain water chemistry conditions. [A 2012 study](https://3paj56ulke64foefopsmdbue-wpengine.netdna-ssl.com/wp-content/uploads/2013/03/65_PhosphorusMassBalanceModel_MissisquoiBay_2012.pdf) determined that approximately 50 metric tons of phosphorus is released annually from sediments into the water column. Management of this sediment-bound phosphorus could potentially reduce the amount of bioavailable phosphorus in the water column and therefore reduce the occurrence of cyanobacteria blooms in Missisquoi Bay.

The aim of this study is to (1) quantify and map the distribution of phosphorus in the Quebec- and Vermont-portions of Missisquoi Bay sediments, (2) develop and evaluate potential plans to reduce internal phosphorus loading in Missisquoi Bay, and (3) provide estimates of when in-bay treatments would be appropriate given projections for watershed phosphorus loading.

**II. Project tasks and outputs**

**Summary:**

The primary goal of this project is to develop potential plans to remove or inactivate phosphorus in Missisquoi Bay sediments to reduce its bioavailability for cyanobacteria growth. Potential plans could include combinations of different approaches, and incremental timeframes. All reasonable phosphorus removal and inactivation techniques should be considered, and ranked during evaluation appropriately by the criteria in Task 5.

**Tasks**

1. Create a bi-national project advisory committee in consultation with LCBP. Convene this committee throughout the project as appropriate to gather feedback and inform the project methods and outputs.
2. Develop a Quality Assurance Project Plan (QAPP) to be approved by NEIWPCC, LCBP, and EPA representatives. The QAPP must be approved before data collection begins.
3. Develop a comprehensive understanding of sediment phosphorus concentrations and hot spots in the bi-national Missisquoi Bay based on available data, supplemental sediment core collection as needed, and sediment nutrient analyses. Also develop an understanding of the reasons sediment phosphorus hot spots have developed. Additional sampling and study may be required for hot spots to provide depth profile concentration characteristics.
4. Use existing data to conduct a review of available hydrologic and hydraulic analyses of Missisquoi Bay and its tributaries to support the understanding of sediment phosphorus delivery, deposition, transport, and fate.
5. Develop, evaluate, and rank potential plans to remove or treat sediment-bound phosphorus in Missisquoi Bay or in targeted hot spots. Evaluation should include the following criteria and others as determined by the successful applicant and the project advisory committee:
	1. Cost
	2. Bioavailable phosphorus inactivation and/or removal potential
	3. Longevity of efficacy
	4. Technical feasibility
	5. Public acceptability
	6. Ecological impacts
	7. Permitting feasibility
6. Apply existing understanding to determine a timeline and plan for optimal implementation of feasible approaches identified above.
7. Develop a visualization tool that allows lake managers to select and optimize strategies for mitigation of internal phosphorus loading in Missisquoi Bay under a gradient of different watershed loading scenarios. This tool may also be designed to communicate findings and scenarios to a lay audience.

**Outputs**

1. Three project advisory committee meetings, or more as needed.
2. An approved project QAPP.
3. A detailed map and corresponding GIS data of Missisquoi Bay sediment phosphorus concentrations.
4. List of identified Missisquoi Bay sediment hot spots with phosphorus concentration, including characteristics and concentration profiles.
5. Visualization tool for lake managers as described above.
6. A final project report that includes:
	1. Executive summary and description of all project outputs and accomplishments;
	2. Report of review findings, including Missisquoi Bay hydrology, hydraulics, and phosphorus delivery, deposition, transport, and fate;
	3. Methods of evaluation and ranked potential plans to remove or inactivate sediment bound phosphorus in Missisquoi Bay; and
	4. Timeline for optimal implementation of ranked potential plans based on a gradient of different watershed phosphorus loading scenarios.

**Outcomes**

1. Improved understanding of Missisquoi Bay legacy phosphorus.
2. Improved management of Missisquoi Bay water quality through evaluated and ranked management scenarios.
3. Improved communication and management through the use of data-driven visualization tools

