The Story of the Great Lakes Restoration Initiative

Past, Present, and Future of Great Lakes Stewardship

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Common Abbreviations and Acronyms

AIS	Aquatic invasive species	**GLRC**	Great Lakes Regional Collaboration
AOC	Areas of Concern	**GLRI**	Great Lakes Restoration Initiative
BUIs	Beneficial Use Impairments	**GLTF**	Great Lakes Task Force
BMP	Best Management Practice	**GLU**	Great Lakes United
Cities Initiative	Great Lakes and St. Lawrence Cities Initiative	**GLWQA**	Great Lakes Water Quality Agreement
CGLI	Council of Great Lakes Industries	**GAO**	U.S. Government Accountability Office
CORA	Chippewa Ottawa Resource Authority	**GSGP**	Great Lakes St. Lawrence Governors & Premiers
CERP	Comprehensive Everglades Restoration Plan	**HAB**	Harmful Algal Bloom
CWA	Clean Water Act	**HOW Coalition**	Healing Our Waters-Great Lakes Coalition
ECCC	Environment & Climate Change Canada	**IATF**	Interagency Task Force
EJ	Environmental justice	**IIJA**	Infrastructure Investment and Jobs Act
EO	Executive Order	**IJC**	International Joint Commission
EPA	Environmental Protection Agency	**Legacy Act**	Great Lakes Legacy Act
FY	Fiscal Year	**NPCA**	National Parks Conservation Association
GLC	Great Lakes Commission	**PCBs**	Polychlorinated biphenyls
GLCPA	Great Lakes Critical Programs Act	**NGOs**	Non-governmental organizations
GLFC	Great Lakes Fishery Commission	**NWF**	National Wildlife Federation
GLI	Great Lakes Water Quality Initiative	**RAPs**	Remedial Action Plans
GLIFWC	Great Lakes Indian Fish and Wildlife Commission	**TEK**	Traditional Ecological Knowledge
GLLA	Great Lakes Legacy Act	**TMDL**	Total Maximum Daily Load
GLNPO	Great Lakes National Program Office	**U.S.**	United States

Executive Summary

The Great Lakes Restoration Initiative (GLRI) is widely considered one of the most successful and most well-regarded conservation programs in the United States, funneling over $5.49 billion in federal funds into thousands of projects across the Great Lakes watershed. The GLRI protects and restores the world's largest surface freshwater ecosystem, yielding innumerable environmental, economic, public health, and recreational benefits. The GLRI's journey from concept to implementation is the result of decades of strategic, coordinated efforts. This study is the first in-depth analysis of the GLRI's history and lessons learned, bringing together the stories of key actors who contributed to the program's creation and durability. Primary and secondary document analysis, as well as in-depth perspectives from 82 interviews, are utilized to provide a comprehensive overview of the GLRI's history, drawing key lessons for the future of Great Lakes restoration and other restoration efforts around the world.

Support for Great Lakes protection did not begin with the GLRI. Great Lakes advocates have collectively fought against environmental degradation in the region since at least the 1960s, in part by supporting binational agreements such as the Great Lakes Water Quality Agreement and U.S. legislation like the Clean Water Act and the Great Lakes Critical Programs Act. These advancements, along with others, both decelerated environmental harm and curbed infighting over how to address such issues in the Great Lakes. While these efforts were not comprehensive or powerful enough to address all pollution and degradation in the region, the standards set provided a regulatory framework that allowed advocates to shift their focus to obtaining crucial federal funding for restoration. It also took some of the biggest issues 'off the table' and showed how collaboration could be effective at gaining federal attention.

By the early 2000s, Great Lakes restoration efforts had begun but lacked a cohesive strategy and message that emphasized the need for federal funding. Therefore, in 2004, Peter Wege and The Wege Foundation worked with the National Wildlife Federation and the National Parks Conservation Association to form the Healing Our Waters–Great Lakes Coalition (HOW Coalition), which helped unify restoration activities, communications, and messaging campaigns of its member organizations under one advocacy front that would elevate Great Lakes restoration to a federal level. This allowed for the strong, unifying cultural and regional identity that fosters love, appreciation, and respect for the Great Lakes to be acted upon. This reverence extended to elected officials at the local and state levels, regional and industrial bodies, nongovernmental organizations, and funders who had previously worked together on other Great Lakes environmental issues but had not yet aligned their restoration priorities on a larger scale.

At the urging of many state and local leaders, and with the strong support of the U.S. Environmental Protection Agency Administrator Mike Leavitt, President Bush initiated the Great Lakes Regional Collaboration (GLRC) in 2004, bringing together 1,500 Great Lakes stakeholders to create a restoration plan. After a year of outreach and meetings, the GLRC Strategy to Restore and Protect the Great Lakes (GLRC Strategy) was produced, outlining eight main focus areas that eventually informed the foundation of the GLRI. The HOW Coalition, as well as local and state leaders, elevated this message to federal officials within the Bush administration, urging them to allocate federal funds to the Great Lakes. For the first time, there was a cohesive advocacy strategy and plan shared between cross-governance actors, thus strengthening the region's message on the importance of restoration and connecting Great Lakes science to politics.

While the Bush administration did not, to the disappointment of many, increase federal funding for the Great Lakes, the strategic actions taken by Great Lakes advocates following the GLRC situated Great Lakes restoration as a national issue. For example, the HOW Coalition and the Great Lakes Commission increased rapport with potential congressional allies through annual conferences and events in Washington, D.C., expanding the reach and scope of its message in Congress, and leveraging the region's swing-state power ahead of the 2008 election. Other organizations, like the Great Lakes-St. Lawrence

Cities Initiative, played critical roles with activities like curating economic impact studies that reflected the region's dedication to Great Lakes restoration. When Barack Obama, an Illinois Senator familiar with Great Lakes issues, became president in 2009, Great Lakes champions within his administration helped make Great Lakes restoration a priority. The Great Recession prompted the Obama administration to prioritize investment in the American economy, and the GLRC Strategy provided the foundation to do so through the GLRI in 2010.

Overall, the GLRI's first congressional appropriation and continued support came about through eight converging forces:

1. Mobilizing Cultural & Regional Identity
2. Laying Legislative & Federal Groundwork
3. Convening & Planning
4. Modeling Success from Other Initiatives
5. Building a Broad & Diverse Coalition of Allies
6. Communicating Clear & Compelling Messages
7. Leveraging Intra-Governmental Collaboration & Coordination
8. Capitalizing on Political Opportunity

From 2010 to 2024, Congress has appropriated $5.49 billion to the GLRI. There are GLRI-funded projects in every congressional district in the region, and these projects have consistently delivered on the region's five restoration focuses: toxic substances and Areas of Concern, aquatic invasive species management, nonpoint source pollution reduction, fish and wildlife habitat restoration, and future sustainability planning. GLRI-funded projects contribute to a healthier Great Lakes ecosystem, which in turn leads to local and regional economic development, increased recreation and tourism, and improvements in overall well-being. Together, these benefits—along with coordinated and strategic advocacy from many sectors and agencies—fuel the program's enduring bipartisanship, which has proven valuable throughout changing political tides, including multiple attempts to eliminate or cut the program.

Despite its successes, the GLRI was designed in a different era and focuses on remediating past harms rather than present or future threats. In the future, shifting the GLRI's focus to promote resilience would allow the program to combat emerging environmental pressures through stronger investment in monitoring, forecasting, and anticipatory science. The GLRI could also expand its focus areas to include more environmental justice initiatives as well as diverse perspectives and knowledge systems, and engage more members of the public through educational programs emphasizing the importance of Great Lakes stewardship.

Although the Great Lakes region has unique characteristics that helped elevate Great Lakes restoration to a national priority, there are many highly transferable strategies within the GLRI's history that can be applied to a diverse array of regions. Cultural connection to a place may not be as strong everywhere as the Great Lakes are to the Upper Midwest, but place-based reverence can be fostered with time through public education and outreach. Bringing together a strong coalition of diverse allies can help concentrate a region's restoration message and amplify it to important decision-makers. Strategically networking with decision-makers and other potential allies can position a restoration campaign favorably at the federal level, particularly using allies close to the current administration. All these strategies are directly tied to elements of the GLRI's success that contributed to its stability and influence.

Enduring environmental initiatives are rarely a product of isolated actions or political opportunities. Rather, they are a result of a sustained convergence of culture, advocacy, leadership, strategy, and funding. Understanding how the GLRI was built and why it has endured the test of time offers a roadmap for strengthening restoration initiatives around the world.

"To live without the appreciation of knowing nature, is living without your soul."

Introduction

(Quote: Peter Wege, 2006)

The Great Lakes: A Vital Natural and Economic Resource

The Great Lakes are one of the world's most significant freshwater ecosystems, containing approximately 21% of the world's surface freshwater and providing drinking water to over 40 million people in the United States and Canada (U.S. EPA, 2025a; Stewart, 2012). The lakes provide essential ecological benefits, supporting diverse ecosystems of nearly 3,500 plants and animals (Shedd Aquarium, n.d.). While the Great Lakes watershed is well known for its wide diversity of lakes, rivers, and wetlands that are home to a plethora of fish, birds, and plant life, it has a much broader significance related to its abundant water resources (National Wildlife Federation, n.d.). The watershed holds 84% of North America's surface freshwater, which affects the climate within surrounding regions by absorbing and releasing heat and water in a seasonal pattern (Great Lakes Commission, 2022; Stewart, 2012).

Aside from its regional and global ecological importance, the Great Lakes watershed has important socioeconomic benefits. Its freshwater resources support local economies through industries like fishing, shipping, agriculture, tourism, and recreation. The Great Lakes-St. Lawrence Seaway is a major marine highway that facilitates the transport of over 160 million tonnes of cargo annually, driving a regional economy with a combined gross domestic product (GDP) exceeding $4 trillion (ClearSeas, n.d.). Tourism and recreation, which represent over half the GDP derived from the Great Lakes' marine economy, generate more than $52 billion each year that support local businesses and facilitate marine job growth (NOAA, n.d.; Great Lakes Commission, 2022). In 2024, tourism, driven in part by the Great Lakes, contributed $54.8 billion to Michigan's economy alone and supported 351,292 jobs (Nerbonne, 2025). The Great Lakes fishing industry, valued at over $5.1 billion annually, supports commercial, recreational, and Tribal fisheries across the region through job opportunities and food resources (Great Lakes Fishery Commission [GLFC], n.d.-a).

Beyond their ecological and economic value, the Great Lakes act as a defining cultural and regional backbone for those who live in the basin. Residents consistently identify the lakes as central to their identity, and this deep connection translates into durable public and political support for their health and protection (Austin, 2025; Learner, 2025). Regional polls further underscore this bond, with more than 90% of residents reporting that engagement with the Great Lakes enhances happiness, life satisfaction, mental health, and overall well-being (Voglesong Zejnati, 2024). This widespread appreciation is a driving force behind why so many individuals and communities feel compelled to not only enjoy the Great Lakes, but to actively defend them and speak up for their protection.

States, provinces, Tribes, and local governments within the Great Lakes have strong, vested interests in protecting and restoring the Great Lakes watershed and its ecological and socioeconomic benefits. Both the United States and Canada have collaborated on binational agreements, instituted management policies, and established funding programs to improve the Great Lakes environment.[1] However, political turmoil, legislative failures, and increasing complexity of environmental health issues threaten to undermine efforts to achieve Great Lakes sustainability. Human interaction with the Great Lakes, from recreation to industrial pollution, impacts the ecological health of the region, and in turn, its socioeconomic health. While Great Lakes advocates have made great progress in securing federal funding to combat these and other threats, there are deficiencies within these efforts to prevent further ecological harm to the Great Lakes that must be addressed by future stewards of the region. By understanding the historical development of restoration efforts from political, legislative, and advocacy lenses, stewards can draw important lessons to restore the health and integrity of the Great Lake

[1] Though we acknowledge that Canada plays a significant role in Great Lakes restoration efforts, it is beyond the scope of this project to evaluate Canada's contribution to these efforts.

The Role of Great Lakes Governance

Efforts to restore the Great Lakes have benefited from considerable institutional capacity in the Great Lakes Basin. Table 1 lists key institutions of the Great Lakes region, and notes their primary function. Binational water management came into effect through the International Joint Commission (IJC), which was created when the United States and Canada signed the Boundary Waters Treaty in 1909 (International Joint Commission [IJC], n.d.-a). The IJC was established primarily to regulate water quantity, but it also served as a critical policy hub for decades. The Boundary Waters Treaty also included a provision that presaged the environmental era by prohibiting the discharge of harmful pollution by one country to the detriment of the other (Walker, 2015).

Table 1. Great Lakes regional bodies with acronyms, year of formation, and role.

Regional Body	Acronym	Formation	Role
International Joint Commission	IJC	1909	Prevent and settle disputes over shared waters between the United States and Canada (IJC, n.d.-a).
Great Lakes Commission	GLC	1955	Bring states and provinces together and balance the use, development, and conservation of regional water resources. (Great Lakes Commission [GLC], n.d.).
Great Lakes Fishery Commission	GLFC	1955	Coordinate fisheries research, control sea lamprey, and maintain collaboration between state, Tribal, provincial, and federal fishery agencies (Gaden et al., 2022).
U.S. EPA's Great Lakes National Program Office	GLNPO	1977	Coordinate U.S. efforts with Canada to restore and maintain the chemical, physical, and biological integrity of the Great Lakes (U.S. EPA, 2025d).
Great Lakes and St. Lawrence Governors and Premiers	GSGP	1983	Prioritize regional economic development through Great Lakes environmental stewardship (Great Lakes and St. Lawrence Governors and Premiers [GSGP], n.d.-a).
Great Lakes Indian Fish & Wildlife Commission*	GLIFWC	1984	Provide expertise on natural resource management and support the exercise of treaty rights (Great Lakes Indian Fish & Wildlife Commission, n.d.-a)
Chippewa Ottawa Resource Authority*	CORA	2000	Manage, enhance, and strengthen Michigan fisheries (Proctor, 2012).
Great Lakes and St. Lawrence Cities Initiative	Cities Initiative	2003	Mayors and other municipal representatives protecting and restoring the Great Lakes through environmental, economic, and social agendas (Great Lakes St. Lawrence Cities Initiative, n.d.).

* Individual Tribes and First Nations are not listed, but play a crucial role in Great Lakes governance.

Other regional governing bodies emerged over time. For example, the Great Lakes Commission (GLC) was created under the 1955 Great Lakes Basin Compact to provide recommendations on how to balance the development, use, and conservation of the Great Lakes water resources (GLC, n.d.). Additionally, the Great Lakes Fishery Commission (GLFC), also created in 1955, through the Convention on Great Lakes Fisheries, focused on the shared nature of the fishery (Gaden et al., 2022). The Environmental Protection Agency (EPA) Great Lakes National Program Office (GLNPO) was formed in 1977 to coordinate U.S. efforts to protect and restore the Great Lakes in partnership with Environment and Climate Change Canada (ECCC) (U.S. EPA, 2025d). While providing a detailed history of the IJC, GLC, GLFC, and GLNPO is beyond the scope of this project, they each play a key role in Great Lakes water management and laid the groundwork for more coordinated Great Lakes governance in the decades that followed.

Complementing this formalized institutional capacity, regional leaders established cross-jurisdictional bodies at the state and provincial levels. For example, the Great Lakes Governors created the Council of Great Lakes Governors, today known as the Great Lakes and St. Lawrence Governors and Premiers (GSGP), in 1983 to prioritize regional economic development through Great Lakes environmental stewardship. The GSGP recognized that Great Lakes environmental and economic issues could be better solved on a regional basis (GSGP, n.d.-b). While partnership at the state level continued to be important, many decision-makers also recognized a need for more coordination and collaboration at the local level. This recognition spurred the creation of the Great Lakes and St. Lawrence Cities Initiative (Cities Initiative), a binational coalition of U.S. and Canadian mayors and local officials, by Mayor Richard M. Daley of Chicago in 2003 (Great Lakes St. Lawrence Cities Initiative, n.d.). These regional bodies created important channels for coordination, even as broader Great Lakes restoration efforts and collaboration continued to evolve.

Tribal governance also plays a key role in the Great Lakes region. Over the course of history, the Great Lakes have been home to approximately 120 Tribes and First Nations (Union of Ontario Indians, 2015). Two intertribal management bodies are the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and the Chippewa Ottawa Resource Authority (CORA). In 1984, 11 Ojibwe Tribes formed GLIFWC to support the Tribes' exercise of their treaty rights and to implement natural resource management plans based on traditional ecological knowledge (TEK) "to best serve the next seven generations" (Great Lakes Indian Fish & Wildlife Commission, n.d.-b). CORA was formed in 2000 by the Chippewa Ottawa Resource Authority Act and brings together the five 1836 Treaty fishing Tribes in Michigan under a single governing body (Chippewa Ottawa Resource Authority [CORA], n.d.-a). The purpose of CORA is to regulate recreation, commercial, and subsistence fishing and help ensure the conservation of Michigan's fisheries (CORA, n.d.-b).

Project Goals, Research Questions, and Implementation

The overall goal of this project is to document, archive, and analyze the history and implementation of the Great Lakes Restoration Initiative (GLRI). Through written and verbal accounts, we sought to understand why the GLRI was and continues to be successful despite the many roadblocks that, individually or collectively, could have prevented it from moving forward. Moreover, our partners, our team, and future Great Lakes leadership seek to understand the lessons that can be derived from the formation and implementation of the GLRI as applied to the future of the Great Lakes and other watersheds. Additionally, we explore how insights from this project can inform the future development of the GLRI to address more complex challenges in the Great Lakes region, such as climate change adaptation and mitigation, emerging contaminants, and environmental justice (EJ).

Our investigation into this rich history begins with the precursors to President Bush's Executive Order 13340 in 2004, which energized cross-governance collaboration on Great Lakes restoration, and continues through the end of the Biden administration in 2024. The establishment, stability, and implementation of the GLRI is the result of decades of environmental advocacy, philanthropic support, and environmental policy advancements, influenced by the ebbs and flows of the U.S. political environment. Though there have been sporadic accounts written about the GLRI over time, much of the story behind it has never been documented in detail, and there has been no previous attempt to systematically gather primary data from key participants. Therefore, much of the GLRI's legacy and impact within the Great Lakes region, including its successes and challenges thus far, remains widely unmeasured. This project collates and builds on existing literature by capturing and analyzing undocumented information from the experiences of individuals who helped create and perpetuate the GLRI to better contextualize and examine its history, impact, and lessons. The completion of this project, which provides archival information for future GLRI projects through public documentation at the Bentley Historical Library, marks the first phase of a larger initiative to analyze the history of GLRI and document the importance of this program.

This project is guided by the following research questions:

	Research Questions
Q1	What historical, political, and environmental factors led to the establishment of the GLRI?
Q2	What were the key turning points and challenges in the GLRI's development and implementation?
Q3	Who are the key stakeholders and rights holders, both historically and currently, involved in the formation and ongoing implementation of the GLRI, and what are their primary interests?
Q4	How and why have restoration priorities and policies evolved over time in the Great Lakes region?
Q5	What strategies and approaches have been most effective in shaping the GLRI's long-term success?
Q6	What lessons can be learned from the GLRI that can be applied to other restoration projects or programs?
Q7	What emerging opportunities and potential challenges are likely to shape the future direction and effectiveness of the GLRI?

Research Methods

To examine the history, impact, and lessons of Great Lakes restoration comprehensively, this project employed three key research methods: literature review and Steering Committee consultation, semi-structured interviews, and document analysis. In this context, Steering Committee refers to a group of Great Lakes leaders who helped oversee and guide the direction of this project, although all text and conclusions derived from this analysis are attributable to the authors, not the Steering Committee. Each method provided a distinct yet complementary perspective.

Literature review served as the foundation for understanding the historical, political, and environmental context that led to the creation of the GLRI, as well as its evolution and success. Primary and secondary sources, including scholarly articles, government and agency reports, policy documents, press releases, and news articles, were analyzed to trace the historical development of Great Lakes restoration efforts.

The first phase of the literature review focused on preliminary areas of interest, identified through guidance from project advisors and Steering Committee members, as well as initial research conducted by the student team. These interest areas included the history and makeup of President Bush's Executive Order 13340 in 2004 that created the Great Lakes Regional Collaboration, a process that set the stage for the GLRI; the role of the Healing Our Waters–Great Lakes Coalition and other key non-governmental organizations; the political history of the GLRI; and comparative insights drawn from other restoration programs.

Steering Committee consultation served as the second phase of literature review. This phase consisted of one-on-one conversations with members of this project's Steering Committee, and built on the foundation of the first phase by integrating materials shared through these conversations. Unlike the semi-structured interviews conducted at a later point in the project, these conversations were not formal data-gathering sessions. Instead, they focused on discussing potential areas of inquiry, the scope of the project, research questions, available document resources, and interview strategies. These discussions helped refine the project's analytical framework by highlighting additional topics, guiding the direction of the literature review, and assisting in the development of questions for subsequent semi-structured interviews.

The third and final phase of the literature review synthesized additional resources provided or recommended by interview participants. This iterative process ensured that new evidence and participant-provided documents continued to shape and strengthen the project's interpretation of the GLRI's history and legacy.

Semi-structured interviews were conducted with stakeholders and rightsholders representing a diverse range of sectors involved in Great Lakes restoration, including governmental bodies, nonprofit organizations, philanthropic foundations, academics, EJ community, media, business leaders, and elected officials and their staff.

Our student team, project advisors, and Steering Committee members identified potential interviewees through a collaborative brainstorming process to ascertain each individual's expertise and potential knowledge about our research questions. We contacted a majority of these individuals via email, though we also contacted individuals over the phone based on their preferred method of contact. Our contact process involved sending an email detailing our project and research goals, followed by a supplementary email to cover the interview process for those who expressed interest in participating. We sort interviewees into categories based on their background in Table 2. While many interviewees' experiences and roles intersected across multiple sectors, we assigned each interviewee to the category that best represented their primary professional background and area of expertise. In total, 82 interviews were completed between June 2025 and February 2026. A complete list of interviewees can be found in Appendix A.

Interview questions were developed based on our research questions, literature review, priority areas of interest, and input from project advisors and the Steering Committee. Probing questions were asked as needed, but all interviews followed a similar structure, with adaptations made to account for each interviewee's level of experience. Interviewees met with 2 to 3 student team members (interviewers) either in-person, via Zoom, or over the phone, depending on their location relative to the University of Michigan, Ann Arbor. For interviews with current and former elected officials, one project advisor and one team member participated. Interviews lasted approximately 1 hour, with some variation due to interviewee availability and knowledge capacity.

A complete version of the interview protocol, including core questions and thematic areas, is provided in Appendix B. Responses were recorded via Zoom for virtual interviews. For in-person and over-the-phone interviews, responses were recorded using a Zoom H4essential Portable Recorder and a Canon Vixia HF G70. For the duration of the project, interview materials were stored in a secure, shared Google Drive accessible only by student team members and project advisors.

Table 2. Breakdown of interviewees based on background.

Category of Interview		Number of Interviews
Government	Tribal	4
	Federal	11
	State	12
	Local	3
	Canadian	3
	Binational	8
Elected Officials		4
Elected Officials' Staff*		3
Environmental Justice Community		2
Non-Governmental Organization		17
Media		2
Business		1
Philanthropy		7
Academia		5
	Total	82

* Staff for Former Senator Debbie Stabenow [D-MI], Former Representative Vern Ehlers [R-MI], and then-Senator Mike DeWine [R-OH].

Interviewees were provided with a release form and asked to consent to the inclusion of their interview recording and transcript in the project archive; only those who agreed are included. Out of the 82 interviewees, only one asked to remain anonymous. Transcripts and recordings of interviews are archived at the Bentley Historical Library, creating a publicly accessible resource that preserves primary interview data and supports future research on the GLRI.

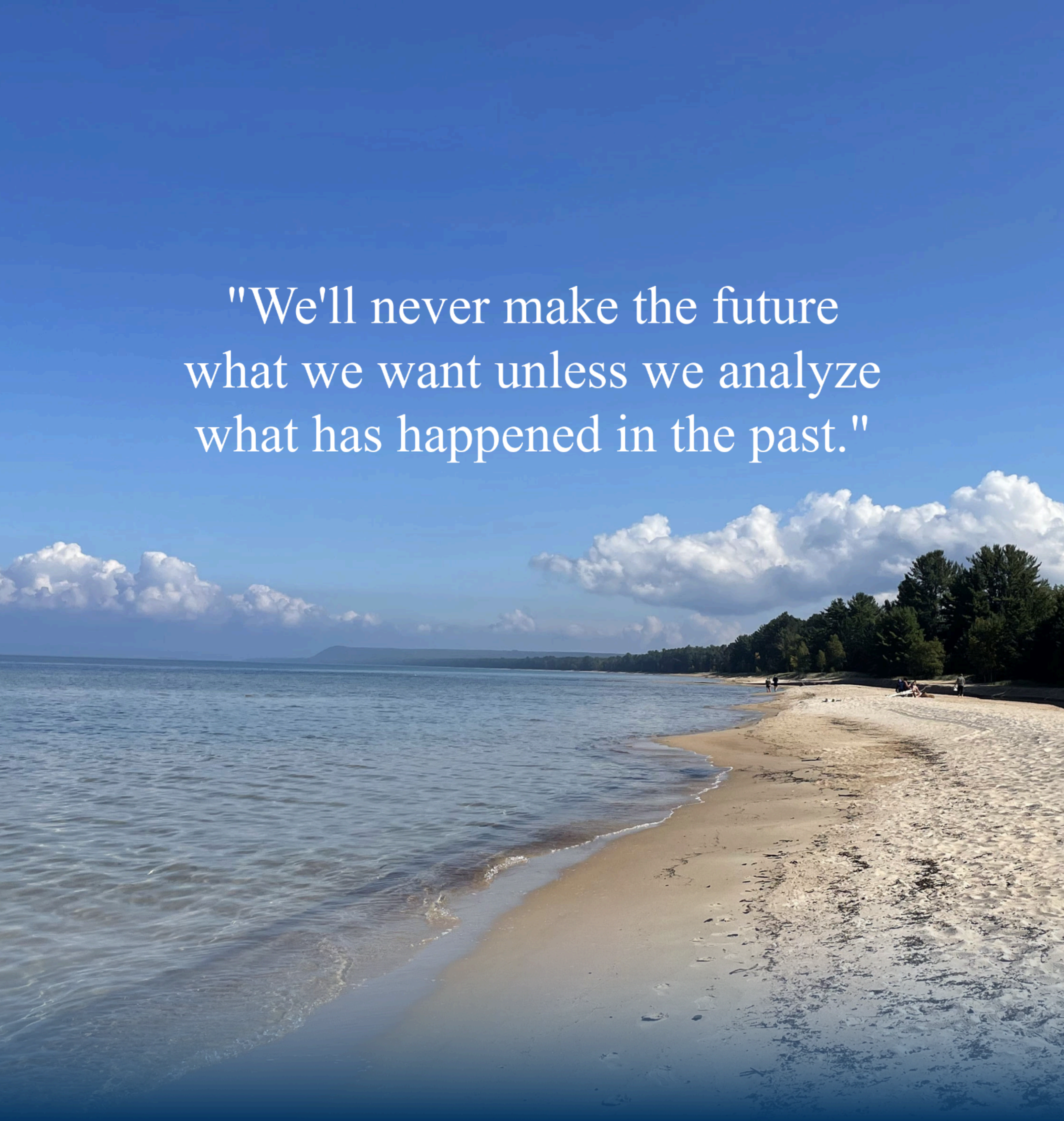
Interview transcripts were created using Rev transcription software and analyzed using Dedoose coding software. Codes were developed inductively and refined through iterative analysis to identify recurring themes. The primary interviewer from the student team conducted the first round of coding, identifying initial themes and insights within the transcripts. A secondary student team member, who had not participated in the interview, then conducted a second round of coding to validate the initial codes, ensure consistency, and reduce potential for errors or bias from the interviewer's perspective. The complete list of codes and their definitions is provided in Appendix C.

Participants were informed that their responses would not be treated as confidential by default, but confidentiality was offered upon request for either an entire interview or specific sections. All such requests are being fully honored across project materials and deliverables. Prior to the start of data collection, this project's research protocol was approved by the University of Michigan Institutional Review Board.

Document analysis complemented the literature review by focusing on primary materials collected throughout the research process that are not available in the public literature. Unlike the literature review, which synthesized existing research and publications, document analysis involved examining organizational records provided directly by interview participants and key organizations. These materials include project reports, legal documents, legislative documents, informational campaign materials, and other internal records. These documents were used to fill in gaps not covered by other project methods and to provide additional context and depth to topics identified through the literature review and interview process. By integrating these unique sources, document analysis helped strengthen the project's understanding of the formation, implementation, and evolution of the GLRI.

To ensure a systematic analysis, each document was first reviewed to determine its relevance to Great Lakes restoration and the scope of this project. Relevance was assessed based on whether the document addressed the environmental challenges and successes, formation, implementation, governance, funding, development, or engagement processes associated with Great Lakes restoration efforts and the GLRI. Relevant documents were coded according to the category best reflected in their primary content. A complete list of document codes is provided in Appendix D. Since document analysis occurred alongside report development, codes were iteratively developed and refined based on the key themes emerging throughout the research process and were intentionally aligned with the overall structure of this report.

Through this process, and with the assistance of archivists at the Bentley Historical Library at the University of Michigan, a member of the student team systematically organized and archived these documents to ensure a publicly accessible repository that expands the available literature on Great Lakes restoration. The archive includes the collected documents, interview recordings, and interview transcripts generated through this project. This new archive not only preserves these primary sources for future research but also allows for a deeper understanding of major developments, stakeholder roles, organizational influences, and the political context that shaped, and continues to shape, the past, present, and future of Great Lakes restoration.



