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Lake Champlain Basin Program Announcement

Request for Proposals

Evaluation of Effectiveness of Selected Conservation Practices in Reducing Phosphorus Loss from Tile-Drained Agricultural Fields

The Lake Champlain Basin Program (LCBP), in conjunction with the New England Interstate Water Pollution Control Commission (NEIWPCC) and the Natural Resources Conservation Service (NRCS) in Vermont, is pleased to announce a Request for Proposals (RFP) for services to evaluate the effectiveness of selected conservation practices in reducing phosphorus loss from tile-drained agricultural fields in the Lake Champlain Basin. Up to **\$240,000** is available for this project.

Project Goal: Several conservation practices have been identified for use in treating tile discharge; these include constructed wetlands, drainage water management, and other phosphorus removal systems. Further information is needed on the effectiveness of these practices to help make decisions regarding program and technical direction. The successful applicant will implement conservation practices that reduce phosphorus loss from agricultural fields, and measure the effectiveness of their approach. This funding will be used to implement one new edge of field monitoring project at a selected farm in the Vermont portion of the Basin.

This project is supported by funds awarded to the New England Interstate Water Pollution Control Commission by the Great Lakes Fishery Commission in support of the Lake Champlain Basin Program, as well as NRCS in Vermont. LCBP anticipates granting one award from this RFP. This 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 the Lake Champlain Basin Program office at (802) 372-3213 or toll free at (800) 468-LCBP in New York and Vermont.

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

DEADLINE NOTICE: Electronic versions only of proposals will be accepted and must be RECEIVED by the Lake Champlain Basin Program office by 4:30pm on:

March 3rd, 2017

LATE OR INCOMPLETE PROPOSALS WILL NOT BE CONSIDERED.

The successful applicant will be notified in April, 2017. LCBP anticipates granting one award from this RFP.

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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 the U.S. EPA under the Clean Water Act. The LCBP works in partnership with government agencies from New York, Vermont, and Québec, private organizations, local communities, and individuals to coordinate and fund efforts that benefit the Lake Champlain Basin's water quality, fisheries, wetlands, wildlife, recreation, and cultural resources. These efforts are guided by the comprehensive management plan *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*.

Since 1992, the New England Interstate Water Pollution Control Commission (NEIWPC) has served as the primary program administrator of LCBP at the request of the LCBP's Steering Committee, and administers the program's personnel and finances. NEIWPC 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. Background

Tile drainage is common throughout the Lake Champlain Basin and in recent years, surveys have found an increase in the installation rate of new tile systems nationwide. In the upper U.S. Midwest, tile drainage contributions of phosphorus have been linked to increases in Lake Erie algae blooms. Phosphorus removal systems with various adsorption media (wollastonite, composted materials, etc.) have been identified for use in treating tile discharge. Further information is needed on the effectiveness of these practices to help inform decisions regarding program and technical direction.

In 2015, the Natural Resources Conservation Service (NRCS) in Vermont prioritized the use of the National Monitoring Program (Edge of Field; EoF) funds to evaluate Best Management Practices (BMPs) to treat agricultural tile discharge. Data on the effectiveness of phosphorus removal systems will allow us to better focus our resources on those conservation practices that are most effective in addressing runoff and associated nutrient and sediment losses. This information is needed to strategically align conservation planning and financial assistance programs with those practices that provide the greatest benefit to our landscape. This funding will be used for one new edge of field monitoring project in the Vermont portion of the Lake Champlain Basin. NRCS funds obtained for monitoring and evaluation will be used to cover \$90,000 of the total costs, and \$150,000 will be provided by the LCBP. In addition, Vermont

Agency of Agriculture Food and Markets will provide laboratory support for water sample analyses (see Section VI).

