Great Lakes Protection Fund

Request for Preproposals:

Information Technology and Environmental Outcomes

Submission Deadline: February 3, 2013

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Summary

The Great Lakes Protection Fund seeks to support a suite of projects that design, deploy, and evaluate information technology-supported initiatives that permit individuals, institutions, and/or private corporations to make healthier choices for the Great Lakes ecosystem. These initiatives will provide resource users with new information, possibly in real-time, about their choices and how those choices can improve or degrade ecosystem health. Projects should use new or available technology to present opportunities for basin residents, businesses and governments to undertake seemingly inconsequential activities that, in aggregate, can lead to ecologically meaningful results. The Fund believes that new or existing information technology can connect behaviors to ecosystem outcomes and push the collection of individual, seemingly isolated behaviors towards a tipping point that improves Great Lakes health. We want to support a number of project teams willing to test specific applications of this hypothesis.

Like all Fund supported work, these projects should be team-based, collaborative efforts that lead to meaningful actions to restore Great Lakes' health. The most successful teams will mobilize information technology skills, conservation leadership, and commercial partners willing to work together. Teams must discover new collaborative partnerships and synergies. Teams should include not only information technology expertise, but also the full set of management, ecological, behavioral and business skills to make a truly innovative project succeed. The Fund will not support advocacy campaigns, provide operating support or replace government funds.

Five page preproposals are due by Midnight, February 3, 2013. The Fund will begin review upon receipt and earlier submittals are encouraged. In late February 2013, project teams from the selected preproposals will be invited to submit a more detailed full proposal. Funding decisions will be made in June 2013.

Background

Many of the problems plaguing the Great Lakes are the result of a large number of individual, seemingly inconsequential, disjointed decisions. These problems include: the widespread use of water at times that stress the infrastructure and lead to combined sewer overflows; the use of electricity during peak periods from power plants that are relatively high emitting facilities; purchasing, shipping, and other contracting decisions that lead to the release of exotic species; and other manufacturing, planning, or land-use choices that result in toxic or nutrient pollution of the Lakes.

The common thread in these problems is that they are often the result of choices whose consequences are invisible to the decision maker—superior environmental performance cannot be selected, poor environmental performance cannot be avoided. For example, individual households that choose not run their appliances during a rainstorm are usually unaware of—and certainly not rewarded for reducing—stress on combined sewers. Similarly, individuals or institutions that overcool their facilities during peak summer power hours are unaware of the impacts of this decision on the region's ambient air and water quality. The aggregate impact of what appear to be such small choices can be significant enough to drive either degraded or improved ecosystem conditions.

The Fund believes that information technology can be used to increase the transparency of these seemingly inconsequential actions and provide individuals with the opportunity to make changes on basin

lands, and in basin waters, to improve the ecological integrity of the Great Lakes. Example project ideas can be found on page 8.

Project Criteria

The Fund wishes to support a portfolio of projects that design, test, and deploy information technology-enabled initiatives that make consequences visible to the decision maker and lead to a healthier Great Lakes ecosystem. Projects may undertake activity anywhere that affects Great Lakes' health.

Each project should:

- Test a hypothesis about how the Lakes can benefit by changing key behaviors through the provision of information in the right form at the right time;

- Test incentives that lead to behavior change and identify the particulars of information delivery—time, granularity, and format;

- Demonstrate an innovative and scalable strategy;

- Create a prototype information system that meets an important, if new, demand;

- Be a collaborative effort by a multi-institution and multi-sector team that includes users of the tools to be developed;

- Verify and quantify the project results to test the hypothesis; and,

- Make maximum use of existing efforts and leverage Fund support as much as possible.

To aid teams in assembling preproposals, be aware that the following factors will be considered by the Fund in our review process. Strong preproposals show that the teams' project ideas will have:

A Positive Impact on the Lakes: Project teams should have clear, ambitious and plausible objectives that represent ecological progress in the Great Lakes ecosystem. The Fund seeks projects that have specific outcome goals for critical Great Lakes problems or threats, and understands that driving regional ecological change generally happens after our financial support ends. Project teams should identify what success looks like to the Lakes, articulate a compelling theory of change (or business plan) that lays out how the team will make those changes happen, and detail how those changes will become sustainable beyond the scope of our funding.

