



Great Lakes
Protection Fund

Strategic Plan: 2019 – 2024

Entering the Fourth Decade



Introduction

The Great Lakes Protection Fund is a permanent, private, not-for-profit corporation that launches innovative solutions to the threats to Great Lakes ecosystem health. The Fund's mission is to "identify, demonstrate and promote regional action to protect and restore the health of the Great Lakes basin ecosystem." Its permanence, its focus on innovative catalytic solutions, its state share program that returns annual dividends to member states, and its standing as a private, mutual benefit, membership corporation distinguish it from every other entity addressing Great Lakes issues.

The Fund is chartered to last in perpetuity. The board of directors must make responsible choices about the endowment, the Fund's programming, and its future. The endowment must be wisely invested to generate returns for its mission while avoiding unnecessary financial risks. Programming must stay tied to the shared priorities of its member governors, be laser-focused on Great Lakes impact, and take risks commensurate with the returns anticipated. We build sustainable practices that create value not only for the ecosystem but also for those who will be applying these new approaches.

We are guided by the knowledge that healthy Lakes are an essential element of a robust regional economy and that a strong economy will benefit the Lakes.

As we begin our fourth decade, the Fund is accelerating the restoration and protection of Great Lakes health. Over the next five years, we are launching a suite of new technologies, better management strategies, and novel financing solutions. We are focusing our energies on the governors' shared priorities for the basin, emphasizing efforts to ensure the sustainable use of basin water resources, control diffuse pollution, and limit the impact of invasive species. The Fund is dedicating over \$16 million to these efforts. We are expanding our advisory network, changing the mix of projects we support, and exploring new ways to accomplish our mission to drive that impact.

The Fund is more deeply engaging with the Great Lakes community, our funding partners, and the innovation community. We have three goals: first to attract talented people with compelling ideas for improving Great Lakes ecosystem health, second to strengthen ambassadorship and advocacy for the Fund's work, and third to accelerate adoption of the new solutions our supported teams pioneer. We are growing our presence in new and traditional media, better connecting with the communities in which we work, and helping our teams tell their stories and increase the impact of their innovations.

The Fund continues to strive for excellence in our operations and governance. We are a unique corporation and govern ourselves in accord. We will maintain our excellence as fiduciaries, improve how we consider new ideas and strategies, and become a better partner with our advisors, applicants, and funded teams.



The Fund

The Fund was conceived in a time of unprecedented cooperation among the states who share the Great Lakes. Together, the states:

- formed the Council of Great Lakes Governors as a gubernatorial forum on shared trade, economic development and environmental issues (1982);
- formed the Center for the Great Lakes—a regional think tank on Great Lakes issues (1983);
- adopted the Great Lakes Charter—a framework to manage large new consumptive uses of Great Lakes water (1985); and
- adopted the Great Lakes Toxic Substances Control Agreement—to better identify and manage the risks of toxic pollutants (1986).

The Fund was created in 1989 to help advance the purpose of the Great Lakes Water Quality Agreement, namely, **“to restore and maintain the physical, chemical and biological integrity of the waters of the Great Lakes Basin ecosystem.”** The Fund identifies promising, potentially transformational, solutions to systemic threats to the health of the Lakes and financially supports leaders who test, refine and scale those new strategies.

The states invested \$81 million of public funds in the Fund’s endowment. Those public funds cannot be spent. The endowment generates income to operate the Fund and support two funding streams. Two-thirds of the endowment’s net income is used to finance regional efforts in pursuit of our mission. The remaining third is returned as a dividend to member states to support their individual and more local Great Lakes priorities.

Because the Fund is not a charitable foundation, it can use a variety of mechanisms to accomplish its mission that are not available to government or philanthropy. In pursuit of its mission, the Fund may:

- form or control for-profit and not-for-profit corporations;
- partner or participate in new for-profit or not-for-profit ventures;
- retain and/or profit from any inventions derived from Fund support; and
- may support private corporations and individuals—provided that it ensures that it does not cause private inurement (excess benefit).

Member governors elect a multi-sector, citizen board of directors to govern the Fund. Among other fiduciary duties, the board must ensure the Fund does not lobby in any way (a more restrictive limitation than charitable foundations or typical not-for-profits face) and does not set standards, levy fines, or engage in any activity the purpose of which is to regulate. These restrictions apply not only to day-to-day Fund operations, but any activity supported via grants, debt or equity. Further, the board is required to ensure that external experts evaluate proposals and provide advice on opportunities.



