



GREAT LAKES PROTECTION FUND

**SUPPLEMENTAL REQUEST FOR PREPROPOSALS:**

**HEALTHY USES, HEALTHY WATERS**

PREPROPOSALS DUE: JULY 19, 2009

*Version 2.8- working draft for Board action—not for distribution*

## **SUMMARY**

The Great Lakes Protection Fund invites preproposals from collaborative teams to design and implement projects that test how the basin's water dependent natural resources are made healthier by water conservation and stewardship practices, new water management practices, and potential new water development. The Fund hopes to support a portfolio of projects that illustrate how water management can be evaluated by the impacts upon the resource. Projects could: demonstrate how water, wastewater, and storm water utilities can work together to minimize adverse impacts more efficiently than working separately; create and test sector-based strategies that water users could implement to measure themselves against to assess resource impacts; demonstrate how industries can reduce water-related impacts throughout a product's life-cycle; identify what economic activity should be attracted to the basin because of its beneficial impacts on water and water-dependent natural resources.

This round of support will likely support the team building, background research, and pilot design phase of a multi-phase project for a number of project teams. The Fund expects to support the implementation phases in future grant making.

Like all Fund supported work, these projects should be team-based, collaborative efforts that lead to meaningful actions to restore the ecological health of the Great Lakes. The most successful prototype efforts will include team members with scientific and engineering skills, conservation leadership, government agency staff, and commercial partners willing to work together with an innovative plan to test how water should be used in the basin. Teams should discover new collaborative partnerships and synergies. The Fund will not support advocacy campaigns.

Preproposals of up to five pages are due by Midnight, July 19, 2009. The Fund will begin review upon receipt and earlier submittals are encouraged. In early August 2009, selected project teams will be invited to submit a more detailed full proposal in September 2009. Funding decisions will be made in December 2009.

## **BACKGROUND**

The Great Lakes hold nearly 20% of the world's fresh surface water. As other regions encounter increasing stress on their water supplies, water will once again become this region's competitive advantage. Instead of relying on water primarily as a way to move goods and dispose of wastes, the Great Lakes region will rely on water as an amenity to attract new residents, for drinking and agricultural uses, and to support a new and likely very different economy than that of the last century. To support these new uses and users, water must be used productively—not damaged—and used to add value to other products.

Around the globe, industry, governments, and the not-for-profit sector are working to advance a new generation of water management. Efforts driven largely by the private sector include the CEO Water Mandate, the World Business Council on Sustainable Development's emphasis on water and recently revised "water tool", the newly formed Water Footprint Network and Alliance for Water Stewardship, the partnership between the Coca Cola Corporation, the Worldwide Fund for Nature—and others—to offset water consumption in supply chains, and the Nature Conservancy's new Blue Water Certification effort.

In 2005, state, provincial and federal governments in the North American Great Lakes basin have launched a new comprehensive framework to manage the waters of the Great Lakes. The governments have entered into a good faith agreement—the Great Lakes St. Lawrence River Sustainable Water Resources Agreement—to provide joint management of their shared water resources. In October 2008, the states, with the approval of the federal government, have joined in a binding multi-state agreement—the Great Lakes St. Lawrence River Basin Water Resources Compact. A purpose of both the Agreement and Compact is to "conserve, restore, improve and effectively manage the waters and water dependent natural resources of the Great Lakes ecosystem."

In our region, meaningful water management goes beyond the concept than using fewer gallons is better; it means getting more from the water that is used, using water in a way that does not cause environmental harm, and promoting new uses that displace older, more harmful uses. Experts have advised the Fund that "gallons of water used," particularly when

averaged/measured over long time horizons, is not a particularly good measure of environmental stress in this water rich region. The source, timing, periodicity, and duration of the withdrawal matter a great deal, as do the location and timing of discharge, and the chemical and biological characteristics of the water being returned to the environment. Virtually all of the surface water resources in the Great Lakes basin have been altered physically, chemically, or biologically. A challenge for our region, therefore, is to continue to reverse these past alterations—not with a view of returning to some idyllic pre-settlement condition—but to increase the ability of the system to respond to stress and support the next generation of ecological and economic uses.

