

# GLMRIS

GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY



AQUATIC NUISANCE  
SPECIES



ECOSYSTEMS



NAVIGATION



RECREATION



FLOOD RISK  
MANAGEMENT



WATER USE

## GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY

ENVIRONMENTAL IMPACT STATEMENT

## SCOPING SUMMARY REPORT

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SEPTEMBER 2011



**US Army Corps  
of Engineers®**

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## ACRONYMS

ANS	aquatic nuisance species
CAWS	Chicago Area Waterway System
CREATE	Chicago Region Environmental and Transportation Efficiency
DEIS	Draft Environmental Impact Statement
eDNA	environmental DNA
ESC	Executive Steering Committee
GLMRIS	Great Lakes and Mississippi River Interbasin Study
NEPA	National Environmental Policy Act
NRDC	National Resource Defense Council
NOI	Notice of Intent
USACE	United States Army Corps of Engineers
WRDA	Water Resources Development Act

# 1 INTRODUCTION

The Great Lakes and Mississippi River Interbasin Study (GLMRIS) is a thorough and comprehensive analysis of the options, technologies, and alternatives for the prevention of the interbasin transfer of aquatic nuisance species (ANS) between the Great Lakes and Mississippi River Basins through aquatic pathways.

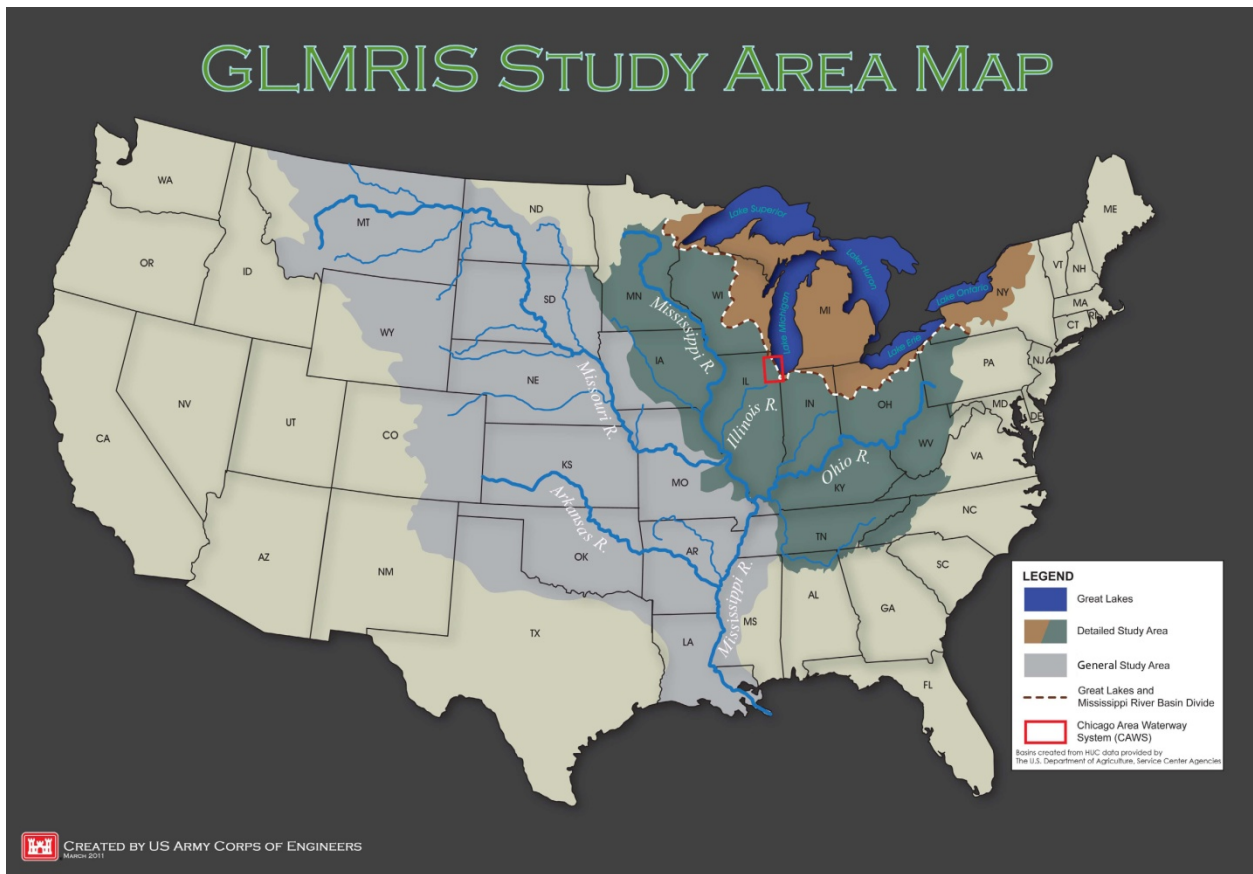
The Great Lakes and Mississippi River Interbasin Study (GLMRIS) was authorized by the U.S. Congress under Section 3061(d) of the Water Resources Development Act (WRDA) of 2007 (PL 110-114).