Our Mission

Identify, demonstrate and promote regional action to protect and restore the health of the Great Lakes basin ecosystem.

Our Vision

The Great Lakes, and the waters that feed them:

Are free of toxic substances and other materials that cause harm, nuisance conditions, or otherwise limit their beneficial uses,

Support self-sustaining populations of native and naturalized species, and are free of harmful invasive species, and

Have water at the right places, at the right times, and in the right amount to sustain natural and human needs.

Further, that a healthy Great Lakes basin ecosystem is sustained by:

A vibrant economy that uses and benefits the Lakes,

Governments that focus on Great Lakes health outcomes, and

People that value, protect and enhance Great Lakes health.



Our Values

The Fund and its supported teams build new, ambitious solutions to difficult, often intractable problems. This is challenging work, and we stand by these values in undertaking it.

The Fund's income is tied to the health of the economy and activity of capital markets. Market conditions will change, these values will not.

Mission First

We are deeply committed to improving the health of the Great Lakes ecosystem, and pursuing that impact drives everything we do. We are here to make a difference.

Transformational Change

We take intelligent risks to advance new solutions and forge new paths in pursuit of ecosystem impact. We look to drive significant change—impact measured in powers of ten, not in multiples of 2 or 3.

Responsibility

We are responsible stewards of the permanent endowment, committed to our fiduciary duties, and are accountable to our member governors, our partners and each other.

Openness to New Ideas

Catalytic solutions are our business, and we are open to all new ideas that drive significant ecosystem impact.

Respect and Integrity

We honor our commitments; we respect the time, effort and abilities of applicants, volunteer experts, and advisors; we support our partners; and, we seek excellence—not perfection—in our work.



What Makes Us Different

The Fund now has nearly three decades of operating experience, has supported work involving thousands of people and benefitted millions of basin residents and businesses. We have learned what can work, what we do best, and what others do better.

The Fund uniquely combines the following differentiating traits. We are:

A Permanent, Region-wide Actor

We are a permanent endowment focused on regional actions—that states must do together—to improve the health of the Great Lakes basin ecosystem.

Whole-System Focused and Impact-Driven

We focus on protecting and restoring the physical, chemical and biological integrity of the entire Great Lakes basin ecosystem. We build projects that turn great ideas into practical, high impact solutions at the whole-system scale.

A Risk-Taker and Game Changer

Our business is launching better ways to take care of the Great Lakes. We take intelligent risks—where others can't or won't—to drive progress. We emphasize transformational, systemic change.

A Collaborator

We bridge diverse interests to create disruptive and durable change. We engage and fund across public, private and not-for-profit sectors to advance our mission. We aim our work to operate at the intersection of a robust regional economy and a healthy ecosystem.

An Impact Multiplier

The innovations launched by our supported projects make the work done by the private sector, basin governments, and civil society more effective.



Entering the Fourth Decade

As the Fund enters its fourth decade, we are increasing the impact of our programming, better telling our story, and driving excellence in how we do our work. Here we share the thinking behind these goals; identify how we intend to get there; and discuss how we will know what's working, what's not, and when to adapt our approach.

High Impact Programming

In the next five years, the Fund is accelerating the restoration of Great Lakes health by launching a suite of new technologies, better management strategies, and novel financing approaches. Our focus is on building new solutions to shared gubernatorial priorities, emphasizing: ensuring sustainable use of basin water resources, controlling diffuse sources of pollution, and stopping the introduction and spread of invasive species. The Fund expects to dedicate over \$16 million to projects advancing these efforts as we implement this plan.

We expect to build and maintain a portfolio of projects that create, test and launch these new solutions. Our emphasis is to develop approaches that are increasingly adopted over time. Successful projects not only attract new resources provided by an expanding set of users but also open up new markets, attracting other entrepreneurs that improve on what our teams pioneer. We are not in the clean-up business but in the business of making new solutions so that actions to protect and restore the Lakes are easier, faster, and less expensive.

