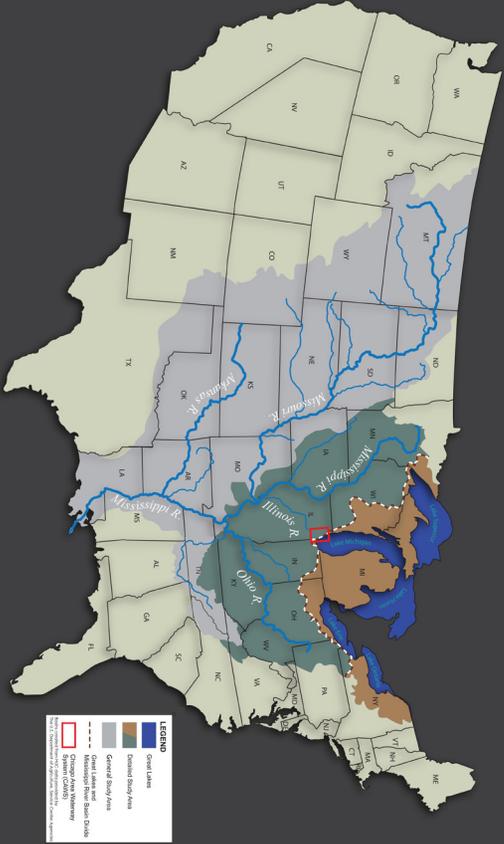


GLMRIS STUDY AREA MAP



LEGEND
 Great Lakes
 Detailed Study Area
 General Study Area
 Shared Boundary
 Detailed Study Area
 Shared Boundary

GLMRIS Study Area

The GLMRIS Study Area includes portions of the Great Lakes and Mississippi River basins that fall within the United States. Potential aquatic pathways between the basins exist along the basins' shared boundary (---), which is the primary concentration of the study.

USACE defined a *Detailed Study Area* to include the regions where the largest economic, environmental and social impacts from alternative plans are anticipated to occur. The *Detailed Study Area* consists of the Upper Mississippi River and Ohio River basins (■) and the Great Lakes Basin (■).

Future ANS may transfer beyond the *Detailed Study Area*; this pattern was observed by the spread of the Zebra mussel, which originated in the Great Lakes and spread throughout the Mississippi River Basin. Therefore, the *General Study Area* encompasses the Lower Mississippi River, Missouri River, Tennessee River and Arkansas River basins (■). While the majority of GLMRIS tasks will be completed within the *Detailed Study Area*, USACE will consider specific ANS impacts into the larger *General Study Area*.

GLMRIS Authority

GLMRIS was authorized under the Water Resources Development Act of 2007 and is 100 percent federally funded. In June 2009, USACE received appropriations to begin the Planning Process. The Moving Ahead for Progress in the 21st Century Act requires the submission of a GLMRIS Report to Congress within 18 months of its enactment.

Other ANS Efforts

As a member of the Asian Carp Regional Coordinating Committee (ACRCC), USACE is working to prevent Asian carp, specifically bighead carp and silver carp, from establishing sustainable populations in the Great Lakes. USACE supports this through a four-pronged strategy: (1) operating the Electric Dispersal Barriers in the Chicago Sanitary and Ship Canal (CSSC), (2) studying the effectiveness of and increasing the efficacy of the barriers as appropriate, (3) participating in extensive monitoring of the Chicago Area Waterway System and additional research on Asian carp environmental DNA (eDNA), and (4) conducting GLMRIS.

Additional Information

For additional information about GLMRIS, visit the website at <http://glmris.anl.gov>, or e-mail the Chicago District at glmris@usace.army.mil.

For information about USACE, Chicago District, or to obtain information regarding other projects related to ANS and Asian carp, please visit www.lrc.usace.army.mil, or call the Public Affairs Office at 312-846-5330.

For information about the Asian Carp Regional Coordinating Committee, visit www.asiancarp.us.



