



# Great Lakes Restoration Initiative (GLRI)

Many stakeholders recognize the Great Lakes ecosystem as an international natural resource that has been altered by human activities and climate variability. These alterations have led to degraded water quality, diminished habitat, smaller native fish and wildlife populations, and a changed ecosystem. In response, the federal governments of the United States and Canada and the U.S. state and Canadian provincial governments in the Great Lakes basin are implementing several restoration activities. These activities range from mitigating the harmful effects of toxic substances in lake waters to restoring fish habitat.

Most laws and past efforts addressed specific issues in the Great Lakes; few addressed issues at the ecosystem level. Consequently, the U.S. Government Accountability Office (GAO) and others expressed the need for the federal government to initiate and implement a comprehensive approach for restoring the Great Lakes ecosystem. In 2010, the Obama Administration proposed and implemented the Great Lakes Restoration Initiative (GLRI), which aims to restore the Great Lakes ecosystem under a single initiative. Specifically, GLRI aims to restore and maintain the chemical, physical, and biological integrity of the Great Lakes basin ecosystem by directing activities to address five focus areas: (1) toxic substances and areas of concern (areas in the Great Lakes that are environmentally degraded); (2) invasive species; (3) nearshore health and nonpoint source pollution; (4) habitat and wildlife protection and restoration; and (5) accountability, monitoring, evaluation, communication, and partnerships.

Figure 1. Great Lakes Basin



Source: U.S. Army Corps of Engineers, Detroit District.

Note: The boundaries of the Great Lakes basin are shaded.

## Governance and Implementation

The Environmental Protection Agency (EPA) is the lead federal agency implementing and administering GLRI. The EPA has the authority to distribute appropriated funds to several federal agencies that then undertake restoration activities and projects. These agencies include the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and Natural Resources Conservation Service. The EPA also administers grant programs to fund nonfederal projects and activities related to restoration. An interagency Great Lakes Task Force oversees implementation of GLRI, and it created a strategy to guide restoration. The strategy (referred to as the Action Plan) initially provided a framework for restoring the Great Lakes ecosystem under GLRI from 2010 through 2014. The task force promulgated a new Action Plan in 2014, and this new plan provides guidance for restoration from FY2015 to FY2019. For each focus area under GLRI, the Action Plan provides a problem statement, a set of goals, interim objectives, progress measures, final targets, and principal activities for restoring the ecosystem. Restoration activities are conducted under existing federal authorities.

## Funding

GLRI has received approximately \$1.96 billion in appropriated funds since FY2010. As of August 2014, it had spent \$1.23 billion on 2,215 projects in the Great Lakes ecosystem. (See Table 1.)

Table 1. Great Lakes Restoration Initiative Funding (\$ in millions)

Fiscal Year	Appropriations
FY2010	\$475.0
FY2011	\$300.0
FY2012	\$299.5
FY2013	\$298.8
FY2014	\$288.9
FY2015	\$300.0
FY2016 Request	\$250.0

Sources: FY2010-FY2015 appropriations bills and explanatory statements and the FY2016 President’s budget request.

The EPA received the majority of the funding to implement restoration projects through August 2014. Table 2 provides a breakdown of received funding by agency.

**Table 2. GLRI Projects and Funding for Agencies**  
(\$ in millions, as of August 2014)

Agency	Projects	Funding
Agency for Toxic Substances and Disease Registry	8	\$11.3
Bureau of Indian Affairs	134	\$16.7
Federal Highway Administration	9	\$5.7
Maritime Administration	5	\$11.6
Environmental Protection Agency	667	\$538.7
National Oceanic and Atmospheric Administration	133	\$90.2
National Park Service	41	\$21.9
U.S. Army Corps of Engineers	340	\$141.0
U.S. Coast Guard	36	\$12.6
U.S. Fish and Wildlife Service	490	\$172.4
U.S. Geological Survey	104	\$62.8
Animal and Plant Health Inspection Service	18	\$4.6
U.S. Forest Service	50	\$37.1
Natural Resources Conservation Service	179	\$99.2

Source: Great Lakes Restoration Initiative, 2015.

## Potential Issues for Congress to Consider

Since the implementation of GLRI in 2010, activities for Great Lakes restoration have increased. Some questions that have emerged in regard to GLRI include how long restoration will take, how much restoration ultimately will cost, how effective GLRI is in restoring the Great Lakes, and whether coordination among restoration activities is adequate.

Proposed legislation introduced in the 114<sup>th</sup> Congress partly addresses some of these questions. H.R. 223 would establish a governance and management structure for restoration activities in the Great Lakes, authorize GLRI and appropriations for its implementation (\$300 million annually from FY2016 to FY2020), specify the scope and function of GLRI, and authorize the coordinating role of the Great Lakes Interagency Task Force. A similar bill passed the U.S. House of Representatives in the 113<sup>th</sup> Congress but was not voted on in the Senate.

## Vision of a Restored Great Lakes Ecosystem

The scope and scale of GLRI have led some experts to question the initiative's direction and duration. GLRI does not specify what a restored ecosystem might look like, estimate how long restoration activities will need to be conducted, or predict how much restoration might cost. The

Action Plan broadly discusses an overall vision but only provides specific goals and targets for restoration between FY2015 and FY2019. Furthermore, the Action Plan does not indicate how long it will take to restore the Great Lakes ecosystem or how much it ultimately will cost. Some scientists might respond to this concern by noting the challenges of fully contemplating a restored Great Lakes ecosystem because of its size and complexity. Stakeholders also might point to the Great Lakes Water Quality Agreement as a guiding document for ultimately restoring the Great Lakes. This agreement is between the United States and Canada and contains general objectives for restoring the water quality of the Great Lakes.

## How Effective Is GLRI in Restoring the Great Lakes?

Implementation of GLRI began in 2010, without stated long-term goals; it is unclear how much progress has been made toward finishing the restoration effort. GLRI aims to track progress of restoration within the time frame of the Action Plan. GLRI has established an accountability system that lists and describes projects and their funding. The most recent Action Plan includes a set of milestones for the five-year period it covers. However, these milestones do not appear to be indicators of ecosystem health; rather, they are goals for implementing projects (e.g., the number of people provided information about toxic substances). Some experts might question how the completion or progress of these projects relates to the overall restoration of the ecosystem or ecosystem processes. In response to this issue, the Action Plan proposes an adaptive management program. Adaptive management is testing and managing a restoration initiative so that it achieves its objectives in the most efficient manner possible.

## Coordination of Efforts

Some experts question the coordination among federal and state restoration efforts. In the past, the GAO asserted that restoration efforts in the Great Lakes suffered from inadequate coordination. Federal coordination with nonfederal entities might be significant due to the number of entities involved in restoration, including efforts from eight states. Some policymakers might contend that absent a formal coordination role for nonfederal entities, restoration projects might overlap. Further, some stakeholders argue that greater coordination among federal and nonfederal stakeholders might create opportunities to leverage resources to accomplish common restoration projects. The GLRI aims to build on existing federal, state, and local activities, yet it is unclear how this might happen. Nonfederal representatives lack a formal role to coordinate with federal actions in a governance entity. A Great Lakes Advisory Board contains nonfederal members and convenes to discuss restoration efforts; however, the board's charter does not specify that coordination is a priority.

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