

Release Date July 28, 2003

Lake Champlain Basin Program Announcement

Request for Proposals

Integrated Ecological-Economic Cost Benefit Analysis

The Lake Champlain Basin Program (LCBP) is pleased to announce a Request for Proposals (RFP) to develop an integrated analysis of the ecological and economic costs and benefits of the actions outlined in the long-term management plan *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*. This project will address the goal of promoting economic activity in the basin while protecting the natural and cultural resources on which the regional economy is based.

Healthy natural resources in the Lake Champlain basin have a positive impact on the region's economy, both through support of the agricultural and forest products industries and by attracting individuals and businesses to the basin. To ensure continued recognition of the economic importance of these resources and the efficient use of funding to protect and restore them, it is important to demonstrate the ecological and economic costs and benefits associated with the key actions called for in *Opportunities for Action*.

The RFP is available from the Lake Champlain Basin Program website. Look for the link on our homepage at www.lcbp.org. To receive a copy of the RFP via US Postal Service, contact Kathy Jarvis at the Lake Champlain Basin Program office at (802)372-3213, toll free at (800)468-LCBP in New York and Vermont, or kjarvis@lcbp.org.

To facilitate the review process, applicants must submit proposals in both paper and electronic format. Please see the RFP and the attached proposal format information for complete details.

DEADLINE NOTICE:

Hardcopy (8 copies) and electronic versions (no facsimiles) of proposals must be RECEIVED by the Lake Champlain Basin Program office by the close of business:

Friday, October 3, 2003

LATE OR INCOMPLETE PROPOSALS WILL NOT BE CONSIDERED

Lake Champlain Basin Program

Request for Proposals

Integrated Ecological-Economic Cost Benefit Analysis

I. Background

The Lake Champlain Basin Program (LCBP) is a partnership between state, provincial, and federal government agencies, as well as many local community and business groups, all working together to protect and enhance the environmental integrity and the social and economic benefits of the Lake Champlain Basin. *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin* is the comprehensive management plan developed by LCBP partners to address a range of issues from water quality to cultural heritage protection. The highest priorities in the plan are reducing phosphorus pollution, protecting human health, reducing pollution from toxic substances, and controlling nonnative aquatic nuisance species.

Good water quality and healthy natural resources in the Lake Champlain Basin have been shown to have a positive effect on the region's economy, especially in areas where tourism accounts for a significant portion of economic revenues (Holmes and Associates and Artuso, 1996). The same environmental factors that support the agricultural and forest products industries also appeal to individuals and businesses as they choose their locations.

Opportunities for Action seeks to protect and enhance the basin's resources in ways that also support the region's economic vitality (LCBP, 2003). The actions called for in the plan require the investment of both public and private funds. From an economic perspective, however, the benefits of these actions are not always as evident as the costs. It is important to enumerate the costs and benefits associated with the key actions in the plan, both ecological and economic, to help ensure that economic benefits arising from the actions will be fully recognized, the costs of the actions will be distributed in an equitable manner, and limited resources will be used in the most effective manner.

II. Developing an Integrated Ecological-Economic Cost Benefit Analysis

The LCBP is seeking to develop a full analysis of the ecological and economic costs and benefits of the Phosphorus reduction goals, and of the actions proposed to meet those goals, in *Opportunities for Action*. Some information exists on the costs associated with management actions in *Opportunities for Action* (OFA) and in the recently EPA-approved Lake Champlain Phosphorus Total Maximum Daily Load (TMDL). In addition, another study is currently underway that is developing and evaluating specific policy options to achieve the phosphorus reduction goals in OFA and the TMDL. This study includes a cost effectiveness evaluation.

Because there is existing information either available or being developed on the costs associated with management actions, this solicitation emphasizes collecting new data to estimate the benefits of the potential phosphorus reduction management actions outlined in *Opportunities for Action*, and the Lake Champlain Phosphorus TMDL, and then combining both the cost and benefits data in a preliminary benefit-cost analysis (BCA). It is possible that a similar analysis will be conducted for the other three high priority areas of the plan in the future.