1909-2003:
Precursors to the Great Lakes Restoration Initiative

1965
Lake Erie is declared "dead"

1969
Cuyahoga River in Cleveland caught on fire

1972
Clean Water Act passed & Great Lakes Water Quality Agreement (GLWQA) signed

1978
New GLWQA Signed

1986
Great Lakes Governors signed Great Lakes Toxic Substances Control Agreement

1987
GLWQA 1st Amendment & lawsuits filed against the EPA for failures to uphold the GLWQA

1990
Great Lakes Critical Programs Act of 1990 passed

1995
Great Lakes Water Quality Initiative Final Guidance published

2002
Great Lakes Legacy Act passed

2003
GAO Report released

(Quote: Peter Wege, 2006)
(See Appendix E for a full timeline of Great Lakes restoration)

The Formation of the Great Lakes Regional Environmental Movement

Until the time of European colonization in the early 17th century, Indigenous stewardship guided the Great Lakes through reciprocal relationships, long-term sustainability, and TEK. TEK is a cumulative body of knowledge built through relationships between Indigenous peoples and the environment and passed down across generations (Joseph & Thomas, 2022). In a Great Lakes context, this relationship is not "one of control or ownership, or jurisdiction over water, but rather a relationship to and with water" (Joseph & Thomas, 2022). The environmental challenges that began during colonization "manifest[ed] from settler-colonial practices hostile toward Indigenous ways of life" (Joseph & Thomas, 2022). For example, early colonial settlers cleared large tracts of forestland for resource extraction and agriculture, permanently altering the lakes' chemistry through increased runoff, compared to the more sustainable forestry practiced by Great Lakes Indigenous Tribes (Williams, 2022).

The 1960s were the decade in which environmentalism in North America came of age. For decades, rivers, streams, and wetlands abutting Great Lakes metropolitan areas and beyond were polluted with raw sewage, untreated industrial waste, and chemical runoff (PBS, n.d.).[2] Many Great Lakes industries operated on a "dilution as the solution to pollution" principle, dumping toxic substances into nearby waterways to 'weaken' their harm (Leaphart, 2025). However, many toxic chemical pollutants were, in fact, not weakened and instead accumulated in the environment over time. These came to be known as legacy pollutants, which are "pollutants that have been in the Great Lakes and its working harbors and rivers for decades" (Davis, 2025). For example, Polychlorinated biphenyls (PCBs), used in electrical capacitors, in carbonless copy paper, and as hydraulic fluid, did not readily break down and instead found their way into fish, wildlife, and people (U.S. EPA, 2025b). Other forms of pollution came from mine tailings left over from processing iron ore into taconite, overheated water from power plants, and industrial and municipal waste (Michigan in the World, n.d.). In addition to contaminant loading, Lake Erie experienced significant eutrophication caused by an excess of nutrients discharged into the environment from sources such as chemical fertilizers and detergents (Macfarlane, 2022). As a result, dead fish appeared on its shores, and Lake Erie was considered "dead" by 1965 (Michigan in the World, n.d.; Grant, n.d.). Residents worried that the other Great Lakes would share a similar fate (Michigan in the World, n.d.).

The Buffalo, Cuyahoga, and Rouge rivers, all of which flow into Lake Erie, served as a reflection of the Great Lakes' degraded state. On January 24, 1968, the Buffalo River in New York caught on fire due to the presence of combustible materials and compounds on the surface of the water (Gallivan, 2021). The following year, the Cuyahoga River in Cleveland burned, followed by a fire on the Rouge River in Detroit (Latson, 2015; Hartig, 2019). Images of the flaming waters of the Cuyahoga published in TIME Magazine in 1969 sparked even greater public outcry over the prevalence of environmental threats in the Great Lakes (Latson, 2015). However, this was not the first instance of the Cuyahoga catching fire or of public protest to clean the Great Lakes (Figure 1). The river caught fire several times in previous years, starting as far back as 1868 (Adler, 2002). The degradation of the Great Lakes served as an example of what poorly regulated industry and municipal discharges had done, and subsequently could do, to the lands and waters of the United States without important environmental and public health protections.

[2] It is beyond the scope of this project to outline a full history of the environmental degradation of the Great Lakes and efforts to protect them, but it is important to begin this analysis by noting that the waters in the Great Lakes region were significantly degraded by the end of the 1960s.

Figure 1.
Protesters in Cleveland, OH, calling for action to save Lake Erie in 1968.

Note: From "The Great Lakes Water Quality Agreement Turns 50," by Daniel Macfarlane, 2022, *NiCHE*.

In response to this pollution, environmental advocates and organizations helped drive early legislative efforts to protect and restore the environment, and the Great Lakes were often at the center of the debate. Since the beginning of the environmental movement, which saw a shift from natural area conservation to broader grassroots organizing addressing issues such as pollution, natural resource depletion, and wildlife loss in the 1960s and 1970s, environmentalists' influence had been steadily growing (PBS, n.d.). This is notably reflected in the Great Lakes' influence in the creation of the first Earth Day in 1970, which increased public awareness of the region's environmental issues (Rogers, 2025). As public concern over environmental threats put pressure on lawmakers to act, environmental policy quickly rose to prominence on the U.S. political agenda, as reflected in early legislative and advocacy efforts in the Great Lakes region (Vig & Kraft, 2013). Without the emblem of the Cuyahoga River fire and the declaration of Lake Erie as 'dead' increasing public awareness, the environmental movement may not have gained as much traction in the Great Lakes and throughout the nation.

Building the Environmental Community

Environmental advocates recognized a need for greater environmental protection for Great Lakes lands and waters. Concerned individuals and groups held lawmakers and agencies accountable for their failures to protect the region's communities from environmental harm through lawsuits and public protests. Increased visibility on the region's environmental issues advanced the effort toward legislative action, but publicity alone would not bring this to fruition. The grassroots community needed to formally organize in a way that increased pressure on lawmakers to take action while spreading awareness of Congress's environmental inaction to more members of the public.

With the help of private foundations, grassroots activists' influence over Great Lakes environmental policy and politics was expanded iteratively. Funds in the form of environmental grants helped support the activities of burgeoning environmental non-governmental organizations (NGOs) and nonprofits in the Great Lakes, putting money towards their restoration projects, advocacy campaigns, and educational programming (Great Lakes Funders, n.d.). Table 3 below highlights four of the major foundations that have invested money in the Great Lakes, though currently, there are over 50 different foundations that invest in Great Lakes organizations (Great Lakes Funders, n.d.). Funds allocated by these foundations over many decades have fueled NGOs to speak to lawmakers about committing to Great Lakes restoration and protection, and to advocate for the passage of more comprehensive environmental legislation (Alliance for the Great Lakes, n.d.-b).

Table 3. Key Great Lakes Foundations (as referenced below).

Foundation	Date Founded	Mission *As it relates to environment/restoration
Charles Stewart (C.S.) Mott Foundation	1926	Support programs around the world that protect communities and the ecosystems they depend upon (Mott Foundation, n.d.).
The Joyce Foundation	1948	Solve the long-term environmental challenges that threaten the next generation in the Great Lakes region (The Joyce Foundation, n.d.).
The Wege Foundation	1969	Promote environmental awareness, education, and environmental preservation within Great Lakes communities (The Wege Foundation, 2016).
Fred and Barbara Erb Family Foundation	2007	Partner with people, organizations, and institutions working to improve the health of the Great Lakes ecosystem across the basin (Erb Family Foundation, n.d.)

These philanthropic contributions, coupled with growing public support for environmentalism and the passage of key Great Lakes protections, led to the expansion of Great Lakes nonprofits and NGOs and their ability to tackle larger regional issues. Among these are Great Lakes-specific branches of national environmental advocacy organizations, like the National Wildlife Federation (NWF) and the Sierra Club. While not an exhaustive list, Table 4 highlights notable advocacy groups that work regionally on Great Lakes protection and restoration.

In addition to advocacy groups and organizations, foundations contributed significant funds to support formal and informal bipartisan caucuses within the U.S. House of Representatives and the Senate, composed of members representing Great Lakes states and Congressional districts (NEMWI, n.d.). These caucuses, titled Great Lakes Task Forces (GLTF), were an essential instrument for the Great Lakes advocacy community to transform their ideas into active legislation on Capitol Hill (Mulinex, 2025). The legislation, including important appropriations measures, and policy oversight through hearings, inquiries to federal agencies, and U.S. Government Accountability Office (then the U.S. General Accounting Office) (GAO) analysis, were fundamental to progress toward Great Lakes restoration, generally, and the GLRI in particular (Mulinex, 2025; J. Allan, 2025).

Table 4. Key Great Lakes Nonprofits (as referenced below).

Organization	Date Founded	Goal(s)
Sierra Club – Great Lakes Program	1967	Protect and restore the Great Lakes through educational campaigns to the public and members of Congress (Sierra Club, n.d.).
Alliance for the Great Lakes (formerly known as the Lake Michigan Federation)	1970	Fight for Great Lakes protections in the federal agenda to restore and protect the region's resources with a specific focus on equity, education, and scientific research (Alliance for the Great Lakes, n.d.-c).
National Wildlife Federation (NWF) – Great Lakes Regional Center	1982	Restore the Great Lakes through policy advocacy, habitat restoration, and other causes to protect the region's natural resources (YoungeDyke, 2022; NWF, n.d.-b).
Great Lakes United (GLU)	1982 (Ceased operations in 2013)	Brought together organizations and individuals from the United States, Canada, and First Nations to work together to protect and restore the Great Lakes-St. Lawrence River Basin (Conservation Law Center, n.d.; Elder, 2013).
Council of Great Lakes Industries (CGLI)	1991 (Ceased operations in 2018)	Brought together an association of industrial and manufacturing companies in the Great Lakes to support the region's economic vitality in alignment with both human and natural systems (New York State Department of Environmental Conservation, 2001).
National Parks Conservation Association (NPCA) – Midwest Office	2007	Work with the National Parks Service and private landowners to protect the lands, animals, and resources of parks in the Great Lakes (NPCA, n.d.).

At the state and local levels, hundreds of Great Lakes advocacy groups were addressing environmental issues in urban, rural, developed, and undeveloped environments. Other national organizations, like The Nature Conservancy, the National Audubon Society, and Ducks Unlimited, contributed to restoration efforts through regional research, advocacy, and environmental education (The Nature Conservancy, 2024; Audubon Great Lakes, 2015; Ducks Unlimited, n.d.). Having a strong advocacy base helped amplify advocates' messages to members of Congress, federal agencies, and leaders about the need for legislative and administrative action to address Great Lakes environmental issues.

Clean Water Act

With pressure from the Great Lakes environmental movement and after piecemeal attempts by municipalities and states to control water pollution, Congress passed the Clean Water Act (CWA) in 1972 with the purpose of regulating pollutant discharges and setting surface water quality standards. One of the main objectives of the CWA was to eliminate the discharge of pollutants into navigable waters by 1985 (Clean Water Act, 1972). Amendments to the CWA in 1987 expanded efforts by addressing toxic substances, habitat degradation, and invasive species management (U.S. EPA, 2024b). To ensure that agencies were implementing and fulfilling their congressional obligations, citizen suits were included in the CWA to give advocates the tools to challenge agency decisions, which would be important for the Great Lakes in the coming years (Percival, 2022). While this federal-level action did not address Great Lakes issues specifically, it "influenced what was going on in [the region] and highlighted the importance of cleaning up and restoring the Great Lakes" (Crane, 2025).

Though the CWA was not the solution to all water problems, it "resulted in tremendous progress" and helped lay the groundwork for more federal action in the Great Lakes (Ullrich, 2025). Helping drive this progress was the initial authorization of $24.7 billion over three years (Senate Votes 528-532, 1972). Of that authorized amount, $6 billion went to sewage treatment control investment, which, along with phosphorus limitations in household detergents gradually imposed by states, lowered the amount of phosphorus entering the lakes and "essentially solved the problem for Lake Erie" at the time (IJC, n.d.-d; Gulezian, 2025). However, the CWA employed a "one size fits all" approach, which was not conducive to the Great Lakes watershed system (Van Putten, 2025). For example, due to long water retention times and the prevalence of toxic chemicals, pollutants persist in the lakes and accumulate in the food chain. The cross-jurisdictional nature and hydrologic connectivity of the Great Lakes also complicate pollution control, as no single federal, state, provincial, or Tribal government has responsibility for the entire ecosystem (Van Putten, 2025). The unique features of the lakes put a case together for them to have a "different, special, unusual type of protection" within the framework of existing legislation (Van Putten, 2025).

Great Lakes Water Quality Agreement

The Great Lakes regional environmental movement also inspired a binational accord to combat nutrient loading and pollution issues within the watershed. In 1956, the United States asked Canada to join in requesting a formal study from the IJC about pollution in the Lower Lakes (Lakes Erie and Ontario). Canada finally agreed in 1964, and then the research commenced. Industry and academic representatives were consulted, and the IJC solicited public participation through written comments or oral statements at public meetings. In 1970, the IJC published its study on pollution in the Lower Lakes and the upper St. Lawrence River. Based on this study, the two countries negotiated what became the Great Lakes Water Quality Agreement (GLWQA) (Macfarlane, 2022). In 1972, the GLWQA was signed by President Richard Nixon and Canadian Prime Minister Pierre Trudeau, establishing the first binational framework for identifying priorities and implementing actions to improve water quality in the Great Lakes (U.S. EPA, 2025c). The signing of the GLWQA was the result of over 15 years of work and a recognition that the United States and Canada needed to collaborate on Great Lakes issues (Gaden, 2025). The GLWQA ultimately marked the moment when both nations acknowledged that only coordinated, targeted action could address the scale of Great Lakes pollution.

The first iteration of the GLWQA focused on reducing pollution, particularly phosphorus and nitrogen, from point sources to combat issues such as eutrophication in Lake Erie. The GLWQA also instructed the United States and Canada to develop water quality objectives, implement programs to achieve those goals, and further charged the IJC with assessing the effectiveness of the programs (IJC, n.d.-b). While the GLWQA was nonregulatory and nonbinding, it set priorities and goals that could inform regulations such as the CWA. As a result, there was success in lowering phosphorus concentrations in Lake Erie. However, not all pollution reduction targets were met (IJC, n.d.-d).

To address these shortfalls, the 1972 GLWQA was replaced in 1978 by a new agreement (Macfarlane, 2023). The 1978 GLWQA established an 'entire ecosystem' approach to lake management, aimed at maintaining the integrity of the Great Lakes at chemical, biological, and physical levels. It also called upon Canada and the United States to "virtually eliminate" the discharge of toxic pollution, a bold and ambitious goal, similar to those in the CWA (Great Lakes Water Quality Agreement, 1978; Clean Water

Act, 1972). “The whole idea of protecting [and] sustaining the integrity of not just the waters of the Great Lakes, but of the Great Lakes ecosystem,” originated under the 1978 GLWQA, and it “made a big difference in terms of thinking about the approaches for reducing toxics” (Gulezian, 2025).

Under the 1978 GLWQA, the IJC was tasked with issuing biennial reports assessing progress toward achieving the goals outlined in the GLWQA (Great Lakes Water Quality Agreement, 1978). However, the IJC did not release the first Great Lakes Water Quality Agreement Biennial Report until 1982. Before releasing the biennial reports, the IJC held “large, multi-day public meetings every two years to hear how citizens felt about water quality in the lakes” (IJC, n.d.-e). The biennial meetings became a place for environmental advocates and organizations, such as Greenpeace, the NWF, and Great Lakes United (GLU), to gather and monitor commitments to the GLWQA because “accountability was on the agenda” (Van Putten, 2026). Additionally, it was a draw for advocates because the IJC was “not under the control of the regulators [and] would publicly pronounce whether the Great Lakes were being adequately protected or not,” making them “willing to listen to [the] fundamental argument of [the] systemic flaws that were in the Great Lakes” (Van Putten, 2026). While the IJC stopped hosting biennial meetings in 2011, they were an important part of mobilizing and organizing citizen efforts (IJC, n.d.-e; Van Putten, 2026).

The 1978 GLWQA was amended in 1987, further expanding the scope by including air pollution control and establishing individual action plans for each lake (Hanson, 2017). As part of the goal to eliminate pollution, 43 geographic areas in the Great Lakes Basin with the worst pollution were designated as Areas of Concern (AOCs) (see Figure 2) (IJC, n.d.-c). The sediment in AOCs is often contaminated with toxic chemicals such as PCBs, mercury, and oil (U.S. EPA, 2025e). Restoration of these areas is defined by removal of Beneficial Use Impairments (BUIs), which are changes in the Great Lakes system that cause environmental harm to its chemical, physical, or biological integrity (U.S. EPA, 2024f). EPA and ECCC were directed to develop Remedial Action Plans (RAPs) for each AOC, which identified BUIs and criteria for measuring when BUIs have been restored (IJC, n.d.-c). They were also instructed to designate substances that impair beneficial uses as critical pollutants and to create and implement Lakewide Management Plans (LaMPS) for those critical pollutants (Great Lakes Water Quality Agreement, 1987). It is important to note that throughout all of the GLWQA’s amendments, not one provided a funding mechanism (Macfarlane, 2023).[3]

[3] The most recent amendment made to the GLWQA was enacted in 2012, after the introduction of the GLRI, to keep up with shifting priorities and emergent threats (Hanson, 2017). The 2012 amendment added “new provisions to address aquatic invasive species, habitat degradation and the effects of climate change, and support continued work on existing threats to people's health and the environment in the Great LakesU.S. EPA such as harmful algae, toxic chemicals, and discharges from vessels” (US EPA, 2025c).

Figure 2.
US and Canada Areas of Concern

Note. Adapted from "Great Lakes: Areas of Concern," by Canada Water Agency, 2024, *Government of Canada* (https://www.canada.ca/en/canada-water-agency/freshwater-ecosystem-initiatives/great-lakes/great-lakes-protection/areas-concern.html).

Great Lakes Toxic Substances Control Agreement

In response to rising environmental concerns surrounding toxic chemicals, the GSGP signed the good-faith, nonbinding Great Lakes Toxic Substances Control Agreement in 1986, committing to a cooperative, ecosystem-based approach to studying, managing, and monitoring the lakes (Chicago Tribune, 1985). The agreement created a regional framework for coordinated action to limit toxic substances entering the system, improve understanding of pollutant behavior, and develop shared goals and control strategies to protect the basin (Francis, 1989). The signatories pledged to uphold high regulatory standards and continue reducing toxics to the greatest extent possible. To support these efforts, the GSGP established a $81 million Great Lakes Protection Fund, capitalized by seven of the eight Great Lakes states, to finance applied research and pilot remediation projects, with particular emphasis on contaminated sediments (Francis, 1989; *Articles of Incorporation*, 1999).[4] They also directed their environmental administrators to work collectively on a coordinated strategy for managing toxic pollutants (U.S. EPA, 1995). While earlier initiatives had reduced concentrations of certain pesticides and metals, the agreement's signatories acknowledged that pollution in the Great Lakes remained highly persistent and multifaceted. They emphasized that achieving the long-term goal of eliminating toxic discharges would require ongoing commitment and, in many cases, innovative approaches beyond what existing programs could deliver (U.S. EPA, 1995).

[4] Indiana declined to contribute to this fund.

Great Lakes Water Quality Initiative and Great Lakes Critical Programs Act

In the 1980s, despite advances in governance, significant gaps in water quality protection persisted. Recreation and public use of the Great Lakes had been significantly limited due to poor water quality and widespread pollution, signaling that inconsistent state standards were not delivering the basin-wide protection needed to address toxic pollution (Great Lakes Now, 2023; NWF, 1997a). Despite previous commitments and efforts, progress on toxic pollution had essentially reached a stalemate. Legacy pollution, combined with ongoing inputs from urban areas, industrial activity, atmospheric fallout, and agricultural and roadway runoff, continued to introduce harmful substances into the lakes (NWF, 1997a). The failure of existing approaches was made especially visible through fish consumption advisories by Great Lakes state agencies, which warned residents to limit or avoid consuming certain fish due to toxic contamination. These advisories served as a stark public indicator that current regulatory efforts were not enough to protect both the ecosystem and human health (Imm, 2005; NWF 1995a).

These shortcomings became even more visible through a series of petitions and lawsuits against the EPA in the 1980s, which highlighted the agency's failure to implement the GLWQA and meet existing commitments. Multiple cases were brought by the NWF to establish that the GLWQA provided the relevant standards for protecting the Great Lakes and that the EPA had a legal responsibility, under its CWA oversight authority, to ensure that state water quality standards met the GLWQA *(National Wildlife Federation v. U.S. EPA*, 1988). At the center of this dispute was EPA's position that the GLWQA, as an executive agreement, did not legally bind the United States beyond existing domestic law (the CWA) (Van Putten, 2026). Advocates countered that the GLWQA's commitments, particularly its call for "virtual elimination" and focus on persistent bioaccumulative toxic pollutants, set clear regional standards that the EPA was obligated to implement (Macfarlane, 2023; Van Putten, 2026). A particularly notable case involved Wisconsin's standards and regulations of PCBs discharged from pulp and paper mills, a well-documented source of bioaccumulative contamination in Lake Michigan. Wisconsin, acting under delegated CWA authority, adopted PCB standards that advocates believed were insufficient to meet the GLWQA's goals; yet the EPA approved them. The NWF then sued the EPA under the CWA's citizen suit provision, arguing that the EPA had violated the CWA by providing standards that failed to protect the Great Lakes in line with the GLWQA (*National Wildlife Federation v. U.S. EPA*, 1988). Multiple Wisconsin-related cases were filed and then settled, ultimately never moving toward a decision, and instead sparked a broader and much-needed regulatory shift in the region (Van Putten, 2026). These legal and practical battles, coupled with GSGP's previous commitment through the Great Lakes Toxic Substances Control Agreement, together underscored the need for an enforceable and collaborative framework to more adequately protect the Great Lakes (U.S. EPA, 1995; Van Putten, 2026).

This recognition resulted in the EPA and Great Lakes states starting what would eventually become known as the Water Quality Guidance for the Great Lakes System, or the Great Lakes Water Quality Initiative (GLI), in 1989. The GLI was created "in direct response to the failure of U.S. domestic laws and policies (the CWA) to live up to the [GLWQA]," and marked the beginning of a multi-year effort to design clearer, more protective criteria and harmonize pollution control practices across the Great Lakes states (NWF, 1997b). In 1989, the GLI was still under early development and lacked any enforcement mechanism. This meant that once the guidance was eventually finalized and published by the EPA, it would require a means of enforcement to ensure consistent implementation by the Great Lakes states (U.S. EPA, 1995).

The need for enforceable authority directly shaped the federal response when, in 1990, the ongoing GLI effort was given statutory force through the enactment of the Great Lakes Critical Programs Act (GLCPA). The GLCPA specifically referenced the GLWQA and formally codified the GLI, directing the EPA to develop and publish comprehensive, region-specific water quality guidance tailored specifically to the Great Lakes (Great Lakes Critical Programs Act of 1990 [GLCPA], 1990; U.S. EPA, 1995). The

GLCPA required that the GLI align with the goals and obligations of the GLWQA and "reflect[ed] Congressional intent… that the eight Great Lakes states… and eligible [Tribes] must adopt consistent minimum water quality standards and protective procedures" (NWF, 1995a). In practice, this meant the GLI would result in numeric pollutant limits protective of human health, aquatic organisms, and wildlife, while offering Great Lakes states clear direction on water quality standards, antidegradation policies, and implementation procedures (NWF, 1997a; U.S. EPA, 1995). Ultimately, the GLCPA and "litigation were all part of a multi-year effort to establish that the [CWA] alone was not enough, that the [GLWQA] provided the benchmarks," and that the region required enforceable, basin-wide standards (Van Putten, 2026).

Beyond directing the EPA to issue region-specific guidance through the GLI, the GLCPA also strengthened federal responsibilities for broader restoration and oversight across the basin. It required GLNPO to ensure the timely development and submission of RAPs for every U.S. AOC and to coordinate with Canada on RAPs for binational AOCs. It also mandated the creation and finalization of a LaMP for Lake Michigan, a requirement that emerged from the settlement of NWF litigation seeking the EPA to establish limits for PCBs in the lake (*Public Notice*, 1995; *National Wildlife Federation v. U.S. EPA*, 1987). The GLCPA further required the EPA and the IJC to make formal comments on these plans publicly available. In addition, the GLCPA directed GLNPO to identify areas within the basin that are particularly vulnerable to frequent or large-scale oil spills. Beyond these core provisions, the GLCPA also introduced additional measures that enhanced coordination and restoration across the basin (GLCPA, 1990).

The motivations behind the GLCPA extended beyond the need for additional water quality regulations, reflecting broader concerns about federal accountability and binational compliance. The numerous lawsuits against the EPA for failing to implement the GLWQA drew national attention and helped bring the issue directly to the attention of then-Senator Carl Levin [D-MI], who chaired a key Senate oversight committee. Prior to the passage of the GLCPA, Levin held field hearings documenting U.S. failures to control persistent toxics and to meet binational obligations, and "as a result of those hearings, he became the lead author and sponsor of the [GLCPA]" (Van Putten, 2025). Great Lakes advocates had been pushing for stronger, enforceable action, and Levin's leadership became the political force that turned these concerns into law (Van Putten, 2025; Weir, 2023). A second catalyst was the 1989 Exxon Valdez oil spill in Alaska, which prompted widespread concern about oil spill preparedness and the risks posed by such spills. In response, Congress recognized the need to include provisions in the GLCPA addressing oil spill prevention and preparedness for the Great Lakes (Crane, 2025; GLCPA, 1990).

Additionally, sustained advocacy by citizen organizations was central to the GLI's incorporation into federal law. The NWF, a leader among these groups, grew increasingly dissatisfied with the inconsistent and often inadequate patchwork of state pollution regulations, which it characterized as "weak, ineffective, and insufficient to protect the Great Lakes" (NWF, 1997a). Within the NWF, the Great Lakes Natural Resource Center played a particularly influential role, guided by its mission to "restore and protect the Great Lakes ecosystem for the benefit of present and future generations"(NWF, 1997a; NWF, 1997b). Other key organizations were also deeply involved, including regional groups such as the Alliance for the Great Lakes, the Sierra Club, and various additional state-based environmental, fish and wildlife, and sportsmen's organizations (Van Putten, 2026). These groups collectively urged states to adopt standards that reflected the ecological sensitivity and binational significance of the lakes, and pressed the EPA to require stronger protections.

These organizations, most notably the NWF, also led an extensive basin-wide mobilization effort. During the drafting of the proposed 1995 GLI, organizations helped convene scientific and policy experts from across the region to provide detailed, science-based input on regulatory issues. Additionally, once the proposed guidance was released for public comment and subject to potential litigation, a coordinated cross-basin advocacy campaign emerged (Van Putten, 2026). Environmental organizations collaborated to submit comments, endorse shared position statements, conduct public and media training, and engage in communications outreach with the goal of strengthening and defending GLI standards. Funding, through foundations like the C.S. Mott Foundation and the Joyce Foundation, supported this coordination through communication strategies, training sessions, and comment templates that were adaptable to specific groups and their contexts within their respective states. This outreach and mobilization effort successfully unified diverse organizations throughout the region around a shared commitment to supporting and strengthening the GLI (Van Putten, 2026).

To carry out the GLI, the EPA and the Great Lakes states established three coordinated committees. The first, the Steering Committee, brought together water program directors from the EPA's national and regional offices alongside leaders from Great Lakes states' environmental agencies. This group addressed major policy, scientific, and technical questions and provided direction to the Technical Work Group (U.S. EPA, 1995). The Technical Work Group was made up of specialists from Great Lakes states' environmental agencies, the EPA, the U.S. Fish and Wildlife Service, and the U.S. National Park Service. Their role was to develop technical proposals and recommendations for the Steering Committee to review. A third body, the Public Participation Work Group, included members from environmental organizations, municipalities, industry, and academic institutions. This group monitored the discussions of the other committees, communicated public concerns, and kept their respective communities informed about the GLI's progress. Together, these three bodies were collectively known as the Initiative Committees (U.S. EPA, 1995).

One major priority for the Initiative Committees, particularly the Steering Committee, was dealing with pollutants that had the potential to cause basin-wide harm. Based on documented impairments across the Great Lakes, the states identified these contaminants as among the most serious threats to the region's ecological health. The Steering Committee concluded that additional reductions in releases of these pollutants, from every source, were necessary (U.S. EPA, 1995). They also wanted to prevent future problems by ensuring that no new uses or discharges of harmful pollutants would lead to the loss of beneficial uses in the Great Lakes Basin. As a result, the Steering Committee directed the EPA and state experts on the Technical Work Group to identify pollutants requiring tighter controls and to develop enhanced regulatory approaches for managing them (U.S. EPA, 1995).

Five years after the GLCPA, the EPA officially published the final Great Lakes Water Quality Guidance. The final guidance outlined water quality criteria, methodologies, procedures, and policies for Great Lakes states and Tribes to follow. The GLI specifically focused on 29 toxic substances, 22 of which are bioaccumulative chemicals of concern, as well as roughly 100 additional contaminants identified as among the most harmful to the Great Lakes (NWF, 1997a; Government Accountability Office [GAO], 2005). Having unified water quality standards established "consistent, enforceable, long-term protection for fish and shellfish in the Great Lakes and their tributaries, as well as for the people and wildlife who consume them" (U.S. EPA, 2024c).