Catalytic Potential: The project team not only attracts customers for its work, but will also attract competitors, fellow innovators, and others who will improve on what the project has created. The Fund prefers to support projects that create new categories of action, open up new markets, and generate systemic changes in how the Lakes are benefited by the people who use them. Teams are encouraged to propose strategies that approach Great Lakes problems in fundamentally new ways and create scalable, sustainable, systems-changing solutions. Such strategies might test a solution that reframes a key problem or behavior; test new actions that promise outsized returns; and/or harness changes underway in society, the economics of a particular activity, or the science underlying a key issue. Projects that rely on a "create and disseminate" approach—building a prototype without the involvement of the basin-wide community of potential users and then distributing reports, software or samples—are not encouraged.

Capacity to Deliver Results: Project teams must be able to execute a complex project, adapt to what they discover during the course of the work, quickly deploy a "good enough" product, effectively engage customers, generate short-term impact, and place their product on a path to scale by the time that Fund support ends. This is a result of combining clear outcomes, a great project team, a thoughtful theory of change, and a committed and experienced team leader.

A Multi-institution, Interdisciplinary, Collaborative Project Team: The project team has (or will have in a full proposal) a mix of disciplinary expertise, involvement from all parties affected by the work, participation by pilot and potential futures users in the design work, and a leader who will dedicate substantial effort to leading the project. Teams might include software design engineers, social networking experts, hardware developers, hydrologists, biologists, management professionals, and individuals and institutions that will evaluate the impact of the initiatives developed. While the Fund does not necessarily expect teams to be fully formed at the preproposal stage, those teams that are ready to go and participate in the development of a shared work plan have proven to be better investments. Teams are encouraged to build their preproposals collaboratively.

A Good Fit in a Portfolio of Work: The Fund hopes to support a portfolio of projects that have synergies in outcomes but take complementary approaches to their work. Synergy in outcome means that, if successful, project results magnify each other's impact. (For example, one team might create a solution that minimizes invasive species introduction and another eliminates nutrient surges in wet weather. These efforts can work together to drive down harmful algae blooms.) Complementary approaches are those that rely on different people, following different strategies and do not depend on the same external drivers for their work. (For example, one team could use a social marketing strategy to deploy an alert system, and another could use market incentives in agriculture. These would use different people, and be affected by outside influences differently.) Teams should be clear about the theory of change they want to pursue, what factors create success or failure, and with whom they will work.

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

The Fund cannot support activism, litigation, enforcement, public works projects or private compliance obligations.

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. Teams must show that Fund support for government agencies is not being used to replace or duplicate public 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, February 3, 2013. The Fund will begin review upon receipt. In February 2013, 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 topics in the order below:

Ecosystem Impacts

Identify how the proposed work will improve ecosystem health and why it is important for the Great Lakes. Be as specific as possible. Identify how the team will measure its impact on the Lakes. Describe the specific, exportable prototype system the team expects to create and test. Describe how the team will create a product based on what has been learned from the prototype system, and how the team will ensure that product is deployed at a scale relevant to the basin.

Proposed Work

Briefly articulate why this work is important, describe how it can lead to systemic change, and identify your key assumptions. Describe the project's theory of change: what must happen to drive ecological change, in what order, and what factors external to the team are essential for success. Identify what—if anything—must happen beyond the work proposed to ensure that these outcomes are realized.

Outline the specific 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 human behavior the project intends to change, the incentives that will drive that change, the information technology (hardware, software, and/or data necessary) to relay those incentives, and explicitly what the team will do to demonstrate positive changes and grow the impact of the work. Describe the target audiences for the project and identify their role. Discuss how the 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. Explain why the team leader is qualified to lead the effort and committed to the outcomes. 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:

technologyRFP@glpf.org

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

Information Technology Preproposal:
Great Lakes Protection Fund
1560 Sherman Ave., Suite 880
Evanston, IL 60201

Calendar

December 2012
Requests for Preproposals

February 3, 2013
Preproposal Submissions Due
(Note—We will begin to review preproposals as received. Early submissions are strongly encouraged so that staff may provide feedback on project ideas, team membership, etc.)