### **PROJECT CRITERIA**

The Fund wishes to support a portfolio of projects that design, test, and deploy prototype water use and management initiatives that develop new ways to create a healthier Great Lakes ecosystem. Projects may undertake activity anywhere that affects the Great Lakes' health. The portfolio will likely include complementary and competing strategies. In creating that portfolio, several factors will be foremost in our minds. They include:

**Resource health as driver.** Projects should be focused on the health of water systems, and the practices being tested are a means to some natural resource end. It is important for the project team to identify what resource problem is being solved or prevented as clearly as possible. The Fund will look for projects that take such a systems approach to the work proposed. Key elements of such an approach could include: embedding the work in a watershed context, a focus on hydrologic alterations, creating resilience in natural systems, and focusing on resource impact rather than (or at least in addition to) behavioral or volumetric changes as the driver for the work.

**Immediately useful new information.** Projects should include sufficient background research and measures development that a compelling case statement can be made for the pilot work being designed. By way of illustration, such background research could include a survey of water use practices in the sector being investigated, a basin-wide map of hydrologic patterns or alterations, an inventory of water users, development of conservation practice impact measures, or an inventory of water rate structures across the basin. The specific research product will

depend on what particular pilot effort the team expects to undertake. The background research should serve several purposes: to create new information about how water is used in the basin that has immediate impact in water management via the Compact, the Regional Agreement or private action; to identify the elements of a successful demonstration effort that is relevant to the set of circumstances that exist in the basin; and to identify who the pilot effort should include as key audiences and stakeholders. This product should be able to stand on its own absent additional funds.

**Showcase how uses can create value and improve resource health.** A project's implementation phase, which will likely be supported in future grants, should build on the efforts already underway in the basin, especially the Compact and Regional Agreement. These efforts can include water uses that are not withdrawals—such as in-stream or drainage uses. Teams are encouraged to build on the tools that have already been developed, such as creating impact measures based on water footprinting methods or extending new withdrawal assessment methods, so that not only will the Great Lakes basin benefit, but other locations can employ these new methods as well. Projects should identify how water uses can create economic and social value, while at the same time continuously improving the health of basin resources.

**Superior project teams.** The Fund wishes to support multi-institution and multi-sector project teams. Teams that design and run projects should include the full range of experts relevant to their project's expected outcome, work plan, and strategy. These might include engineers, hydrologists, aquatic ecologists, biologists, management professionals, government agency staff, and individuals and institutions that will test the prototypes developed. Even though complete project teams may be recruited during the design phase, the Fund expects to see commitment at the full proposal stage from the institutions that will be involved.

Projects should not only include a subset of “product” users in demonstration or pilot settings, but also be designed with the active involvement of such potential customers. This strategy has proven to be the most effective way of creating a path to scale, so that the project team can influence behavior across the set of actors that affect the health of the basin. Projects that rely on a “create and disseminate” approach—developing an analysis without the involvement of the

basin-wide community of potential users and distributing reports, software or samples—are not encouraged.

Projects could be financed with outright cash grants, convertible grants, debt, equity or some combination.

### **ELIGIBILITY**

The Great Lakes Protection Fund can support a wide variety of applicants. Non-profit organizations (including environmental organizations, trade associations, and universities), governmental agencies, individuals, and for-profit businesses are eligible for Fund support. Successful applicants must maintain open access to certain project data, records and information.

All applicants must show that the proposed work has clear public benefit and that any related financial benefits will accrue to the public good. Government agencies must show that Fund support is not being used to replace or duplicate funds.

### **CONTENT OF PREPROPOSALS**

Preproposals should include an applicant [cover sheet](#), no more than five pages of narrative (including the project budget), and a copy of the project manager's resume. No other attachments are permitted. The Fund prefers that preproposals be submitted via e-mail.