The final published GLI guidance represented the culmination of a six-year (1989-1995) collaborative effort involving Great Lakes states, the environmental community, industry, academia, municipalities, and the EPA's regional and national offices. The Initiative Committees' work laid the foundation for the final guidance, which was ultimately guided by six general principles (U.S. EPA, 1995):

1. Use the best available science to provide protection to human health, wildlife, and aquatic life
2. Recognize the unique nature of the Great Lakes Basin ecosystem
3. Promote consistency in standards and implementation procedures while allowing appropriate flexibility to states and Tribes
4. Establish equitable strategies to control pollution sources
5. Promote pollution prevention practices
6. Provide accurate assessment of costs and benefits

The role of advocacy groups did not end with the passage of the GLCPA or the publication of the final GLI guidance; these organizations continued to monitor implementation and push for stronger protections. Their efforts proved especially critical when the GLI faced a major legal challenge in 1995, when seven industrial and municipal dischargers filed suit seeking to invalidate the guidance (NWF, 1997a). The NWF intervened in defense of the GLI, and in 1997, the federal court ultimately upheld the GLI. This outcome allowed the EPA to continue its enforcement of the GLI, signaled to the Great Lakes states that implementation should proceed, and underscored the influential role of advocacy groups in advancing stronger protections for the lakes (NWF, 1997a).

As a result of the GLCPA, states were required to incorporate these strengthened provisions into their water quality standards and permitting programs by 1997, expanding their capacity to more effectively address persistent toxic substances throughout the basin (NWF, 1995b). However, all Great Lakes states except Indiana missed this deadline (NWF, 1997a). By 1998, the eight Great Lakes states had largely incorporated elements consistent with the GLI into their environmental regulations and permitting programs. Yet in 2000, the EPA determined that six Great Lakes states had either omitted required provisions or adopted elements that were inconsistent with requirements.[5] In response, the EPA promulgated federal rules to impose GLI standards. However, Wisconsin represented an exception, as "state officials believe[d] provisions that [were] not explicitly supported by Wisconsin law [could not] be implemented, and because material disagreements exist[ed] between state officials and EPA over the GLI provisions" (GAO, 2005).

While the GLI did not aim to completely eliminate discharges, it represented a substantial advancement toward fulfilling long-standing promises to reduce toxic pollution across the basin. For years, residents and environmental advocates had awaited a regulatory framework capable of delivering the meaningful reductions that earlier commitments had failed to achieve (NWF, 1997a). The GLCPA then provided the enforceable legal framework necessary to ensure action in line with the recommendations already outlined in the GLWQA (Elder, 2025). While the law clarified the EPA's authority and responsibility to implement the GLWQA, it did not address a critical remaining gap: funding. This meant that, despite the EPA having legal authority, the GLCPA still lacked a dedicated funding source to effectively address the ongoing and complex environmental challenges facing the Great Lakes.

Great Lakes Legacy Act

While the GLI and the GLCPA focused on reducing new inputs of toxic pollution, and the GLWQA designated AOCs, they lacked a funding mechanism to clean up harmful substances already in the lakes. Due to the lack of funding, only one AOC was delisted by 2000 (*H.R. 1070, The Great Lakes Legacy Act of 2001*, 2001; Canada Water Agency, 2025).[6] To remedy this, the co-chair of the U.S. House of Representatives GLTF, Representative Vern Ehlers [R-MI], along with staffer Cameron Wilson and then-President and CEO of the Alliance for the Great Lakes, Cameron Davis, began developing the Great Lakes Legacy Act (Legacy Act) in 2000 (Davis, n.d.). The goal of the Legacy Act was to address legacy

[5] Pennsylvania and Minnesota had no disapproved elements.
[6] In 1994, The Collingwood Harbour AOC in Canada was delisted.

pollutants and "leave a better legacy of a cleaner Great Lakes for future generations" (Davis, 2025). Instead of addressing water quality standards, this was a chance to "[create] a bank account with investment money going into cleaning up the Great Lakes" (Davis, 2025).

With bipartisan support from Great Lakes states, communities, industry, and environmental groups, Congress authorized the Legacy Act in 2002, further amending the CWA and enabling the EPA to conduct research and implement RAPs to delist AOCs (*H.R. 1070, The Great Lakes Legacy Act of 2001*, 2001; U.S. EPA, 2024d). The "conservative and practical and pragmatic" targets of the Legacy Act made it a selling point for federal investment and "laid the groundwork for targeted solutions to real-world problems" (Reiffer, 2025). The Legacy Act was the first federal investment specifically targeted at contaminated sediment remediation in AOCs and the first step toward restoration, which "motivated folks in the community to start to think bigger" (Reiffer, 2025).

While the Legacy Act authorized $54 million annually from 2004 to 2008, Congress appropriated less than half that amount annually, totaling $91 million over the four years (Nadeau, 2009). In 2008, the Legacy Act was reauthorized, therefore extending appropriations for two more years (U.S. EPA, 2024d). Along with federal funding, the Legacy Act requires a minimum non-federal match of 35%, making the allocation of federal funds difficult and contingent on dollars being available from cash-strapped states (Cowgill, 2011). Despite the shortfall in funding, the Legacy Act was a major milestone for Great Lakes restoration. Today, $54 million to clean up toxic hot spots "doesn't sound like a whole lot of money, [but] back then…[the region was] really struggling" (Davis, 2025). Before 2002, there was "a lot of planning, a lot of studies, a lot of research. But in terms of tangible improvement(s) in water quality…, the Legacy Act was really the first [time] where real money was put on the table to address the [AOCs]" (Ullrich, 2025).

Progress through Federal Restoration Efforts

By 2003, restoring the Great Lakes had gained momentum, and some progress was evident. Lake trout were reproducing in Lake Ontario, stocks in Lake Superior were self-sustaining, and other fish species were found in the Detroit River. There was evidence of the recovery of bald eagle nesting and fledglings in the region. Lake Erie experienced a summer without algal blooms, and beaches stayed open. All of the lakes except Lake Erie met the phosphorus targets outlined in the GLWQA. The concentration of persistent toxic substances, such as mercury, dropped by 60% in some rivers that fed into the lakes (Environment and Climate Change Canada & United States Environmental Protection Agency [ECCC & U.S. EPA], 2003; Hawthorne, 2023).

However, progress in some areas was thwarted by equally severe environmental decline in others, and it was clear that progress in the Great Lakes remained slow (Rabe & Gaden, 2009). For example, the movement of airborne chemicals over long distances continued to deposit contaminants into the basin, undermining progress made through earlier pollution control efforts. Biological stressors were also intensifying, and invasive species remained a significant threat for the entire basin. The once-abundant Diporeia, a native zooplankton pivotal to the Great Lakes food web, was experiencing a steady decline in Lakes Ontario and Michigan. In Lake Erie, Type E botulism outbreaks were causing deaths of fish and birds. Lake Erie phosphorus levels were again increasing, contributing to harmful algal blooms (HABs) and causing the lake to show alarming signs of eutrophication (ECCC & U.S. EPA, 2003). At the same time, native mussel species were experiencing a decline in population due to invasive mussels becoming much more common (Davis, 2016). These ecological pressures were compounded by ongoing land use changes and urbanization, which continued to degrade natural habitats in Lakes Ontario, Erie, and Huron (ECCC & U.S. EPA, 2003). Overall, while Great Lakes restoration efforts achieved some progress, it was still not enough to comprehensively address the complex environmental issues facing the lakes.

During this time, most believed the GLWQA, despite its historic importance, was no longer effectively guiding restoration across the basin (VanNijnatten & Johns, 2022; Tschorke, 2008). None of the U.S. AOCs identified under the agreement had been delisted, signaling that the then-current model for restoration was insufficient (U.S. EPA, 2025e). The framework itself contained outdated provisions and left the region unable to address emerging challenges such as climate change and newly recognized contaminants (Rabe & Gaden, 2009; Tschorke, 2008). Reviews of the GLWQA found that many of its 1987 provisions no longer reflected contemporary scientific understanding of the Great Lakes system, and that confusing or ambiguous language created uncertainty for the agencies responsible for implementation. Despite these findings, the EPA and ECCC announced in 2000 that they had no interest in making changes to the GLWQA. This decision was made even in the face of glaring regional problems and a consensus that an update was needed (Botts & Muldoon, 2005).

A central weakness of the GLWQA was its lack of accountability. While it identifies the responsible parties as the United States and Canada, it does not specify which levels of government are responsible for carrying out specific actions. This ambiguity created confusion over who was expected to implement programs, meaning governments could easily avoid taking necessary action (Tschorke, 2008). The lack of enforcement mechanisms further hindered progress under the GLWQA, as it was up "to the goodwill of the two governments to make it happen" (Gaden, 2025). While the IJC serves as an advisory and evaluative body with its influence significantly exercised through its biennial meetings, it lacks the formal power to enforce implementation. As the United States and Canada began to develop differing environmental policies in the late 1900s and early 2000s, these separate national priorities made it even more difficult to maintain binational coordination under an agreement with no enforcement (VanNijnatten & Johns, 2022; Tschorke, 2008). Together, these limitations contributed to the slow or incomplete implementation of the GLWQA during this time. Therefore, while the GLWQA decreased pollution and nutrient levels in the Great Lakes, many believed it was not reaching its full potential due to accountability and enforcement struggles and chronic underfunding (FLOW 2022; Tschorke, 2008).

The GLI exemplified further limitations. Although it established unified, science-based water quality criteria, its effectiveness was constrained from the very beginning. The GLI focused primarily on regulated point sources, even though nonpoint sources, such as agricultural runoff and atmospheric deposition, were responsible for the majority of the pollution in the Great Lakes Basin (GAO, 2005). The GLI's impact was further weakened by flexible implementation mechanisms, like variances, compliance schedules, and mixing zones. Although one of the GLI's priorities was to establish more consistent restrictions on the use of these flexible tools across states, their continued availability nonetheless limited its effectiveness (GAO, 2005). Variances, for example, allowed facilities to discharge pollutants above the water quality criteria set by the GLI. Under the GLI, states were permitted to grant variances to individual dischargers for specific pollutants, often for periods of up to five years, allowing temporary relief from compliance when meeting pollutant standards "would result in substantial and widespread harmful economic and social impact" (GAO, 2005). In addition to variances, mixing zones further weakened protections by allowing elevated concentrations of pollutants near discharge points (as long as water quality standards were met at the edge of the zone), while compliance schedules granted existing polluters additional time to meet new limits (GAO, 2005).

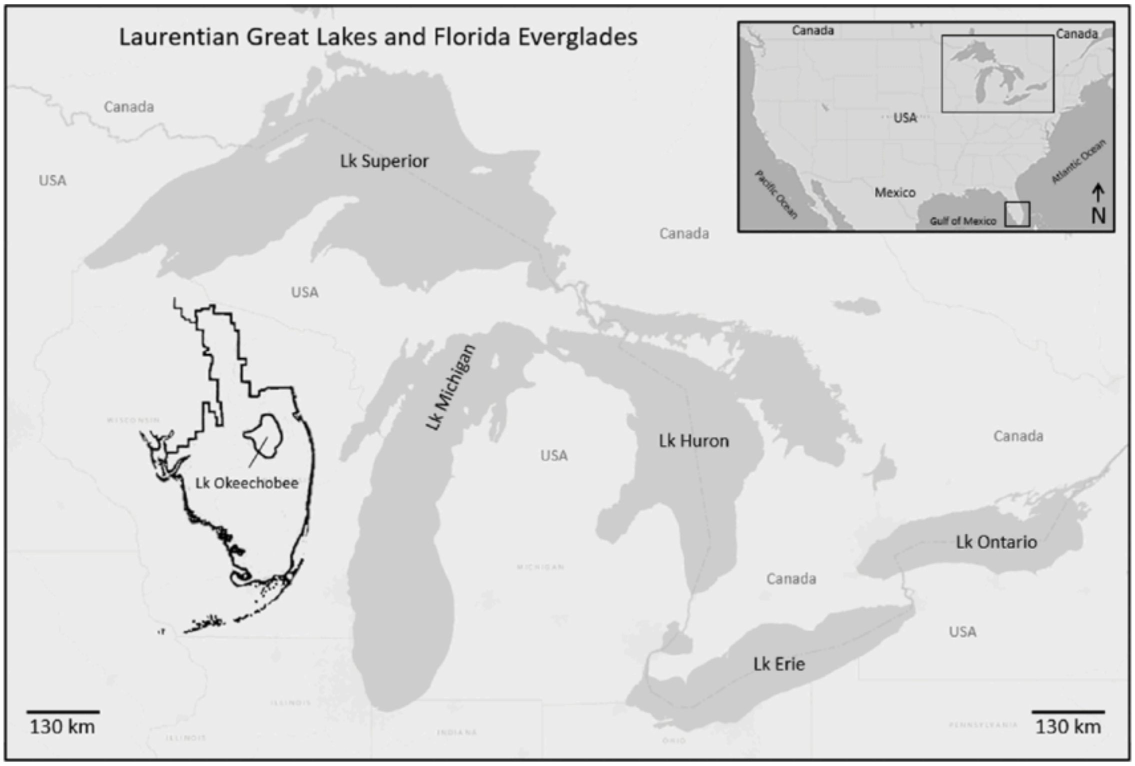
The EPA's oversight in implementing the GLI also fell short. The agency did not ensure consistent implementation among the Great Lakes states and did not take the steps necessary to measure the progress being made. For example, despite the GLI's call for a mercury permitting strategy to unify state-level approaches, the EPA never issued one. The EPA did develop a strategy for mercury, but decided not to release it "because the agency perceived a general lack of public interest", and therefore "agency resources were directed to other GLI activities" (GAO, 2005). As a result, there were differing permits all across the basin; the exact opposite of the GLI's goal of unification. Additionally, as previously stated, the failure of the Great Lake states to adopt the GLI's standards by the 1997 deadline prompted the EPA to issue its own promulgated rules. The states' failure occurred despite the GLI being legally codified into the CWA through the GLCPA. Wisconsin, in particular, maintained that certain GLI standards lacked support in state law, leading them to abandon full implementation. Further complicating things was the fact that the analytical methods for measuring many pollutants at the low levels set by the GLI did not yet exist. This made the enforcement of several aspects of GLI criteria impossible in practice. Finally, EPA's efforts to evaluate the GLI's impact were constrained due to inadequate data collection and insufficient information regarding pollution reductions from regulated dischargers (GAO, 2005).

In addition to policy and regulatory challenges, early Great Lakes restoration efforts often overlooked issues of equity and justice. EJ was rarely considered explicitly, and the communities most affected, low-income populations and communities of color, were often excluded from decision-making processes (Lightfoot, 2025; Vasi, 2025). Many restoration initiatives of the period lacked meaningful engagement with these communities or the organizations that represented them, as EJ was simply "a facet of Great Lakes restoration that was not considered in the early days" (Meyer, 2025; Gaden, 2025). This left a significant gap in who had a voice in shaping policies that directly affected their environment and health. While the GLWQA did include some relevant principles, such as public participation and recognition of humans as part of the Great Lakes ecosystem, it did not explicitly address EJ concerns (Josephs, 2021). This gap could only be described as a "blind spot" in how restoration was implemented at the time (Grubb, 2025). Indigenous voices, for example, were largely absent from restoration governance at the time, and only later were they represented in the GLWQA through advisory boards (in 2012) and the IJC (in 2019) (FLOW Water Advocates [FLOW], 2022).

Amid mounting policy shortcomings and increasing environmental challenges within the Great Lakes, the GAO, at the request of then-Senate GLTF co-chair George Voinovich [R-OH] and other members of the GLTF, released a report in 2003 finding that the federal government was not meeting its commitments to Great Lakes restoration. Declining funding and limited leadership from the EPA meant that many Great Lakes restoration programs were neglected, worsened by states' general unwillingness to assume responsibility for what many saw as federal obligations. The report identified "148 federal and 51 state programs funding environmental restoration activities in the Great Lakes Basin" and pointedly noted that restoration strategies used in these programs were uncoordinated (GAO, 2003). The report recommended "better planning, coordination, [and] monitoring" and called upon the federal government to assume that coordination role and to include all orders of government, stakeholders, and rightsholders in the effort (GAO, 2003). Senator Voinovich best expressed this sentiment in the GAO report hearing when he asked: "Is there an orchestra leader that knows what all of you are doing and is coordinating it?" (*Great Lakes Restoration Management,* 2003). Silence rang through the room, as most knew that the answer was 'No' (Buchsbaum, 2025). The Great Lakes policy actors were an orchestra with no conductor. Without a coordinated restoration effort among those actors, compounding environmental issues within the Great Lakes would be much harder to address.

The GAO report also noted that Great Lakes restoration efforts were "not coordinated or unified in a fashion comparable to other large restoration projects, such as the South Florida ecosystem" (GAO, 2003). In South Florida, the Everglades had recently secured $4 billion in federal funds, a stark contrast to the fragmented federal commitment in the Great Lakes region (Rabe & Gaden, 2009). The Everglades are also much smaller than the Great Lakes (see Figure 3), making the disparity even more evident. This prompted "all the Great Lakes folks, not just environmental groups," to wonder "why are the Everglades getting all this money when they're fine, but the Great Lakes are great? We should be getting our share" (Buchsbaum, 2025). This comparison is a sentiment that became widely known as "Everglades envy" (Shriberg, 2024). Advocates, beneath their envy, were also simply confused, understanding that "the Everglades are a wonderful resource," but if they are worth $4 billion in federal funds, then "the Great Lakes, with the amount of water and the number of people served by them, have to be worth at least that much." (Ullrich, 2025). During this time, Great Lakes advocates couldn't comprehend that one state was gaining so much federal attention, while the eight Great Lakes states were largely ignored (Mulinex, 2025). Adding to this frustration, Congress struggled to understand how federal dollars were being spent as efforts remained scattered across agencies and jurisdictions. This left governments and communities increasingly irritated that such a large, economically vital, and environmentally stressed region continued to receive piecemeal support while the Everglades secured billions of dollars in coordinated federal investment (Rabe & Gaden, 2009).

Figure 3.
Size Comparison of the Great Lakes Ecosystem and the Florida Everglades Ecosystem.



Note. From "Ecosystem restoration in the Everglades and Great Lakes ecosystems: past, present, and future preventative management," by A. Steinman and E. Kindervater, 2020, *Inland Waters*, 12(1), p. 3. 10.1080/20442041.2020.1804272

In addition to Everglades envy, Great Lakes advocates were also becoming increasingly aware of the growing federal support for Chesapeake Bay restoration efforts. United in frustration, Representative Rahm Emanuel [D-IL] and Representative Mark Kirk [R-IL] co-developed a $4 billion Great Lakes cleanup bill in 2003, which was considered to be "a far-reaching federal cleanup package" (Krantzberg, 2009). The effort was largely inspired by the increasing federal commitment in other regions, spurring advocates to believe that "if the Everglades and Chesapeake Bay can do it, we can do it" (Greenwire, 2003). However, the bill stalled in Congress. While the exact reason behind its failure is unknown, it can be speculated that a lack of congressional support and coordinated advocacy efforts ultimately caused its demise.

In sum, the limited successes achieved in the early 2000s can be attributed to fragmented programs, inconsistent implementation, lack of a unified voice, and unclear accountability across federal and state agencies. The Everglades envy that was rampant in the Great Lakes region only highlighted that federally funded restoration was possible, just out of reach. Collectively, this set the stage for the region to push for a more unified, coordinated federal effort.

May
President Bush signs EO 13340
Healing Our Waters Conference and Agenda released

November
Healing Our Waters – Great Lakes Coalition formed

December
Launch of Great Lakes Regional Collaboration with Conveners Meeting and Signing Ceremony in Chicago

2004:
The Framework for the Great Lakes Restoration Initiative

The Bush Administration's Response: Executive Order 13340 and the Great Lakes Regional Collaboration

For years, even decades, before the critical GAO report of 2003, Great Lakes advocates had been approaching Congress asking for restoration funding. During that time, there was a lack of consensus on the issues that needed to be tackled first, let alone how federal dollars would be spent. At the behest of Senator Voinovich, the GSGP began the Great Lakes Priorities Project in 2001 to develop "priorities to help guide restoration and protection work for the region" (Naftzger & Johnson, 2025). The GSGP, through discussions with state environmental agencies, the GLC, and the broader Great Lakes community, compiled a list of "nine priorities to guide the restoration and protection of…the Great Lakes" (Great Lakes St. Lawrence, n.d.):

1. Aquatic invasive species (AIS) control
2. Fish and wildlife habitat restoration
3. Coastal health protection
4. Contaminated sediment cleanup in AOCs
5. Nonpoint sources
6. Toxic pollutants
7. Indicators and information
8. Sustainable development
9. Water use and diversions

The Great Lakes Priorities Project was the first time that the region collaborated at this scale to determine the most pressing problems facing the lakes. Doing so set "a north star of consensus that these [were] the key issues and…serve[d] as a framework for developing a regional strategy" (Naftzger & Johnson, 2025). To amplify the project's results, the GSGP sent a letter to Congress with the priorities in October 2003 (Great Lakes St. Lawrence, n.d.); meanwhile, Governor Bob Taft [R-OH] and Chicago Mayor Richard Daley [D-IL] went to the White House to present the priorities to President George W. Bush himself (Leavitt, 2004a). The message was clear: "building upon the Great Lakes blueprint would take Presidential leadership" (Leavitt, 2004a).

With a presidential election approaching, decision-makers in the Bush administration were hesitant to raise environmental issues, as they were seen as political liabilities (Leavitt, 2025a). However, the then-EPA Administrator, Mike Leavitt, thought otherwise and wanted to "articulate a Republican-led environmental strategy" for the Bush administration (Leavitt, 2025a). Leavitt, having already convened a regional collaboration to address air quality issues in the Grand Canyon during his tenure as Governor of Utah, wanted to create a similar environmental collaboration in another U.S. region. The work being done in the Great Lakes caught his attention, and he saw potential for the Great Lakes to "be a demonstration of balanced environmental governance and problem solving" (Leavitt, 2025a). Along with support from Leavitt, Representative Emanuel "finagled his way onto Air Force One to ride to California with President George W. Bush" to lobby for Great Lakes restoration (Buchsbaum, 2025).

As a result, President Bush issued Executive Order 13340 (EO) on May 18, 2004, which called for the "promotion of a regional collaboration of national significance for the Great Lakes" (Exec. Order No. 13340, 2004). By enabling the federal government to "partner with the Great Lakes states, Tribal and local governments, communities, and other interests to establish a regional collaboration," the EO would foster and sustain bipartisan and binational support (Exec. Order No. 13340, 2004). The GSGP's priorities ensured that the musicians were in place, but the region still "need[ed] more harmony" (Leavitt, 2004b). While the federal attention was promising, Great Lakes leaders remained hesitant that this effort would lead to substantial progress as the region "already [knew] what problems [were] facing the Great Lakes," and was "too long on studies and too short on resources" (Kinzer, 2004).

Figure 4.
Mike Leavitt at the announcement of the EO at the Navy Pier on May 18, 2004.

Note. From Council of Great Lakes Governors, Inc.

The EO established the Federal Great Lakes Interagency Task Force (IATF) with the goal of bringing the federal agencies into alignment on Great Lakes programs, funding, and implementation. Membership of the IATF, which is still active, is composed of relevant federal cabinet secretaries, with the Administrator of the EPA as the chair (Table 5). The EO tasked the IATF with 10 points of action, including the establishment of the Great Lakes Regional Working Group (Working Group).[7] The Working Group is composed of regional directors of the government agencies represented on the IATF, to make recommendations on priorities, strategies, and policy implementations (Exec. Order No. 13340, 2004).

Table 5. Membership of the Great Lakes Interagency Task Force (Exec. Order No. 13340, 2004).

Great Lakes Interagency Task Force:
● Administrator of the Environmental Protection Agency (who chairs the Task Force) ● Secretary of State ● Secretary of the Interior ● Secretary of Agriculture ● Secretary of Commerce ● Secretary of Housing and Urban Development ● Secretary of Transportation ● Secretary of Homeland Security ● Secretary of the Army ● Chairman of the Council on Environmental Quality

[7] See Appendix F for the list of purposes of the IATF.

To fulfill the EO, the IATF formed the Great Lakes Regional Collaboration (GLRC) (Great Lakes Regional Collaboration [GLRC], 2007a). The formation of the GLRC was deliberately delayed until after the presidential election to avoid politicizing and potentially undermining the project. In the meantime, Leavitt visited all of the Great Lakes states and met with stakeholders to help build the saliency of the GLRC (Leavitt, 2025a). Being from a Western state, there was trepidation that Leavitt would not really care about the Great Lakes, but these meetings showed that he, in fact, “was all about the Great Lakes” (Jones, 2025). The meetings acquainted Leavitt with the region and its most pressing problems, including fish consumption and mercury concentrations, invasive species and the electric barrier in the Chicago River, and frustrations over little restoration progress (Zorn, 2025; Jones, 2025; Leavitt, 2025a). Through these conversations, Leavitt saw the region’s “visceral appreciation for the lakes—for what they are today, and for what they must become tomorrow” (Leavitt, 2004a).

The Conveners Meeting and Signing Ceremony was the official launch of the GLRC in December 2004 in Chicago, which became known as the ‘flags and bagpipes event.’ Leavitt wanted to ensure that this kickoff had the deserved “pomp and circumstance to really set the tone that this was a serious undertaking” (Naftzger & Johnson, 2025). It “started with the Chicago Police Department, fife and drum, flag group with bagpipes marching into the meeting…in downtown Chicago” (Jones, 2025). Several Great Lakes governors were present at this unprecedented event, as well as members of Congress, mayors, elected officials from all orders of government, regional leaders, and Tribal representatives (see Figures 5 & 6) (Jones, 2025; Grumbles, 2025). During the procession, “Chicago Mayor Richard Daley turned to [Leavitt] and said, ‘Wow, this really is an important meeting, isn’t it?’” That was the feeling Leavitt hoped to create, and “was a poignant reminder that politics and policy [are] often driven by events” (Leavitt, 2025a). The importance of the GLRC was also felt by others, as it brought together all Great Lakes stakeholders to work toward one goal: creating a unified strategy to restore and protect the lakes (Taft, 2025).

Figure 5.
Attendees at the Conveners Meeting and Signing Ceremony in Chicago, IL, on December 3, 2004.

Note. From Council of Great Lakes Governors, Inc.

Figure 6.

Governors, elected officials, and Tribal representatives at the Conveners Meeting and Signing Ceremony in Chicago, IL, on December 3, 2004. (Left to right: Governor Rod Blagojevich [D-IL], Governor Jennifer Granholm [D-MI], State Senator Beverly Gard [R-IN], Frank Ettawageshik (Tribal Chairman of the Little Traverse Bay Bands of Odawa Indians), Carol Molnau (Minnesota Lt. Governor), Governor Bob Taft [R-OH], Michael Leavitt (EPA Administrator), Governor Jim Doyle [D-WI], Erie Mayor Richard E. Filippi [D-PA], Dennis Schornack (Chair of the IJC's U.S. Section), Governor George Pataki [R-NY])

Note. From Council of Great Lakes Governors, Inc.

Diverse Coalition Building & Healing Our Waters

Prior to the GLRC, many nonprofits, NGOs, and local, state, and regional organizations had previously worked together to combat Great Lakes environmental issues and support the passage of region-specific protections. This included the Great Lakes-St. Lawrence River Basin Water Resources Compact (Great Lakes Compact), which sought to govern water diversions inside and outside of the Great Lakes Basin and included both American and Canadian governing bodies (Alliance for the Great Lakes, n.d.-a). Despite advancements made regarding water diversions, there was a distinct lack of coordination among Great Lakes organizations to restore the Great Lakes (GAO, 2003). Several grassroots campaigns, such as a citizen action agenda created by GLU in 2003 to enact a binational restoration effort, did little to move the needle on Great Lakes restoration (Wayback Machine, 2003). American advocates' focus on federal funding shifted the conversation away from binational cooperation on restoration efforts, and key differences in public involvement and political motivation within Canada prevented a parallel restoration movement from taking shape (Van Putten, 2026).

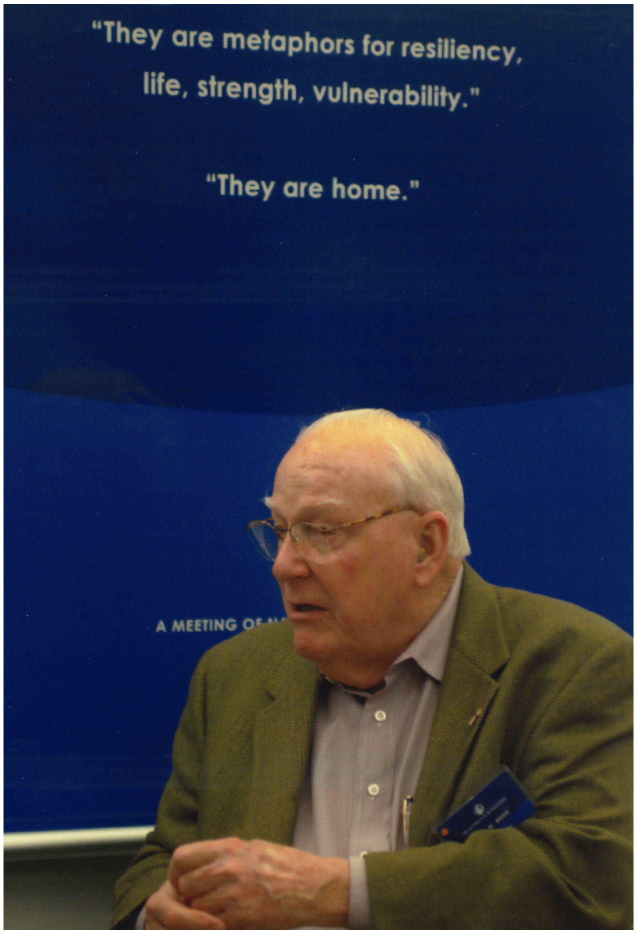
In the United States, advocacy organizations operated fairly independently, creating a complex network of environmental organizations, coalitions, and agencies with restoration agendas that did not communicate well with one another (GAO, 2003). Without a forum for collaboration, their effectiveness in restoring the Great Lakes on a large scale was diminished. This growing advocacy gap would inspire Peter Wege, the founder of The Wege Foundation, to help unify the Great Lakes community (Buchsbaum, 2025). Since the beginning of the environmental movement, Wege understood the importance of Great Lakes restoration. In a 1973 letter to former Michigan Governor William G. Milliken, Wege contended that efforts to restore Great Lakes water quality were “as important in scope as NASA moon exploration” but with even greater impact on human survival (Healing Our Waters–Great Lakes Coalition [HOW], n.d.). The findings of the GAO report supplemented his belief that the key to federal leadership would be through cross-governance collaboration in the Great Lakes (HOW, n.d.).