February 2013
Full Proposals Invited

Spring 2013
Full Proposal Review and Revision

June 2013
Announcement of Awards

Possible Project Ideas

The Fund is interested in developing prototypes that change behaviors in ways that improve the physical[1], chemical[2], and biological integrity[3] of the basin's ecosystem.

The following list provides concepts and project ideas generated in our discussions with experts about what might be possible. Depending on how they are designed and executed, they may or may not ultimately fit our funding criteria. This list is not a specification sheet, a desired product list, or in any way meant to constrain what applicants should consider proposing. Please consider this a starting point for what teams might do to create new information technology or innovative applications of current technologies that can be used to improve ecosystem health.

- A **remote listening network** to identify potential ballast water releases in areas of significant biodiversity, areas that are "invader friendly", or areas that are challenges for ships to navigate requiring ballast releases to ensure correct ship trim. Such a system could identify vessels via their AIS signals, listen for pump operations, and communicate results to the public, management agencies and shipping companies.

- A **genomic informatics alert system** that collects raw analytic data from genetic surveys, routinely assesses the stored data for "new" species as they are sequenced, provides updates to ports, management agencies, and the public on what species are present in basin waters or vessels that visit the basin, and allows custom searches via an open application programming interface. Such a system would be a key element in a basin "immune system" that catalogues and continuously updates information on the life that is present here, and would drive early detection and rapid response actions.

- **Location and time sensitive water and energy conservation applications** that tailor water and energy use advice to local settings and current circumstances. Such applications would identify the resources in use, the threats (or restoration opportunities) implied by use behavior and provide advice to users about what they can do now to make the lakes healthier.

- A **system that makes explicit the Great Lakes benefits of consumer purchases**. Such a system would assemble life cycle impacts of, for example, products certified as environmentally friendly, and contrast those with other choices. Purchasers could evaluate how much benefit their choice can provide to the Lakes or other ecosystems.

- In field or edge of **field sensor networks** that describe soil, nutrient and water conditions as a complement to prescription application of agriculture inputs (fertilizer, irrigation) and as an

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[1] Physical integrity refers to the pattern of water and sediment movements that are sufficient to support the biological community native to the aquatic system. This means that water is at the right place at the right time, and in the right amounts.

[2] Chemical integrity means that the waters of the Great Lakes are virtually free of toxic chemicals, that humans and wildlife are virtually free of bioaccumulating chemicals, and the Lakes are not impaired by excess nutrients.

[3] Biological integrity refers to the full complement of biota native to the waters of the Great Lakes living in balance with one another and the environment.

element of ecological performance monitoring. Such networks could support the reduction on input costs and payments for delivering ecological services.

- **Water conservation programs that affect the timing and amount of water use**, including and perhaps focusing on run-off. Projects could: link residential and commercial users to real-time meters and pricing information, to test how customer demand is shaped; test "curtailment" programs that, for a financial incentive, stop uses during periods of high demand and/or high sensitivity to releases; track agricultural products grown without irrigation or without artificial drainage, verify the physical integrity improvements achieved and produce a label that allows consumers to select water positive products.

- **Wet weather monitoring/management programs** that: link collective user activities or land use changes to CSO/SSOs release reductions and in-stream impacts; or, test the performance of agricultural practices and cropping decisions on groundwater and surface water levels to identify incentives for farmers to "grow water". Networks of remote monitoring and management are of particular interest.

- **Registries** that measure and verify the positive ecological impacts of innovative actions, such as green infrastructure development or water conservation programs, ideally in real-time and over the time frames that matter. Projects could showcase leaders and report on the environmental consequences of their actions, thereby creating an incentive to replicate or improve such actions.

- **Real-time energy impact monitors** that use dispatch data to show the real-time environmental consequence of energy choices.

- **A clean packaging system**, where all shipping containers are verified to be free of invaders. This system would make it easy to comply with existing laws and allow shippers/carriers to differentiate themselves as Great Lakes-compatible.