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GLMRIS

GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY

- WATER USE
- FLOOD RISK MANAGEMENT
- RECREATION
- NAVIGATION
- ECOSYSTEMS
- AQUATIC NUISANCE SPECIES

GLMRIS Study Scope

As a result of international commerce, travel and local practices, aquatic nuisance species (ANS) have been introduced and spread throughout the Great Lakes and Mississippi River basins. Connected primarily by man-made channels, ANS transfer was impeded historically by the poor water quality of these waterways. Recent water quality improvements have lessened that impediment making inter-basin ANS transfer more likely.

The U.S. Army Corps of Engineers (USACE), in consultation with federal agencies, Native American tribes, state agencies, local governments and non-governmental organizations, is conducting the Great Lakes and Mississippi River Interbasin Study, (GLMRIS). In accordance with the study authorization, USACE is evaluating a range of options and technologies (ANS controls) to prevent the transfer of ANS between the Great Lakes and Mississippi River basins via aquatic pathways. As part of this study, USACE is conducting a detailed analysis of various ANS controls, including hydrologic separation.

Specific Tasks of GLMRIS:

- inventory current conditions and forecast future conditions within the study area;
- identify aquatic pathways that may exist between the Great Lakes and Mississippi River basins;
- inventory current and future potential aquatic nuisance species;
- evaluate possible ANS controls to prevent ANS transfer, to include hydrologic separation of the basins;
- analyze the impacts each ANS control may have on significant natural resources and existing and forecasted uses of the lakes and waterways within the study area;
- develop a report to provide Congress and other stakeholders with an analysis of potential ANS control alternatives.

What Is An Aquatic Nuisance Species?

GLMRIS draws from Section 1003(2) of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to define an ANS as a non-indigenous species that:

- threatens the diversity or abundance of native species;
- threaten the ecological stability of infested waters; or
- threatens the commercial, agricultural, aquacultural, or recreational activities dependent on such water.

The Study Plan

GLMRIS follows the USACE Planning Process, a structured approach to problem solving, which provides a rational framework enabling sound decisions to be made. To gain efficiency, USACE is conducting GLMRIS along two concurrent tracks: Focus Areas I and II.

Focus Area I addresses ANS transfer via the Chicago Area Waterway System (CAWS). The CAWS is a highly utilized continuous connection between the basins and represents the greatest potential risk for ANS transfer.

Focus Area II addresses other aquatic pathways between the basins outside of the CAWS. USACE has conducted screening-level assessments to characterize these other pathways in terms of types of ANS which may transfer through them, as well as the risk of that transfer occurring.



Issues to Consider

Issues associated with GLMRIS are likely to include:

- significant natural resources such as wetlands and threatened and endangered species;
- commercial and recreational fisheries;
- recreational uses of the lakes and waterways;
- effects of potential ANS controls on waterways uses such as: flood risk management, commercial (commodity and passenger) and recreational navigation, recreation, water supply, water quality, hydropower production, conveyance of effluent from wastewater treatment plants and other industrial dischargers;
- statutory and legal responsibilities relative to the affected waterways.

How GLMRIS Differs From Other Studies

GLMRIS differs from most other studies in its magnitude and breadth. GLMRIS is not solely focused on the CAWS or Asian carp.

GLMRIS:

- covers both the Great Lakes and Mississippi River basins
- considers all ANS, not targeted species;
- considers all potential ANS controls or their uses in combination rather than a single predetermined solution;
- considers impacts of ANS controls on waterway uses and significant natural resources.

The Study Timeline

A GLMRIS Report will be submitted to Congress in December 2013. The report will provide Congress and other stakeholders with an analysis of potential ANS Control alternatives (including two hydrologic separation scenarios), as well as additional pertinent information for decision makers and will also identify additional analyses and requirements that must be completed after 2013 but prior to initiating Preconstruction, Engineering and Design. These items may include detailed design analyses, completion of the environmental compliance analysis, required internal reviews and public state/agency reviews.

Stay Involved

For opportunities for public involvement, new documents and other important news and events, please visit the Stay Involved page on the GLMRIS website. GLMRIS newsletters will be published periodically to keep interested parties informed of the study progress. To subscribe to the GLMRIS e-mail list, please visit the GLMRIS website at www.glmris.anl.gov.

Join the conversation and discuss GLMRIS topics with USACE and other stakeholders at [Facebook.com/glmris](https://www.facebook.com/glmris) and [@GLMRIS](https://twitter.com/glmris).