All preproposals must be delivered to the Fund's offices no later than Midnight, July 19, 2009. The Fund will begin review upon receipt. In August 2009, the Fund expects to request more fully developed project proposals from a subset of teams submitting preproposals. Fund staff and other technical experts will review these full proposals prior to a funding decision by the Fund's Board of Directors.

In your preproposal, please address the following issues in the order below:

### **Project Outcomes**

Identify how the proposed work will improve ecosystem health and why it is important for the Great Lakes. Identify what will change during the project and how the Great Lakes will be improved if the project is successfully taken to scale in the basin. Be as specific as possible. Please identify what demonstration work you expect to undertake and what you expect to create in the way of manuals, technical tools and other vehicles to take the pilot work to a meaningful scale. Describe the background research you will produce, what impact it will have, the audiences it is intended for, and how the team will engage that audience.

### **Proposed Work**

Outline the work to be carried out. Include a project timeline that contains the major interim objectives. Show how the work will lead to the expected environmental outcome identified above. Describe the team's working hypothesis about why the work is important and timely. Identify the background research needed to have immediate impact and design a demonstration project. Describe the target audiences for the project and identify their role. Discuss what exportable tools and other results matter to the target audiences, and lay out a strategy to engage them, even if projected environmental outcomes are not achieved.

### **Key Personnel**

Identify the project team members (those supported by the request, by other funding sources, and volunteers), and indicate their roles, responsibilities and qualifications. By the time a full proposal is submitted (and ideally well before) the team should reflect meaningful collaboration among all interests affected by the project and include members from entities that will ultimately use the tools and approaches developed.

### **Financial Plan**

Present the estimated costs of the proposed work in summary categories: personnel, equipment and supplies, travel, consultants, overhead, etc. The Fund will not support overhead costs in excess of 15% of the direct project costs (excluding travel and sub-contracts.) Identify the type

and amount of support requested of the Fund. Identify how other monies will be raised to support the proposed work.

Submit a single copy via e-mail to:

[healthywaters@glpf.org](mailto:healthywaters@glpf.org).

If electronic submission is not possible, submit six (6) copies via mail to:

Preproposal:

Great Lakes Protection Fund  
1560 Sherman Ave., Suite 880  
Evanston, IL 60201

Visit the Fund's [website](#) to find important links to [Project Ideas](#), [Frequently Asked Questions](#), and [Additional Resources](#).

#### **CALENDAR**

*June 2009*

Request for Preproposals

*July 19, 2009*

Preproposal Submissions Due

(Note—Preproposals will be reviewed as received. Early submissions are strongly encouraged so that staff may provide feedback on project ideas, team membership, etc.)

*August 2009*

Full Proposals Invited

*Fall 2009*

Full Proposal Review and Revision

*December 2009*

Announcement of Awards

## **ILLUSTRATIVE PROJECT IDEAS**

### **HEALTHY USES, HEALTHY WATERS**

*Updated May 9, 2009*

By way of illustration, ideas for potential projects are outlined below. These are meant to provide examples of what teams might do, and are neither a desired list of activity nor a “preferred” project list.