- **A clean shipping system**, such as one that allows brokers, agents, and shipping managers to choose clean vessels based on routes, risks and management measures. The project would include ship tracking, management oversight/reporting, risk modeling, and "certification".

- **An interactive website that allows purchasers of live plants and animals** to select for products from those vendors that have adopted "safe trade" practices. Such practices might consider: safe transport, safe disposal, bar coding, alternate species, and point of purchase info. The project would utilize web data bases, data-mining throughout the value chain, and a certification system for "best practices".

- A project that develops the first of its kind integrated, **artificially intelligent immune system** for the Great Lakes ecosystem.

- **A port alert network** that allows port operators to link digital images of incoming ships with the ecological and human health conditions associated with the ship's travel history, onboard treatment equipment, chemical profile of the ship's ballast tanks, and the cargo history. This network could also include managers of public water supplies and the range of first responders for human health threats.

- A data-driven, interactive **visualization of agriculture** in the Basin's Lakeplains, showing the economic relationship of the various parties, inputs and outputs of materials and energy, and

illustrates ways to make the system more economically efficient and ecologically healthy. Similar systems that allow users to visually discover more Lake-friendly behaviors could be created for water utilities, drainage districts, and water intensive industry.

- **Web browser add-ins** that highlight names of invasive species and provide links to sources that identify the risks of those species and present alternatives, especially for invasive aquatic plants and animals.

Additional Resources

As we have researched this topic, we have learned of many related projects, complementary initiatives, and allied activities. Examples are provided below. Some of these are clearly outside the scope of what the Fund would support. However, many illustrate the power of coupling information technology and ecological health. The Fund hopes that teams proposing projects will build on the strengths of these efforts. These links are solely provided as inspiration. The Fund, its employees, directors, and/or members offer no endorsement of any of the sites or products below.

Currently Available Tools:

http://www.scribd.com/doc/97458967/Water-Hackathon-Lessons-Learned
This is a recent report describing a World Bank-funded series of "hack days" that brought together technologists, development experts and water managers to rapidly build a set of technology applications. While not all of the problems, the proposed solutions or the developed prototypes are relevant to the Great Lakes, this is a great place to look for inspiration and resources.

http://therealcosts.com/
Here you can download a Firefox plug-in that calculates the travel-related CO_2 emissions associated with certain transportation purchasing decisions. The goal of this plug-in is to increase the environmental awareness of an individual's day-to-day life with respect to carbon emissions. The Fund might be interested in a similar project that looks at the water impacts of these decisions.

http://www.lmvp.org/kayakswarm/Android/LMVP_Tools
The Lakes of Missouri Volunteer Monitoring Program has created mobile (android) phone applications to test, transmit, manage, and analyze water quality information. This group illustrates what is possible with mobile technology that acts as a spectroscope, a computer, and a communications device. The Fund might be interested in extending this technology if it can be deployed in service of solving, not just describing, a problem.

http://www.vesseltracker.com
Vesseltracker allows individuals access to ship traffic information via a range of free and for-fee products. A free Google Earth plug-in that allows people to visualize ship traffic positions as reported from the Automatic Identification System (AIS) required of commercial vessels. This can be found at: http://www.vesseltracker.com/en/Googleearth.html. For areas not currently in their system, they offer a receiver/uplink kit. If you live in the region, Vesseltracker will provide you with access to ship data around the globe if you provide them with an antenna location in that area and the installation of the AIS software package. See: http://www.vesseltracker.com/en/static/Installation-Kit.html for more information.

http://www.breathingearth.net
A presentation of carbon dioxide levels emitted for countries around the world coupled with the number of births and deaths that are likely occurring as you watch.

http://earth.google.com/outreach/env_science.html
A library of environment related KMLs developed for Google Earth.

http://www.superfund365.org/

Conceived and designed by Brooke Singer, this is an online data visualization application with an accompanying RSS-feed of Superfund sites across the United States. They visit one site each day for a year and develop creative displays of toxicity and other site specific information.

http://www.energyville.com/

An interactive game supported by Chevron that lets the user select among different the energy resources to power their city and in turn their daily lives. Allows people to understand the economical and environmental impacts of their decisions.