Located entirely within the United States, the GLMRIS Study Area includes the Great Lakes and Mississippi River Basins, shown in Figure 1. Potential aquatic pathways between the basins exist along a nearly 1500-mile boundary between the two watersheds – this interface is the primary concentration of the study. USACE has defined a *Detailed Study Area* to include the regions where the largest economic, environmental and social impacts of project alternatives are anticipated. The *Detailed Study Area* consists of the Upper Mississippi and Ohio River basins (shown in Green) and the Great Lakes Basin (shown in Brown). Future ANS may transfer beyond the *Detailed Study Area*, as was observed by the spread of the zebra mussel from the Great Lakes to the Mississippi River Basin; therefore, the *General Study Area* encompasses the remaining watersheds of the Mississippi River Basin (shown in Grey). 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*.

The scope of the study includes: (1) Identification and analysis of any natural or man-made aquatic pathways that exist between the two basins. (2) Inventory of current and future potential aquatic nuisance species which may potentially disperse between the two basins. (3) An examination of possible options or technologies that would prevent the transfer of these nuisance species, as well as the potential impacts on existing environmental, commercial, recreational, water-management, and other interests. (4) A discussion of potential legal, cultural, and social measures to prevent the future transfer of non-native species through non-aquatic pathways, including human intervention.

GLMRIS, as a USACE project, will follow the USACE planning process as outlined in the *Planning Guidance Notebook (ER 1105-2-100)*, and the U.S. Water Resource Council's Economic and Environmental Principals and Guidelines for Water and Related Land Resources Implementation Studies (*Principals and Guidelines*), dated March 10, 1983. *Principals and Guidelines* establishes a standard operating process for select federal agencies to carry out water resource studies. The *Planning Guidance Notebook* outlines the following six-step planning process:

1. Identify problems and opportunities.
2. Inventory and forecast conditions.



**FIGURE 1 GLMRIS Study Area**

3. Formulate alternative plans.
4. Evaluate the effects of the alternative plans.
5. Compare alternative plans.
6. Select a plan

Based on the six-step planning process, USACE will develop a Draft Feasibility Study document and prepare a Draft Environmental Impact Statement (DEIS) consistent with the study authority and the requirements of the National Environmental Policy Act of 1969, as amended.

A Notice of Intent (NOI) to prepare the GLMRIS DEIS was first published in the *Federal Register* on November 16, 2010; a subsequent notice on February 14, 2011, announced additional NEPA Public Scoping meetings. The NOIs invited interested members of the public to provide comments on the scope and objectives of the Environmental Impact Statement (EIS), including identification of issues and alternatives that should be considered in the EIS analysis.

The public scoping comment period started with the publication of the first NOI and ended March 31, 2011.

This report presents a summary of the comments that were received during the scoping period. USACE will use this report and the individual comments as part of a process to determine the scope of the analysis in the DEIS. All comments, regardless of how they were submitted, will receive equal consideration in the development of the DEIS.

Copies of all written scoping comments submitted either by mail, via an online comment form, or in person at the public meetings are available on the GLMRIS project Web site (<http://GLMRIS.anl.gov>). Transcripts from the public meetings are also available on the Web site.

## 2 THE SCOPING PROCESS

### 2.1 PUBLIC OUTREACH

Public outreach was undertaken to help identify objectives, define significant issues, and identify potential alternatives associated with GLMRIS. The public was provided with several methods for submitting scoping comments or suggestions on the GLMRIS DEIS:

- Via the online comment form on the project Web site
- Standard mail
- In person at the public meetings, either by testifying or submitting written comments

Public scoping meetings were held to solicit comments, as required by the National Environmental Policy Act (NEPA). USACE conducted 12 public meetings at key locations within the Great Lakes and the Mississippi River Basins.