- A project could organize a process for chosen industrial or economic sectors to continuously improve their efficiency in water use through conservation strategies by driving down natural resource impact per gallon. The team could develop a set of measures for the water resource impacts of categories of economic activity. These measures could be estimated as basin-wide benchmarks that would be, in essence, the average water impact for a given activity or industry type. Individual plants, value chains or cities could use the practices available to them to manage those impacts and measure the results. The team could compare results to the benchmarks to measure progress. Such work might support or be used in a water use certification scheme.
- A project could design and pilot a series of water conservation and efficiency measures for one or more key industrial sectors in the basin. Based on pilot efforts, the team could create a series of technical support documents that describe current typical uses of water in a given sector of the economy and lay the basis for assessing the efficiency of current and proposed uses of water and where, if economically feasible, conservation opportunities exist.
- A project might create a system to track the water impacts of particular crops (i.e., those that are used to produce biofuels, prepared foods and/or dairy products) throughout the product lifecycle. The water impacts of the cropping system; the transportation and storage of feedstock; the refining process; and the distribution, sale, and use of the crops would be catalogued and made available for purchasers. The team could establish a “buyers club” or product label/brand based on these principles. This general idea could also be tried for paper products, water supplies, and trade in live organisms.
- A project could create and test accounting systems to show impacts upon a particular water resource by users, by an investment, or by a purchaser of a good or service. These systems would create measures of water withdrawal impacts, as well as water pollution and discharge impacts. Ideally, this system would be tested in a number of settings in the basin as a way of shaping basin-friendly behavior.
- A project might identify how various categories of water use relate to one another so that the consequences of a particular use are understood in terms of other uses that are either facilitated or foreclosed. For example, one use might eliminate others, as irrigation could impact the ability of others to irrigate or use a well for drinking water. Other uses necessitate complementary uses, like how a public water supply requires a discharge of treated wastewater, which could, in turn, impact other

potential users. In a system where water is used many times before it leaves, understanding how uses affect one another is critical to meeting the objectives of the Great Lakes Compact. A team could explore how categories of users could change behavior to increase the value of downstream uses.

- A project could analyze the various ways water creates wealth in the basin, identify where the economic gains are greatest, what costs are assigned to the public, and explain why. Ideally, the project would test ways to replace high public costs with high public benefits. Such work would include ways to assess and minimize all impacts associated with water use, including consumption of electrical power and related emissions; the infrastructure development needed or avoided; and other negative natural resources impacts. The project would also test how to maximize contributions to resource health.
- A project could test the effectiveness of green infrastructure or other management techniques using one or more of the measures created in past Fund-supported work, and/or other techniques. Such work would illustrate how the path that water follows across or through the land determines the ecological health of streams, rivers, and lakes and evaluate how well different measures of hydrologic integrity perform in different places. Such work would create a new water use framework that includes drainage as a category of use, and/or creates ecosystem service markets around these practices. Such work should also be designed to anticipate, and prepare for, likely changes in climate and associated changes in precipitation, stream energy, and channel dynamics.
- A project could pilot a new public utility model that includes water productivity and resource improvement as specific objectives. Such a utility might integrate drinking water supply, wastewater treatment, runoff management and other services at a watershed scale. The team would design this work to achieve a set of environmental objectives including flow restoration, biological and chemical water quality endpoints, and reduction in emissions due to decreases in power consumed.
- A project could demonstrate how groups using shared groundwater resources can adapt to more users without impacting the health of conjoined surface waters. For example, a team could expand and test the water withdrawal impact assessment system developed in Michigan (visit <http://www.miwwat.org> to learn more) to other areas of the basin.
- A team could create a tool that targets the kinds of water uses the region should be attracting and indicates or suggests appropriate watershed locations for these uses, based on the compatibility of the uses with the locations. A team could identify various water types in the basin, develop key use-response relationships, and overlay the water requirements of various industrial sectors. Such a tool would match the water needs of a particular use to the hydrologic systems that could support, and perhaps benefit from, that use. This could create a “preferred” user scheme that could attract new industries to the region.

- A team could create a hierarchy of water use “offsets” to aid companies that have made commitments to water neutrality in their product value chains. The team would survey the basin for opportunities for these businesses to use water differently, develop protocols for measuring resource responses to these new uses, and create a registry of opportunities to test different water use scenarios. A pilot test could demonstrate the impact of water neutrality pledges.

## FREQUENTLY ASKED QUESTIONS

### HEALTHY USES, HEALTHY WATERS

*Updated May 7, 2009*

**Q: Will the Great Lakes Protection Fund support projects other than those submitted in response to this RfP?**

Yes. This RfP is developed to supplement our general funding guidelines. Other project ideas that are consistent with those guidelines are welcomed at any time.