http://www.urban-atmospheres.net/Experiments/Ergo/index.html

Mobile devices equipped with air quality sensors that allow individuals and communities to interact and understand the quality of air in their immediate surroundings.

http://www.urban-atmospheres.net/ParticipatoryUrbanism/index.html

This site describes the concept of participatory urbanism—communities of individuals linked through mobile technology to provide environmental and social information related to a particular urban area. The concept is currently focused on air quality measures and provides examples of how it has been and can be used. However, this concept is not limited to air quality and can be tested in other applications to change behaviors that lead to additional ecosystem improvements.

http://carma.org/

This website displays carbon emission levels of power plants around the globe. The visual display of red, yellow and green expandable circles is backed up by carbon dioxide levels reported by utility plants.

http://www.ilovemountains.org/myconnection/

This website directly connects the energy used by an individual (or organization) with the source coal and details how that coal was mined. It is targeted at raising the awareness of individuals to moutaintop removal – a particular type of coal mining considered particularly detrimental to the ecosystem.

http://earth.google.com/outreach/program_details.html

This Google Earth resource link allows non-profits to use different applications within Google Earth to further their mission.

Current & Previous Projects:

http://glpf.org/funded-projects/networked-neighborhoods-eco-conservation

The Networked-Neighborhoods for Eco-Conservation (NECO) team is leading friendly competitions within and among Great Lakes communities to conserve water, manage runoff and adopt watershed improvement activities. It is "networking" individual environmental improvement activities on a neighborhood level and guiding the installation of rain barrels, timing of water uses, utilization of rain gardens, and expanded use of permeable pavements and landscaping. Participants will monitor their own actions and those of their neighbors, via the Internet. The NECO team is exploring how organizations can better collaborate with community members, measure the ecological impact of water management activities and communicate that information.

http://glpf.org/funded-projects/launching-glin-labs

The Great Lakes Information Network (GLIN) is intended to ultimately lead to fewer invasions of exotic species, less harmful runoff from farms and cities, and reduced air and water pollution. This team launched an innovation platform called GLIN Labs that creates software, helps users create new information products, and hosts a small set of strategy experiments for what GLIN should become. The team researched, customized, and piloted a series of tools via GLIN Labs including a video search application, a customized Google Map generator, and a text alert sign-up (which could send brief news updates via text messages). The team is upgrading how data is made available and coordinating a series of design and piloting workshops for a re-energized GLIN. A list of recommended applications can be found at: labs.glin.net/tools/recommended_apps.

http://glpf.org/funded-projects/implementing-real-time-resource-use-feedback-motivate-and-empower-conservation

This team, led by Oberlin College, has developed a new monitoring network that provides instant feedback on the health of local waterways and the quality of air emissions. The team is installing displays in student dormitories, apartment buildings, and mixed-use housing that show how much water and electricity residents consume and how much it costs—in dollars and in real-time effects on local air and water resources. The network shares information through websites, public kiosk displays, "environmental orbs," email, text messaging, and social networking. The team expects to learn from this work both how to better use technology and how to advance the social psychology of sustainable living.

Members of the team have launched a national water and energy efficiency competition among major US universities and are applying what this team is learning in a variety of commercial and public settings.

http://glpf.org/funded-projects/real-time-system-optimization-sustainable-water-transmission-and-distribution

Municipal water systems will reduce air pollution and other water use impacts thanks to this team's software and training programs. This team, led by Wayne State University, is designing algorithms that automatically direct pumps to operate at times when the electric power grid is supplied by the cleanest available sources of energy, and avoid times when it is supplied by more polluting sources. The team is exploring how to change the timing and distribution of this pumping activity to use less polluting power more efficiently. The team will develop and test these technologies in Southeast Michigan and provide its products to all basin utilities free of charge.