Ultimately, Wege took the lead in convincing a myriad of Great Lakes organizations, states, and local governments to create a national restoration strategy for the Great Lakes. In May 2004, Wege invited 70 nationally recognized environmentalists and scientists to a two-day conference in Grand Rapids, MI, entitled ‘Healing Our Waters,’ to reach a consensus on a policy statement for restoring the Great Lakes ecosystem (The Wege Foundation, 2016). Wege believed that to ensure federal leadership, Great Lakes advocates needed to create a “clear, concise, and compelling agenda for Great Lakes restoration” (HOW Agenda, 2004; Buchsbaum, 2025). Following the conclusion of the conference in September 2004, The Wege Foundation released the Healing Our Waters Agenda, referred to as the “Magna Carta for the Great Lakes,” which pushed for greater collaboration among actors in the region to “restore Great Lakes water quality,” “prevent and control non-native aquatic invasive species,” and “clean-up concentrated toxic pollution” (NWF, n.d.-a; HOW Agenda, 2004). Conference attendees estimated that it would take nearly $20 billion to implement the agenda’s findings, which would later be supported by Great Lakes economic studies (Buchsbaum, 2025). The agenda specifically acknowledged that “it will take the cooperative and continued effort of committed individuals and organizations throughout the public and private sectors” to overcome some of the Great Lakes’ greatest environmental challenges, calling for regional collaboration at a scale never seen before (HOW Agenda, 2004). The release of the Healing Our Waters Agenda culminated in a congressional reception in Washington, D.C. to discuss the report’s findings and potential next steps with members of Congress and their staff (ConservationStrategy, 2004).

Figure 7.
Conference Attendees’ Great Lakes Restoration Priorities

Note. From “Healing Our Waters: Meeting the Challenge of Great Lakes Restoration” Picture Archive, Healing Our Waters–Great Lakes Coalition. Bentley Historical Library.

Figure 8.
Peter Wege at the Healing Our Waters Conference.



Note. From "Healing Our Waters: Meeting the Challenge of Great Lakes Restoration" Picture Archive, Healing Our Waters–Great Lakes Coalition. Bentley Historical Library.

Around the same time as the release of the Great Lakes Magna Carta, Mark Van Putten (a consultant with The Wege Foundation at the time) began reaching out to conference participants to push for the creation of a Great Lakes coalition. Van Putten met with Tom Kiernan (then President of the NPCA) and Andy Buchsbaum (then Regional Executive Director of the NWF) for several months after the conference to draft a concept paper for a potential coalition of Great Lakes nonprofits and NGOs (ConservationStrategy, 2004). Additionally, Van Putten met with representatives from the C.S. Mott Foundation and the Joyce Foundation to discuss supporting this coalition, while also coordinating with members of The Wege Foundation to outline their role in the coalition's formation (ConservationStrategy, 2004). Having The Wege Foundation put "new money" on the table capitalized on the work of foundations that had previously been investing in Great Lakes restoration efforts, making the Great Lakes Magna Carta more feasible to implement (Van Putten, 2025).

Figure 9.
Attendees at the Healing Our Waters Conference at the Steelcase University Learning Center.

Note. From "Healing Our Waters: An Agenda for Great Lakes Restoration," Healing Our Waters–Great Lakes Coalition (2004).

As the NWF and NCPA were working on conceptualizing a Great Lakes coalition, Van Putten communicated with Peter Wege, then Wege CEO Ellen Satterlee, and then Vice President of Programs Terri McCarthy, calling for the unification of Great Lakes actors and organizations in a similar fashion to those forming for the Florida Everglades and Chesapeake Bay. Van Putten, having witnessed the successes and challenges of Everglades coalition-building, identified how the Everglades Coalition (as well as other environmental coalitions) used power distribution and democratic structuring to achieve their restoration goals (Van Putten, 2025).[8] In September 2004, Great Lakes funders, organizations, and The Wege Foundation representatives met to discuss these lessons and the NWF-NCPA concept paper that would inform the formation of a new Great Lakes coalition. This coalition, formed by numerous local, state, and national actors, would help carry out the next steps of the Healing Our Waters Conference's Magna Carta (Van Putten, 2004).

The Wege Foundation, the NWF & NCPA, and 55 other NGOs that shared Wege's vision united formally as the Healing Our Waters–Great Lakes Coalition (HOW Coalition) in November 2004, utilizing lessons learned through the Healing Our Waters Conference and existing coalition-building experiences to inform the coalition's structure (ConservationStrategy, 2004). The HOW Coalition's formation came just months after President Bush's EO initiating the GLRC, signaling an alignment between grassroots and federal interests in Great Lakes restoration (Henry, 2005). The HOW Coalition was initially funded with $5 million from The Wege Foundation and Mr. Wege's personal funds, and is jointly run by staff from the NWF and the NCPA, utilizing funds from both organizations and private foundations to carry out

[8] The Everglades Coalition brought together its 45 member organizations under one goal-oriented framework to align their activities towards a common cause, creating a participatory, democratic coalition network that increased the political influence of these organizations, helping them more effectively lobby for federal funding for Everglades restoration (Van Putten, 2004).

essential operations (HOW, n.d.). The formation of the HOW Coalition brought together a myriad of stakeholder groups, each with various goals and objectives, into a network of NGOs and nonprofits capable of advocating for solutions to a range of threats like pollution, invasive species, and water diversions (ConservationStrategy, 2004; HOW, n.d.).

Having advocates united under one coalition provided the region with a stronger front, but unifying the support of funders was equally important. Private foundations, like C.S. Mott, Joyce, and Erb, among many others, united under the Great Lakes Funders Collaborative (Great Lakes Funders) (Van Putten, 2025). This funding network mirrored the same kind of commitment as the HOW Coalition by funding communication, educational programming, outreach, and advocacy efforts carried out by Great Lakes NGOs and nonprofits (Van Putten, 2025; Conservation Strategy, 2004). Private foundations supported NGO and nonprofit work, providing funding to hire staff tasked with securing restoration funds (Vasi, 2025). By working collectively to build out a strong, centralized private funding network, Great Lakes organizations could carry out essential messaging campaigns and fight for the addition of federal funds (Cisar, 2025).

The HOW Coalition served as a catalyst for the unification of Great Lakes restoration efforts, bringing together grassroots advocacy and media efforts to push a consistent message that Great Lakes restoration needed to be a federally funded priority (HOW, 2005). Launching the Coalition helped the advocacy community consistently push the narrative that Great Lakes restoration was of national and political importance, putting "sustained, coordinated, regional pressure" on politicians to allocate funds and federal leadership to the region (Shriberg, 2025). The HOW Coalition leadership "prioritized making sure that [efforts were] bipartisan," so that Great Lakes advocates and citizens could "put aside political differences" to support a unified vision of what the Great Lakes could be with the right resources and guidance (Lord, 2025; Wege, 2005).

Not only did the HOW Coalition unite NGOs from all over the region who cared about the Great Lakes, but it also provided a collaborative forum for local, state, regional, and Tribal entities to work with Great Lakes advocates and align their activities and messaging. Without a leading voice, "everybody was calling out for the needs, and the needs were generally agreed upon…but [the] ask was diffuse. [Advocates] were all over the place" (Galarneau, 2025). The HOW Coalition acted as the "collective voice," saying, "'we have to get our act together. We know what we need, we know what we need to do'" (Galarneau, 2025). Having the leadership of the HOW Coalition, the GSGP, and other organizations was crucial in advancing Great Lakes restoration efforts (Bartter, 2025). This sentiment also extended to Tribes involved in the development of the Great Lakes restoration campaign. Before 2004, "[Indigenous Tribes] already had years of dealing with the agencies of the federal government…We had all that history behind us, so there's no way they couldn't include us" (Gorenflo, 2025). Coordinated, meaningful collaboration within and outside the HOW Coalition structure would prove essential not only to build a strong restoration campaign but also to bring in groups and agencies that are not often included in decision-making processes to balance the needs of the Great Lakes region.

The creation of the HOW Coalition increased "energy and excitement" over the possibility of Great Lakes restoration becoming a federally supported endeavor (Lubetkin, 2025). Peter Wege believed that the Great Lakes deserved to be "as familiar to Americans as the Florida Everglades" (King, 2005; White, 2004). Many advocates, like Wege, saw how the Chesapeake Bay and Everglades coalitions succeeded in attaining federal restoration funds, believing that the Great Lakes could accomplish something similar with strong collaboration and coalition-building (Wooley, 2025).

Many advocates view the actions of Peter Wege and The Wege Foundation as "instrumental" to bringing the interests of Great Lakes organizations to the national level (Eder, 2025). Politicians who had the power to advocate for Great Lakes restoration funding finally had a strong, unified coalition behind them that represented an umbrella of key stakeholder groups (Cowgill, 2025). Not only could the HOW

Coalition unify the different needs and interests of this network, but it could also target members of Congress to emphasize the importance of restoration funding in their district (Gaden, 2025). Essentially, the Coalition shifted the focus from several different people and organizations to one singular effort to attain federal restoration funding, connecting the science to the politics (Lord, 2025; Naftzger & Johnson, 2025). The creation of the HOW Coalition, supported by the Great Lakes Funders, represented a significant shift in Great Lakes advocacy strategy. With a nascent coalition of NGOs ready to promote the GLRC Strategy, all that was needed was funding and federal involvement.

2005-2009:

Elevating the Great Lakes to the National Level

2005

GLRC Strategy released & "Prescription for Great Lakes Ecosystem Protection and Restoration" report published

2006

First Great Lakes Day in Washington, D.C.

2007

"Healthy Waters, Strong Economy: The Benefits of Restoring the Great Lakes Ecosystem" study released

2008

"Local Investment in the Great Lakes and St. Lawrence" report released & the HOW Coalition's Presidential Candidate Commitments

2009

President Obama requests $475 million in FY2010 for the GLRI & Congress honors his request

(Photo: Healing Our Waters-Great Lakes Coalition, 2006)

2005: A Comprehensive Great Lakes Restoration Plan

The main goal of the GLRC was to develop the Great Lakes Restoration and Protection Strategy (Strategy), which would help establish future restoration programs, inform how to implement those programs, and act as a guide for funding (GLRC, 2007a). The IATF, with support from the HOW Coalition who saw this as an incredible organizing opportunity, convened over 1,500 stakeholders, ranging from federal, state, and Tribal representatives, as well as Canadian, NGO, scientific, and industry leaders, to participate in the creation of the Strategy (HOW, 2005; Great Lakes Regional Collaboration, 2007a). To form the basis of the Strategy, Issue Area Strategy Teams developed action plans and recommendations around eight of the nine priorities established by the GSGP in 2003.[9] Representatives from each Strategy Team "all work[ed] together," making it "a true…federal, state, [and] local partnership" (Taft, 2025).

While the Conveners Meeting and Signing Ceremony was a potent introduction to the GLRC, and Leavitt exhibited strong leadership within the EPA, he moved from the EPA to become Secretary of the Department of Health and Human Services shortly after (Gulezian, 2025). Additionally, with the 2004 federal election in the rearview mirror, many worried the drive for Great Lakes restoration would dwindle. To prevent that outcome, the HOW Coalition stepped up to ensure the Strategy was completed and given the proper attention. The Coalition "shaped every aspect of that plan through scientific research and papers, organizing hearings, conducting public education campaigns, and writing drafts of large sections of the [GLRC Strategy]" (HOW, 2005). In addition to the HOW Coalition's leadership, the GLRC participants had a personal drive and commitment to protect and restore the Great Lakes and were determined to see the GLRC be successful with or without federal help (Chester, 2025).

The public announcement of the HOW Coalition's formation garnered unprecedented media attention, which carried over into the Coalition's first annual conference. The conference drew in influential political figures such as Governor Jennifer Granholm [D-MI], Representative Ehlers, Senator Voinovich, and many others seeking to prioritize Great Lakes restoration (HOW, 2005). The conference emphasized the region's need for federal guidance to make more significant strides towards Great Lakes restoration goals. Ultimately, advocates needed a political leader to ensure that the Strategy would be implemented and that goals were met.

Seven months and countless Strategy Team meetings later, the GLRC released the draft Strategy at Summit I, a public meeting to discuss progress on the Strategy, on July 7, 2005 (see Figure 10). The draft Strategy consisted of recommendations from each Strategy Team on the highest priority actions (GLRC, 2007a). The release of the draft Strategy was an important milestone, because it gave advocates "a document that [they] could rally the public and elected officials to support." (HOW, 2005). To obtain that public support, the HOW Coalition worked to acquire media attention for the release and "was able to place a story on the front pages of the National Report of the New York Times" (HOW, 2005).

[9] See Appendix G for a list of the key areas under the GLRC. The issue of water use and diversions was not included in the GLRC because it was already being worked on in what would eventually become the Great Lakes–St. Lawrence River Basin Water Resources Compact.

Figure 10.
Gathering for Summit I in Duluth, MN, on July 7, 2005.

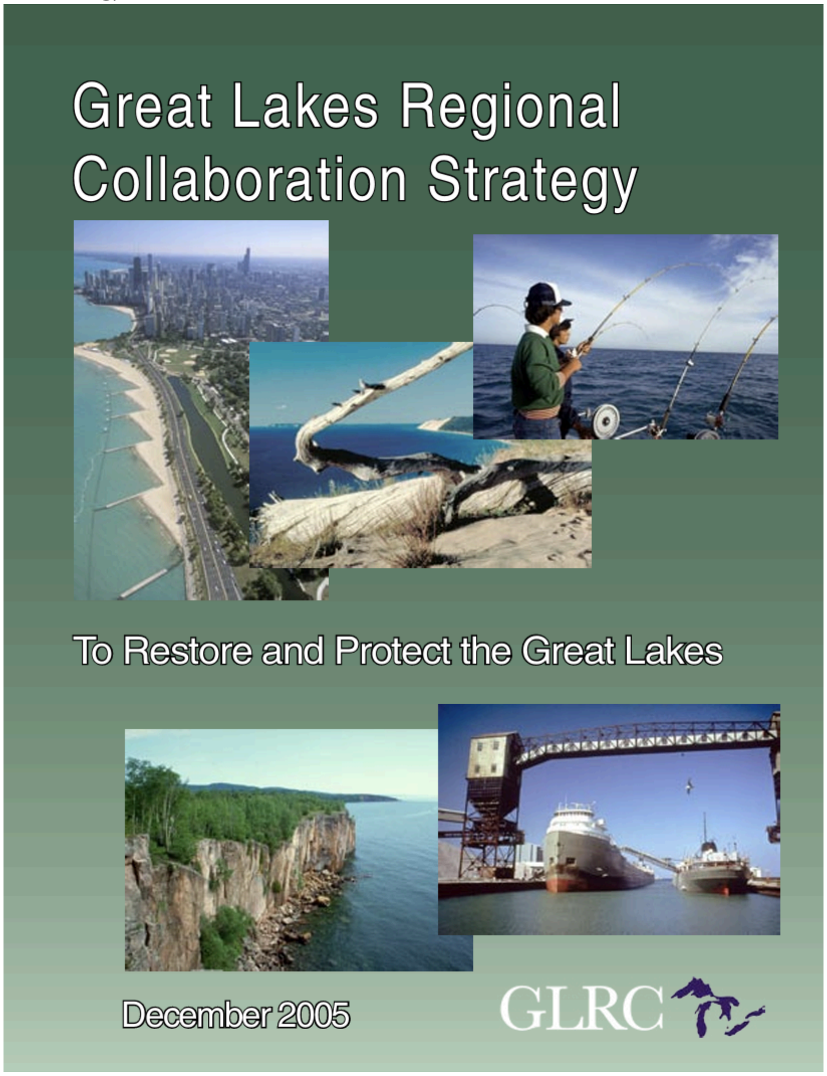
Note. From Council of Great Lakes Governors, Inc.

During a 60-day public comment period, the GLRC Executive Committee held six public meetings across the U.S. side of the Great Lakes Basin to hear the public's opinions on the recommendations.[10] Throughout this public comment period, the HOW Coalition "mobilized thousands of citizens across the region to voice support for the needed investments to restore the Great Lakes. Coalition member groups across the basin accomplished such great turnout and message discipline with canvassing, phone banking, direct mailings, citizen trainings, online action alerts, and more" (HOW, 2005). Ensuring that "the public [felt] that their comments would be taken seriously" would further solidify the importance of the Strategy (HOW, 2005). To do this, "at five of the six public hearings, the Coalition provided court reporters to transcribe the testimony given by the public" (HOW, 2005). The Executive Committee considered over 6,000 public comments in developing the final Strategy, which was released at Summit II, a closing ceremony for the GLRC, on December 12, 2005 (GLRC, 2007b). At the release, representatives from the Executive Committee signed the GLRC Resolution, which pledged their continued support for Great Lakes protection and restoration (GLRC, 2007c).

The GLRC Strategy recommended the implementation of a series of actions and activities over five years (from 2006 to 2011), encompassing the eight issue areas. For each issue area, the problem was explained with specific goals and milestones and several recommendations, supplemented with rationales and costs to fulfill them. The estimated total cost to implement the Strategy was $20 billion (in 2005 dollars) over the five years, with the majority of the costs for updates to water infrastructure, particularly combined sewer overflows (GLRC 2005). Overall, the Strategy established a unified restoration plan and prioritization list of restoration needs that were previously lacking.

[10] See Appendix H for a list of GLRC Executive Committee membership.

Figure 11.
Cover of the GLRC Strategy.



Note. From *Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes,* 2005 (https://gsgp.org/media/sz0jd3ft/glrc_strategy.pdf).

The urgency for further action was highlighted by the 2005 release of the "Prescription for Great Lakes Ecosystem Protection and Restoration" report, strategically released "just days before the unveiling of the GLRC [Strategy]" (HOW, 2005). The Prescription for the Great Lakes report, written by the HOW Coalition's Technical Advisory Committee and "signed onto by 75 of the region's leading scientists," warned that cumulative threats were weakening the watershed's "immune system" (HOW, 2005; Bails et al., 2005). Previous restoration efforts were insufficient, and progress was slow because the "combination of insults over time…was destroying the lakes' ability to heal themselves," which created "a cascading effect of degradation" (Buchsbaum, 2025). To 'treat' the Great Lakes, the authors of the report recommended a unified restoration and remediation plan to reverse the damage done by pollutants in the watershed, thus protecting the health of the Great Lakes through scientific monitoring (Bails et al., 2005).

From a practical perspective, the release of the GLRC was important, but without implementation, the Great Lakes were no closer to combating environmental degradation (HOW, 2005; Washington Post, 2005). Advocates did not want the Strategy to be another plan that sat on a shelf in the EPA, as "you could paper the walls of a large mansion with the Great Lakes strategies that [had] been introduced over the years and not fulfilled" (Dempsey, 2005, as cited in IndyStar, 2005). Affirmative action by the president was needed to avoid this outcome. There was hope that funding and implementation of the Strategy were still possible "because of how many different people helped to draft it" (Ronco, 2005). With an inclusive, administration-led action plan and a nascent coalition of NGOs ready to promote the plan, all that was needed was funding.

2006-2007: The Need for a Dedicated Federal Restoration Initiative

Though support for Great Lakes restoration funding remained strong throughout the GLRC, and after, from participants, agency officials, and HOW Coalition members, the Bush administration's interest was waning. Many prominent officials from both parties wrote to President Bush, urging him to fulfill his promises, with statements emphasizing that "he needs to honor his commitment to the Great Lakes by acting to restore them" (Buchsbaum, 2005). In 2005, for instance, 41 U.S. Representatives and Senators sent a letter in response to the IATF's *Report to the President on the Implementation of the Great Lakes Executive Order,* urging him to maintain his commitment to the Great Lakes through increased federal funding (DeWine et al., 2005). In this report, IATF officials advised that the Bush administration should focus on a strategy that was within "current budget projections" (Washington Post, 2005). This recommendation was largely due to Hurricanes Rita and Katrina shifting the administration's priorities away from creating new restoration programs to relying on existing ones, and the war in Iraq moving federal dollars away from new programs and initiatives (HOW, 2005).

Many Great Lakes restoration advocates perceived this as the administration turning its back on the Great Lakes (Washington Post, 2005). As then-Michigan Governor Granholm put it bluntly, "you're going to need some action by the federal government or the government of your state to put feet to your prayers" (King, 2005). After multiple studies were done, advocates were still left asking, 'Where's the money?' Members of Congress expressed similar frustration. Representative Kirk warned that ending yet another study effort with only "poorly funded recommendations" would make the entire process "a waste of time" (Slevin & Lydersen, 2005). Representative Emanuel was equally appalled by the years of inaction in the Great Lakes region in contrast to the large-scale investment overseas, stating "the Great Lakes has gotten nine studies in four years from [the Bush] administration, and Iraq has gotten $4.5 billion. Give Iraq the studies, and we'll take the money" (Slevin & Lydersen, 2005). Despite this frustration, President Bush did not seek funding for the Strategy in federal budget submissions to Congress (MacDonagh-Dumler, 2006). For his proposed FY2007 budget, for instance, President Bush requested $50 million be appropriated for the Legacy Act and mentioned the EO, but did not request funding to implement the Strategy (OMB, 2006).

Therefore, a coordinated, well-funded federal initiative was needed to translate knowledge and current investment into tangible, large-scale, coordinated results. This left restoration efforts constrained by the limited capacity of individual states to address the challenges at the scale and complexity facing the Great Lakes. Even with the EO and the GLRC, the Great Lakes region still did not have Voinovich's "orchestra leader" (*Great Lakes Restoration Management,* 2003). The GSGP attempted to implement more attainable portions of the Strategy that did not require massive funding, but nothing substantial materialized (Ullrich, 2025). Proponents of the Great Lakes needed to explore alternative options for implementation, looking beyond the Bush administration for funding and leadership resources.

Meanwhile, at the request of Senator Voinovich, the Senate Committee on Environment and Public Works met on March 16, 2006, to discuss the feasibility of implementing the Strategy. This meeting took place during the first Great Lakes Day, an annual high-profile event held in Washington, D.C., that introduces regional Great Lakes legislative priorities to Congress and engages policymakers in discussions on restoration needs (*Great Lakes Regional Collaboration's Strategy*, 2006; GLC, 2006).[11]

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[11] The HOW Coalition partners with the Great Lakes Commission, the Cities Initiative and other

Funding again surfaced as the central concern. To address this concern, then-Senate GLTF co-chair Mike DeWine [R-OH] introduced the Great Lakes Collaboration Implementation Act on April 5, 2006, with bipartisan support that included then-Senator Barack Obama [D-IL]. The goal of the bill was to implement the recommendations made by the GLRC. The HOW Coalition worked to build support for key bills, such as this one, being introduced and to set the stage for increased federal funding (HOW, 2007a). However, the proposal did not advance in either the 109th or 110th Congresses, which spanned 2005 through 2008 (Congress.gov, 2006a). It is suspected that the reasons behind the bill's failure lie in the uncertainty about long-term outcomes, as well as a shortage of available funding for state and local governments, and disagreements over technical approaches and environmental issues (Columbia University School of International and Public Affairs, 2011).

There were several other proposals aimed at advancing Great Lakes restoration during this time, including the Great Lakes Coordination and Oversight Act (DeWine, 2006), which sought to enhance federal coordination by codifying the IATF and strengthening oversight of restoration activities (Congress.gov, 2006b). There was also the Great Lakes Environmental Protection and Restoration Programs Reauthorization Act (Ehlers, 2005), which focused on reauthorizing and extending existing Great Lakes programs to help sustain restoration efforts (Congress.gov, 2005). Finally, as alluded to above, the Great Lakes Collaboration Implementation Act (Ehlers, 2007) was reintroduced, this time in the U.S. House of Representatives, which also aimed to translate the recommendations of the GLRC into action through better planning and interagency coordination (Congress.gov, 2007). These legislative proposals were introduced, but ultimately did not advance in Congress. While the exact reasons for these proposals' failure are unclear, it is likely that the Bush administration and Congressional leadership at the time were not open to supporting legislation allocating funds for Great Lakes restoration efforts (A. Buchsbaum, personal communication, February 11, 2026). During this period, there was also a growing sentiment that while additional federal funding was needed, gaps identified in the 2003 GAO report, particularly the lack of comprehensive data and monitoring for the Great Lakes, made it hard for some to justify increasing federal contributions. Senator James Inhofe [R-OK], the then-chair of the Senate Environment and Public Works Committee, noted that "much progress has been made in just the past few years in terms of the oversight of the Great Lakes programs, but much more is needed before we can add to the federal contribution" (*Great Lakes Regional Collaboration's Strategy*, 2006). In short, these bills were not just attractive enough to gain support (S. Rept. 109-338, 2006; Kelly, 2019). However, they are important as they demonstrate sustained bipartisan interest in pushing for Great Lakes restoration. For example, the 2007 Great Lakes Collaboration Implementation Act had 51 cosponsors, 31 of whom were Democrats, and 20 Republicans (Congress.gov, 2007). Despite certain failures at the legislation front, Great Lakes advocates continued to push for the kind of unified, well-funded effort that other regions had received.

During this period, the HOW Coalition played a central role in maintaining momentum, even when federal inaction and stalled legislation made progress seem difficult. The HOW Coalition began ramping up activities focused on grassroots engagement, education, and communicating Great Lakes issues to the public. The HOW Coalition's annual conferences drew the attention of influential politicians around the region, and the Coalition used that to build momentum to advocate for legislation that would advance the recommendations, goals, and milestones outlined in the GLRC (HOW, 2006). The HOW Coalition trained hundreds of advocates and brought them to Washington, D.C., to champion Great Lakes restoration during annual Great Lakes Days (see Figure 11). During this time, the HOW Coalition helped to create "a climate that pushed Great Lakes issues, once thought a regional problem, onto the national stage" (HOW, 2007a).

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governing bodies to host these annual events in D.C., where activists "advocate on the Hill for key Great Lakes programs and policies" (HOW, 2007a; HOW, 2008b).

Figure 12.
Andy Buchsbaum speaking at Great Lakes Day in Washington, D.C.

Note. From "Join Us" by Healing Our Waters-Great Lakes Coalition, n.d.

Until 2007, studies on the Great Lakes focused mostly on the ecological importance of restoring them, largely ignoring the economic impacts of restoration. Recognizing that politicians generally want to know whether funding is justified, the HOW Coalition, in conjunction with the Council of Great Lakes Industries (CGLI) and the Cities Initiative, "[commissioned] a study from the Brookings Institution on the economic benefits to the region and nation from restoring the health of the Great Lakes" (HOW, 2007a). The Brookings Institution released the "Healthy Waters, Strong Economy: The Benefits of Restoring the Great Lakes Ecosystem" report in 2007, explaining why the region could not afford to ignore the GLRC action plan. The report approached Great Lakes restoration from an economic perspective by proposing that the health of the region's economy depended on the health of the Great Lakes. The study found that for every dollar invested in restoration, the region would receive nearly $2 in return (Austin et al., 2007; HOW, 2007b). By building an economic case, the report demonstrated that federal investment in the Great Lakes would "have a return [on investment], and that return is going to accrue not just to the region, but to the nation as a whole" (Naftzger & Johnson, 2025). Having the support of environmentalists, and specifically the Cities Initiative, helped bolster the report's credibility with legislators and the public. Additionally, support from the CGLI further confirmed that the Great Lakes are worth the investment and "strengthened relationships with the business community and with municipal leaders" (HOW, 2008b; Buckner, 2025).

To further prove that the Great Lakes community needed federal funding, the GLC and the Cities Initiative together commissioned a study in 2007, titled "Local Investment in the Great Lakes and St. Lawrence," to understand how much non-federal money was being spent on Great Lakes restoration projects. They found that, collectively, local governments were spending nearly $15 billion (worth approximately $23.44 billion in 2025) each year to restore the Great Lakes, earning the report front-page coverage in the New York Times (Great Lakes-St. Lawrence Cities Initiative, 2008; Davey, 2008). Great Lakes communities' large restoration investments reflected a lasting local commitment to protect the Great Lakes, but not at the federal level (Great Lakes-St. Lawrence Cities Initiative, 2008). Both agencies presented these findings to Congress to further promote the idea of federal appropriations for the Great Lakes, though this did not provide enough momentum to pass legislation granting funds (Jensen, 2025).

During this time, Everglades envy still raged; it was not lost on Great Lakes lawmakers that efforts in the Everglades (as well as the Chesapeake Bay) were succeeding in capturing federal attention while Great Lakes legislation had stalled (Kinzer, 2004). Together, these critiques underscored a widening bipartisan impatience: the science was clear, the studies were exhaustive, the problems were well known, the plan was in place, the advocacy was strong. What remained missing was the federal leadership and funding necessary to translate years of science and advocacy efforts into meaningful restoration.

2008: Presidential Campaign

Since 2005, the HOW Coalition and Great Lakes congressional allies looked toward the upcoming 2008 presidential election as another opportunity to advance the GLRC Strategy (HOW, 2006). Several Great Lakes states, including Ohio, Michigan, Pennsylvania, and Wisconsin, have historically been considered swing states that can dictate the outcome of the presidential election, depending on their political leanings. Presidential candidates needed to gain favor in the Great Lakes if they wanted a shot at the nation's highest office. Using this political power, Representatives Emanuel and Kirk developed a plan with the HOW Coalition to ask presidential primary candidates to pledge to restore the Great Lakes (Buchsbaum, 2025). As a result, one of the HOW Coalition's main goals leading up to the 2008 election included securing public commitments from leading primary candidates to fund Great Lakes restoration (HOW, 2008a). Their collective presidential action plan utilized both the findings of the Brookings economic report and the importance of Great Lakes electoral politics to persuade candidates to seriously consider making advancements in Great Lakes restoration (HOW, 2008a).