Respondents are encouraged to scale this project by focusing on certain lake segments or certain management options. Proposals should include justification for this scoping, and fully describe how the proposed analysis will best serve as a model for future analyses.

The successful proposal will address the following specific elements:

- The project will estimate the economic benefits of meeting the in-lake phosphorus criteria for Lake Champlain using both market and non-market techniques.
- Because the in-lake phosphorus criteria and the phosphorus reductions needed to achieve them vary substantially across the 12 lake segments, costs and benefits must be examined on a lake segment by lake segment basis. Some of the segments with the greatest phosphorus reduction challenges are the South Lake, Missisquoi Bay, St. Albans Bay, and Main Lake segments.
- The project should estimate the full range of economic benefits of the potential management activities proposed to meet the phosphorus reduction goals in OFA and the TMDL, including use and non-use benefits.
- The analysis should include economic and environmental costs and benefits beyond those directly associated with reduced phosphorus levels in Lake Champlain (e.g., improved farm efficiencies from agricultural BMPs, prevention of property loss and infrastructure damage with improved stream stability, reduced road maintenance costs to municipalities with better back road practices, incremental increases in property values with improved lake condition).
- The project should combine the newly estimated benefits analyses with all cost estimate data (including any secondary cost analyses) in a full benefit-cost analysis.
- The project should identify the most significant gaps in knowledge, which might guide future work to strengthen the BCA.
- The project will define the levels of uncertainty in its estimates and provide sensitivity analyses on key variables to illustrate the impact of changes in these values on the final benefit conclusions.
- The products produced by the project must assist decision makers in examining the costs and benefits of alternative management scenarios, prioritizing activities, and focusing their efforts to

make them more cost-effective.

- Although this analysis will be used primarily by the Lake Champlain Basin Program Steering Committee and other decision makers, LCBP must be able to make this information available to the public and to use it in education efforts.

For more information regarding Opportunities for Action and the Lake Champlain Phosphorus TMDL:

<http://www.lcbp.org>

www.vtwaterquality.org/lakes.htm

III. Summary of Other Requirements for the Selected Proposal

- To be eligible, the selected project is required to show a non-federal match equal to 25% of the total project cost (i.e., award plus match – see Section VI for more information).
- For the selected proposal, an approved workplan will be required before a grant agreement can be executed and the work begun.
- A Quality Assurance Project Plan (QAPP) must be submitted and approved by the US Environmental Protection Agency before data collection begins. Project schedules should allow at least eight weeks from the time of QAPP submission for review and approval.
- The consultant will be required to prepare brief quarterly reports documenting progress on each objective and task in the project (see attached Proposal Format Requirements). A final report describing all data, methods, results, and Quality Assurance and Quality Control procedures, and fully documenting the project's results will be required at project completion.
- When approved, the final report will be edited for content and style in consultation with the consultant and published as part of the Lake Champlain Basin Program's Technical Report Series. The author(s) also is(are) encouraged to submit one or more articles resulting from the project for publication in a peer-reviewed scientific journal.
- The consultant will be required to present interim and final project results to the appropriate Lake Champlain Basin Program committees, such as the Technical Advisory Committee and/or the Lake Champlain Steering Committee, for their review.

IV. Eligibility

Eligible organizations include colleges, universities, nonprofit organizations, for-profit companies, and government agencies.

