Executive Summary

The Resource

The Great Lakes are a unique and extraordinary resource that have provided vast amounts of fresh water to nourish the history, culture, economy, and well-being of the people in this part of the United States. They have done so for millennia for the region's Native Americans whose life ways and communities have been and remain intertwined with the natural resources found in their ancestral homelands. And, for the past few hundred years since the earliest journeys of European explorers, the Great Lakes natural bounty has provided for the needs of a growing nation.

Today, more than 35 million Americans receive the benefits of drinking water, food, a place to work and live, and transportation from the Great Lakes. Millions of people enjoy fishing, hunting, swimming, boating, and the sheer beauty of the Lakes in remote parks and on the stunning shorelines of some of our largest cities, and agricultural fields yield abundant harvests of a large variety of crops. The region's many Native American communities rely upon the Great Lakes' natural resources to meet their subsistence, economic, cultural, medicinal, and spiritual needs. We have thrived on the richness the Lakes have brought us, but have not protected them adequately to ensure that future generations will be able to enjoy them as we have.

Challenges

The challenges we face on the Great Lakes are many in number and serious in nature. Aquatic invasive species continue to arrive at the rate of one every eight months, adding to the more than 160 already causing serious ecological and economic damage. At the same time, past and ongoing development has compromised Great Lakes habitats, and threatens the plants and animals that need them to survive. Many of our coastal areas, in particular, also suffer from massive sewer overflows that contaminate the water and close the beaches. The thirty-one areas identified more than 15 years ago where the most significant harm to the resources has occurred continue to be of great concern; none of them has been fully restored to date. Continued pollution from non point sources in these areas and many others contribute to impaired water quality and related problems. Although releases of toxic pollutants have been reduced significantly over the years, there is a legacy of contamination in sediments and fish throughout the system, and mercury and other pollutants continue to enter the Great Lakes from nearby and distant sources. While large amounts of data and information on the Great Lakes have been collected over the years, not enough of that has been transformed into knowledge about the key indicators of the health of the ecosystem. In addition, many of the practices of industry, agriculture, communities, and private citizens simply have not been sustainable.

Collectively, these problems and others have seriously compromised the environmental health of the Great Lakes. Because the stressors to the Great Lakes have developed over time and there has usually been a delay in the Lakes' response to the stressors, many believe that we have time to counter these stresses and restore the Lakes. However, in many areas of the Lakes, historic stressors have combined with new ones to reach a point where ecosystem-level changes occur rapidly and unexpectedly. As a result, there is a new sense of urgency for action on the highest priorities for restoring and protecting the Great Lakes.

Since 1970, governments, citizens, industry, and agriculture have worked together extensively to restore and protect the Great Lakes. Although much progress has been made, some of the problems have become more serious, many have not been solved, and new ones continue to develop. Despite good intentions and hard work, the strategies and efforts to date simply have not been effective enough to do the job of cleaning up the Great Lakes or preventing further degradation. A much more concerted effort over a longer period of time is essential for the restoration and protection of the resource and the prevention of future problems.

The Great Lakes Regional Collaboration

In December 2004, the Great Lakes Regional Collaboration of National Significance (GLRC) was launched, creating a unique partnership of key members from federal, state, and local governments, tribes, and other stakeholders for the purpose of developing a strategic plan. This Strategy is intended to build upon the extensive regional efforts to date, working together toward a common goal of restoring and protecting the Great Lakes ecosystem for this and future generations.

An Executive Committee made up of senior elected and appointed officials from different levels of government has helped guide the GLRC over the past year as the Strategy has been developed. Eight Strategy Teams, each focusing on a different issue affecting the Great Lakes basin, began work in January 2005 to develop recommendations for action. More than 1,500 people from diverse backgrounds have participated on these Teams. A Draft Strategy was released on July 7, 2005 for public comment. Comments were solicited and received through a series of public meetings, the Internet, and in writing. This Strategy is the result of that collaborative process but it should not be construed as an endorsement or approval by the GLRC members of each and every Strategy Team recommendation. Implementation will proceed promptly after the Strategy is released. Because we share the Great Lakes with Canada, we must do everything possible to make sure that our plans and actions are compatible and synchronized with their efforts.

Strategy Team Recommendations

The work of the Strategy Teams includes many recommendations for action focused on the steps that should be taken over the next five years to proceed with restoration to achieve the greatest results. The actions identified by the Strategy Teams highlight the highest priorities recommended by the Teams for early implementation. Much more will need to be done to fully restore and protect the Lakes. Those additional actions, as well as much more supplemental information, are included in the Appendices to the Strategy. The Strategy Teams considered the overarching issues of human health, tribal interests and perspectives, and research, and factored them in to the extent possible. The Strategy Teams worked to characterize the problems faced in the Great Lakes, and to establish goals and milestones. The key recommendations crafted by each Strategy Team are set forth below.