Primary candidates from both parties responded favorably to the pledge due to the credible and bipartisan support of Representatives Emanuel and Kirk (Buchsbaum, 2025). Furthermore, the favor of Great Lakes states appeared to be important in the 2008 presidential primaries, as evidenced in the negative response by the presidential candidate Bill Richardson from New Mexico, who proclaimed that he wanted a national water policy that would transfer water from states like Wisconsin which were "awash with water," to address shortages in Southwestern states (Mishak, 2007). Richardson ultimately lost favor with the Great Lakes states, which were concerned by his water policy statements, significantly impacting his popularity in the Democratic primaries (Schneider, 2007). Though this loss may not have been the deciding factor in Richardson's primary withdrawal, the fallout from his comments served as a political lesson that "the Great Lakes were the third rail. You support them, or you risk political demise" (Buchsbaum, 2025).

Out of the primaries emerged two presidential candidates: Senator Barack Obama [D-IL] and Senator John McCain [R-AZ]. Senator Obama was familiar with Great Lakes issues, having represented Illinois for several years and cosponsoring several Great Lakes restoration Senate bills (mentioned above). On the other hand, Senator McCain had very few ties to the region (Lavelle, 2018). Obama pledged his commitment to Great Lakes protection and restoration during his campaign, promising "a comprehensive restoration plan for the Great Lakes" (Obama for America, 2008). His vision for the restoration plan included a $5 billion Great Lakes trust fund, aggressive action on toxic releases, and the implementation of a zero-tolerance policy for controlling and preventing the introduction of invasive species (Obama for America, 2008). McCain, though he claimed to support Great Lakes restoration in his campaign, declined to put forth a detailed restoration plan or spending commitment (Oosting, 2008).

Advocacy and outreach by the HOW Coalition and Representatives Kirk and Emanuel put pressure on Obama and McCain to support federal funding for the Great Lakes (HOW, 2008b; Mulinex, 2025). At the 2008 HOW Coalition conference in Wisconsin (two months before the presidential election), representatives from Obama and McCain's political campaigns began trying to "one-up" each other in their promises to support Great Lakes restoration (Buchsbaum, 2025). Obama's Great Lakes restoration promises, outlining a rough plan to allocate federal funds for the region, appeared much more rigorous and comprehensive compared to McCain's (Brammeier, 2025). Nevertheless, securing promises from both candidates to support Great Lakes restoration was a significant step toward securing a federally funded Great Lakes restoration plan.

2009: The Obama Administration's Solution

In November 2008, Barack Obama was elected the 44th president of the United States. Advocates who had long pushed for Great Lakes restoration viewed President Obama's election as a critical win for the region. Obama was already familiar with the Great Lakes and Great Lakes restoration, representing a Great Lakes state in Congress. Perhaps even more importantly, Rahm Emanuel became Obama's Chief of Staff and further convinced him that Great Lakes restoration funding should be a priority (Buchsbaum, 2025; Lord, 2025). Already having years of Great Lakes work under his belt collaborating with the HOW Coalition and other restoration advocates, Emanuel's appointment helped advance Great Lakes restoration within the Obama administration (Lord, 2025). As Obama grew more inclined to Great Lakes issues, he brought on Cameron Davis, then-director of the Alliance for the Great Lakes, as his Great Lakes 'czar' to coordinate activities in the region, yet another Great Lakes restoration ally who could push Obama and federal allies to support Great Lakes restoration (Shriberg, 2025). Their efforts to convince the President to support Great Lakes restoration were further supported by key political advisors within Obama's campaign staff who delivered several memos to the President stressing the "importance and the opportunity" to protect the Great Lakes (Learner, 2025). Having Great Lakes champions working so closely with President Obama allowed Great Lakes advocates to finally advance some of their priorities that they had been working towards for decades (Lord, 2025). The culmination of this campaigning, spurred by the HOW Coalition and its allies, resulted in a more favorable, advantageous political environment for the Great Lakes to rise to federal importance (Lubetkin, 2025).

In one of his first acts in office, President Obama proposed the American Recovery and Reinvestment Act (ARRA), which focused on stimulating job growth and investing money back into the U.S. economy following the Great Recession (see Figure 13) (Federal Communications Commission [FCC], n.d.). The ARRA was inspired by New Deal investments made in the 1930s after the Great Depression that helped revitalize the American economy through rapid job creation and the proliferation of public works programs (Stubbs, 2023). Great Lakes advocates and the HOW Coalition already had a public works investment plan in place through the GLRC Strategy that now only required federal support. Congressional allies within the Obama administration were able to show that the infrastructure was already in place to efficiently utilize federal funding (Flanagan, 2025). At last, as a part of this stimulus package, the Obama administration proposed the Great Lakes Restoration Initiative (GLRI) in February 2009 and requested $475 million as part of the president's fiscal 2010 Budget Request to fund the multi-agency initiative (Jones, 2009). The rollout of this plan was primarily facilitated by Great Lakes political "surrogates," like then-Michigan Governor Granholm and Senator Amy Klobuchar [D-MN], to further appeal to constituents within the region and draw on the allyship created through restoration efforts years prior (Learner, 2025). Obama's GLRI plan outlined five distinct focus areas, which were derived from and built on the GLRC Strategy:[12]

1. Toxic substances and AOCs
2. AIS management
3. Nonpoint source pollution reduction
4. Fish and wildlife habitat restoration
5. Future sustainability planning

[12] See Appendix I for focus area definitions.

Figure 13.
President Obama signs the American Recovery and Reinvestment Act at the Denver Museum of Nature and Science in Denver, Colorado, on February 17, 2009.

Note. Photo by Jim Watson/AFP/Getty Images.

The White House and the Obama administration showed clear support for the effort to fund Great Lakes restoration (Davis, 2025). President Obama, as well as members of his cabinet, elevated Great Lakes issues to a level of unprecedented importance as “programs like [the GLRI] don’t typically get that level of play,” which showed “how seriously the federal agencies took [Great Lakes restoration and] how seriously the president took [the GLRI]” (Brammeier, 2025). This work resonated with grassroots advocates and, thus, having the support from several different communities, including scientific, economic, activist, political, and others, eased the transition from a comprehensive restoration plan to an actionable funding program and placed “goodwill behind [the Obama administration] from key constituencies” (Davis, 2025; Lightfoot, 2025). After a short stint in Congress, President Obama’s request for GLRI funding was included in the FY2010 budget. The program’s first congressional appropriation maintained his original ask at $475 million, allocating a majority of the funds towards AOCs and habitat restoration (Great Lakes Restoration Initiative [GLRI], n.d.). The Great Lakes finally had a program that “pulled the region together” (Davis, 2025).

2010-2024:
Maintaining Great Lakes Restoration Initiative Funding and Support

EPA releases GLRI Action Plan I
2010
2012
HOW Coalition Updated Presidential Candidate Pledge
Flint Water Crisis
2014
2015
GLRI Codified into CWA
University of Michigan released an economic impact study on the GLRI
2018
2020
EPA releases GLRI Action Plan III
Great Lakes Restoration Initiative Act signed into law
2021
2021
President Biden signed the Infrastructure Investment and Jobs Act

Congressional Support and Funding

In 2010, President Obama requested funding (e.g., an appropriation) for the GLRI, but the program was not yet authorized by Congress, meaning that Congress would have to negotiate funding ad hoc every fiscal year without a specific budget line item (Library of Congress, 2013). Congress has consistently supported the GLRI, often with more than the president's budget requested. However, the passage of the Great Lakes Restoration Initiative Act in 2021 was a key milestone in establishing GLRI's legitimacy and longevity, authorizing the GLRI with base funding of $300 million and increasing it to $475 million over the next five years (Great Lakes Restoration Initiative Act of 2019, 2021). Having the GLTF "there every year advocating for funding for GLRI" is vital for the program (Rogner, 2025). Overall, between FY2010 and FY2024, total congressional appropriations exceeded $5.49 billion, averaging approximately $300 million annually (Table 6).

Under the second Obama administration, budget proposals between FY2014 and FY2016 recommended reducing funding from $300 million to $250 million annually. However, Congress rejected these cuts each time, signaling enduring bipartisan commitment to the program's goals (HOW, 2016). This begs the question: Was Obama shrinking from his own initiative? There is a common game in Washington called the 'Washington Monument strategy,' where the president, in their budget, wishing to look frugal, makes a reduction knowing Congress will restore the funding. Purposely cutting a program is risky and occurs only when there is confidence in strong support for the program within Congress. It can be speculated that Obama was using this strategy due to the strength of bipartisan support for the GLRI, although no one who was interviewed was able to confirm this approach (M. Gaden, personal communication, October 6, 2025).

The real test of the GLRI's bipartisanship would come when a new president with differing priorities took office. During Trump's first year as president, his FY2018 budget proposal sought to completely eliminate GLRI funding, and no one knew whether this was real or another instance of the 'Washington Monument Strategy' (Regan, 2017). Congress again intervened, fully restoring the appropriation and reaffirming the GLRI as a national priority with tangible ecological and economic returns (U.S. EPA, 2017). GLRI funding is "one area where congressional Republicans in the Great Lakes region…defied Trump and said, 'No, we want that money'" (Flesher, 2025).

In 2019, President Trump again proposed cutting GLRI funding, this time by 90% (Flesher, 2019). Three weeks later, while President Trump was en route from the Grand Rapids, Michigan, airport to a rally, Representatives Bill Huizenga [R-MI], Jack Bergman [R-MI], and John Moolenaar [R-MI] advocated for GLRI funding in the 20-minute car ride. At the rally, President Trump announced that he would support $300 million in funding and promised to "make the Great Lakes great again" (Shriberg, 2024). Having Great Lakes champions in Congress who are willing to stand up for the region and the GLRI is another demonstration of the program's importance and bipartisan support, making it virtually untouchable.

Table 6. GLRI Past Funding Allocations (GLRI, n.d.).

Fiscal Year	AOCs	Invasives	Nonpoint Source Pollution	Habitats	Foundations for Future Action	Total
2010	$146,946,000	$60,265,000	$97,331,000	$105,262,000	$65,196,000	$475,000,000
2011	$100,400,000	$57,500,000	$49,250,000	$63,000,000	$29,250,000	$299,400,000
2012	$107,500,000	$56,900,000	$54,300,000	$57,200,000	$23,600,000	$299,500,000
2013	$111,000,000	$45,000,000	$45,000,000	$65,500,000	$17,000,000	$283,500,000
2014	$104,600,000	$54,600,000	$59,700,000	$60,600,000	$20,500,000	$300,000,000
2015	$120,200,000	$53,600,000	$51,000,000	$49,000,000	$26,200,000	$300,000,000
2016	$106,600,000	$56,400,000	$51,700,000	$54,200,000	$31,100,000	$300,000,000
2017	$107,500,000	$62,200,000	$47,900,000	$49,500,000	$32,900,000	$300,000,000
2018	$105,600,000	$56,700,000	$50,600,000	$52,400,000	$34,700,000	$300,000,000
2019	$107,400,000	$57,000,000	$51,200,000	$51,400,000	$33,000,000	$300,000,000
2020	$115,800,000	$62,900,000	$51,000,000	$54,500,000	$35,800,000	$320,000,000
2021	$121,400,000	$65,700,000	$53,000,000	$56,500,000	$33,400,000	$330,000,000
2022	$276,000,000	$76,000,000	$78,200,000	$80,600,000	$37,200,000	$548,000,000*
2023	$303,500,000	$62,200,000	$71,300,000	$79,300,000	$51,700,000	$568,000,000*
2024	$306,600,000	$71,700,000	$76,300,000	$72,100,000	$41,300,000	$568,000,000*
Total	$2,241,046,000	$898,665,000	$887,781,000	$951,062,000	$512,846,000	$5,491,400,000

*Includes funds from the Infrastructure Investment and Jobs Act

Under President Biden, the region saw expanded investment in the GLRI through the Infrastructure Investment and Jobs Act (IIJA), which allocated an additional $1 billion for FY2022–FY2026. Annual appropriations rose to $548 million in FY2022 and $568 million in both FY2023 and FY2024, marking the highest funding levels since the program's creation (GLRI, 2024). These increases again reflected a renewed federal commitment to advancing restoration across the basin and the well-documented impact of the GLRI.

Institutional Structure and Shared Benefits

Part of the enduring bipartisan commitment is due to the efficacy of fund usage and distribution, which can be traced back to the GLRC. The dispersal of GLRI funds is directed to the EPA, and "the agency [tries] to get money into the field as fast as possible" by distributing the funds to agencies, states, and

NGOs consistent with the GLRI's five focus areas and priorities in the action plans (Buchsbaum, 2025; U.S. EPA, 2025). Although the EPA is the agency responsible for managing the GLRI, it is, for all intents and purposes, the leader among equals, with the funds being used to implement a wide range of projects and programs across the government spectrum (Buchsbaum, 2025; Gaden, 2025). By having the EPA distribute money to state agencies, "it wasn't somebody coming from Washington and telling [states], 'this is what you have to do because it's going to be good for you.' It was [states] saying, 'this is what we desperately need, and please help us with the funding to make it happen'" (Heartwell, 2025).

The IATF proved vital for the EPA because it "provided a framework for [the EPA and other] agencies to talk to each other" and be aware of each other's priorities, which allowed for the consideration of "the best way to spend dollars to accomplish a common goal" (Crane, 2025). Having the institutional arrangement established under the Bush administration created a level of coordination that facilitated rapid action and allowed money to get to the states and the communities that needed it (Pearson, 2025). Additionally, the plan under the GLRC Strategy allowed restoration projects to "hit the road running" once the Obama administration secured Great Lakes restoration funding in FY2010 (Wooley, 2025).

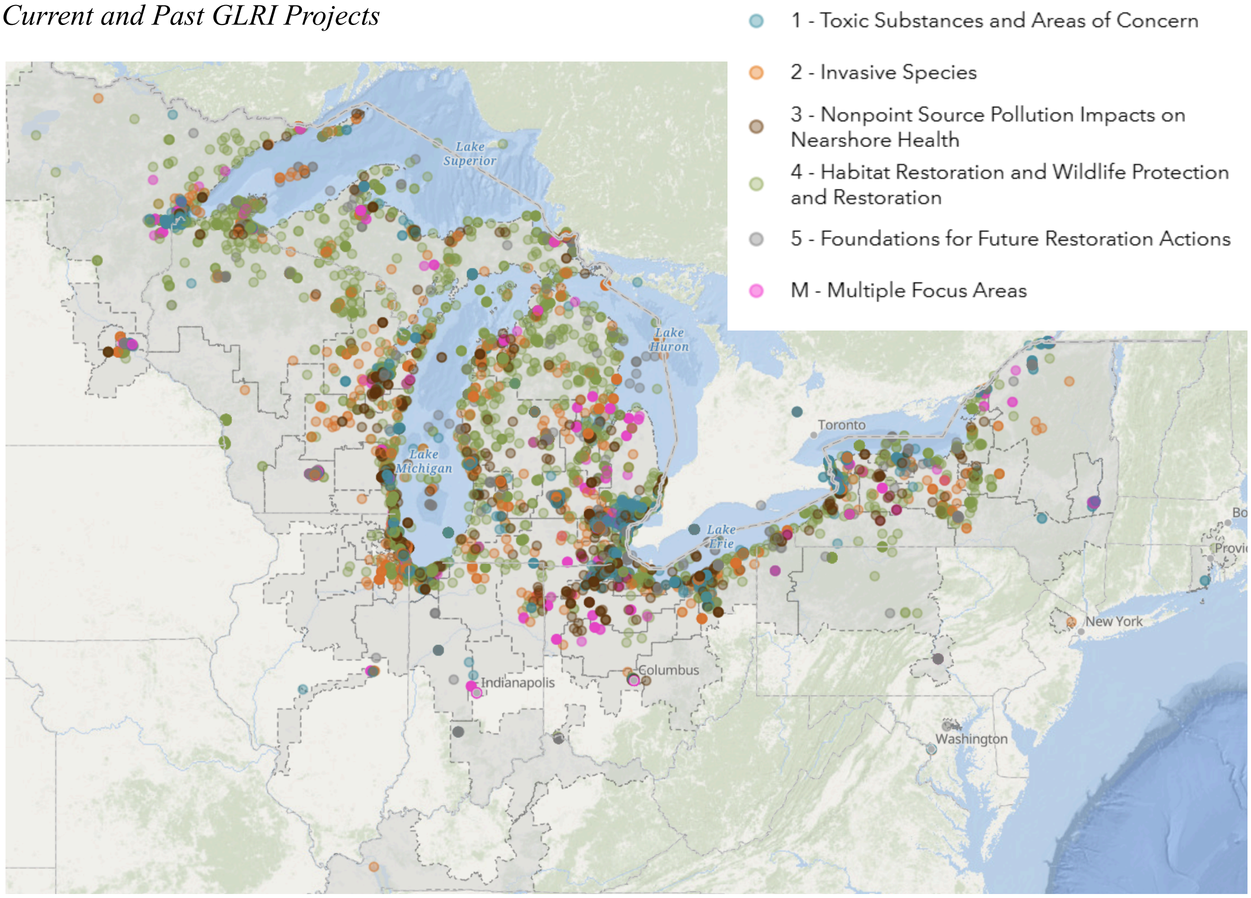
In coordination with the IATF, regional working group agencies, and additional state, Tribal, and local partners, the EPA develops a series of five-year action plans that guide the GLRI (Gatz & Lipiec, 2022; Great Lakes Restoration Initiative, 2016).[13] GLRI action plans establish a foundation for restoring the Great Lakes by focusing on five key areas: toxic substances and AOCs, invasive species, nearshore health and nonpoint source pollution, habitat and wildlife protection, and future sustainability planning.[14] A major component of each plan is addressing toxic substances and AOCs, which target the remediation of contaminated sediments and the reduction of pollutants. To combat invasive species, the action plans establish prevention and control mechanisms, including early-detection and rapid-response programs. Nearshore health and nonpoint source pollution efforts aim to reduce HABs and bacterial contamination at Great Lakes beaches. By implementing targeted watershed restoration projects, each action plan seeks to improve water quality and protect public health. Overall, GLRI action plans establish a structured, science-based approach to addressing the Great Lakes' most pressing environmental challenges, setting the stage for continued restoration efforts in future action plans (U.S. EPA, 2010).

The map in Figure 12 shows how GLRI projects are spread widely across the Great Lakes Basin, reaching every congressional district in the region (GLRI, 2024). This broad distribution means that communities in all eight Great Lakes states benefit directly from restoration investments, whether through cleaner water, restored habitats, or stronger local economies. Delivering visible results in every district has also helped earn strong bipartisan support in Congress. Many Great Lakes organizations, such as the GLC, the GLFC, the GSGP, the Cities Initiative, and the HOW Coalition, host events and information sessions to highlight the impacts of the GLRI on local communities and the watershed. The HOW Coalition and state agencies in particular have been at the forefront of "documenting new restoration success stories throughout the region" and "[illustrating] the tangible results coming out of the [GLRI] and the continued need for investment in the program" (Haven, 2025; HOW, 2012). Lawmakers from both parties recognize that funding the GLRI benefits their constituents by creating jobs, improving the quality of life, and protecting local natural resources (Hawthorne, 2025). "Understanding of the interconnectedness of the entire ecosystem," particularly between environmental improvement and community impact, has helped maintain long-term political and financial commitment to the program (Walz, 2025).

[13] See Appendix J.
[14] The fifth focus area changed from "Accountability, Education, Monitoring, Evaluation, Communication and Partnerships" in the first action plan to "Foundations for Future Restoration Actions" in subsequent action plans.

Figure 14.

Current and Past GLRI Projects



Note. From "Projects," by Great Lakes Restoration Initiative, 2024, *GLRI.* https://www.glri.us/projects.

To underscore the economic importance of the GLRI, the University of Michigan Research Seminar in Quantitative Economics released a study in 2018 on the program's socioeconomic impact. The study found that for every dollar of federal investment through the GLRI, there is $3.35 of economic output in the Great Lakes region. Additionally, every GLRI dollar increases local house prices by $1.08. By cleaning up the region, the GLRI increases tourism activity, generating a 1.62-to-1 return on investment. On average, the GLRI supports over 5,000 jobs per year and has "increased personal income by an average of $250 million per year in the Great Lakes region" (UM RSQE, 2018). Studies such as this highlight the GLRI's ability to "improve quality of life and get things done for the residents" within the region (Deal, 2025).

Documented Successes

During the first five years, the GLRI funded over 2,000 projects, and significant progress was made, especially regarding AOCs. All management actions to remove five AOCs were completed, and the Presque Isle Bay AOC was delisted in 2013, "only the second delisting on the U.S. side of the border since [AOCs] were designated pursuant to the 1987 [GLWQA]" (U.S. EPA, 2014). Additionally, 46 BUIs were removed, "quadrupling the number of [BUIs] removed in the preceding 22 years" (U.S. EPA, 2014). In 2014, two additional AOCs were delisted: Deer Lake and White Lake in Michigan (U.S. EPA, 2014). The removal of contaminated sediments has a direct impact on the surrounding communities. For example, in Milwaukee, Wisconsin, the Kinnickinnic River cleanup "increased property values along the river and gave rise to one of the Great Lakes' most eccentric microbreweries" (HOW, 2011).

Between FY2020 and FY2024, two more AOCs were delisted: the Lower Menominee River and the Ashtabula River. The Lower Menominee River AOC (located in Michigan and Wisconsin) was delisted in 2020, with a large portion of restoration and remediation efforts funded through the GLRI. The Lower Menominee River flows through Marinette County in Wisconsin, and the area has received "over $95,000,000 in direct economic output" (Kashian, n.d.). Another example of GLRI-funded projects improving local economies can be seen in the efforts to delist the Sheboygan River AOC. While there are still BUIs remaining, the region has seen $37 million in development investment, a 32% increase in tourism, and a 41% increase in boater revenue over the past decade (GLC, 2018). It is important to note that all of these efforts to develop projects and plans to delist AOCs are led by state, federal, and public advisory councils (Michigan Department of Environmental Quality, 2008).

While progress was made, the overall pace in delisting AOCs was slow until monumental investment through IIJA. This funding is projected to accelerate cleanup work at 22 of the 25 remaining U.S. AOCs by 2030, a milestone that would have otherwise taken much longer to achieve under previous funding levels. IIJA funding also expanded EJ-focused grant programs through the EPA. These grants provide over $41 million to fund local restoration projects and reduce barriers for communities that historically lacked the resources to access federal funding (U.S. EPA, 2024a). By cleaning up local communities and their waterways, they realize their environment can be "a valuable natural asset, not just a depository for waste to get rid of it" (Heartwell, 2025).

Addressing nutrient pollution, the GLRI focused on reducing agricultural runoff. To achieve this, the program increased conservation practices, funded phosphorus-reduction projects, and improved watershed management strategies. Habitat restoration efforts targeted coastal wetlands, fish passages, and migratory bird stopover sites (U.S. EPA, 2014). While projects such as the removal of deteriorating dams have an immediate impact by restoring a river's natural flow and habitat, they also benefit the community and the economy. For example, the Mill Creek Dam in Dexter, Michigan, was removed in 2015, restoring natural rapids and improving fish habitat. The former dam site has since become "the centerpiece of a waterfront park that has attracted visitors and pumped life into Dexter's downtown business community" (HOW, 2015).

The GLRI expanded invasive species prevention by strengthening early detection, response, and control measures. Notably, it funded research into new control technologies for invasive carp and sea lamprey. Although invasive carp continue to threaten the Great Lakes, presidential promises made in the early days of the GLRI, continuing to the present day, have encouraged significant investments in efforts to keep these noxious fish from entering the system. Indeed, a total of 122 projects in FY2020-FY2022 helped block priority pathways of introduction for non-native species that otherwise would have been wide open (U.S. EPA, 2014). In 2022, an adult Silver Carp was found in Lake Calumet, seven miles from Lake Michigan, which triggered an additional two weeks of sampling. The sampling revealed no established invasive carp populations in the Chicago Area Waterway System or Lake Michigan (Invasive Carp Regional Coordinating Committee, 2023). Additionally, GLRI resources support the development of regional collaboratives, such as the Great Lakes Phragmites Collaborative, to improve invasive species management (U.S. EPA, 2014).

While it is not possible to list all of them, it is important to note the crucial role of the agencies and organizations that lead projects and complete the work that makes the GLRI successful. Federal agencies, such as the U.S. Fish and Wildlife Service and the U.S. Geological Survey, state environmental agencies, and Tribal organizations leverage GLRI dollars to deliver tangible results (Ripley, 2025; Shafer, 2025). However, cutting funding and staff lowers agencies' abilities to create meaningful impact through GLRI projects (Interview 46; Carl, 2025). For the GLRI to continue to produce positive economic and ecological results, support for the GLRI needs to "extend it to the programs, policies, and people that protect the Great Lakes" (Shriberg, 2025). Additionally, organizations like Ducks Unlimited, The Nature Conservancy, and the National Audubon Society are important allies and demonstrate how to use GLRI funds to make a difference (Ullrich, 2025; Brammeier, 2025).

Sustained Advocacy and Changing Priorities

While advocacy for the GLRI came from many institutions and individuals, the HOW Coalition played a special and particularly powerful role given that its primary purpose was to build political support for the GLRI by uniting the non-profit organizations in the region. HOW's success was sparked in part by the HOW Coalition's 2008 presidential candidate pledge, which proved to be extremely successful in paving the way for the GLRI. In order to maintain this momentum, the Coalition needed a new strategy to sustain presidential support in the 2012 presidential election. At the time, Great Lakes advocates were cognisant of the historical damage caused by invasive species to the Great Lakes ecosystem. For example, before sea lamprey controls were designed, the invasive "killed more than 100 million pounds of Great Lakes fish annually," and caused hundreds of millions of dollars in economic damage (GLFC, n.d.-b). Fearing a similar economic and ecological outcome, preventing invasive carp from entering the Great Lakes became a top priority for the Great Lakes community. Invasive carp were traveling up the Mississippi River watershed, which connects to the Chicago Canal and Lake Michigan (after the reversal of the Chicago River in the early 1900s), posing an imminent threat to the entire Great Lakes ecosystem. The fishery was finally starting to recover from sea lamprey, and the encroachment of invasive carp would negate progress (GLFC, n.d.-b). The threat of invasive carp entering the Great Lakes became especially salient when bighead and silver carp were collected 50 miles below Lake Michigan in 2005 (U.S. Fish & Wildlife Service, 2005).

The HOW Coalition decided to leverage this serious threat, which led them to develop a presidential candidate pledge that "asked White House hopefuls to make a commitment to build a physical barrier to separate the Mississippi and Great Lakes basins and support Great Lakes restoration funding" (HOW, 2012). While "no candidate physically signed the pledge," candidates did commit to continue funding Great Lakes restoration efforts and take action to stop invasive carp (HOW, 2013). In addition to the pledge, the Coalition invited both candidates to its 2012 Annual Conference in Cleveland. The Romney campaign declined to send a representative, but Carol Browner (former EPA Administrator) was sent to represent the Obama campaign (HOW, 2013). The Obama campaign's effort to send a representative is an indication of the region's and the Coalition's clout in D.C.

HOW's success and the resilience of the GLRI advocacy efforts in general faced a major test when, in 2014, the city of Flint, Michigan, switched its drinking water source in an effort to save money. Inadequate testing and treatment, coupled with negligent decision-making from state and local officials, resulted in lead contamination and, consequently, a series of health and water quality issues (Denchak, 2025). The Flint water crisis was a moment of major shock and awakening for the Great Lakes environmental, policy, and funding community. Millions of dollars were invested in cleaning up the Great Lakes, yet there is a "majority African-American [city that is] part of the Great Lakes region, and they don't have access to clean water…That was a huge wake-up call to the entire region that there was this focus on frogs and fish and restoring habitat and maybe [these efforts were] overlooking people" (Eder, 2025). Therefore, various groups and leaders recognized that ecological restoration within the framework of the GLRI was insufficient to ensure that the Great Lakes are protected in all the ways people and communities rely on them.

The Flint water crisis exposed a misalignment between the GLRI's consensus definition of Great Lakes goals and a broader, more inclusive set of goals, including access to safe, clean drinking water for everyone. Ecological restoration, while still benefiting human communities, does not address systemic environmental issues, like clean drinking water access, which are "having massive impacts on people and communities" (Brammeier, 2025). Consequently, leaders and organizations in the region have evolved over the last ten years to include inclusive goals. For example, the HOW Coalition shifted its focus from only the GLRI to a more inclusive, equitable set of goals. To "[ensure] that federal Great Lakes restoration investments benefit all of the people and communities in the region," the Coalition added equity to its organizational values and created the Equity, Advisory, and Action Committee (EAAC) in 2019 (Walker, 2019). The EAAC "is an equity action component of the [HOW Coalition] to make sure that persons of color [have] a safe space to be able to share some of their recommendations and ideas and ways that they [feel] like they could support advancing the work of the [GLRI]... because for many of [these individuals] that had been the vehicle of how [they] got introduced to this information" (Lewis Patrick, 2025). Through the EAAC, people from rural communities have had the opportunity to talk to urban communities and vice versa. The EAAC hosted panels where they "brought in anglers and persons that are part of more environmental and conservation groups to have cross-pollinating conversations so that [they're] building power together and really appreciating what each other is bringing to the table" (Lewis Patrick, 2025). The actions done by the Coalition and the EAAC were encouraged, complemented, and funded by Great Lakes foundations, especially through the Great Lakes Funders (Cisar, 2025).