V. Proposal Evaluation and Selection Criteria

Proposals will be judged according to how well they address the following points:

1. Demonstrated experience and expertise in ecological applications of benefit-cost analysis, including the use of non-market techniques.
2. Demonstrated understanding of the ecological issues in the Lake Champlain Basin.
3. Demonstrated understanding of economic cost benefit assessment techniques, including monetary evaluation of non-market benefits.
4. Technical merit and feasibility of the proposed methods to conduct the cost benefit analysis described in section II above.
5. Technical credentials of the investigators.
6. Potential for the project to enhance the technical capabilities and infrastructure within the Lake Champlain Basin.
7. Provision of a public education element (at minimum, a project summary intended for lay audiences is required).
8. Clarity, conciseness and adherence to the attached proposal guidelines.
9. Demonstrated ability to create documents and products that are accessible to and can be used by local natural resource managers.

VI. Available Funds and Match Requirements

A total of \$38,000 is available for this project. A 25% match (\$12,667) of the total project cost (award + match) is required, either as funds or in-kind services. Budget proposals should clearly document the intended use(s) and source(s) of matching contributions. Federal funds may not be used as a source of matching funds.

VII. Period of Performance

Work is to be completed within 18 months of the execution of a grant agreement.

VIII. Schedule and Requirements for Proposal Submission

- Please follow the format outlined in the attached Technical Proposal Format Requirements.
- Eight (8) paper copies of each proposal must be RECEIVED by the LCBP office by the close of business on **Friday, October 3, 2003**. Please submit paper copies bound only with a single staple or binder clip.
- In addition, please submit an ELECTRONIC VERSION of your proposal, either on diskette or via e-mail. Electronic versions must also be RECEIVED by close of business on **Friday, October 3, 2003**.

IX. Contact Information

Direct all proposals and other inquiries:

Miranda Lescaze
Technical Coordinator
Lake Champlain Basin Program
54 West Shore Road
Grand Isle, VT 05458
(802) 372-3213

IX. References

Holmes & Associates and A. Artuso. 1996. *Economic Analysis of the Final Draft Plan for the Lake Champlain Basin Program*. Lake Champlain Basin Program Technical Document No. 4A, LCBP, Grand Isle, VT.

Lake Champlain Basin Program. 2003. *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin* (2003 Revision). LCBP, Grand Isle, VT.

VTDEC and NYSDEC. 2002. Lake Champlain Phosphorus TMDL.
www.vtwaterquality.org/lakes.htm

Technical Proposal Format Requirements

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

TITLE: - Concise and descriptive.

POINT OF CONTACT: Name, organization, address, telephone, fax and email.

ABSTRACT: Brief description of proposed work.

INTRODUCTION: Overview of what the project is, how it relates to past projects (in the Basin and elsewhere), and what it will accomplish in relation to the RFP.

OBJECTIVES AND TASKS: List the project's objectives and describe in detail the tasks that will be performed relative to each objective, including methods and approaches.

Note: If the selected proposal involves environmental data collection or assembly of existing data, the investigator(s) must submit a Quality Assurance Project Plan (QAPP) as part of the contract tasks. The QAPP must be approved by US EPA prior to the start of data collection. The QAPP review may require 8 weeks or more to be completed once it is submitted to US EPA.

DELIVERABLES: Detailed description of the planned products from each task of the project. Quarterly progress reports and a final report are required deliverables.

SCHEDULE: Timeline showing anticipated dates for completion of the major tasks and deliverables. Quarterly progress reports are due on the last day of December, March, June, and September. Work is to be completed within 18 months after the execution of a contract or grant.

DETAILED BUDGET JUSTIFICATION: Cost breakdown by major budget categories (i.e. 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 the required match amounts and totals. A non-federal match equal to 25% of total project costs is required, either in funds or in-kind services (e.g. for \$30,000 the match equals \$10,000 which is 25% of \$40,000). (1 page, not included in the 10 page maximum total for the proposal).

TECHNICAL REFERENCES CITED: List all references used for the proposal (not included in the 10 page maximum total for the proposal).

CURRICULUM VITAE/RESUME OF PRINCIPAL INVESTIGATORS: Include up to 5 references for publications pertinent to proposed project. Please limit to one page per investigator, not included in the 10 page maximum total for the proposal.