**Q: How much money should I ask for?**

Budget requests should reflect the full amount of funds necessary to complete team building, initial background research, and pilot project design. The average level of support for this type and amount of work has been \$150,000-\$250,000 in the past, but applicants should expect awards in the \$100,000 (or less) range. Matching funds are not necessary. If the team has acquired matching funds, please indicate that in the preproposal budget.

**Q: What is a reasonable timeline for a project?**

The project should last as long as necessary to complete the work. The Fund expects the design phase of these projects to last 10 to 18 months.

**Q: What factors will you consider in the preproposal evaluation process?**

The most successful preproposals will identify novel water use strategies that: make the waters of the Great Lakes basin, and the natural resources that depend upon them, healthier; create useful and actionable information in the design phase; and, indicate that the multidisciplinary and multi-institutional project team will work together well. We will evaluate preproposals based on: their potential to create positive ecological change in the basin; the amount of innovation in the proposed strategy; the value of the new information to be created in the design phase; the level of collaboration from the full range of stakeholders; and how well the proposed effort fits in a portfolio of supported projects.

**Q: The RfP discusses the “health of water systems” as the focus for the projects. What does that mean to the Fund?**

The Fund’s expert advisors suggested that the full framework of water impacts be considered when designing projects. This includes: 1) the impacts on source waters (due to withdrawal or in-stream use) including—flow and path alteration, thermal and other quality changes, and the biological

changes that occur as a result; 2) impacts associated with use including—emissions from electric power required to move water, increased chemical use, or other secondary impacts; 3) the impacts on receiving waters (post use) including—path and flow alterations, assimilative capacity impacts, and related biological, physical, and chemical results. Project teams should be as specific as possible in describing the impact of the proposed project, how that will be measured, and who on the team will do the work.

**Q: I understand water conservation has practices that limit the use of water, such a low flow toilets or showerheads. Does the Fund hope to encourage new practices or better adoption of current practices?**

The Fund hopes to support teams that target new and already known methods of managing water use for specific resource outcomes, measure the impact, and design tools that allow others to link practices to results. The U.S. Water Resources Council defines water conservation as activities designed to: 1) reduce demand for water; 2) improve efficiency in use and reduce the losses of wasted water; and, 3) improve land management practices to conserve water. The Fund's interest is to see the impacts of water withdrawals, in-stream uses, and drainage uses identified, decreased, and mitigated. In that regard, an entire range of new practices is possible and current practices can be better targeted. The Fund is not interested in supporting projects that do not identify changed ecological conditions as the purpose, that are solely designed to reduce economic costs, or that are simply designed to promote practices without regard to outcome.

**Q: What is a “portfolio” of projects?**

A portfolio is a set of projects that is designed to be more than the sum of the individual projects. Project portfolios minimize the risk of project failure by diversifying our investments and ensure that complex issues get attention in key areas. Two factors dominate our thinking in assembling project portfolios. First, the project strategies must relate to one another as complements. That is, they take approaches that depend on different (and generally uncorrelated) factors for success. In this way, the set of projects tests strategies that can work under a variety of conditions and each individual effort can provide useful lessons that help create a robust set of strategy tools. Second, each project should focus on one part of the larger issue. Work can be segmented by sector, by target audience, by impact category, by time horizon, by hydrologic system, or by other factors. Together, these factors create a search image for a set of projects. The specific dimensions of this project portfolio will be created after we receive your ideas about where the best opportunities exist.

**Q: Does my organization need to be located in the basin or a Great Lakes state to qualify for funding?**

No. Activities affecting the basin's ecosystem are becoming increasingly distant in space and time from the shores of the lakes. The solutions will be as well.

**Q: I have a project idea related to the RfP that was not included in the illustrative project descriptions; can I still submit a preproposal?**

Yes. Teams are encouraged to submit ideas that meet the intent of the RfP whether they appear as an illustrated idea or not. We expect that many teams will propose different and better ideas than those presented as illustrations. The list of projects is meant to be illustrative of ideas of the types of projects that teams could consider and improve upon. It should not be considered an exhaustive or exclusive list.