Overall, grassroots and grasstops advocacy ensured continued support for the GLRI. Organizing the "Great Lakes community to advocate for full federal funding for the GLRI," as well as generating sign-on letters, sponsoring fly-ins, and delivering written testimony by the HOW Coalition, was, and continues to be, critical to maintaining funding (HOW, 2012; HOW, 2013; HOW, 2014). The HOW Coalition is critical in showing decision-makers "what the successes [are] with [the] money being spent" (Brammeier, 2025). Additionally, during Great Lakes Day each year, the GLC, in collaboration with the GLFC, the Cities Initiative, CORA, and other Great Lakes organizations, releases a one-pager outlining the top priorities for protecting and strengthening the Great Lakes ecosystem and economy. The one-pager is used by advocates when speaking with elected officials and demonstrates the region's unity. Since 2010, maintaining support and funding for the GLRI has been a top priority (GLC, 2010; GLC, 2025).

"There's power in working together."

Other Restoration Efforts

(Quote: Hilary Falk, 2025)

Learning from Others

Studying other large-scale restoration initiatives, such as those in the Chesapeake Bay and the Everglades, provides valuable insights for strengthening the GLRI. These efforts share common elements, including multi-level governance, dedicated funding mechanisms, science-driven management, and active community engagement, making them useful models for understanding what drives success in large-scale restoration efforts. Importantly, these similarities did not arise by accident, as connections existed between the programs, particularly at the federal level, where designated "czars" helped coordinate efforts across agencies and states. For example, J. Charles Fox was named the Chesapeake Bay restoration czar in 2009, providing leadership and strategic oversight, while Cameron Davis was named the Great Lakes czar in the early days of the Obama administration to oversee the implementation of the GLRI (Flesher, 2009). A comparable role was played by Shannon Estenoz, often called the 'czarina' of Everglades restoration, who helped coordinate Everglades restoration efforts in a similar capacity (M. Gaden, personal communication, March 27, 2026). As Davis reflects, "I remember getting some of us together to share stories, and the issues were really so different in many ways, not different in others, that I think the big thing we tried to learn from each other was governance…we did share some kind of best practices that way" (Davis, 2025).

The Chesapeake Bay restoration, for example, has made significant progress in reducing nutrient pollution and improving water quality through regulatory frameworks and collaborative watershed management strategies. Similarly, the Everglades restoration has demonstrated the importance of hydrological restoration techniques and adaptive management to address complex environmental challenges. Advocacy has also played a critical role in both cases, with advocacy groups like the Choose Clean Water Coalition and conservation organizations like the Chesapeake Bay Foundation in the Chesapeake, and the Everglades Coalition and the Everglades Foundation in Florida, have been instrumental in mobilizing public effort and strengthening political will. By examining the strategies, successes, and ongoing obstacles of these initiatives, such as shared governance structures, funding limitations and mechanisms, enforcement difficulties, and climate resilience concerns, the GLRI can refine its own approach and build on proven methods to accelerate progress. Learning from these restoration programs can help ensure that the Great Lakes remain a thriving, healthy ecosystem for years to come.

The Chesapeake Bay Restoration Program

The Chesapeake Bay is the largest estuary in the United States. It provides critical habitat for diverse fish and wildlife species, supports a multi-billion-dollar seafood industry, and offers many recreational opportunities (Zhang et al., 2023; Carey, 2021). Despite its ecological and economic significance, the Bay has suffered from decades of pollution (Zhang et al., 2023). In response, the Chesapeake Bay Restoration Program has set environmental goals to improve the Bay's water quality and ecosystem. This program was established in 1983 through the Chesapeake Bay Agreement, a partnership among Maryland, Virginia, Pennsylvania, the District of Columbia, the U.S. EPA, and the Chesapeake Bay Commission. This agreement marked the first formal, multi-state effort to restore the Bay, setting the stage for coordinated pollution reduction and habitat protection initiatives (Chesapeake Bay Program, n.d.). This effort has relied on strong federal and state coordination, described by Hilary Falk, President and CEO of the Chesapeake Bay Foundation, as "cooperative federalism, where you have the states and the federal government working together around a common goal" (Falk, 2025). This effort was able to achieve positive change, such as the decrease in long-term pollution trends, largely because state and federal partners were aligned and focused on goals that were attainable, clear, and actionable (Wooley, 2025; Grumbles, 2025). Advocacy also played a key role in the success of Chesapeake Bay restoration efforts, as "without strong advocates and especially strong advocates that have a very personal connection to these places”, the Bay would not have seen the same level of sustained attention, funding, and political commitment necessary to drive meaningful restoration outcomes (Falk, 2025). High-level political support has also been essential, as noted by Jeff Corbin, former Senior Advisor to the EPA Administrator for the Chesapeake Bay, that “the Chesapeake has had political support from the very top, from the very beginning… everything we were doing had to go through the very top level. So not only that they knew what we were doing, but that we had their support” (Corbin, 2025). This support, much like that seen in the Great Lakes, stemmed from a shared recognition that the Bay was significant, in need of help, and deserved dedicated attention (Falk, 2025).

As a regulatory program, a key strategy for achieving some of its goals has been the adoption of the Total Maximum Daily Load (TMDL) approach, which provides a regulatory framework for allocating and reducing pollutant loads from multiple sources (ELR Staff, 2024). The TMDL serves as the foundation for an array of pollution control measures implemented through state-level plans, best management practices (BMPs), and funding mechanisms to support compliance and achieve pollutant reductions (Noe et al., 2024). The Chesapeake Bay TMDL framework sets pollution limits for nitrogen, phosphorus, and sediment while using deadlines and interim goals to reach the initiative’s targets (Mueller, 2024; U.S. EPA, 2024g). This accountability framework is a key component of this initiative’s success, which mandates watershed implementation plans and conducts progress check-ins over different phases and timelines. Federal and state agencies collaborate with many different stakeholders, notably the agricultural sector, to implement BMPs. These strategies, combined with scientific monitoring, play a crucial role in evaluating progress and adjusting policies and goals based on the observed outcomes (Scientific & Technical Advisory Committee, 2023). Beyond regulatory mechanisms, social and cultural dynamics significantly influence the success of the Chesapeake Bay restoration, underscoring the need for stronger integration of social sciences into restoration efforts. Stakeholders such as farmers, watermen, local communities, and Indigenous communities hold diverse cultural values and perspectives regarding land and water use, which shape their engagement with and responses to restoration efforts (Paolisso et al., 2011).

Like the GLRI, Chesapeake Bay restoration would not be possible without strong advocacy groups and networks that elevate public awareness, push for action, and ensure that decision-makers prioritize restoration (Falk, 2025). The Choose Clean Water Coalition, modeled after the HOW Coalition in the Great Lakes, now unites over 300 groups to advocate for clean water and coordinate efforts across the watershed (Falk, 2025; Choose Clean Water, n.d.). Like the HOW Coalition, the Choose Clean Water Coalition was launched with significant support from private foundations, and its governance, funding, staffing, and overall structure drew heavily on the lessons learned from the Great Lakes region (Falk, 2025; Van Putten, 2026). Alongside it, the Chesapeake Bay Foundation serves as a leading voice for science-based policy, restoration of natural systems, and watchdog efforts that ensure progress (Chesapeake Bay Foundation, 2024). Together, these groups show the importance of advocacy, as “it’s critical to have advocates speaking up for these places so that the states and federal government can put the protections in place to make sure that we can have clean water for citizens of this country” (Falk, 2025).

The Comprehensive Everglades Restoration Plan

The Everglades is one of the most unique and ecologically significant wetlands in the world, providing habitat for many diverse species, supporting Florida’s economy, and serving as the homeland of multiple Indigenous populations (National Academies of Sciences, Engineering, and Medicine, 2024). However, extensive human intervention has dramatically altered the hydrology of the Everglades, leading to habitat loss, water quality degradation, and disruptions in ecosystems. Recognizing the need for large-scale intervention, the Comprehensive Everglades Restoration Plan (CERP) was authorized by Congress in

2000. The plan seeks to restore natural water flow, improve water quality, and sustain the ecological and economic benefits of the Everglades (Steinman & Kindervater, 2022).

CERP is a multi-decade initiative involving federal, state, and Tribal governments, as well as additional stakeholders. Nature-based solutions, such as wetland restoration and reestablishment of natural water flow patterns, have been a central component of the effort (Paudel et al., 2020). Importantly, monitoring and adaptive management are increasingly being refined as essential components of restoration implementation, ensuring that projects can adjust to new information and changing conditions (Steinman, 2025). CERP has achieved several successes since its implementation. One of the most notable achievements is the hydrological restoration projects, which have increased water flow to key ecosystems, leading to habitat improvements (South Florida Ecosystem Restoration Task Force, 2022; Paudel et al., 2020).

Social and cultural factors play a crucial role in Everglades restoration. Indigenous groups have long been marginalized in decision-making processes, despite their deep cultural and historical connections to the Everglades. Additionally, local communities have expressed concerns about how restoration policies affect their livelihoods, such as hunting and fishing practices (Garvoille, 2013). To address these concerns, CERP is working to go beyond ecological metrics and recognize that the Everglades is not just an ecosystem but a living cultural and social landscape where human history, identity, and environmental stewardship are deeply intertwined (Garvoille, 2013; Kranzer, 2003).

Economic incentives have also played an important role in building support for restoration in the Everglades. Shannon Estenoz, Chief Policy Officer at the Everglades Foundation, emphasized that the health of the ecosystem and the economy are deeply intertwined, stating, “as goes the Everglades, so goes Florida; destroy the Everglades, you destroy Florida” (Estenoz, 2025). Because so many sectors, from agriculture and fisheries to real estate and tourism, depend on a healthy Everglades, restoration has gained broad political traction. This shared recognition across industries and communities has helped sustain a culture of bipartisanship, captured in the view that “the Everglades bipartisanship is something of a religion. If you work on the Everglades, then you have to commit yourself to bipartisanship” (Estenoz, 2025). Together, this blend of ecological, cultural, economic, and political motivations has kept Everglades restoration viable in the long term.

Like other large-scale restoration efforts, the Everglades has also relied on strong advocacy to push for action and keep decision-makers focused on restoration goals. The Everglades Coalition, a diverse alliance of nearly 60 local, state, and national organizations, has played a central role in Everglades restoration work. The coalition works in the public space to communicate the collective priorities of the community for the greater Everglades ecosystem (Everglades Coalition, n.d.). By amplifying local voices and coordinating across sectors, the coalition has helped build the political momentum needed to sustain one of the most ambitious ecosystem restoration efforts in the world. Complementing this work, the Everglades Foundation advances restoration through a strategic, science-driven advocacy approach. Additionally, the Everglades Foundation’s role differs from funder collaboratives seen in the Great Lakes and Chesapeake Bay, where funding was coordinated in alignment with their respective advocacy coalition’s priorities. In the Everglades, the Foundation funds specific groups directly, which may or may not align with their collective agenda (Van Putten, 2025). This distinction highlights a key difference in how advocacy and funding interact across these restoration efforts. The Everglades Foundation prioritizes moving critical restoration projects forward by collaborating with diverse stakeholders to build consensus, informing decision-makers at the local, state, and federal levels, and monitoring restoration implementation. Beyond policy, the Everglades Foundation also engages and educates the public by connecting experts with communities, participating in local initiatives, and sharing stories of the tangible benefits of restoration work (Everglades Foundation, n.d.-a). Together, the Everglades Coalition and the Everglades Foundation illustrate how advocacy efforts in the Everglades keep restoration work visible and viable.

Key Lessons and Applications for the Great Lakes Restoration Initiative

The Chesapeake Bay and Everglades restoration efforts provide valuable lessons for the GLRI. However, it is important to recognize that these regions differ significantly in scale, complexity, and environmental problems. As such, while these comparisons are instructive, each effort carries nuances and their own successes and challenges that must be understood within their specific context. Still, there are similarities, with all three initiatives emphasizing multi-stakeholder collaboration, dedicated funding, and science-driven management. Their long-term success also reflects the strength of advocacy, consistent political support, and the ability to connect ecological restoration with economic well-being. In both the Chesapeake Bay and Everglades, advocacy networks have been critical in sustaining momentum and ensuring restoration remains a public and political priority (Falk, 2025; The Everglades Foundation, 2023). Looking across other restoration efforts only reinforces how indispensable advocacy is, not just for the Great Lakes, but for sustaining watershed restoration efforts across the country and around the world.

The Everglades restoration efforts, in particular, illustrate how linking restoration goals to economic prosperity can foster bipartisan and sustained commitment. The recognition that a healthy ecosystem underpins local economies, from tourism and recreation to agriculture and real estate, has helped establish what can be referred to as the blue economy, where environmental health and economic vitality are mutually reinforcing (Austin, 2025). This same connection is evident in the Great Lakes region, where thriving fisheries, tourism, shipping, local businesses, and coastal communities all depend on clean and abundant water resources. A healthy Great Lakes ecosystem supports a healthy economy, underscoring that restoration is not only an environmental investment but also an economic one.

In the Great Lakes, addressing persistent challenges such as nutrient pollution and habitat degradation will require stronger accountability and coordination mechanisms across the region. While the Chesapeake Bay TMDL has been instrumental in reducing nutrient pollution, enforcement remains a challenge, as many agricultural practices have not fully adhered to pollution limits due to economic and political pressures (Mueller, 2024). Although the GLRI supports TMDL implementation in certain waterbodies, it lacks a formal enforcement mechanism as it is a non-regulatory initiative unless specific effluent limitations are incorporated into CWA permits. Strengthening this component and learning from the Chesapeake Bay's enforcement challenges could improve the GLRI's ability to combat nutrient pollution, particularly in addressing HABs (Jurjonas et al., 2022; Great Lakes Advisory Board, 2022).

Effective accountability and adaptive management also depend on incorporating the knowledge and priorities of those who are most closely connected to the ecosystem. Lessons from the Everglades highlight the importance of integrating Indigenous perspectives and TEK into restoration planning (Garvoille, 2013). Therefore, ensuring meaningful engagement with Indigenous and local communities that depend on the Great Lakes for their cultural, economic, and social well-being should remain a priority for the GLRI (Steinman & Kindervater, 2022).

"It doesn't happen inevitably or by accident. It happens by purpose."

Discussion

(Quote: Alan Steinman, 2025)

The success of the GLRI did not emerge from a single policy decision, advocacy strategy, or moment in time, but rather from a convergence of cultural, political, and institutional forces that made large-scale restoration possible when advocated for in a strategic and coordinated way. Understanding how these factors came together offers insight into what made the GLRI both possible and successful, and what elements may be transferable to other environmental efforts across the globe.

Mobilizing Cultural & Regional Identity

The success of the GLRI is inseparable from the deep cultural and regional identity shared by those who live, work, and play along the Great Lakes. The lakes are not merely geographic features; they are the backbone of a regional identity that transcends boundaries, political affiliation, and generations. "The Great Lakes are like a religion," reflecting a dominant sentiment about the intensity of connection felt by residents across the basin (Cangelosi, 2025). This profound attachment is central to understanding why restoration efforts in the region have not only gained traction but also achieved remarkable coordination and lasting impact.

The lakes define the way of life in the region. "The Great Lakes [are] where we live, work, and play. [They're] core to the culture and the economy of the Midwest and the Great Lakes states" (Learner, 2025). This cultural importance translates directly into widespread public support for the restoration of the Great Lakes. People feel a personal stake in the lakes' health, whether for recreation, livelihoods, or simply the preservation of regional heritage. In this sense, "the Great Lakes are a uniter," bringing together communities that might otherwise be divided by political, economic, or social lines (Jensen, 2025; Shriberg, n.d.). Residents consistently identify the Great Lakes as a defining feature of their collective identity, associating them with cherished memories of family camping trips, fishing, swimming, and other recreational activities that form the fabric of regional life (Austin, 2025). Unlike other large restoration efforts, such as the Chesapeake Bay, where many residents remain unaware of their watershed affiliation, Great Lakes residents consistently identify with the lakes and care about their protection (Buchsbaum, 2025).

This sense of shared identity is rooted in part in Indigenous beliefs and relationships with land and water in a way that is spiritual, ecological, and central to health and well-being. From an Indigenous perspective, restoration efforts fulfill sacred duties, enabling humans to exercise the capacity to protect rather than harm the Earth and all other beings within it (Ettawageshik, 2025). The GLRI, in assisting these responsibilities, becomes a vehicle through which cultural values, stewardship, and environmental restoration are linked. Across the region, these deep-rooted connections help ensure that restoration is not viewed merely as a government program, but as an effort in which everyone has a stake.

Political support and funding for the GLRI are further reinforced by this shared identity. Residents, policymakers, and local organizations, regardless of political affiliations, all recognize the lakes as a central regional asset, as "they feel deeply connected to it…what do they care about most? It's our Great Lakes. It's a defining identity element for people in the region…They like the idea of having the Great Lakes be clean, accessible, being able to enjoy them, see them, walk along, and swim in them" (Austin, 2025). This connection simplifies the task of advocacy since unlike some other environmental issues, there is minimal opposition to the idea of protecting the Great Lakes and advocates "don't have to spend as much time talking about why people should care…[they] can kind of build on something that's already there…Nobody is anti-Great Lakes" (Haven, 2025).

This unique case of cultural identity collaboration has created a restoration environment that is resilient and adaptive. Residents, local governments, Tribes, and advocacy organizations all recognize that "the Great Lakes are more than a place to live and work. They're more… than drinking water…They're part of the identity of the region…And so they're central to the way of life of so many people" (Buchsbaum, 2025). This widespread sense of ownership fosters ongoing stewardship, as communities remain committed to protecting the lakes for future generations, not just for immediate economic or ecological gains. Furthermore, the emotional and cultural dimensions of restoration cannot be underestimated, as "the restoration of the Great Lakes is the restoration of the human soul" (J. Allan, 2025). This perspective emphasizes that the GLRI's work transcends environmental metrics, reflecting the integration of social, cultural, and spiritual values. By recognizing and leveraging this unique cultural and regional identity, the GLRI has transformed restoration from a technical goal into a shared, region-wide mission, ensuring that the Great Lakes remain a unifying and cherished resource for generations to come.

While the depth of cultural and regional attachment to the Great Lakes may be uniquely strong, the broader dynamic is not entirely unique. Many regions possess some form of shared identity around natural resources, landscapes, or ways of life tied to the environment, even if it is less unifying or widely recognized than the identity surrounding the Great Lakes region. The GLRI demonstrates that when this identity is acknowledged and intentionally mobilized, it can serve as a powerful foundation for building public support, aligning grassroots and grasstops endeavors, and sustaining long-term restoration efforts. While the Great Lakes' exact cultural context and importance may not be replicable, other regions can identify, strengthen, and leverage their own place-based identities to support environmental efforts.

Laying Legislative & Federal Groundwork

By 2002, a majority of the 'fighting' about historic issues was over. To restore the Great Lakes, pollution from untreated industrial waste and sewage needed to be regulated. Precursors to the GLRI, such as the CWA and the GLWQA in 1972, were important to "[stop] the bleeding, [stop] the continuation of more contamination of the Great Lakes" (Ullrich, 2025). These efforts were further advanced with the GLI and the GLCPA, which filled in the remaining gaps in pollution regulation (U.S. EPA, 1995). Before the region had a unified advocacy front, the outreach and mobilization from the GLI demonstrated that the region could come together to protect the Great Lakes and prompt the federal government to take action. Those strategies and efforts would later be used and expanded on by the HOW Coalition (Van Putten, 2026). "With all those things in place, once the responsibility was clear…, once the basic benchmarks were established that would apply across the Great Lakes, then the collaborative work" of cleaning up legacy pollutants, restoring the Great Lakes, and obtaining funding could go forward (Van Putten, 2026).

Having water quality standards and regulations set prior to 2003 "proved to Washington…that [the] region could be trusted with big slugs of money [and] to do the right thing with it" (Davis, 2025). This trust materialized through the Legacy Act, which allocated federal dollars to clean up AOCs for the first time (Ullrich, 2025). However, advocates "didn't really realize the scale and scope [of] what it would take to do these immense cleanups" until the work actually started (Jensen, 2025). "There were a lot of invested people, both at the federal, state, and local level, who really wanted to see this work done," but the funding provided under the Legacy Act was not enough (Jensen, 2025). Still, the Legacy Act was a major win for the region, but its funding was only "a drop in the bucket of what was needed" (Grubb, 2026). While AOCs were driving early restoration efforts and were a major focus of the GLRC and the GLRI, they were only a fraction of the problem. Previous bills dealing with additional environmental issues, such as invasive species, allowed the region to "collectively…[make] progress, but it was far too slow" (Naftzger & Johnson, 2025). Overall, more substantial federal investment was needed.

The importance of laying legislative and federal groundwork is not unique to the Great Lakes. Before a region can secure federal funding and begin restoration efforts, the toughest obstacles must be removed first. In the case of the Great Lakes, this meant reducing certain forms of pollution and environmental degradation. With these historic issues out of the way, a path to coordinated and effective restoration can be forged. Restoration itself cannot be the big fight; it represents the next phase, where established standards and regulations enable meaningful progress.

Convening & Planning

The GSGP's Priorities Project in 2001 and the GLRC Strategy in 2005 provided the region with a framework, blueprint, and dollar estimates for restoring and protecting the Great Lakes, which the Obama administration would later use as an outline for the GLRI. Despite having to negotiate with eight Governors and getting feedback from other governing bodies, NGOs, and the broader Great Lakes community, the GSGP "got to the nine [priorities] pretty quickly, and they stayed in place" (Jones, 2025). With the shared priorities, it was easier for the region to go to Congress with a unified target. Additionally, the diversity of interests and the large number of entities involved gave the region political power and leverage. This was shown when "the makeup of the Great Lakes governors completely flipped [during the project], and the priorities stayed the same" (Jones, 2025). Having "the consistent support for the effort really made a difference" in showing Congress that the region was unified in what the Great Lakes needed (Jones, 2025). "When members of Congress can look up and see everybody is in support of this, it's a lot easier for them to vote for it" (Jones, 2025).

Mike Leavitt, President Bush's EPA administrator and chief architect of the GLRC, observed how three factors converged in 2004 to move restoration efforts forward: a "common pain," a "convenor of stature," and a view that the GLRC was a "northbound train" (Leavitt, 2025c). The ease of completing the GSGP's Priorities Project and years of asking for federal funding were evidence that "there was enough pain to motivate people to work together because nobody could solve it on their own" (Leavitt, 2025b). In order for the Great Lakes community to view the GLRC as a "northbound train," people needed to "think something [was] going to happen here and [they] ought to be on board" (Leavitt, 2025b). Even if they were not in total agreement, they did not want to miss out on the opportunity to be part of the process and have a seat at the table (Leavitt, 2025b). Ultimately, people saw that the GLRC could be a potential opportunity for federal funding for Great Lakes restoration and wanted to participate (Brandt, 2025).

The "convenor of stature," whether an organization or a single individual, had to be important enough to capture others' attention, have the power to be helpful, and create a conversation and process that people wanted to be part of (Leavitt, 2025b). The GLRC was "done in an unconstrained way and with this idea of bringing the actual leaders at the highest echelons of municipal governments, state governments, and the federal government there to say that, 'Yes, we agree with this'" (Gulezian, 2025). "Showing that you had the head of agencies, the head of Tribes, and all the governors there supporting this" was important because only having support within a particular agency does not have as much impact (Brandt, 2025). Therefore, "when you have the heads of these folks seeing such high level[s] of support in the community as well as across the aisle and across the governors…[it] really gives them that motivation to support this effort" (Brandt, 2025).

Leavitt, being the EPA Administrator in 2004, was one of those convenors, and "a lot of attention was given by his office to creating that blueprint for Regional Collaboration and the restoration needs" (Mulinex, 2025). "The high visibility of having an EPA administrator…running around the country, leading [the GLRC], spending a whole lot of time helping to plan it, and then attracting all the governors and all these high-level people" was critical to the success of the GLRC (Cowgill, 2025). Ultimately, Leavitt was willing to conduct the region with his time and effort, and his goals aligned politically with the Bush administration (Shriberg, 2025). Combining the common pain felt in the Great Lakes region and "a convener with enough stature to bring it together" was "the only way something like [the GLRC] could come together" (Leavitt, 2025b).

Some advocates were worried that the GLRC would be another useless effort, but "it's always good to have [a] list that's scientifically legitimate and also has buy-in from partners so that when the political motivations and priorities and financial resources shift or come together, you've got some hopefully useful priority areas and strategies" (Grumbles, 2025). Political shifts cannot be predicted, and no one in the Great Lakes region could have expected that a Great Lakes senator would become president in the following years. Developing the Strategy "before [the region] had two nickels to rub together and identifying threats and saying, 'Look, we can do something, we want to do something,'…All those opportunities [to] go out and talk about that were critical to get the support we got when we finally got the Obama administration and GLRI dollars" (Wooley, 2025). Having a plan ready and building support were key; then it was ready for the right moment, which was when Obama came into office. Without the groundwork laid by the precursors, particularly the GLRC conducting priorities, the region would not have achieved harmony, and the path to the GLRI would have played out differently or not at all.

For the Great Lakes region, the importance of having a convenor of authority who was capable and willing to leverage political capital cannot be overstated. The convenor of authority effectively brought together Great Lakes advocates at all levels through the GLRC and unified their efforts into a cohesive plan capable of gaining federal support. Without this kind of unification, exemplified by a clear and effective plan for the use of federal dollars, Congress is unlikely to appropriate funds. By drawing inspiration from the Great Lakes, other regions can elevate their restoration efforts through the power of convening and planning.

Modeling Success from Other Initiatives

The HOW Coalition both informed and was informed by grassroots advocacy in the Chesapeake Bay and the Everglades, emulating successful elements of each initiative and, in turn, relaying its own strategies for other regions to replicate. Advocates between initiatives could "go to the others, build bridges, [and] find commonalities" through informal information-sharing networks created by national organizations like the NWF (Van Putten, 2026). Stories derived from these networks of federally funded restoration projects in the Everglades and aggressive nutrient reduction goals in the Chesapeake Bay helped "crystallize" the vision of what the Great Lakes could achieve with federal restoration funding (Passmore, 2025). Essentially, cross-regional partnerships helped Great Lakes advocates think about "some of the common lessons that [could] be learned from one part of the country that would be useful in [the Great Lakes]" (Van Putten, 2025).

Much of what Great Lakes advocates learned from other restoration initiatives has been translated into the advocacy structure of the HOW Coalition and the coordination between stakeholders involved in restoration efforts. Similar to the Great Lakes, Chesapeake Bay and the Everglades, "ha[d] multiple legal authorities, multiple budgets, [and] multiple federal versus state competing interests" that posed a significant challenge to large-scale restoration efforts (Adamo, 2025). Each region's responses to these challenges proved to be very informative for Great Lakes advocates. For instance, in the Everglades, challenges related to private funding coordination pushed HOW Coalition leadership to prioritize funder coordination in addition to nonprofit coordination (Van Putten, 2004). Coordinated funder investment was an important asset to the HOW Coalition, and "a very smart use of that investment was to figure out how a relatively small philanthropic investment could…pull a much bigger and sustained government investment" (Cisar, 2025). The HOW Coalition's members frame their activities to meet the needs of funders, and Great Lakes foundations coordinated their funds to support members' high-level restoration initiatives that provided a clear path to obtain federal funding (Read, 2025). The HOW Coalition also took advantage of opportunities to build business coalitions that the Everglades and Chesapeake Bay did not have, which arguably strengthened its power and influence (Van Putten, 2025). Overall, the challenges and achievements of other restoration initiatives provided Great Lakes advocates with a solid foundation for grassroots advocacy coordination that they could further develop to more effectively campaign for federal restoration funding.

Lessons derived from cross-regional collaboration would also prove to be important at the federal level. Both the Everglades and Chesapeake Bay had strong political support that Great Lakes advocates sought to replicate with the region's representatives. At the congressional level, "if somebody's trying to go after the Everglades, you see the Florida members in the House and Senate that step up [and] pay attention"

(Stabenow, 2026). Similarly, "Chesapeake had an advantage because there were so many…politicians [and] staff that knew the Bay…There was this connection in Washington with not only the Virginia and Maryland congressional delegation, but other congressional members throughout the country that love Chesapeake Bay" (Wooley, 2025). This same influence materialized for the Great Lakes through the GLTF, which mirrors the congressional unity and strength seen in the Everglades and Chesapeake Bay. In turn, federal leadership used the political clout of the Everglades and Chesapeake Bay to inform early Great Lakes restoration efforts. As interest in Great Lakes restoration increased under the Bush administration, advocates who participated in Everglades restoration efforts testified to Congress about progress made and what strategies could be incorporated into a Great Lakes restoration plan (Steinman, 2025). Ultimately, the political "backdrop" of the Everglades at the presidential level bolstered the argument for Great Lakes restoration funding (Mulinex, 2025).

Making meaningful steps towards restoration means learning by example and taking action with intention. Knowledge sharing between the Great Lakes and other restoration initiatives equipped Great Lakes advocates with valuable insights that laid the groundwork for the HOW Coalition, its strong network of allies, and the basis of Great Lakes restoration more broadly. Using the common lessons learned from the Everglades and the Chesapeake Bay, Great Lakes advocates specifically tailored the HOW Coalition to the region's unique political environment and coordinated the Great Lakes funding community to uplift Great Lakes restoration as a national priority. Thus, building a restoration initiative that is socially, politically, and economically advantageous requires both foresight and the ability to adapt advocacy strategies to build a strong case for restoration.

Building a Broad & Diverse Coalition of Allies

Support for Great Lakes restoration brought together a diverse group of organizations and agencies, which helped knit the grassroots and the grasstops restoration movements together and bring the GLRI to fruition. Within this network, "it was not simply one group or one voice. It was governors, mayors, the NGO community, [and] Tribes. It was relentless positive messaging…done by many different people over a long period of time in different venues" (Naftzger and Johnson, 2025). The united front provided by the HOW Coalition amplified the importance of Great Lakes restoration even as federal support waned. After President Bush appointed Leavitt to become Secretary of the Department of Health and Human Services, there was a lack of interest in the GLRC in the White House (Gulezian, 2025). Responsibility for ensuring that the Strategy was completed fell to the "representatives of substance" and "committed leaders," which happened to be the HOW Coalition (Leavitt, 2025b; Van Putten, 2026). In fact, "at several points, without Coalition members' active intervention, the [GLRC] would have disintegrated, leaving the region without a comprehensive plan or the unity needed to put it into action" (HOW, 2005).