We focus our energies on those projects where:

- solutions are genuinely new, plausible, and can be tested
- a market—even if latent—exists for the new approaches that will pull these solutions to a scale that impacts the Lakes
- we can make a big, likely transformative, difference
- the Fund and our partners can track progress, learn from the work and adapt along the way

We take on sizeable risk in return for the promise of dramatic ecosystem improvements. We look to attract new resources to support our funded work. While our unique niche may limit a team's ability to attract matching funds in the early stages of supported work, we do expect that teams will attract new resources in the growth and adoption phase of our projects.

We will not dilute the unique traits of the Fund by using our limited resources to support foundation or government programs, except when consistent with our niche and mission. Others already provide substantial resources to problem description, policy analysis, local clean-up activity, and operating support for basin institutions. Others also already fund advocacy campaigns, lawsuits, and strategies that might exacerbate disagreements among member states. We will also avoid mature strategy spaces, where our support is not likely to make a substantial difference.



At any one time, our innovation portfolio will likely include 15 to 20 individual projects. Going forward, this portfolio will consist of a broader range of project "sizes." We will experiment with new styles of exploration, design, promotion and scaling investments. These are smaller in terms of dollars invested and of shorter duration than most projects we've supported in the last decade. While the bulk of the portfolio will focus on the real world trials of new approaches, we will also look to add newer strategies such as competitions, awards and impact investments.

We will build this portfolio by launching initiatives that reflect new, focused priorities. Initiatives will be sets of projects, to be launched and added to over time, and eventually exited. They are not program areas but learning platforms. Program areas tend to become siloed over time. They too often survive because of inertia rather than success. Initiatives will be of different sizes and durations. The board will authorize them, considering the relationship to governors' priorities, the riskiness and readiness of the solutions, the commitment required, the exit conditions required, and the opportunity costs involved.

Initially, we will primarily focus on the three priorities sketched below. These areas represent the advice of experts, our judgment as to the best opportunities and where our staff will devote the time and energy. We remain open to (and encourage) new ideas and opportunities, but believe that a tighter focus on priorities will increase our ability to deliver on our mission.

Priority: Ensure Sustainable Use of Water Resources

Background: The governors have identified a priority to "ensure the sustainable use of our water resources while confirming that the states retain authority over water use and diversions of Great Lakes waters." Federal support for this priority has generally not been made available through the Great Lakes Restoration Initiative. The states, provinces, and the federal government have made excellent progress to ensure state control over water use and diversion decisions through the adoption of the Great Lakes St. Lawrence River Basin Water Resources Compact (prohibiting out-of-basin diversions of Great Lakes water by requiring that any water used outside of the basin is returned).

Objective:

Reduce nutrient and pathogen loads to basin waters, reduce flow alterations, and improve river, coastal, and lake water quality by launching, packaging, and driving adoption of innovative, technology-enabled solutions to increase the sustainability of the use, delivery, and treatment of basin water resources.

Other progress, however, has been more limited. Water infrastructure remains underfunded. Larger and more frequent storms require not only new investment, but also new ways of thinking about how we manage precipitation. New contaminants are found, and affordable ways to manage them remain



elusive. If we can better control how water moves across and through the landscape, we will see benefits not only to our neighborhoods, but we can help solve nutrient pollution, sedimentation, pathogen contamination of beaches, and improve biological conditions in receiving waters.

The Great Lakes Commission estimates that identified needs in the region's drinking water, wastewater treatment, and stormwater management infrastructure exceeds \$178 billion. These estimates are likely low as they are incomplete and derived from engineering estimates that rely on outdated assumptions about precipitation. Investment in this infrastructure is necessary to improve the health of, or protect high quality, coastal ecosystems; restore the health of the basin's rivers, harbors, and lake waters; safeguard the health of basin residents, and promote sustainable uses of the basin's waters. We seek to reduce the costs of the basin's water infrastructure and improve its effectiveness.

Prior Fund-supported work, expert advice, and a growing body of literature show that the use of information technology-power control systems can vastly reduce the capital expenditure needed to meet established water quality or regulatory objectives. These same approaches have been shown to drive other important ecological benefits at no additional cost.