**Q: I have a project idea, but I have not secured a commitment from many of the team members; can I still submit a preproposal?**

Yes. The Fund recognizes that it may be difficult to secure a commitment from all of the necessary team members prior to the preproposal submission deadline. However, if a full proposal is invited, the project manager must have a complete team assembled prior to the full proposal submission.

**Q: I have a project idea but am having difficulty securing a partner to test the prototype. Will you provide support for my current team to work on the early stages of prototype development and to secure a final pilot group for testing?**

The Fund expects to support the design phase of projects in this round. We welcome ideas that require additional groundwork and team-building before a full project can be undertaken. While better-developed projects may receive funding priority, if the project idea is particularly innovative, the Fund will consider inviting a full proposal.

**ADDITIONAL RESOURCES**  
**HEALTHY USES, HEALTHY WATERS**

The Great Lakes-St. Lawrence River Basin Water Resources Compact  
[http://www.cglg.org/projects/water/docs/12-13-05/Great\\_Lakes-St\\_Lawrence\\_River\\_Basin\\_Water\\_Resources\\_Compact.pdf](http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Water_Resources_Compact.pdf)

The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement  
[http://www.cglg.org/projects/water/docs/12-13-05/Great\\_Lakes-St\\_Lawrence\\_River\\_Basin\\_Sustainable\\_Water\\_Resources\\_Agreement.pdf](http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Sustainable_Water_Resources_Agreement.pdf)

Council of Great Lakes Governors' Water Management webpage (with links to information regarding: the Great Lakes Agreement and Compact, the Great Lakes-St. Lawrence River Water Resources Regional Body, federal compact consent legislation, state compact implementation status and background, the Great Lakes Water Conservation and Efficiency Initiative, the Great Lakes Water Use Information Initiative, and the Water Management Working Group)  
<http://www.cglg.org/projects/water>

Water Footprint Network  
<http://www.waterfootprint.org>

World Business Council for Sustainable Development's Global Water Tool  
<http://www.wbcsd.org/templates/TemplateWBCSD5/layout.asp?type=p&MenuId=MTUxNQ&doOpen=1&ClickMenu=LeftMenu>

The CEO Water Mandate (2007)  
[http://www.unglobalcompact.org/docs/news\\_events/8.1/Ceo\\_water\\_mandate.pdf](http://www.unglobalcompact.org/docs/news_events/8.1/Ceo_water_mandate.pdf)

Water "neutrality" background  
<http://www.waterfootprint.org/Reports/Report28-WaterNeutral.pdf>

An introduction to water footprint accounting  
<http://www.waterfootprint.org/Reports/Report27-BusinessWaterFootprint.pdf>

Water roundtable/TAC report  
[http://www.glpf.org/Report-Water\\_Experts\\_Meeting.pdf](http://www.glpf.org/Report-Water_Experts_Meeting.pdf)

Previous Fund grants – Growing Water Toolkit

<http://www.glpf.org/resources/Growing%20Water/GWToolkit.htm>

“Energy versus Water: Solving Both Crises Together” (article in October 2008 issue of *Scientific American*)

<http://www.scientificamerican.com/article.cfm?id=the-future-of-fuel>

Alliance for Water Stewardship

<http://www.allianceforwaterstewardship.org>

Great Lakes Information Network “Environment” webpage (with links to water-specific information regarding: beaches, conservation, levels and hydrology, quality, quantity and use, rivers and lakes, and watersheds)

<http://www.great-lakes.net/envt>

“Water: A Global Innovation Outlook Report” (2009) by IBM

[http://www.ibm.com/ibm/gio/media/pdf/ibm\\_gio\\_water\\_report.pdf](http://www.ibm.com/ibm/gio/media/pdf/ibm_gio_water_report.pdf)

Global Environmental Management Initiative’s Metrics Navigator™

<http://www.gemi.org/metricsnavigator>