Immediate action to stop the introduction of more **aquatic invasive species** (AIS) can prevent significant future ecological and economic damage to the Great Lakes. The steps needed include:

- prevention of AIS introductions by ships through ballast water and other means;
- stopping invasions of species through canals and waterways;
- restricting trade in live organisms;
- passage of comprehensive federal AIS legislation;
- establishing a program for rapid response and management; and
- education and outreach on AIS introduction and prevention.

The plants and animals of the Great Lakes need habitat in order to survive in the future, and there is a need for significantly more **habitat conservation and species management**. The recommendations focus on:

- native fish communities in open waters and near shore habitats;
- wetlands;
- riparian (streams) habitats in tributaries to the Great Lakes; and
- coastal shore and upland habitats.

The **near shore waters and the coastal areas** are the region's largest source of drinking water and experience a variety of recreational activities. To minimize the risk to human health resulting from contact with near shore waters, actions needed include:

- major improvements in wet weather discharge controls from combined and sanitary sewers;
- identify and control releases from indirect sources of contamination;
- implement a "risk-based approach" to manage recreational water;
- protect sources of drinking water; and
- improve the drinking water infrastructure and support source water protection.

The United States identified the 31 most contaminated locations on the Great Lakes under the Great Lakes Water Quality Agreement with Canada more than 15 years ago. None of them have been restored to date. To remedy this situation, a dramatic acceleration of the cleanup process at these **areas of concern** (AOC) is needed. The actions recommended are:

- amend the Great Lakes Legacy Act to increase funding and streamline the process;
- improve federal, state, and local capacity to manage the AOC cleanups;
- create a federal-state AOC coordinating committee to work with local and tribal interests to speed cleanups; and
- promote clean treatment and disposal technologies as well as better beneficial use and disposal options.

Non point sources of pollution contribute significantly to problems in the Areas of Concern, as well as to other locations in the Great Lakes, including the open waters. Actions to address these problems include:

- wetland restoration;
- restoration of buffer strips;
- improvement of cropland soil management;
- implementation of comprehensive nutrient and manure management plans for livestock operations; and
- improvements to the hydrology in watersheds.

Toxic pollutants continue to stress the Great Lakes ecosystem, posing threats to human and wildlife health. Persistent toxic substances such as mercury and PCBs remain present in fish at levels that warrant advisories and restrict consumption throughout the Basin. To address this ongoing problem, actions are needed to:

- reduce and virtually eliminate the discharge of mercury, PCBs, dioxins, pesticides and other toxic substances to the Great Lakes;
- prevent new toxic substances from entering the Great Lakes;
- institute a comprehensive research, surveillance and forecasting capability;

- create consistent, accessible basin-wide messages on fish consumption and toxic reduction methods and choices; and
- support efforts to reduce continental and global sources of toxics to the Great Lakes.

With a resource as large and complex as the Great Lakes ecosystem, it is essential to have a **sound information base and representative indicators** to understand what is happening in the system. This information must then be communicated to the public, to decision makers, and all others involved. To improve over the current situation, the following actions are needed:

- better coordinate the collection of critical information regarding the Great Lakes ecosystem and support the U.S. Integrated Earth Observation System (IEOS) and the Integrated Ocean Observing System (IOOS) as key components of the Global Earth Observation System of Systems (GEOSS);
- promote the continued development of science-based indicators, including those developed through the SOLEC process;
- double funding for Great Lakes research over the next five years;
- establish a regional information management infrastructure; and
- create a Great Lakes communications workgroup to manage scientific and technical information.

Ensuring the long term **sustainability** of the Great Lakes resource will require a number of significant changes in the way we approach such things as land use, agriculture and forestry, transportation, industrial activity, and many others. To start this process, we need to:

- adapt and maintain programs that promote sustainability across all sectors;
- align governance to enhance sustainable planning and management of resources;
- build outreach that brands the Great Lakes as an exceptional and competitive place to live, work, invest, and play; and
- provide leadership for sustainable development through implementation of the Strategy recommendations.

This document provides the full range of recommendations, options, and ideas generated by the Strategy Teams. While better coordinated use of existing resources will allow for some recommendations to move forward early in the implementation process, others will require modest additional funding, and some will be impossible to implement absent substantial new expenditures on the part of the various Collaboration partners. While the release of this Strategy does not constitute a commitment of additional resources on the part of any member of the Collaboration, the members are committed to continuing to work together in partnership toward the goals identified in the Strategy.

The Collaboration partners have rallied around a shared vision of a restored, sustainable Great Lakes ecosystem that has generated optimism and engendered a spirit of cooperation. What is needed now is the will to act and the leadership to proceed if we are to realize our vision and reach our goals. The time to begin is now.