**III. Summary of other project requirements**

1. Following initial notification of the award, a workplan must be approved by the LCBP before a contract agreement can be executed and the work initiated. The workplan will detail the logistical elements of the project, including deliverables and project timeline. Information about the LCBP grant process, workplan development guidelines, and reporting requirements can be found on the LCBP website at: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/>. The successful applicant will enter into a contract with NEIWPCC in order to complete the work and will be compensated upon completion of workplan deliverables.
2. Once the grant agreement has been executed, the contractor must develop a Quality Assurance Project Plan (QAPP) to be approved by the LCBP, NEIWPCC, and EPA before initiating any data collection or secondary data analyses. More information about LCBP Quality Assurance Plans can be found at: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/qapp/>. The project timeline should be scheduled with an expected QAPP approval date no earlier than 6 weeks following contract execution. No primary or secondary data may be collected or analyzed with LCBP funding prior to QAPP approval.
3. Grant applicants are required to follow the small purchase method which is a relatively simple and informal method (procurement procedure) for purchasing supplies, equipment, and services that cost more than $10,000 and less than $250,000. This procurement procedure is applicable to proposals submitted in response to this RFP if the primary applicant is not a for-profit organization. The purpose is to ensure fair and open competition for purchases supported by LCBP/federal funding. If the applicant plans to use LCBP funding to obtain supplies, equipment or contractual services to complete its proposed workplan, then it must follow federal procurement regulations:
	* Procurement of supplies and services that do not exceed $10,000 may be made without soliciting competitive quotes if the price is considered reasonable.
	* Procurement of supplies, equipment and services that are greater than $10,000 and do not cost more than $150,000 require that the recipient obtain multiple price quotes through a documented competitive process. Good faith efforts to obtain services from disadvantaged business enterprises should also be made, including contacting the small business administration and minority business development agency to inform them about the opportunity for businesses to submit price quotes as part of the competitive process. At least three price quotes for the contract work must be secured. The selected item or service does not need to be the lowest cost if it does not meet your requirements or you can otherwise demonstrate that the higher price offers the “best value.” Justification must be provided for the outcome of the bid process. This process may take place prior to the submission of a proposal for LCBP funds. For further information, see the small purchase method described here: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/>
4. The successful applicant will prepare brief quarterly reports documenting progress on each task in the project (see attached Proposal Format Requirements). A final report fully documenting the project’s results will be required at project completion.
5. When approved, the final report will be edited for content and style and may be published as part of the Lake Champlain Basin Program’s Technical Report Series, located here: <http://www.lcbp.org/media-center/publications-library/technical-reports/>. Some content of this report may also be used for future LCBP or NEIWPCC public outreach materials.
6. The successful applicant will complete the project according to the following schedule (subject to change):

|  |  |
| --- | --- |
| Proposals due to LCBP | November 21, 2019 |
| Applicants notified of funding decisions  | February, 2020 |
| Detailed project workplan due  | March, 2020 |
| Project start date  | May, 2020 |
| Project deliverables and draft final report due | June, 2022 |

1. All materials and work products, regardless of physical form or characteristics, produced as a result of this project shall be made available to LCBP and NEIWPCC in a suitable file format. LCBP and NEIWPCC shall have an unrestricted right to use any materials, software, maps, studies, reports, and other products or data generated using assistance funds or specified to be delivered. The contractor shall not obtain, attempt to obtain, or file for a patent, copyright, trademark or any other interest in any such materials, or work products without the expressed, written consent of LCBP and NEIWPCC, and subject to any other approvals required by state or federal law. Reports and other deliverables will credit LCBP, the US EPA, and NEIWPCC as funding partners for any work completed under the project contract.
2. The successful applicant will be required to maintain workers compensation and liability insurance. More details will be provided to the successful applicant at the time of contracting.

**IV. Eligibility**

Eligible organizations include colleges, universities, nonprofit organizations, for-profit companies, and non-federal government agencies. The selected contractor will be responsible for the completion of all project tasks. Individuals and representatives from organizations that participated in the development or review of this RFP and its contents are ineligible to apply.

**V. Proposal evaluation and selection criteria**

Proposals received in response to this RFP will undergo an external peer review, and will be judged according to the following criteria:

* + - 1. Demonstrated technical knowledge oflimnology, nutrient dynamics, and sediment nutrient management necessary to complete the project tasks (20 points).
			2. Ability to leverage existing datasets (10 points).
			3. Demonstrated ability to accomplish the tasks described above (20 points).
			4. Potential for the project findings and visualization tool to inform management of Missisquoi Bay legacy phosphorus (30 points).
			5. Clarity, conciseness, and adherence to the proposal guidelines (10 points).
			6. Appropriateness of budget and budget justification, describing how the awarded funds will be used to produce the set of deliverables, outputs, and outcomes described above (10 points).

**VI. Available funds, match requirements, and indirect costs**

A total of $250,000 may be made available for a project to be supported under this RFP. No in-kind or cash match is required, though match will be considered favorably during budget review.

LCBP and NEIWPCC encourage groups to budget costs that are associated with the project as direct expenses, including personnel costs, travel, project supplies, mailings, phone costs, office supplies, etc. Use of some grant funds for indirect costs is also allowable, subject to both the provisions of OMB Circular A-87 and LCBP approval. If you need further guidance, contact the LCBP or refer to [OMB Circular A-87 (Revised)](https://obamawhitehouse.archives.gov/omb/circulars_a087_2004/#atta). ***Sections D, E,*** and ***F*** of **Attachment A** provide an overview of direct and indirect costs. **For projects in response to this RFP, the indirect budget should not exceed 10% of the direct project budget, and indirect offered as match should similarly not exceed 10% of direct match contributed, unless a higher federally negotiated indirect rate is in place, and proof of that negotiated rate is provided.** The LCBP Indirect Policy can be found here: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/>

**VII. Appropriate Use of Funds**

LCBP grant funds cannot be used to produce for-profit products or to cover costs associated with regulatory compliance or direct fundraising efforts. LCBP grant funds also cannot be used for land purchases, endowment funds, or lobbying or legislative advocacy of any kind.