Sustainable Use of Water Resources Actions

- Engage a set of expert advisors including municipal and utility leaders, civil and electrical engineers, technologists, consulting engineers, and others to identify specific opportunities; create measures of success; and shape programming.
- Launch a series of demonstration efforts to test, validate, and package strategies for “smart” infrastructure management. Emphasize actions that solve water quality problems, prevent degradation of high quality waters, repurpose existing infrastructure and/or minimize the need for expanded grey infrastructure, integrate natural solutions with built infrastructure, apply IOT sensors/machine-learning/controls, attack basin wide problems, significantly decrease capital costs, and involve teams that will work with other supported efforts to maximize learning, impact, and scalability.
- Support a growing community of practice involving supported teams, the Green Infrastructure Exchange, the Great Lake St. Lawrence Cities Initiative, the Urban Sustainability Network, and the growing water innovation ecosystem (including the Water Council, Current, Cleveland Water Alliance, Water Rising, XPV Capital, Impact Engine, S2G Ventures) in the basin. Work with partners to drive adoption, commercialization, and expanded/new markets for these strategies. Use smaller, targeted investment to follow-up on the initial successes of supported efforts.
- Evaluate the success and early impact of this work.



Priority: Control Pollution from Diffuse Sources

Background: Excess nutrients, particularly dissolved reactive phosphorus, are leading to outbreaks of algae in the basin's rivers, bays, and Lakes. Even Lake Superior, which has not been vulnerable to the algae problems more common in the lower Lakes, is experiencing algae blooms. Algae blooms rob waters of oxygen (when they die and decay), can limit the use of beaches (when mats of algae cover them), and can release potent toxic compounds that can harm humans, wildlife and other animals. Several public water supply systems have been forced to stop operations because of the presence of one such toxin: microcystin. The vast majority of phosphorus entering the Lakes is from agricultural activities.

Objective:

Reduce loads of phosphorus, nitrogen, and sediment entering the Lakes by building a series of strategies that can be delivered by drain managers, commercial, and/or not-for-profit third parties that reduce nutrient loss, improve soil health, improve the retention of water, and over time, reduce the occurrence of harmful algae blooms.

These rural, agricultural areas of the basin are crisscrossed with tens of thousands—if not hundreds of thousands—of miles of private and public drains. They convey a large share of the nutrients and sediments that cause algae problems.

While the region debates what governments might do to control this problem, the Fund will continue to look for market-driven approaches. As agriculture increasingly relies on third parties to manage drainage, fertilizer application, design cropping systems, and to grow crops, we will work to embed conservation services into these business models. We will also work with drain owners to explore changes in how they manage and fund their networks to reduce the “flashiness” of stream flow, reduce sediment loads, and reduce the nutrients entering the Lakes.

Diffuse Pollution Sources Actions

- Explore the opportunities available to third-party providers. Identify leaders in drain practices in the region, and the opportunities and constraints that drain managers face (and how those vary by jurisdiction). Engage experts to understand the changing economics of farming, the agricultural retail business, and the role of third-party providers in basin agriculture operations. Engage leaders and other experts in real-time sensing, monitoring, and management. Build a roadmap for new technology, better flow management, and more targeted assessments.
- Launch a focused set of actions to test, validate, and scale third-party services providing ecological (and other) benefits. Focus on nutrient removal technologies, soil health, cropping system, wetland services, and managed drainage programs that can directly contribute to reducing nutrient driven algae outbreaks.



- Launch an expanded series of efforts to design, test, and scale new drain assessment schemes that create incentives for better water management on farm fields; deploy a suite of IOT enabled management technologies to optimize drainage for nutrient removal; and showcase the leadership of drain managers in solving the nutrient problems in the region.
- Drive adoption of these services by supporting the creation of operating models, promoting the services and business model, and identifying investment opportunities. Build and support a growing community of practitioners of these new practices. Catalyze cross-state collaboration among leaders and early adopters.
- Evaluate the impact of the work by creating and tracking success metrics for individual service offerings, businesses that deploy them at scale, and adoption by end users. Engage with other funders, impact investor, and governments to grow adoption.