News, Articles and Tools:

http://requisitevariety.co.uk/design-with-intent-toolkit/

Requisite Variety's Dan Lockton has created a set of design tools that help teams identify and change behaviors so that our actions become (among other things) environmentally beneficial. A set of "Design with Intent" idea cards can be downloaded (for free) from this page.

http://www.fastcompany.com/3002249/story-behind-stuff-consumers-growing-interest-real-products

This story illustrates how supply chains are becoming transparent to purchasers of final products.

http://www.wired.com/techbiz/it/magazine/15-07/ff_maps

This article describes how the availability of Google maps and Google Earth has changed how people interact and the availability of new software developments in real-time.

http://grist.org/article/fish-stories/

This article summarizes the classic 'fishphone' technology developed by Monterey Bay aquarium that allows seafood purchasers and consumers to text the name of a food item to an automated service. The service then sends consumers feedback on the environmental friendliness of that particular seafood item such as how it was harvested.

Data Visualization: People, Concepts, etc.

http://www.eyebeam.org/projects/eco-vis-challenge

The main website for a design challenge where individuals are asked to create new and innovative ways to display ecological impact data and information.

http://www.visualizar.org/

This Spanish organization hosts a global visualization event and offers a set of unique collaboratives that explore how "big data" can drive change, and how pollution can be sensed, displayed and acted upon.

http://www.globalscorecard.net/live/download/user_guide.asp

This website describes how to follow the value of a particular service or resource through the business supply chain. Such practices would be necessary to truly understand the ecological inputs and outputs of a particular decision or manufacturing process.

http://www.mulbrandon.com/portfolio.html

This website demonstrates unique and compelling ways to correlate and display data.

http://www.gapminder.org/video/talks

Examples of different methods to interpret and display data and information.

http://www.visualizingeconomics.com/

"Making the 'invisible hand' visible". This site displays global economic and growth information.

Frequently Asked Questions

Updated: 11/12/12

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: What, in your view, is Information Technology (IT)?

In the context of this RFP, IT is the use of computers, software, and communication technologies in the service of improving the health of the Great Lakes. Experts we have contacted suggest that web-based applications, internet tools, datamining, the use of mobile devices, and data visualization technologies are under-deployed in this area. The Fund wants to support teams that build upon, and use this technology to restore the health of the Great Lakes. Much of the technology may not be novel, but the application of this technology to the issues affecting ecosystem health will be.

Q: Will you support the update and/or creation and maintenance of existing/new database systems?

It depends. The purpose of this set of projects is to build pervasive, interactive systems for people to receive information about the choices they are making, allow them to make healthier choices for the Great Lakes ecosystem, and validate the environmental impact of those choices. The goal of this work is not to maintain or add information to existing data repositories. However, this work may result in new information repositories or data that is added to existing databases as the prototypes are built and tested.

Q: There are a number of data resources pertaining to the Great Lakes currently available. It seems that an evaluation of existing resources must be done before any go-forward action can be taken in this area. Will you support such an evaluation?

It is unlikely that we will support descriptive, evaluation-based projects that will solely result in a set of go-forward recommendations for others to implement. The Fund is interested in projects that acknowledge the existence of current resources and build tools that harness information technology to use and/or move beyond the current data sets to inform individuals and institutions of healthier, ecosystem positive choices for the Great Lakes. We hope to see teams propose efforts that test new actions based on existing data.

Q: How many proposals will you support?

We do not have a specific target number of projects in mind. Past RFPs have typically resulted in six to ten projects. The Fund does hope to support a portfolio of complimentary projects.

Q: How much money should I ask for?

Budget requests should reflect the full amount of funds necessary to complete the work. The average level of support has been about $250,000, but budgets in the past have ranged from $15,000 to $1.5M. 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. Projects that last for multiple years are typical.

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 all 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 I 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 has provided small planning grants for projects that require additional groundwork and team-building before a full project can be undertaken. If the project idea is particularly innovative, the Fund may consider such an option.

Q: How is the work supported in this RFP different from programs like the Great Lakes Observing System (GLOS) and the Great Lakes Information Network (GLIN)?

Projects will complement these activities, especially the data gathering and clearinghouse applications of GLOS and GLIN respectively. The Fund does not wish to replicate efforts currently underway in the basin,

and does not envision providing support to efforts that compete with those initiatives. In particular, teams should seek to enhance or perhaps feed these resources with new, advanced, and practical analytic, mobile, interactive, and datamining capabilities.