The HOW Coalition went beyond NGO and nonprofit coordination to ally with business advocates, foundations, Tribal representatives, elected officials, and local, state, and regional agencies, and pursue "more opportunit[ies] to build bridges" (Van Putten, 2025). An expanded, interdisciplinary network of restoration allies could focus on increasing federal funding for the GLRI, which they all agreed on, because most of the key (and divisive) regulatory issues had been addressed in the GLI and the GLCPA (Van Putten, 2025). Having organizations like the CGLI be a part of this network allowed grassroots advocates to have meaningful conversations with business leaders who were "really committed to the Great Lakes and committed [to] sustainability" (Buckner, 2025). Similarly, the HOW Coalition partnered with state and regional organizations like the GSGP and the Cities Initiative, among many others, to utilize their political clout and "bring in [local and state] perspectives to the [restoration] discussion" (Miller, 2025). This also extended to Tribal nations, which were included in this effort through the GLIFWC, which acted as a Tribal liaison (Naftzger and Johnson, 2025). The "matrix of government [leaders and] advocates" involved and partnered with the HOW Coalition formed a united front to Congress in the fight for Great Lakes restoration (Adamo, 2025; Jensen, 2025). Through sustained organizing, stakeholder engagement, public outreach, and strategic communication, advocacy organizations alongside federal, state, and local agencies have worked to align priorities across the basin. Indeed, when advocating for policy solutions, there is strength in numbers.

With the help of the HOW Coalition, scientists, and other Tribal, regional, and federal advocates, the region eventually came to the same understanding, “which happened to be a $20 billion plan for Great Lakes restoration…[The GLRC] actually had cost figures, and ironically, if you add them all up, the total cost was $20 billion, which is the same as the [Healing Our Waters agenda]” (Buchsbaum, 2025). Armed with a unified restoration plan leading up to the 2008 election, the HOW Coalition and many others routinely brought advocates to Washington, D.C., to “keep people focused” on Great Lakes restoration and maintain “strong bipartisan support for the idea of needing to invest more in the Great Lakes” (Lord, 2025). Engaging both new and familiar Great Lakes congressional allies, particularly Republicans, proved to be “instrumental to the success of the [GLRI]” (Eder, 2025). Congressmembers like Rahm Emanuel and Vern Ehlers, who “understood the political imperative” of supporting Great Lakes restoration, became leading voices and important HOW Coalition allies in the congressional effort to attain federal restoration funds (Reiffer, 2025). As these allies became better positioned within the first Obama administration, Great Lakes restoration became a stronger political priority, which was instrumental in the creation of the GLRI.

The GLRI’s large, bipartisan network of support, coupled with consistent messaging on the program’s benefits, has contributed to its endurance. Threats from the Trump administration in 2017 to cut GLRI funding “galvanized everybody. All of a sudden, the funders…put more money into the nonprofits to help out. The congresspeople who saw the benefits in their district, all of a sudden said, ‘Wait a second, we can’t let them get away with this’” (Shriberg, 2025). At the same time, the GLRI’s persistence was not automatic. “In the end, the way these kinds of things happen is because somebody decides to be a champion and make it happen,” and the Great Lakes benefitted from champions at every level of governance and across a wide range of sectors (Stabenow, 2025). Rather than relying on a single political figure or institution, the GLRI was sustained by a distributed network of leadership, elected officials, agency staff, advocates, community leaders, and many more, each willing to prioritize the Great Lakes and defend the GLRI when it mattered most. This durability was rooted in the fact that leadership in the region was embedded “around a resource, not around an individual” (Palagyi, 2025). Largely thanks to this “magnificent network”, the GLRI was able to withstand the test of time, as new champions continuously emerged to carry Great Lakes restoration efforts forward (Mehan, 2025).

The impact of a restoration initiative depends on its network of support, not just potential socioeconomic or environmental benefits. Building a strong, diverse base of support and reaching consensus despite potential social or political differences reinforces the importance of restoration to federal leadership by concentrating and strengthening a region’s restoration message. Consensus can be reached through appeals to different stakeholder motivations, including economic incentives, political capital, or place-based reverence. Appealing politically is particularly important, as congressional allies can elevate a region’s restoration needs to a federal forum. Bipartisan support further contributes to an initiative’s endurance by protecting it from political threats and potential funding cuts. Ultimately, a broad, politically diverse coalition of support ensures that restoration initiatives aren’t just isolated successes, but enduring campaigns.

Communicating Clear & Compelling Messages

Consistent communication has been an important pillar of the GLRI’s longevity. These efforts have been carried out by many Great Lakes agencies and organizations, most notably the HOW Coalition. It is the Coalition’s leading voice that has ensured these agencies and organizations project the same message. The Coalition’s consistent voice is built upon “regular polling to get [a] great perception of the Great Lakes [community],” refining restoration messaging to account for the region’s changing needs (Rubin, 2025).

In effect, this “research-tested messag[ing]” allows Great Lakes restoration advocates to “sing from the same hymnal…We’re all saying the same things or singing the same thing [and] we have messages that are aligned and not at cross purposes” (Lubetkin, 2025). This means that states, local governments, Tribes, NGOs, and industries deliver a “coordinated, consistent kind of beating of the drum of ‘we need [restoration]’” to federal leaders (Jensen, 2025).

The persistent ‘beating of the drum’ supported scientific and economic impact studies released prior to the GLRI and elevated their message to the federal level. For instance, the release of the “Prescription for Great Lakes Ecosystem Protection and Restoration” report in 2005, which described the Great Lakes as a patient in need of serious care to live, “injected both an urgency and scientific seriousness” into the HOW Coalition’s restoration campaign that underscored the GLRC (Shriberg, 2025). Following the GLRC’s conclusion, the “Healthy Waters, Strong Economy” economic impact report mapped potential economic returns on restoration investments and flipped the Great Lakes restoration narrative from a “nice thing to do for the environment” into significant economic development opportunities for the Great Lakes and the nation (Austin, 2025; Davis, 2025). This study was further complemented by the Cities Initiative’s “Local Investment in the Great Lakes and St. Lawrence” study, which assessed the total restoration funding commitments of state and local governments in the Great Lakes (Ullrich, 2025). Both economic studies also reinforced the idea that Great Lakes restoration would “create jobs in a way that...was more robust than most of the [U.S.] job creation programs,” which was particularly important given the backdrop of the Great Recession (Buchsbaum, 2025). Overall, emphasizing both the environmental and economic benefits of the Great Lakes restoration allowed the HOW Coalition to appeal to a broad range of stakeholders.

Unified and consistent messaging has helped the Great Lakes restoration message really ‘sing’ for federal leadership amid political uncertainty, ensuring the GLRI remains funded. This federal bipartisan support rests, in part, on “[the HOW Coalition’s] continued and consistent messaging [and] polling messaging to [HOW] member organizations” (Rubin, 2025). New economic impact studies, like the “Assessing the Investment: The Economic Impact of the Great Lakes Restoration Initiative” study (which determined that for every $1 invested through the GLRI, the region yields $3.35 in return) uphold the region’s message that AOC cleanup, invasive species control, and other restoration activities drive positive economic development in the Great Lakes and the nation (UM RSQE, 2018; Eder, 2025). Not only is it important to consistently communicate the GLRI’s outcomes, but it is also important to support these outcomes with deliberate actions to demonstrate to federal leaders that the region “really believe[s] that investing in protection of the Great Lakes is worthwhile” (Alberding, 2025).

The HOW Coalition continually reinforces the region’s commitment by bringing Great Lakes advocates to Capitol Hill in Washington, D.C., during Great Lakes Days to “tell their own personal story…And we’ve seen members of Congress have [congressional] meetings and then use those stories on the floor while they’re advocating for votes on the [GLRI] bill or with their colleagues when they’re talking about the Great Lakes” (Haven, 2025). Sharing out the social, environmental, and economic benefits of the GLRI has been an important evolution of the program that provides the region with a tool to maintain support for Great Lakes restoration funding both locally and federally (Flanagan, 2025). Having these stories helps incorporate new voices and perspectives that often “get left out” of restoration conversations and open new doors for Great Lakes restoration as the region’s priorities and needs shift (Lightfoot, 2025).

A significant contributor to the GLRI’s success has been the proven economic benefits of restoration, coupled with stories documenting the need for and impact of GLRI dollars. The HOW Coalition has remained steadfast in its commitment to projecting the importance of Great Lakes restoration to federal leadership, and it is this commitment that other regions should seek to emulate. Sharing the social, economic, and environmental benefits of restoration can help maintain federal support by showing congressional members that funding positively impacts their districts and constituents. More importantly, positive impact stories coming out of the Great Lakes ground restoration in the well-being of human systems and ecological systems alike.

Leveraging Intra-Governmental Collaboration & Coordination

From its inception, the GLRI was shaped by a broad and durable commitment to collaboration. Rather than emerging from a single institution or sector, the GLRI was built through sustained engagement across federal, state, Tribal, and local governments (Jensen, 2025). It would be impossible to name every individual or agency involved, and that impossibility itself underscores that engaging stakeholders at all levels of government was not secondary to the GLRI's success; it was foundational. The emphasis on collaboration is exemplified clearly at the federal level, where coordination is built into how the program operates. Under this model, there is coordination within the federal government itself, as "the federal agencies have to collaborate with each other" (Brammeier, 2025). Particularly, the "EPA has this authority, it manages and distributes funding to the other agencies. They set priorities together, and that federal agency cooperation has been huge in coordinating priorities and actions" (Brammeier, 2025). Importantly, this system of operation "trickles down to a more coordinated effort," with external partners including states, Tribes, local governments, and NGOs (Brammeier, 2025). This top-down coordination has enabled more cohesive action across the basin, while still allowing for regional and local adaptation.

The multi-jurisdictional nature of the Great Lakes is crucial, as the "people who have been playing different roles on behalf of the region were able to come together pretty uniquely. … That advantage of the Great Lakes being so multi-jurisdictional is hard, and it's a pain for organizations, but in the end, it articulates support for the lakes in a very unified way. That's unique" (Cangelosi, 2025). The involvement of eight U.S. states, two Canadian provinces, thousands of municipalities, and sovereign Indigenous nations creates a level of political and civic engagement that is rare in environmental restoration. This complexity, rather than hindering progress, strengthens it and is complemented by extensive and continuous efforts to harmonize action.

Overall, meaningful collaboration does not happen automatically; it must be intentionally cultivated and sustained over time. Bringing together different levels of government can create the conditions for more effective and widely supported action. For other regions, an "important lesson is that when you get [the key players]...in a room and talking to each other, when there's big money at stake, good things happen" (Krantzberg, 2025). The GLRI demonstrates that when stakeholders are consistently engaged, aligned around shared goals and a shared appreciation for a resource, and able to coordinate decision-making, collaboration can translate into meaningful restoration progress.

Capitalizing on Political Opportunity

Following the GLRC, the "high level of connectivity" among state and local leaders kept advocates engaged in the fight for restoration when there was widespread frustration with the lack of funding from the Bush administration (Naftzger & Johnson, 2025). Great Lakes advocates had already "sketched out [restoration] roadmaps and strategies, but there was a reluctance to actually propose the money in a presidential budget and then for Congress to actually take that big next leap towards investments" (Davis, 2025). "The Legacy Act…was a really important kind of pilot test" for a restoration funding program, supported by the GLRC Strategy and committed Great Lakes allies, which ultimately helped get the GLRI up and running (Davis, 2025).

Great Lakes advocates took advantage of the social, economic, and political environments surrounding the beginning of the Obama administration to finally make progress on Great Lakes restoration. The 2007 Great Recession informed many of Obama's campaign promises to reinvest in the American economy, and the projected investment opportunities that Great Lakes restoration provided allowed Obama to deliver on these promises (Eder, 2025). However, the "political willpower" needed to establish restoration as a priority for the Obama administration did not just spontaneously arise due to serendipitous circumstances (Bootsma, 2025). Years of work leading up to the GLRC Strategy and "taking all of those interests that developed the GLRC and keeping them involved and advocating for the development and then the continuation of the GLRI, that was really powerful" (Flanagan, 2025). Having Obama as president was also a defining moment in the fight for the GLRI, given his knowledge and expertise in Great Lakes issues (Mulinex, 2025). Not only was Obama intimately familiar with the Great Lakes, but his chief of staff, Rahm Emanuel, worked to make the GLRI a part of the president's political priorities (Davis, 2025). For Great Lakes advocates, "the tide was right…we had…folk[s] in key spaces who could talk to their friends with money, and they could come together and then get the 'Rahm Emanuels' on the phone, who have direct access to the president, who already understand the significance of the Great Lakes, [and] who benefited from the votes coming out of the Great Lakes" (Lightfoot, 2025).

The GLRI's non-regulatory nature also contributed to the program's success at the federal level. Injecting funding into Great Lakes restoration "kept [businesses and industries] in the room at the table" (Zorn, 2025). The GLRI's structure "provides a lot of money to fix problems. What it does not do is stop people from making those problems happen again, it doesn't create regulations" (Flesher, 2025). Providing GLRI funding for restoration projects allows the region to make progress in a multitude of areas, but it is not the program's purpose to regulate pollution or solve environmental issues in their entirety (Naftzger & Johnson, 2025). This lack of regulation allows lawmakers to support the GLRI in a way that bolsters their environmental profile while avoiding negative political ramifications, which sustains the GLRI's bipartisanship.

Overall, at the federal level, "[Great Lakes advocates] were successful in creating the condition to convince people…in Washington that the Great Lakes were needed to have strong political support" (Lord, 2025). Many advocates viewed the GLRI as a great accomplishment once it was finally initiated, though they recognized that there was more work to be done in Congress to appropriate funds for the program (GLC, 2009). However, the consensus of Great Lakes congressional allies made it "easy for politicians to get to 'yes'" and support Great Lakes restoration (Lord, 2025).

Conclusion: Creating Harmony & Support for the Great Lakes

The story of the GLRI is an intentionally crafted convergence of forces culminating in a successful restoration program for the Great Lakes (Gaden, 2025). Place-based reverence, previous legislative groundwork, key leadership, consistent advocacy and messaging, intra-governmental collaboration, and strategic coalition-building, in part influenced by cross-regional communication, collectively helped build the GLRI and transform a long-standing restoration campaign into a lasting federal commitment. Advocates long understood that the Great Lakes have "features…that make them different than many of the other environmental management [and] protection challenges around the country" (Van Putten, 2025). Though many organizations were working toward Great Lakes restoration goals, there were far "too many stove pipes out there," or active organizations, working without guidance towards those goals (Goddard, 2025; Donahue, 2025). Leaders like Peter Wege consolidated grassroots advocacy efforts and elevated Great Lakes restoration to the federal level, while leaders like Mike Leavitt operationalized federal restoration guidance through the GLRC. Likewise, Mayor Daley of Chicago brought together the mayors from across the basin in 2003 into a potent political force. Both grassroots and grasstops efforts finally merged in 2005, but it was not until 2010 that these efforts reached harmony with the implementation of the GLRI (Naftzger & Johnson, 2025). The HOW Coalition, as well as local, state, and federal actors, have continued to build on the GLRI's impact by "documenting new restoration success stories throughout the region" and illustrating "the tangible results coming out of the [GLRI] and the continued need for investment in the program" (HOW, 2012). Bridging the environmental benefits and positive impacts within Great Lakes communities has ultimately maintained long-term social, political, and financial commitment to the program (GLRI, 2024; U.S. EPA, 2024a).

Since its establishment, the GLRI has demonstrated remarkable endurance, maintaining support across changing administrations, socioeconomic conditions, and political tides (Pollack, 2025). This did not happen by accident. As stakeholders recognized that harmonized action is essential for maintaining the lakes' ecological and cultural significance, collaboration became both a product of the GLRI and a result of deliberate, strategic coordination (Gaden, 2025; Van Putten, 2026). At its core, support for the GLRI endured because the program "produced results, was working, and was wildly popular," rooted in a simple but powerful reality that "we all love the Great Lakes and want to protect them" (Learner, 2025). The Great Lakes community is "very protective and territorial" of the Great Lakes and "people care about [Great Lakes restoration] because it's the right thing to do" (Mulinex, 2025; Palagyi, 2025).

At the federal level, lawmakers from both parties recognize that funding the GLRI benefits their constituents by creating jobs, improving the quality of life, and protecting local natural resources (Shriberg, 2025; Naftzger & Johnson, 2025). Such benefits reinforce the idea that there is a "human infrastructure" aspect to restoration that is "important for making sure that [the GLRI] keeps going even in the face of ups and downs of federal funding and interest" (Grubb, 2025). Realizing the GLRI's social, environmental, and economic benefits has essentially reframed the "view of what restoration means in the region," prompting conversations "about how restoration benefits everybody" (Lord, 2025). Overall, restoration depends on "the funding and the science and the collaboration of decision-making around how to make sure that our waterways are clean, that they are safe, that they're accessible," all with an eye toward "not only the current access and use of those systems, but then in the years to come" (Lewis Patrick, 2025).

In 2003, Senator Voinovich posed the question that encapsulated the region's central challenge at the time: "Is there an orchestra leader that knows what all of you are doing and is coordinating it?" (*Great Lakes Restoration Management,* 2003). For decades, the musicians had been present, Tribes, states, municipalities, scientists, advocates, businesses, philanthropies, and state and federal agencies, each playing their part with dedication. What was missing was the federal commitment at the scale the Great Lakes ecosystem required. The GLRI became that commitment. The GLRI integrates the region's cultural relevance, legislative groundwork, and grassroots movements into a coherent and durable restoration framework. In doing so, it affirms that the Great Lakes are not only "an incredible ecosystem, but an incredible human system" capable and worthy of protection and restoration (Buchsbaum, 2025).

However, the answer to Voinovich's question is still 'No.' There is no single orchestra leader conducting the Great Lakes, and there doesn't need to be. There is no one individual or entity responsible for their restoration and protection. Before the GLRI, the region was singing out of tune, committed, yet fragmented; unified by love, appreciation, and a shared recognition of the importance of the Great Lakes, yet disjointed in action. To remedy this, the GLRI did not need to appoint one leader. Instead, the program created the structure that allows these voices to sing together, bringing the region into harmony. In this way, the GLRI embodies the past, shapes the present, and secures the future of Great Lakes stewardship.

Understanding the Great Lakes Restoration Initiative's Role in the Future of Great Lakes Restoration

Building Resilience

The GLRI has been highly successful in addressing what it was designed to do. As a federally funded program, its focus areas and action plans have driven meaningful restoration outcomes across the region. These outcomes demonstrate the value of sustained, coordinated federal investment in addressing environmental challenges. At the same time, the GLRI's future effectiveness depends on a clear understanding of its mandate and limitations. The GLRI is "an investment program, it's not a regulatory program," and it was never intended to substitute for regulatory protections (Buchsbaum, 2025). Some of the most pressing threats facing the Great Lakes require frameworks and enforcement mechanisms that go beyond the GLRI's scope, and expecting the GLRI to resolve these challenges on its own risks misaligning responsibility with capacity (Buchsbaum, 2025). Questions of prioritization also shape the GLRI's future role, as a substantial share of funding has been designated to AOCs, even though "there are equally contaminated places in the Great Lakes region that don't get that kind of focused attention" (Flanagan, 2025). This suggests a future role of the GLRI that emphasizes targeted investments and stronger coordination with regulatory programs to support long-term stewardship and resilience across the Great Lakes.

While the GLRI has catalyzed impressive progress in revitalizing the Great Lakes, it was never intended to address all environmental challenges across the basin. Many of the remaining challenges extend beyond the initiative's original scope, raising broader questions about whether the GLRI should extend beyond restoration as traditionally defined. Future challenges include (The Nature Conservancy, 2024; U.S. EPA, 2024a; GLRI, 2025; Great Lakes PFAS Action Network, n.d.):

- HABs driven by nonpoint source agricultural runoff, which endanger drinking water, aquatic ecosystems, and regional economies.
- Legacy pollutants, such as PCBs, mercury, and heavy metals, which remain embedded in sediments and pose long-term ecological and human health risks.
- Poly- and perfluoroalkyl substances, or PFAS ('forever chemicals'), which are highly persistent in the environment and drinking water, posing emerging human health and ecological risks.
- Climate change impacts, including intensified precipitation, flooding, shoreline erosion, and more frequent HAB events.
- Microplastic contamination, an emerging pollutant affecting biodiversity and water quality.
- Invasive species, which continue to disrupt native food webs and ecosystem stability.

Looking ahead, the "opportunities for the GLRI and Great Lakes restoration are connected to what [the Great Lakes'] remaining problems are and how to address those biggest problems" (Buchsbaum, 2025). Additional pressures, such as growing interest in water-intensive industries, the potential for regional reindustrialization and population growth, and the chance of climate-driven migration to the Great Lakes region, all raise complex questions about infrastructure, equity, and access (Haven, 2025; Sisson, 2025). These threats raise a central tension: should the GLRI change and broaden its scope to address these issues, or remain focused on the restoration strategies and goals that have proven effective? As these pressures intensify, the GLRI must evolve alongside changing realities and adapt in a way that is forward-looking, responsive, and capable of meeting emerging challenges (Jedlicka, 2025; Jensen, 2025; Morse, 2025).

Climate change and emerging pollutants stand out as particularly destabilizing forces. Climate change, in particular, was not a central consideration when the GLRI was first established, but today "anyone who's seeing what's going on in the Great Lakes can see any number of ways that climate change is affecting them and will continue to" (Flesher, 2025). The challenge moving forward is not whether restoration should respond to climate change, but how GLRI-funded efforts can be leveraged to support climate adaptation and resilience. Resilience requires a shift away from a narrow focus on remediation toward approaches that anticipate future pressures. GLRI-funded projects must be implemented "in the context of climate change," therefore, "making [the Great Lakes] resilient to potential future threats and changes" (Jensen, 2025).

Achieving this level of resilience depends on stronger investment in monitoring, forecasting, and anticipatory science (D. Allan, 2025). Current approaches do not yet fully support "the scientific monitoring and forecasting that we need to make sure that the work that we're doing is having the impact that we want it to have," nor do they consistently allow for early identification of confounding or emerging risks (Goffin, 2025; Jensen, 2025). Although the GLRI has relied on scientific research to inform restoration, it has focused mostly on "the shovel in the ground type projects rather than research and rather than monitoring" (Bootsma, 2025). As a result, longstanding commitments to expand research and monitoring, such as the recognition under the GLWQA of the need for greater nearshore monitoring, have not been fulfilled (Bootsma, 2025). Without these tools, restoration remains vulnerable to being overtaken by new stressors, such as PFAS and microplastic pollution, before corrective action can be taken (Lord, 2025; Crawhall, 2025). A forward-looking approach emphasizes identifying "what we don't know, anticipating what might happen, [and] what is coming" (Sisson, 2025). This approach would be a necessary shift from reactive to proactive management so that the Great Lakes wouldn't require such large-scale remediation in the future (Jensen, 2025). Without this shift, there is a growing risk that restoration gains will be lessened by climate change-driven stressors and emerging threats that were not fully anticipated when the program was first designed.

These challenges underscore both the strengths and the limitations of the GLRI as it moves into an increasingly uncertain political landscape. While the initiative is recognized globally as a resilient, bipartisan, and results-oriented restoration framework, it does not operate in isolation and cannot fully insulate itself from broader political, fiscal, and institutional dynamics. Under the current Trump administration, the GLRI continues to appear in presidential budgets, yet its effectiveness depends on the capacity of federal agencies responsible for implementation. At the same time that the GLRI is being funded, staffing and resources at key agencies have been significantly reduced, weakening the institutional foundation upon which the program relies (Carl, 2025). A restoration initiative that depends on interagency coordination but is implemented by agencies experiencing staffing and programmatic cuts is "not a formula for ultimate success" (Learner, 2025). These risks are compounded by the possibility that accelerating climate pressures, persistent toxics such as PFAS, and increasing consumptive water uses could overwhelm restoration gains if not addressed with the help of coordinated and fully funded federal and state agencies (Lord, 2025). Yet, uncertainty also presents opportunities. The current period of institutional disruption, while deeply concerning, may create space to rebuild systems of environmental protection and more clearly articulate the value of Great Lakes restoration. "In destruction and chaos, there's opportunity," and for the GLRI, these opportunities lie in building a more resilient and inclusive approach that bridges science, stewardship, and long-term investment to ensure the Great Lakes are protected and valued for generations to come (Shriberg, 2025).

Fostering Stewardship

Looking ahead, a central vision for the future of the GLRI remains the successful delisting of the remaining AOCs, as continued investment in these degraded areas offers some of the most tangible and visible restoration gains that "make a substantial impact on the local communities" and helps to showcase what the region has "actually been able to do with the funding" (Naftzger & Johnson, 2025). Directing resources toward completing AOC cleanups also reinforces coordination across local, state, and federal programs and strengthens the case that what is good for the environment is also good for the economy, helping maintain political and public support (Gaden, 2025). However, as delisting goals are reached, a deeper question emerges about what role the GLRI plays once these sites are formally delisted. Approximately one-third of GLRI funding has been tied to AOC cleanup, and as that work eventually begins to wind down, the program risks being framed as reaching its end, even though environmental pressures across the basin remain persistent (Environment, Great Lakes & Energy [EGLE], 2023). This tension reflects a broader concern that restoration implies a finish line, creating the illusion that "we're going to reach an endpoint and then we'll call [the Great Lakes] restored," despite the reality that "by definition, you're leading back to degradation if you're not taking care of [the lakes]" (Gaden, 2025).

As people increasingly search for an end to the necessary restoration of the Great Lakes, the future of the GLRI will depend on articulating a vision that extends beyond cleanup and instead toward stewardship, recognizing that it's "not restoration as much as it is sustaining and enhancing" (Read, 2025). Reframing the GLRI around ongoing stewardship acknowledges that restoration is not a one-time achievement but a continuous commitment that "is going to be ongoing forevermore," ensuring that progress made through AOC delisting becomes the foundation for long-term resilience, regional well-being, and protection of the Great Lakes (Rubin, 2025; Sisson, 2025).

Looking forward, another central opportunity for the GLRI is developing a more robust and intentional emphasis on EJ, Indigenous rights, and inclusive governance (Shriberg, 2025). Long-term restoration and stewardship cannot be achieved without directly addressing the social inequities embedded in the Great Lakes region, where some of "the most segregated metropolitan city regions in the country" coexist alongside some of the most valuable freshwater resources in the world (Austin, 2025). Access to the Great Lakes has historically been uneven, as many marginalized communities were excluded from lakefront spaces and recreational traditions that shaped regional identity, and restoration-driven redevelopment now risks reinforcing those inequities through blue gentrification and rising property values (Austin, 2025; Steinman, 2025). Without intentional and inclusive planning, revitalized waterfronts can become spaces that are "basically access for better-off white people," rather than places of shared ownership and belonging (Austin, 2025; Knauss & Lisuk, 2022). Recent calls to move the GLRI beyond restoration reinforce the need to center equity in its future. Restoration alone is not enough; lasting progress depends on integrating protection, prevention, and community resilience, while ensuring benefits reach all communities in the region, especially those that need it most (Great Lakes Advisory Board, 2022). At the same time, Indigenous knowledge systems that have sustained the Great Lakes for generations remain insufficiently integrated, despite recent advancements made in GLRI Action Plan IV and the recognition that "we can't restore the Great Lakes unless those things are directly incorporated" (Shriberg, 2025). Moving forward, the future of the GLRI depends on expanding governance structures that elevate marginalized communities beyond consultation toward genuine co-creation, asking not only how restoration happens, but "who are these Great Lakes for? All the people who live in them" (Austin, 2025).