**VIII. Notification of Award**

Award notification to applicants is expected by February 2020. The award recipient may be asked to submit a revised workplan, timeline, and task-based budget at this time. Project work cannot begin until a contract is signed by both parties. LCBP and NEIWPCC will not pay for expenses incurred prior to the contract start date. Payment for costs incurred will be on a reimbursement basis per the contract payment schedule and contingent upon completion of quarterly progress reports and project deliverables.

**IX. Period of Performance**

Work is expected to begin in **Spring 2020** and is to be completed no later than **June 30, 2022** (see specific deliverable deadlines in Section II above).

1. **Schedule and Requirements for Proposal Submission**
* Please follow the format outlined in the attached Technical Proposal Format Requirements.
* Submit an electronic version of your proposal to grants@lcbp.org no later than **November 21, 2019**. Please be sure you receive email notification that your application was received. Electronic submissions must be in MS Word compatible format.
1. **Contact Information**

Please direct all inquiries to:

Meg Modley

LCBP Aquatic Invasive Species Management Coordinator

802-372-0215

mmodley@lcbp.org

**Technical proposal format requirements**

Proposals should adhere to the following format and should not exceed a 10-page maximum length (font size 12), NOT including budget information, references cited and investigator resumes, and letters of participation or support.

**TITLE:** Concise and descriptive.

**POINT OF CONTACT:** Name, position, organization, address, telephone, fax, and email of the person who will be the point of contact.

**AUTHORIZED REPRESENTATIVE:** Name, position, organization address, telephone, fax and email of the person who is authorized to sign the contract.

**ABSTRACT:** Brief description of proposed work.

**INTRODUCTION:** Overview of the project and what it will accomplish in relation to the RFP.

**TASKS:** Describe in detail the tasks that will be performed, including methods and approaches.

**DELIVERABLES AND OUTPUTS:** Detailed description of the items that will be sent to LCBP as documentation of work completed through the award, and the elements of the projects that are not delivered to LCBP, such as outreach efforts. Quarterly progress reports and a final report (including GIS data) are required deliverables.

**OUTCOMES:** Provide a description of the anticipated impact or change in condition (i.e. behavior or environment) that you are trying to achieve through this award. Outcomes may be short-term or long-term.

**SCHEDULE:** Timeline showing anticipated dates for completion of the major tasks and deliverables and outputs. Quarterly progress reports are due on the last day of December, March, June, and September. Work is to be completed within the specified performance period in the RFP.

**DETAILED BUDGET JUSTIFICATION:** Cost breakdown by major tasks and budget categories (e.g., personnel, equipment), linking costs to specific tasks/deliverables wherever possible. Breakdown should show costs to be covered by the LCBP award and other sources (if applicable), as well as any match amounts and totals. (1 page, not included in the 10-page maximum total for the proposal).

|  |  |  |  |
| --- | --- | --- | --- |
|  | **EXAMPLE** Budget Spreadsheet |  |  |
|  ***Line Item*** | **Task 1** | **Task 2** | **Task 3** | **Task 4** | **Task 5** (add or remove columns as needed) | ***Line Item* *Totals* for All Tasks**  | Proposed Match (if any) | *Line Item* *Totals* + Proposed Match |
| Personnel |  $500  |  $1,200  |  $800  |  $495  |  $1,000  |  $3,995  |  $3,000  |  $6,995  |
| Fringe |  $150  |  $360  |  $240  |  $149  |  $300  |  $1,199  |  $1,000  |  $2,199  |
| Travel |  $0 |  $100  |  $300  |  $100  |  $0 |  $500  |  $400  |  $900  |
| Supplies |  $0 |  $200  |  $0 |  $2,000  |  $500  |  $2,700  |  $1,000  |  $3,700  |
| Professional Services |  $0 |  $0 |  $0 |  $2,500  |  $0 |  $2,500  |  $1,000  |  $3,500  |
| **Total Direct** |  **$650**  |  **$1,860**  |  **$1,340**  |  **$5,244**  |  **$1,800**  | **$10,894**  |  **$6,400**  |  **$17,294**  |
| Indirect |  $78  |  $223  |  $161  |  $629  |  $216  |  $1,307  |  $0 |  $1,307  |
| **TOTAL BUDGET** |  **$728**  |  **$2,083**  |  **$1,501**  |  **$5,873**  |  **$2,016** | **$12,201**  |  **$6,400**  |  **$18,601**  |