II. Project Tasks and Outputs

The Lake Champlain Basin Program seeks technical services to evaluate a phosphorus removal system on tile drainage over a five-year period. The farm and site for the proposed project have already been identified. Information specific to the selected farm will be provided on an as-needed basis to applicants of this RFP. The project will include the following:

- Convene a project review committee of experts to help design and oversee the project
- Following NRCS standards, design a phosphorus removal system for tile drainage water at the selected site: <https://efotg.sc.egov.usda.gov/references/public/VT/VT782.pdf>
- Following NRCS standards, develop a five year “above and below” monitoring program to evaluate the effectiveness of the treatment system:
<https://efotg.sc.egov.usda.gov/references/public/VT/VT EOF WQ DataCollection 201.pdf>
- Select a suitable phosphorus adsorption media to be used in the treatment system
- Collect data from the farmer on cropping systems and nutrient applications
- Measure phosphorus flux through the installed system using statistically sound approaches (e.g. flow-weighted composite sampling techniques)
- Analyze all water samples using EPA approved methods
- Catalogue all data in a widely used transferable format
- Provide annual project update reports to the LCBP Technical Advisory Committee
- Provide a final comprehensive report on the project
- Provide presentations and updates on the project at meetings and/or workshops
- Provide regular maintenance to the installed system during the contract term

III. Summary of Other Requirements for the Selected Proposal

The selected applicant will be required to complete the following additional tasks:

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 begun. 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 NEIWPC 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 before the beginning of 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 mid-July, 2017 (or 6 weeks following contract

execution). No primary or secondary data may be collected or analyzed with LCBP funding prior to QAPP approval.

3. The successful applicant will prepare brief quarterly reports documenting progress on each objective and task in the project (see attached Proposal Format Requirements). A final report fully documenting the project's results will be required at project completion.
4. When approved, the final report will be edited for content and style in consultation with the successful respondent 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 public outreach materials.
5. The successful applicant will complete the project according to the following schedule*:

Proposals Due to LCBP	4:30 PM EST, March 3 rd , 2017
Applicants Notified of Funding Decisions	April, 2017
Detailed Project Workplan Due	May, 2017
Project Start Date	June, 2017
Project Deliverables and Final Report Due	March 31, 2022

*Schedule is subject to change.

6. 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 NEIWPC in a suitable file format. LCBP and NEIWPC 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 NEIWPC, and subject to any other approvals required by state or federal law. Reports and other deliverables will credit LCBP, Great Lakes Fishery Commission, and NEIWPC as funding partners for any work completed under the project contract.
7. GIS data produced under this project must adhere to the requirements of EPA's National Geospatial Data Policy (see http://www.epa.gov/geospatial/docs/National_Geospatial_Data_Policy.pdf). Specifically, the selected contractor must provide documentation for all produced data, including source information for each digital data layer and specific information about the data layer itself, (i.e., method used, geographic extent of data layer, file format, date of creation, staff contact, description and definition of data fields and their contents, related files, if any, and description of data quality and quality assurance methods used). The EPA Metadata Editor (EME) was developed to simplify and standardize metadata development and is a recommended tool for streamlining production of required metadata. The EME and related training materials

can be downloaded from <https://edg.epa.gov/EME/>. Specific technical guidance on geospatial deliverables and acceptable formats can be found at <http://www.epa.gov/region02/gis/r2gisdeliverables.html>. GIS data produced under this project will be submitted to NEIWPC as a final deliverable.

8. NEIWPC requires its contractors 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, though subcontracted work may be permitted by the LCBP Project Officer upon written request. Individuals and representatives from organizations that participated in the development or review of this RFP and its contents are ineligible to apply.

NEW Procurement Requirement:

The following 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 \$3,500 may be made without soliciting competitive quotes if the price is considered reasonable.
- Procurement of supplies, equipment and services that are greater than \$3,500 and do not exceed \$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 **EPA Subaward Policy Appendix A: Distinctions Between Subrecipients and Contractors Attachment A** ([insert hyperlink to this doc on LCBP website]).