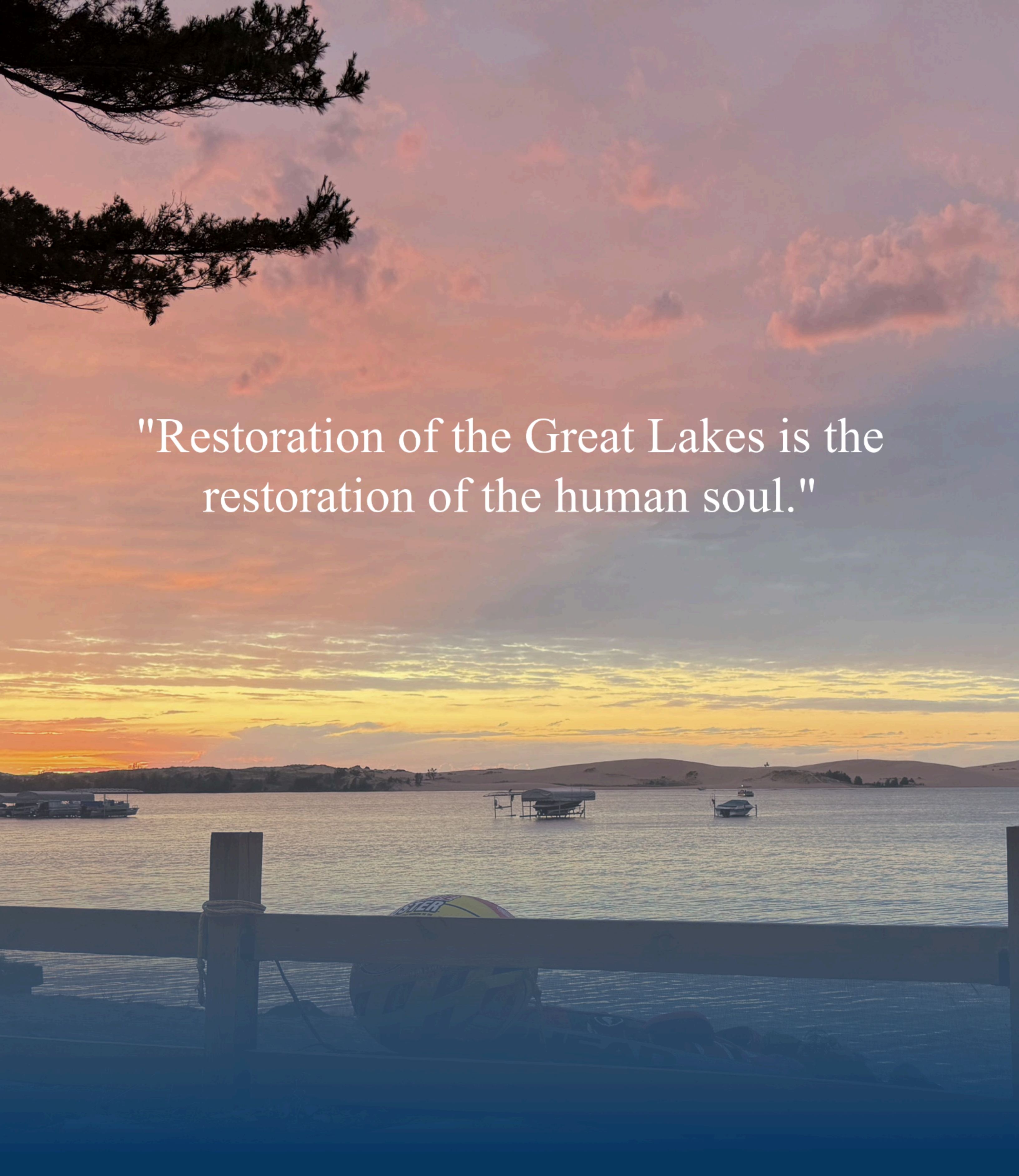
Another critical dimension of the GLRI's future lies in cultivating a broader culture of stewardship through education and public engagement. While the program has invested heavily in restoration outcomes, there are many individuals within the Great Lakes region who do not fully understand what the GLRI is, what it has accomplished, or why it matters (Wooley, 2025). Some of the program's important interventions occur outside the public view and without visible connections to everyday life; even successful projects struggle to build lasting support (Palagyi, 2025). There is growing momentum around the idea that the GLRI should do more to "[engage] communities to become Great Lake stewards," recognizing that federal investment alone is insufficient without a public that feels ownership over the resource and understands what is required to protect it (Buckner, 2025). Stewardship is also more likely to emerge when communities are meaningfully involved in shaping the priorities that guide restoration efforts. When those priorities reflect local needs and produce results that meet those needs, people are far more inclined to take ownership and actively support them. In contrast, when priorities are set without community involvement, it becomes more difficult to foster a lasting sense of responsibility or connection to the restoration work (J. Brammeier, personal communication, February 18, 2026).

Education plays a crucial role in this process, and by fostering stewardship at multiple scales, the GLRI can build resilience not just in ecosystems, but in communities (Lewis Patrick, 2025; Ullrich, 2025). Expanding environmental education and hands-on engagement helps ensure that restoration is not perceived as something being done by distant federal or state agencies, but as a shared responsibility embedded in daily life and regional identity. In this context, building stewardship requires both a deeper public understanding of why the Great Lakes need restoration in the first place and clearer recognition of the GLRI's role in achieving those outcomes. While the restoration work itself remains critical, it is sustained public awareness and active stewardship that are central to the future of the GLRI.

Telling Great Lakes Restoration Initiative's Story

Another key aspect related to the long-term viability of the GLRI depends on sustained advocacy and effective storytelling that connects restoration outcomes to lived experience. Environmental restoration operates within political systems, and success requires advocates who are willing to engage directly, recognizing that "if you're not at the table, you're probably on the menu. You got to be there. You got to be there where the decisions are being made" (Pollack, 2025). While the GLRI has delivered measurable ecological results, its future funding and bipartisan support rely on clearly communicating why continued investment remains necessary (Lubetkin, 2025; Van Putten, 2025). This includes making visible the projects people can see and use, where communities can walk restored shorelines and clearly understand the impact the GLRI has had. Visual evidence, paired with compelling stories and credible data, helps translate abstract investments into tangible benefits for public health, recreation, and local economies (Palagyi, 2025). Storytelling also matters internally, as organizations must continually communicate to their own members why GLRI funding is essential, especially as milestones like AOC delistings risk being misinterpreted as final victories (DeBeaussaert, 2025; Rubin, 2025). Using AOCs as an example, "it is important for [advocates] to find ways to tell the story of what it means, what an AOC was, what the legacy issues were, and what it means that we've addressed them finally after decades" (Debeaussaert, 2025). Continued success, therefore, depends on reinforcing that restoration is not a closed chapter. By combining advocacy, education, and storytelling, the GLRI can sustain the public trust and political will necessary to protect the Great Lakes in the future, as "continued success stories build future success stories" (Debeaussaert, 2025).

Continued support for the GLRI largely depends on clearly articulating its economic and social value to the Great Lakes region, particularly as questions persist about the longevity and scale of federal investment. A persistent barrier remains the "understanding that's widely held, that somehow environmental cleanup is at odds with economic development, jobs, and business growth, that you've got to choose one or the other" (Austin, 2025). Yet evidence and research on the economic benefits of Great Lakes restoration show that long-term economic growth increasingly aligns with restoration. A prime example of this lies in the 2025 delisting of the Muskegon Lake AOC in Muskegon, Michigan, which provides a 6:1 ratio of return on investment (Shark, 2025; Isely et al., 2018). Despite these returns, annual appropriations have remained largely static, even though "the amount of money that's being spent on Great Lakes restoration benefits tens of millions of people, and it's a drop in the bucket of the federal budget" (Brammeier, 2025). Sustaining and growing GLRI funding requires a clear vision that frames restoration as a long-term investment "not only in terms of what it means for the environment, but what it means for people in the Great Lakes, what it means for our economies in the Great Lakes, [and] what it means for public health in the Great Lakes" (Rubin, 2025).



"Restoration of the Great Lakes is the restoration of the human soul."

Conclusion

(Quote: Jon Allan, 2025)

The GLRI is one of the most successful restoration programs in the United States, having strong grassroots and grasstops support and, thus, dedicated funding of $5.49 billion over its 15-year lifespan. Documenting and analyzing the GLRI's history through the lived experiences of Great Lakes leaders, environmentalists, and knowledgeholders reinforces the idea that restoration initiatives do not simply result from environmental degradation; they are upheld by the needs and well-being of people whose lives are forever intertwined with environmental health. The GLRI's legacy is a testament to the hard work and dedication put in by Great Lakes advocates and cross-governance partners to ensure that the Great Lakes and the region's communities can recover and remain healthy. Now more than ever, in the face of rapid population growth and complex environmental issues, investing in Great Lakes restoration is beneficial and essential.

At its very core, the GLRI is a convergence of forces, including place-based reverence, previous legislative groundwork, key leadership, consistent advocacy and messaging, intra-governmental collaboration, and strategic coalition-building, in part influenced by cross-regional communication. Although the Great Lakes region has unique characteristics that helped elevate Great Lakes restoration to a national priority, there are many highly transferable strategies within the GLRI's history that can be applied to a diverse array of regions. Cultural connection to a place may not be as inherent as the Great Lakes are to the Upper Midwest, but place-based reverence can be fostered with time through public education and outreach. Bringing together a strong coalition of diverse allies can help concentrate a region's restoration message and amplify it to important decision-makers. Strategically networking with these decision-makers and other potential allies can position a restoration campaign favorably at the federal level, particularly using allies close to the current administration. All of these strategies, along with many others, are directly tied to elements of the GLRI's history that have contributed to its stability and influence.

As evidenced through our research, storytelling is an extremely powerful tool that can inform the GLRI's future. Stories that capture the campaigns waged by Great Lakes advocates and allies to secure the GLRI reflect the region's dedication to promoting positive social, economic, and environmental development through restoration. As Great Lakes advocates share more and more stories of positive restoration outcomes, this dedication becomes more apparent, and its impact even more defined. Analyzing the GLRI's impact shows us where restoration efforts have been, where they are now, and where future Great Lakes stewards could take them by building off of the GLRI's history and legacy.

Attempting to capture the GLRI's story in its entirety was a challenging endeavor, and executing this study did not come without its difficulties. Although we were able to speak to 82 different individuals involved in or familiar with the GLRI, we were unable to interview several business leaders, elected officials, Tribal leaders, and members of the EJ community whose actions were critical to the implementation and continuation of the GLRI. Furthermore, as our research was largely qualitative and interview-based, memories of some of the key initiatives leading up to the GLRI have been partially lost to time, though we attempted to account for these knowledge gaps through supplemental documentation identified in our document analysis. Overall, many of the challenges we encountered over the life of this study pertain to capturing and incorporating as much information on the creation and development of the GLRI as possible. However, this study represents the first phase of a larger project diving deep into the GLRI's history, analyzing its impact, and ultimately informing its future. Our research provides the foundation for future research on the GLRI's history, impact, and evolution.

Though it is difficult to predict how the GLRI will respond to changing environmental, socioeconomic, and political conditions in the Great Lakes, future academic studies assessing its adaptability are needed to ensure its longevity as a federally funded initiative. The program's rich history shows that the GLRI continues to stand the test of time, but its legacy is threatened by the effects of a changing climate, political instability, and additional emerging threats. Identifying areas where the GLRI can adapt or expand to address more pressing environmental issues and maintain its bipartisanship is necessary to support its success and longevity.

Since the program started in 2010, the GLRI has consistently addressed the region's five restoration focuses: toxic substances and AOCs, aquatic invasive species management, nonpoint source pollution reduction, fish and wildlife habitat restoration, and future sustainability planning. GLRI-funded projects contribute to a healthier Great Lakes ecosystem, which in turn leads to local and regional economic development, increased recreation and tourism, and improvements in overall well-being. One of its major accomplishments is the delisting of AOCs across the region. As more AOCs are delisted, an opportunity that remains is the program's eventual shift from restoration to long-term stewardship. The GLRI was designed in a different era and focuses on remediating past harms rather than present or future threats. Shifting GLRI-funded efforts to promote resilience will allow the program to anticipate future environmental pressures through stronger investment in monitoring, forecasting, and anticipatory science.

The GLRI should also expand its focus areas to include more EJ initiatives as well as diverse perspectives and Indigenous knowledge systems, and engage more members of the public through educational programs emphasizing the importance of Great Lakes stewardship. Expanding GLRI operations to co-create restoration solutions with marginalized groups will help ensure that Great Lakes restoration is inclusive, equitable, and serves all who live within the region. Shifting our perspective on the GLRI as a dynamic tool that can address the long-term needs of all communities within the region will be critical moving forward.

As proven by the GLRI, enduring environmental initiatives are rarely a product of isolated actions or political opportunities. Rather, they are a result of a sustained convergence of culture, advocacy, leadership, strategy, collaboration, and funding. Understanding how GLRI was built and why it has endured the test of time offers a roadmap for strengthening restoration initiatives around the world.

Appendices

Appendix A - Completed Interviews

Chris Adamo
Ellen Alberding
Jon Allan
Dave Allan
John Austin
Kate Bartter
Ben Grumbles
Harvey Boostsma
Joel Brammeier
Steve Brandt
Andy Buchsbaum
Kathryn Buckner
Allegra Cangelosi
Leon Carl
Steven Chester
Elizabeth Cisar
Jeff Corbin
David Cowgill
Thomas R. Crane
Nicola Crawhall
Dave Naftzger
Cam Davis
Joe Deal
Ken DeBeaussaert
Mike Donahue
Tim Eder
Jane Elder
Shannon Estenoz
Frank Ettawageshik
Hilary Harp Falk
Molly Flanagan
John Flesher
Marc Gaden
Steve Galarneau
Chris Goddard
Michael Goffin
Tom Gorenflo
Chris Grubb
Gary Gulezian
Celia Haven
Mike Hawthorne
George Heartwell
Interview 46
Jill Jedlicka
Erika Jensen
Pete Johnson
Chris Jones
Gail Krantzberg
Erma Leaphart
Howard Learner
Mike Leavitt
Monica Lewis Patrick
Simone Lightfoot
Chad Lord
Jordan Lubetkin
Tracy Mehan
Kristy Meyer
Jan Miller
Steve Morse
Joy Mulinex
Paul Palagyi
Sam Passmore
Rebecca Pearson
Lana Pollack
Jen Read
Matt Reiffer
Mike Ripley
John Rogner
Laura Rubin
Kevin Shafer
Mike Shriberg
Rob Sisson
Debbie Stabenow
Al Steinman
Bob Taft
Dave Ullrich
Mark Van Putten
Jumana Vasi
Tim Walz
Charlie Wooley
James E. Zorn

Appendix B - Semi-Structured Interview Questions

Topic Sections	**Lead Questions**
Introductions	Let's start with the basics - What is your name and current job or relevant role?
Introductions	We know everyone has a connection with the Great Lakes and we'd like to hear a bit about yours - What is a favorite memory of the Great Lakes?
Introductions	Now let's turn specifically to the GLRI - Based on our background research, we know XXX. But can you explain, in your own words, what your connection to or role with the GLRI is or has been over time?
Early Restoration *If applicable*	(If specific connection unknown) We know that there were many precedents that helped lead to the GLRI - including the GLRC, GLWQA, GLCPA, GLI, GLLA, etc. What were you involved in and how did this connect to the formation of GLRI? Can you walk me through how the (GLRC, GLWQA, Great Lakes Critical Programs Act, Great Lakes Water Quality Initiative, Great Lakes Legacy Act, etc.) helped lay the groundwork for the GLRI?
GLRI Formation	If you have to pick one or two factors that led to the formation of GLRI, what would they be and why?
GLRI Creation	Was there a particular event or moment in time that stands out to you as particularly critical to the creation of GLRI?
Importance of GLRI	Do you think GLRI was inevitable? Why or why not?
Restoration Successes	From your perspective, what have been the most significant successes in the GLRI so far?
Enabling Factors	If you have to pick one or two factors that led to the success of GLRI, what would they be and why?
Critical Factors	What moment or moments in time do you think were the most critical to maintaining GLRI?
Key Stakeholders	What stakeholders, rights holders, and/or other groups do you believe have been most responsible for GLRI's success?
Benefits	What have been some of the most positive impacts of the GLRI?
Restoration Challenges	From your perspective, what have been the most significant challenges or barriers to GLRI or Great Lakes restoration more generally?

Unmet Expectations	What do you wish happened under the GLRI and has not?
Future Lessons	What lessons do you think can be drawn from the GLRI for the future of Great Lakes restoration?
Future Opportunities	What do you see as the biggest opportunities for the GLRI in the future?
Future Challenges	What do you see as the biggest challenges for the GLRI in the future?
Documents	Do you have any physical or electronic documents that you think we should include in this archive, with the understanding that these would be publicly available documents unless you specify otherwise?
Outreach Materials	What are the best ways you think we could share the findings from this project with your community or others who care about Great Lakes restoration?
Additional Information	Is there anything else you would like to share with us that we did not ask about during the interview?

Appendix C - Codes and Definitions for Interviews

Early Restoration (Pre-GLRI)	Formation	GLWQA	Great Lakes Water Quality Agreement
		GLC	Great Lakes Compact
		GLLA	Great Lakes Legacy Act
		EO/GLRC	The Governor's Priorities, Bush's EO, and the Great Lakes Regional Collaboration
		Individual/ Institution Action	Work from the Wege Foundation, Brookings Institution, etc.
		Transitional Period	Post-GLRC but Pre-Obama Administration/GLRI
	Importance		How important/necessary the GLRI was as a restoration initiative in the Great Lakes
	Benefits		Positive impacts of restoring the Great Lakes
GLRI Restoration	Successes	Explicit	Apparent/obvious successes associated with the GLRI
		Implicit	Less apparent successes associated with the GLRI
	Challenges	Explicit	Apparent challenges to the GLRI (present)
		Implicit	Less apparent challenges to the GLRI (present)
	Significance		The significance of GLRI (culturally, economically, etc.) within the Great Lakes
Supporting Factors	Factors		Internal and external factors contributing to the creation/continuation of the GLRI
	Critical		Critical factors that helped support and maintain the success of the GLRI
Key Stakeholders			Individuals, orgs, etc. that were responsible for the GLRI's success
Future of the GLRI	Lessons		Lessons we can learn from the story/history of the GLRI
	Opportunities		Opportunities to apply restoration initiatives like the GLRI elsewhere
	Challenges		Challenges (social, legal, political) the GLRI may face in the coming years
Binational			Binational implications of GLRI or Great Lakes Restoration in general
Other Restoration	Chesapeake Bay		Chesapeake Bay
	Everglades		Everglades

Appendix D - Codes and Definitions for Documents

Early Restoration (Pre-GLRI)	Formation	CWA	Clean Water Act
		GLWQA	Great Lakes Water Quality Agreement
		GLI/GLCPA	Great Lakes Initiative and Great Lakes Critical Programs Act
		GLLA	Great Lakes Legacy Act
		EO/GLRC	The Governor's Priorities, Bush's EO, and the Great Lakes Regional Collaboration
		Individual/ Institution Action	Work from the Wege Foundation, HOW Coalition, the NWF, etc.
	Benefits		Positive impacts of restoring the Great Lakes
	Degradation		Degradation and pollution in the Great Lakes and tributaries before the GLRI
	Restoration		Restoration activities and efforts before the GLRI
GLRI Restoration	Successes	Explicit	Apparent/obvious successes associated with the GLRI
		Implicit	Less apparent successes associated with the GLRI
	Challenges	Explicit	Apparent challenges to the GLRI (present)
		Implicit	Less apparent challenges to the GLRI (present)
	Significance		The significance of GLRI (culturally, economically, etc.) within the Great Lakes
Key Stakeholders			Individuals, orgs, etc. that were responsible for the GLRI's success

Appendix E - Great Lakes Restoration Timeline

Year	Month	Event
1909		International Joint Commission (IJC) formed from the Boundary Waters Treaty
1926		Charles Stewart (C.S.) Mott Foundation formed
1948		The Joyce Foundation formed
1955		Great Lakes Commission created under the Great Lakes Basin Compact
		Great Lakes Fishery Commission formed through the Convention on Great Lakes Fisheries
1956		United States formally asked Canada to join in requesting IJC study on Lower Lake Pollution
1964		Canada agreed to join in requesting IJC study
1965		Lake Erie is declared "dead"
1967		Sierra Club – Great Lakes Program formed
1968		Buffalo River in New York catches on fire
1969		Cuyahoga River in Cleveland and Rouge River in Detroit burn; Images of the Cuyahoga make it onto the cover of TIME Magazine
		The Wege Foundation formed
1970		Great Lakes advocates found Lake Michigan Federation (later renamed to Alliance for the Great Lakes)
		IJC published study on pollution in the Lower Lakes and the upper St. Lawrence River
		First Earth Day
1972		Clean Water Act passed
		Great Lakes Water Quality Agreement (GLWQA) signed
1977		Environmental Protection Agency's Great Lakes National Programs Office formed
1978		New GLWQA signed
1982		National Wildlife Federation established Great Lakes Regional Office
		IJC released the first Great Lakes Water Quality Agreement Biennial Report
		Great Lakes United (GLU) formed
1983		Great Lakes and St. Lawrence Governors and Premiers formed
1984		Great Lakes Indian Fish & Wildlife Commission formed
1986		GSGP signed Great Lakes Toxic Substances Control Agreement

1987		1978 GLWQA 1st Amendment
		CWA 1st Amendment
		National Wildlife Federation (NWF) filed a lawsuit against the EPA for its failure to uphold and implement the GLWQA
1988		NWF filed an additional lawsuit against the EPA for its failure to uphold and implement the GLWQA
1989		EPA published the Great Lakes Water Quality Initiative (GLI)
1990		Great Lakes Critical Programs Act (GLPCA) of 1990 (Gave GLI statutory force)
1991		Council of Great Lakes Industries formed
1992		Bipartisan Senate and House Great Lakes Task Forces are formed within the Northeast-Midwest Senate and House Coalitions
1995		Great Lakes Water Quality Initiative Final Guidance
		Seven industrial and municipal dischargers filed suit to invalidate the GLI
1997		Federal Court upheld GLI in opposition of industrial and municipal dischargers
		Great Lakes states (except Indiana) miss GLPCA deadline to incorporate GLI provisions into their water quality standards and permitting programs
1998		Great Lakes states largely incorporate elements of the GLI into their water quality standards and permitting programs
2000		Chippewa Ottawa Resource Authority formed (rebranded from Chippewa Ottawa Fishery Management Authority)
		EPA determined six Great Lakes states omitted required GLI provisions or incorporated inconsistent elements into their water quality standards and permitting programs
		One Great Lakes Area of Concern in Canada is delisted
		EPA and Environment and Climate Change Canada announced they have no interest in making changes to the GLWQA
2002		Great Lakes Legacy Act (CWA 2nd Amendment)
2003		Great Lakes and St. Lawrence Cities Initiative formed
		Great Lakes governors identified nine priorities for Great Lakes restoration and protection
		Government Accountability Office released report documenting deficiencies in Great Lakes restoration efforts at the regional and federal levels
		GLU released a citizen action agenda to enact a binational Great Lakes restoration effort

2004	May	President Bush signs Executive Order 13340
		Healing Our Waters Conference
		Healing Our Waters Agenda (“Magna Carta for the Great Lakes”) is released
	September	Great Lakes funders, NGOs, and The Wege Foundation representatives met to discuss the formation of a Great Lakes coalition
	November	Healing Our Waters – Great Lakes Coalition Formed
		Great Lakes Funders Collaborative Formed
		George W. Bush Elected for 2nd Term
	December	Launch of Great Lakes Regional Collaboration
		Conveners Meeting and Signing Ceremony in Chicago ("Flags and Bagpipes Meeting")
2005	May	Representative Vern Ehlers [R-MI] introduced the Great Lakes Environmental Protection and Restoration Programs Reauthorization Act to the House, which focused on reauthorizing and extending existing Great Lakes programs to help sustain restoration efforts
	July	GLRC Released Draft Strategy at Summit 1
		GLRC Executive Committee held public hearings on Draft Strategy
	November	41 U.S. Representatives and Senators sent a letter to President Bush, urging him to maintain his commitment to the Great Lakes through increased federal funding
	December	GLRC Summit II and release of Great Lakes Restoration and Protection Strategy
		Great Lakes Scientists published “Prescription for Great Lakes Ecosystem Protection and Restoration” report
2006	March	First Great Lakes Day in Washington, D.C.
		Senate Committee on Environment and Public Works discussed the feasibility of implementing the GLRC Strategy
	April	Senator Mike DeWine [R-OH] introduced the Great Lakes Collaboration Implementation Act to the Senate to implement the recommendations made by the GLRC
	May	Senator Mike DeWine introduced the Great Lakes Coordination and Oversight Act to the Senate to enhance federal coordination by codifying the IATF and strengthening oversight of restoration activities
		President Bush requested $50 million for the Legacy Act, but declined to appropriate funding for the GLRC Strategy in his FY2007 budget
2007	March	Representative Vern Ehlers reintroduced the Great Lakes Collaboration Implementation Act to the House

	September	Brookings Institution released the “Healthy Waters, Strong Economy: The Benefits of Restoring the Great Lakes Ecosystem” study
		Erb Family Foundation formed
		National Parks Conservation Association (NPCA) formed its Midwest Office
2008	February	Great Lakes-St. Lawrence Cities Initiative and Great Lakes Commission released “Local Investment in the Great Lakes and St. Lawrence” report
		HOW Presidential Candidate Commitments
	September	Representatives from Barack Obama and John McCain's campaign teams "one-uped" each others promises to support Great Lakes restoration at the HOW Conference
	November	Barack Obama is Elected President of the United States
2009	February	President Obama signed the American Recovery and Reinvestment Act (ARRA)
		President Obama requested $475 million in FY2010 for the GLRI; Congress honors his request
2010	February	EPA released GLRI Action Plan I
		Obama Administration requested $475 million for GLRI in FY2010
2012		GLWQA 3rd Amendment
		HOW Coalition updated Presidential Candidate Pledge
		HOW Coalition invited representatives from Mitt Romney's Campaign and Obama's Campaign to the HOW Conference; Only Obama's representative showed
2013		GLRI Budget Proposals for FY2014 to FY2016 recommended cutting funding from $300 million to $250 million
		Presque Isle Bay AOC delisted
2014		Deer Lake and White Lake AOCs delisted
		Flint Water Crisis
	September	EPA releases GLRI Action Plan II
2015		GLRI Codified into CWA
2017		Trump Administration proposed complete cuts to GLRI funding in the FY2018 budget
2018		University of Michigan Research Seminar in Quantitative Economics released an economic impact study on the GLRI, finding the program has a $3-to-$1 Return on Investment

2019	March	Representatives Bill Huizenga [R-MI], Jack Bergman [R-MI], and John Moolenaar [R-MI] advocated for GLRI funding to President Trump on his way to a political rally in Grand Rapids, MI; Trump ultimately supported $300 million in GLRI funding
		HOW Coalition created the Equity, Advisory, and Action Committee
		Trump Administration proposed 90% cuts to GLRI funding in the FY2020 budget
2020	September	Lower Menominee River AOC delisted
	October	EPA released GLRI Action Plan III
2021	January	Great Lakes Restoration Initiative Act signed Into Law
	August	Ashtabula River AOC delisted
		Annual Appropriation for GLRI rose to $548 million in FY2022
	November	President Joe Biden signed the Bipartisan Infrastructure Law, providing an additional $1 billion for FY2022-FY2026
2022		Annual Appropriation for GLRI rose to $568 million for FY2023
2023		Annual Appropriation for GLRI maintained $568 million for FY2024
2025	November	EPA released GLRI Action Plan IV

Appendix F - Purpose of the Great Lakes Interagency Task Force

(Exec. Order No. 13340, 2004)

1. Convene and establish a collaborative group with IATF, the Working Group, "Great Lakes States, local communities, tribes, regional bodies, and other interests in the Great Lakes region" to advance policies, programs, and projects in the Great Lakes system.

2. Collaborate with Canada and binational bodies regarding the advancement of policies, programs, and projects in the Great Lakes system.

3. "Coordinate the development of consistent Federal policies, strategies, projects, and priorities for addressing the restoration and protection of the Great Lakes system."

4. "Develop outcome based goals for the Great Lakes system," focusing on "cleaner water, sustainable fisheries, and biodiversity."

5. Exchange valued information with the IATF relating to the Great Lakes System.

6. Coordinate government action within the Great Lakes system.

7. Coordinate Federal research on the Great Lakes system.

8. Coordinate with the Global Earth Observation System of Systems.

9. Assist and support the IATF and the agencies represented on the IATF.

10. "Submit a report to the President by May 31, 2005," summarizing the activities of the Task Force, and provide any recommendations to advance policy.

Appendix G - Key Areas for Great Lakes Restoration and Protection

(GLRC, 2004) (Taken from the Great Lakes Governors' priorities for Great Lakes Restoration and Protection (2003))

1. AIS control – "Stop the introduction and spread of non-native aquatic invasive species."
2. Fish and wildlife habitat restoration – "Enhance fish and wildlife by restoring and protecting coastal wetlands, fish and wildlife habitats."
3. Coastal health protection – "Promote programs to protect human health against adverse effects of pollution in the Great Lakes ecosystem."
4. Contaminated sediment cleanup in AOCs – "Restore to environmental health the Areas of Concern identified by the International Joint Commission as needing remediation."
5. Nonpoint Sources – "Control pollution from diffuse sources into water, land and air."
6. Toxic Pollutants – "Continue to reduce the introduction of PBTs into the Great Lakes ecosystem."
7. Indicators and Information – "Standardize and enhance the methods by which information is collected, recorded and shared within the region."
8. Sustainable Development – "Adopt sustainable use practices that protect environmental resources and may enhance the recreational and commercial value of our Great Lakes."

Appendix H - Great Lake Regional Collaboration Executive Committee

(GLRC, 2004)

1. The administration (represented by U.S. EPA pursuant to the Executive Order 13340)
2. The Great Lakes Governors (represented by GSGP)
3. Great Lakes Mayors (represented by the Great Lakes St. Lawrence Cities Initiative)
4. Great Lakes Tribes
5. Congressional Great Lakes Task Force

Appendix I - Great Lakes Restoration Initiative Focus Areas

(U.S. EPA, 2024a)

1. Toxic substances and AOCs – Cleaning up legacy pollution and restoring degraded water bodies.
2. AIS management – Controlling the spread of destructive species like Asian carp and zebra mussels.
3. Nonpoint source pollution reduction – Reducing nutrient runoff from agriculture and urban areas to prevent algal blooms.
4. Fish and wildlife habitat restoration – Rebuilding natural ecosystems and protecting endangered species.
5. Future sustainability planning – Monitoring long-term ecosystem health and supporting climate resilience projects.

Appendix J - Interagency Task Force and Regional Working Group Agencies

(U.S. EPA, 2024a)

1. U.S. Environmental Protection Agency – Great Lakes National Program Office
2. U.S. Department of State
3. U.S. Department of Interior – Bureau of Indian Affairs, U.S. Fish & Wildlife Service, National Park Service, U.S. Geological Survey
4. U .S. Department of Housing and Urban Development
5. U .S. Department of Agriculture – Animal and Plant Health Inspection Service, Natural Resources Conservation Service, U.S. Forest Service
6. U .S. Department of Commerce – National Oceanic & Atmospheric Administration
7. U .S. Department of Transportation – Federal Highway Administration, Maritime Administration
8. U .S. Department of Homeland Security – U.S. Coast Guard
9. U.S. Department of the Army – U.S. Army Corps of Engineers
10. Executive Office of the President of the United States
11. U.S . Department of Health & Human Services – Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention

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