Priority: Stop the Introduction and Spread of Non-native Aquatic Invasive Species

Background: Invasive species are organisms from another ecosystem that cause (or are deemed likely to cause) harm to the region's people, environment, or economy. Some 190 non-native species have taken up residence in the basin. Not all "non-native" species are harmful, but in 2005, invasive species damages to the region were estimated to exceed \$5 billion each year. These species have arrived via canals, ships, aquaculture, recreational activities, and through the use and commercial trade in live organisms. Control programs to limit new introductions have targeted the most important vectors. While most regulatory and other government programs are still nascent and others still being developed, there has been substantial progress in addressing principal vectors. The rates of discovery of new non-native species have slowed significantly in the basin, however they are still being identified. Efforts to eradicate invasive species that have become established have made some notable progress; no program has successfully eliminated an invader.

Objective:

Further decrease the rate of new invaders establishing in the Great Lakes, slow the spread of existing invasive species, and minimize impacts of existing nuisance species by investing in high impact opportunities to advance control actions.

There is much activity on this topic, and our work will mainly be opportunity-driven. As statutes and rules are drafted and redrafted, we will look for the chance to launch new actions while staying out of the regulatory and spending debates.



Non-native Aquatic Invasive Species Actions

- Engage experts in synthetic biology to assess the threat posed by a next generation of invaders (modified organisms), and the potential to use such tools to stop or reverse invasions.
- Continue to scan for opportunities to advance control strategies, and build tools for member states and private parties to use in their control efforts.
- Work with member states, basin stakeholders and experts to identify opportunistic investments in new monitoring, predictive analytics, new partnerships, and other tools.

Beyond the Priorities: The Unexpected

In addition to our key priorities, the Fund will remain open to new ideas/solutions. The governors' shared priorities to reduce toxic compounds, protect and restore habitat, and protect human health are particularly important. We will not close the door to any opportunity for transformational solutions to basin problems. Such openness has been a hallmark of the Fund and will continue to be. We will invite discussion, ideas, and proposals.

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A portion of our portfolio will remain focused on opportunities beyond these “core” priorities. A part of our annual commitments will be dedicated to new ideas and new strategies (including new types of funding). We will balance our openness to the new and different with the reality that such efforts will likely be a smaller portion of what we do, and not consume a significant fraction of staff and applicant time.



Engagement and Communications

Over the next five years, the Fund will expand its engagement with the Great Lakes community, our funding partners, and the innovation community. We have three goals: first to attract talented people with compelling ideas for improving Great Lakes ecosystem health, second to strengthen ambassadorship and advocacy for the Fund’s work, and third to accelerate adoption of the new solutions our supported teams pioneer. In other words, we want to be better at attracting game-changers, help the people that encounter us to share our story, and increase the impact of our supported work.

We are expanding our contacts and presence at external events, cultivating media contacts to drive more earned media coverage, increasing our use of digital media, and updating the voice and personality of Fund communications.

Strengthen our Communications Infrastructure

Over the next five years, the public impression of the Fund will shift from a quiet, somewhat obscure, entity to one that is more visible, more “human” and more accessible. We are changing our voice and persona. We are creating a new brand identity, developing communication guidelines that humanize our voice and make telling our story easier, and updating our print and electronic assets over time.

We will build a storytelling “library” that maps our impact to the key traits we want to share, to the audiences we want to reach, and to the behaviors that we want from those audiences. We will draw on those “story arcs” to drive the activities identified above. Our stories will include collaboration with, and use of, the work of our supported project teams.

We will measure our progress in shaping a new identity for the Fund, building ambassadors and advocates and, perhaps most importantly, attracting new and better ideas.

Increase our Use of Digital Media

We are expanding the use of our blog, the GLPF website, Twitter, Facebook, Instagram, and LinkedIn. Our social media work uses relevant content from partner organizations to build relationships and support them as our ambassadors; shares original GLPF content to attract new talent; and repurposes media from supported teams, emphasizing video content, to make our work more visible and build interest.

External Events

We are working to expand our leadership role in select Great Lakes events and conferences, become a respected presence at national innovation and funder forums, and better showcase the work of our supported projects. We choose opportunities that signal our intent to engage, can reach a wide audience, and build our new brand. Over time, as we build a corps of ambassadors to carry our message, we will focus more on attracting new talent and driving adoption of the products our supported teams have created.



Cultivate Media Relationships

We routinely brief the top writers and producers of Great Lakes, water management and innovation funding content. Regionally, these are dominated by newspaper reporters and public television/radio reporters/producers. Nationally, we will strive to engage with the broader water innovation community. They exist in print and digital spaces. We are building our brand identity, and creating an appetite for the content our teams will be able to deliver to these channels. This builds on our successful transition communication efforts.