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 of agricultural conservation practices, phosphorus removal systems for tile drainage discharge, water quality sampling, and statistical analyses.
2. Technical merit and applicability of the proposed product toward the priority objectives identified in this RFP.
3. Demonstrated ability to accomplish the deliverables outlined in Section II.
4. Potential for the project to enhance the knowledge of tile drainage on water quality and resource management within the Lake Champlain Basin.
5. Clarity, conciseness and adherence to the proposal guidelines.
6. Demonstrated ability to document effectiveness of BMPs that could be made accessible to local partners working to address resource management issues in the Lake Champlain Basin.
7. Appropriateness of budget and budget justification, describing how the funds awarded will be used to produce the set of deliverables, outputs and outcomes described in Section II.

VI. Available Funds and Match Requirements

A total of \$240,000 may be made available for this project through a combination of LCBP and NRCS funds. Proposals with budgets that exceed this amount will not be considered. In addition to these funds, Vermont Agency of Agriculture Food and Markets will provide laboratory support for 75 water sample analyses per year, including analyses for TP, SRP, DRP, NO₃, NH₄, and TSS.

Applicants may budget costs that are associated with the project as direct expenses, including personnel costs, travel, project supplies, meeting expenses, and subcontracts (subcontracts must be approved in writing by LCBP). Some allocation of project funds for indirect costs also is acceptable. However, **for projects in response to this RFP, the indirect budget must not exceed 21% of the direct project budget.** No in-kind or cash match is required, though match may be considered favorably during proposal review. LCBP anticipates granting one award from this RFP.

VII. Notification of Award

Award notification to applicants is expected in April, 2017. 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 NEIWPC 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.

VIII. Period of Performance

Work is expected to begin no earlier than **June 1, 2017** and is to be completed no later than **March 31, 2022**.

IX. Schedule and Requirements for Proposal Submission

1. Please follow the format outlined in the attached Technical Proposal Format Requirements.
2. Hardcopies of the proposal will NOT be accepted on or before the submission deadline. Editable electronic copies ONLY will be accepted and must be received via email in Microsoft Word or Word-compatible format by 4:30pm on **March 3rd, 2017** to Matthew Vaughan, mvaughan@lcbp.org. A PDF containing all proposal elements, including letters of support or participation, curricula vitae, etc. may also be provided with the editable Word document.

X. Contact Information

Direct all proposals and other inquiries to:

Matthew Vaughan

NEIWPC Environmental Analyst;
Lake Champlain Basin Program Technical Coordinator
54 West Shore Rd, Grand Isle, VT 05458
802-372-0216
mvaughan@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 what the project is 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.

DELIVERABLES: Detailed description of the items that will be sent to LCBP as

documentation of work completed through the award. Quarterly progress reports and a final report (including the GIS data) are required deliverables.

OUTPUTS: Detailed description of tasks or products that will be completed as part of your award with LCBP. This may include elements of the project that will be completed but not necessarily delivered to LCBP, such as installation of monitoring sites, sample collection effort, or outreach efforts.

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 (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 any match amounts and totals. (1 page, not included in the 10-page maximum total for the proposal).

EXAMPLE Budget Spreadsheet

Budget Spreadsheet for LCBP Grants: Line Item by Task/Deliverable*						
	Task 1	Task 2	Task 3	LCBP Grant Total	Proposed Match (if any)	Project Total (Grant + Match)
Personnel	\$1,000		\$1,000	\$1,000	\$1,000	\$2,000
Fringe (x% of Personnel)	\$300		\$600	\$900		\$900
Travel	\$300		\$250	\$300	\$250	\$550
Supplies		\$1,250		\$1,000	\$250	\$1,250
Professional Services		\$10,000		\$10,000		\$10,000
Total Direct	\$1,600	\$11,250	\$1,850	\$13,200	\$1,500	\$14,700
Indirect (y% of direct)	\$240	\$1,688	\$278	\$2,205	\$0	\$2,205
TOTAL BUDGET	\$1,840	\$12,938	\$2,128	\$15,405	\$1,500	\$16,905

***The budget numbers in this table are used only for the purpose of example.**

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 3-5 references for prior work pertinent to the proposed project. Please limit to one page per investigator; not included in the 10-page maximum total for the proposal.