

August 28, 2000

## Lake Champlain Basin Program Announcement

### Request for Proposals

#### *Demonstrating Practical Methods for Controlling Pathogens in Agricultural Runoff*

The Lake Champlain Basin Program is pleased to announce a Request for Proposals for projects addressing agricultural sources of disease-causing pathogens such as bacteria and viruses to surface waters. The project will support the goal of protecting humans from water-related health hazards, as outlined in the Basin Program's management plan, *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*.

The risk of adverse human health impacts is increased with exposure to pathogens in surface waters through swimming and other contact recreation. Portions of some streams in the Lake Champlain basin are listed as "impaired" because bacteria levels routinely exceed the allowable maximum set by water quality standards. Despite improvements in management of both animals and their wastes, agricultural activities may be a significant source of pathogens to surface waters. The Lake Champlain Basin Program is seeking proposals for projects that will investigate the relative contribution of pathogens from agricultural sources and demonstrate simple, low-cost pathogen control techniques.

The RFP is available from Basin Program website. Look for the link on our homepage at [www.lcbp.org](http://www.lcbp.org). To receive a copy of the RFP via US Postal Service, contact the Basin Program office at 802/655-6382 or toll free at 800/468-LCBP in New York and Vermont.

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 LCBP office by close of business**

**Friday, October 20, 2000.**

**LATE OR INCOMPLETE PROPOSALS WILL NOT BE CONSIDERED**

# Lake Champlain Basin Program

## Request for Proposals

### *Demonstrating Practical Methods for Controlling Pathogens in Agricultural Runoff*

#### **I. Background**

The Lake Champlain Basin Program is a partnership between state, provincial, and federal government agencies, as well as many local groups, all working together to protect and enhance the environmental integrity and the social and economic benefits of the Lake Champlain basin. In 1996, the Basin Program completed *Opportunities for Action: An Evolving Plan for the Future of Lake Champlain*, a comprehensive management plan for Lake Champlain, addressing a range of issues from water quality to recreation. The highest priorities in the plan are reducing phosphorus pollution, reducing pollution from toxic substances, and developing a management program for nuisance non-native aquatic species.

*Opportunities for Action* calls for protecting human health by controlling the sources of disease-causing pathogens such as bacteria and viruses to surface water in the Lake Champlain basin. The risk of adverse human health impacts is increased with exposure to pathogens in surface waters through swimming and other contact recreation. Portions of some streams in the basin are listed as “impaired” because bacteria levels routinely exceed the allowable maximum set by water quality standards (NYSDEC, 1998 and VT DEC, 1998). Despite improvements in the management of both animals and their wastes, agricultural activities may be a significant source of pathogens to surface waters. Conservation practices, such as riparian buffers and filter strips, may reduce the amount of pathogens in agricultural runoff, but the effectiveness of these practices is limited in cases where there is direct conveyance of runoff through constructed or natural channels draining agricultural fields (Hughes *et al.*, 1999). Additional information is needed on the relative contribution of pathogens from agricultural sources and how to control these sources using low-cost techniques.

#### **II. Demonstrating Practices for Reducing Pathogens in Agricultural Runoff**

The Lake Champlain Basin Program is seeking proposals for projects that will investigate agricultural sources of pathogens to surface waters and demonstrate practical control methods for these sources. The successful proposal will address the following specific elements:

- The project will assess the importance of agricultural activities as a source of pathogens to surface waters in the Lake Champlain basin, using existing data in the literature and/or new data collection. To the extent possible, the assessment will consider varying environmental,

seasonal and agricultural conditions, such as high flow runoff events and manure and pasture management practices.

- The project will design and test practical methods for reducing pathogen loads to surface waters. The techniques must be simple and inexpensive enough to be implemented and maintained by individual landowners, while minimizing the removal of land from production.
- Proposals that leverage additional resources by developing partnerships with related water quality and natural resources management projects, including sharing project sites, sampling crews, etc., will be rated more favorably.

### **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 + match – see below for more information).
- For the selected proposal, an approved workplan will be required before a contract can be completed and the work begun.
- If the selected proposal involves environmental data collection, a Quality Assurance Project Plan must be submitted and approved by EPA before data collection begins. Such proposals should allow at least eight weeks for QAPP review and approval.
- The contractor 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 QA/QC 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 contractor and published as part of the Basin Program's Technical Report Series. The author(s) is also encouraged to submit one or more articles resulting from the project for publication in a peer-reviewed scientific journal.
- The contractor will be required to present the project results to the appropriate Basin Program committee, such as the Technical Advisory Committee and/or the Lake Champlain Steering Committee.

### **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 understanding of the agricultural and water quality issues and management programs in the Lake Champlain basin, especially those concerning pathogens.
2. Demonstrated knowledge of control methods for agricultural nonpoint source pollution, including pathogens.
3. Technical merit and feasibility of the proposed methods to assess the importance of agricultural activities as a source of pathogens to surface waters in the Lake Champlain basin, as described in Section II.
4. Technical merit and feasibility of the proposed methods to design and test practical techniques for reducing pathogen loads to surface waters, as described in Section II. The methods for evaluating the effectiveness of each potential pathogen control technique must be clear and statistically appropriate.
5. Extent to which the proposed project leverages additional resources by developing partnerships with other projects, as described in Section II.
6. Technical credentials of the investigators.
7. Potential for the project to enhance the technical capabilities and infrastructure within the Lake Champlain basin.
8. Provision of a public education element (at minimum, a project summary intended for lay audiences is required).
9. Clarity, conciseness and adherence to the attached proposal guidelines.
10. 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 \$30,000 is available for this project. A 25% match (\$10,000) 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 one year of the execution of a contract.

## 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 close of business on **Friday, October 20, 2000**. 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 20, 2000**.

## IX. Contact Information

Direct all proposals and other inquiries:

Barry Gruessner  
Technical Coordinator  
Lake Champlain Basin Program  
802/655-6382  
bgruessner@anrmail.anr.state.vt.us

### **Please note the different addresses for US Postal Service and other delivery options:**

Via US Postal Service:  
PO Box 204  
54 West Shore Road  
Grand Isle, VT 05458

Via other delivery methods (e.g., FedEx, UPS, drop off):  
29 Ethan Allen Avenue – 2<sup>nd</sup> Floor  
Colchester, VT 05446

## IX. References

Hughes, J.W., W.E. Jokela, D. Wang, and C. Borer. 1999. *Determination and Quantification of Factors Controlling Pollutant Delivery from Agricultural Land to Streams in the Lake Champlain Basin*. Lake Champlain Basin Program Technical Report # 35, LCBP, Grand Isle, VT.

NYSDEC, 1998. *NYS Water Quality Report as required by Section 305(b) of the Federal Clean Water Act*. NYSDEC, Albany, NY.

VT DEC, 1998. *State Of Vermont 1998 Water Quality Assessment 305(B) Report*. VT Agency of Natural Resources, Department of Environmental Conservation, Water Quality Division, Waterbury, VT.

## **Lake Champlain Basin Program 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, the investigator(s) must submit a Quality Assurance Project Plan to EPA. The QAPP must be approved prior to the start of data collection. QAPP review may require 8 weeks or more to be completed.

**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 one year.

**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.