Excellence in What We Do

To accomplish the ambitious agenda above, the Fund will strive for excellence in our operations and governance. The Fund is not a commission, a coordinating body, nor are we a charitable donor or a government funding program. We are a unique corporation and need to govern ourselves in accord.

Excellence in Governance

Over the next five years, we will expand our approach to governance. We will build on, and strengthen our tradition of fiduciary excellence. To support the Fund's directors and officers, we will schedule routine, recurring educational sessions on the fiduciary duties of care, loyalty and obedience to the mission. We will review and where necessary update our bylaws, committee charters and policies. We will look to shorten decision cycles and be more nimble. We will become more efficient, more explicit about process, and more effective at on-boarding new directors.

Beyond our shared fiduciary duties, we will strengthen the strategic governance of the corporation by adopting strategic planning and better budgeting processes. This plan will be reviewed and adjusted no less than every three years, based on the board's assessment of what is working and what can work better.

We will introduce and formalize a new, third area of board activity: generative governance. We will dedicate board time to explore new topics, new strategies and new corporate opportunities. Our past work in this space has been somewhat sporadic and informal. We will build our capacity to have "pre-strategic" conversations that sharpen our view of what the Fund must evolve toward, identify new opportunities to explore, and improve how we set strategy to get there.

Excellence in Operations

To upgrade the impact of our programming, better connect with key communities and expand our governance activities, we will continuously improve how we operate the Fund on a day-to-day basis. Over the next five years, we will strengthen our advisory network, better align our investing and mission-related work, and better integrate annual planning and accountability practices.

It should go without saying that most operating issues are outside the scope of a strategic plan. Having said that, the Fund will continuously improve its operations, looking to increase mission



impact. We will continue to be a workplace that attracts and retains superior talent. The Fund's staff is a key resource, and professional development will remain a priority.

This plan will drive our annual planning, budgeting, and accountability systems. We will increasingly set more explicit spending targets, better link our budgets to yearly and strategic objectives, and ensure that our resources are focused on mission outcomes. In this process, we will make the trade-offs and hard choices in where we apply our limited resources. We will look for ways to use the balance sheet in pursuit of mission objectives and more intentionally implement our current impact investing strategy, considering changes as we learn more.

We are more effectively and efficiently serving the needs of the board by using dashboards, summary information, and more frequent, if more informal education sessions, to reduce the time and effort needed to facilitate good governance.

We will relentlessly focus our energies on the mission and our core charge to improve the ecological health of the Great Lakes.



Acknowledgments

Many people from many institutions shaped the Fund's strategic plan. Thanks to all of you.

This plan has its roots in the fifty-two stakeholders interviewed in the Fund's last external evaluation. Those individuals offered their time, perspectives and advice. They identified not only what the Fund does well, but also how we can improve. They also identified a set of issues that threaten the health of the Great Lakes and require new solutions.

The Fund hosted two workshops that also helped shape our strategy. Our first-ever Impact Bootcamp involved fifteen people currently supported by the Fund. In that workshop, we shared our current evaluation protocol and results to discuss common "impact traps" that past grantees have encountered in building and scaling new solutions. The teams offered us direction, advice, and insight into how we can better support our teams, and how our processes can be improved to increase the chances that all of our supported teams succeed.

In a second workshop, we explored how to capture the impact of our supported work. Given that successful projects outlast Fund payments, we examined how to best identify, capture, communicate, and—where possible—grow the impact of our teams. Five former team leaders helped us refine our core strategy, better understand what team leaders value about our support, and how the new technologies, strategies, and practices they created have continued to drive positive ecological impact in the basin. These leaders also offered advice for what we might do to accelerate and track adoption for all of our teams.

The entire staff team and the board of directors was actively engaged in building this plan. The board led a strengths, weaknesses, opportunities, and threats exercise that was a foundation for this work. We developed our lists of core values and differentiators in conjunction with creating a new communication and outreach strategy. Staff—as a team—assessed the Fund's operating environment, reviewed opportunities, drafted strategies, and did the heavy lifting to reduce all of that information into the plan you see today.

Adopted: December 7, 2018