Chicago, IL	Dec.15, 2010	University of Chicago, Gleacher Center
Buffalo, NY	Jan. 11, 2011	Buffalo Conference Center, Hyatt Regency
Cleveland, OH	Jan. 13, 2011	Great Lakes Science Center
Minneapolis, MN	Jan. 20, 2011	Univ. of MN, McNamara Alumni Center
Green Bay, WI	Jan. 25, 2011	NE Wisconsin Technical College, Center for Business & Industry
Traverse City, MI	Jan. 27, 2011	Northwestern Michigan College, Hagerty Conference Center
Cincinnati, OH	Feb. 1, 2011	Univ. of Cincinnati, Tangeman Center
St. Louis, MO	Feb. 8, 2011	Great Lakes River Museum, Alton, IL
Vicksburg, MS	Feb. 10, 2011	Vicksburg Convention Center
Milwaukee, WI	Feb. 15, 2011	O'Donnell Park Complex, Miller Room
New Orleans, LA	Feb. 17, 2011	Port of New Orleans Admin. Bldg
Ann Arbor, MI	March 18, 2011	Eagle Crest Conference Center, Ypsilanti, MI

Prior to each public meeting, a press release was distributed to the local media outlets. The press release provided a general notice, a description of the project, and a request for public comments. Each press release included dates, times, and locations of the public meetings (see Attachment 1).

USACE maintains a Web site for GLMRIS ([www.glmris.anl.gov](http://www.glmris.anl.gov)) that provides background information about the project, notice of public meetings, project description, and maps. Additional information about GLMRIS and about the NEPA scoping process can be found under the site's FAQs tab. During the public comment period, it included an online comment form. The Web site address was provided to the public through public meetings, press releases, and mailings. The Web site also provides people with an opportunity to join an electric e-mail stay-in-touch mailing list, which provides project information and newscast updates – 354 e-mail addresses are currently subscribed. Transcripts of the scoping meetings and individual comment submittals are posted on the Web site. At last count GLMRIS also had over 350 friends on Facebook and followers on Twitter.

## **2.2 SCOPING METRICS**

Nearly 950 individuals, organizations, and state and local government agencies provided scoping comments on GLMRIS. Some people submitted more than one document or used more than one method to submit comments; some documents were signed by multiple people. Comments were received from 35 states. Michigan had the greatest number of people submitting or signing submittals (about 30 percent of the 950 total); about 20 percent were from Illinois; and about 15 percent each were from New York and Wisconsin. There were 27 submittals from Canada and one from the Virgin Islands. These numbers do not include mail-in campaigns, which are discussed below.

The following Federal, State, Tribal, and Local governments provided individual scoping comments or signed on to a comment letter:

- Chippewa Ottawa Resource Authority
- City of Chicago
- Illinois Department of Natural Resources
- Minnesota Department of Natural Resources
- Minnesota Department of Transportation
- Mississippi Department of Wildlife, Fisheries and Parks
- New York State Department of Environmental Conservation
- State of Michigan, Office of the Great Lakes



- Saint Regis Mohawk Tribe, Environment Division
- Texas Commission on Environmental Quality
- U.S. Environmental Protection Agency, Region 5
- U.S. Fish and Wildlife Service
- Wisconsin Department of Natural Resources

Comments were also provided by U.S. Senators Carl Levin and Debbie Stabenow, Michigan; Congressman Dave Camp, Michigan; William Schuett, Attorney General of Michigan; and Missouri State Senator Howard Walker. More than 150 non-governmental organizations submitted individual comment letters or signed letters submitted by another organization. About 25 comment letters were received from business groups.

**Campaigns:** GLMRIS received campaign letters from the National Wildlife Federation Fund and the Illinois Chapter of the Sierra Club. The National Wildlife Federation Action Fund submitted a spreadsheet with the names of 4139 individuals who had signed on with their organization to submit its prepared comments. Another submittal provided information on individualized comments (n = 176). Comments from the National Wildlife Federation were received from 38 states. The greatest number of submittals were from New York (27%), followed by Pennsylvania (13%), Illinois (12%), and Michigan (10%).

The Illinois Chapter of the Sierra Club sent paper copies of campaign letters and mailers; spreadsheets with commenter name and address information were provided in an e-mail. The mailer submittal appears as a representative mailer, along with a list of commenter names and states. The same holds true for the letter submittals.

Individual names for campaign submittals are not searchable on the GLMRIS Web site. These submittals can be found under National Wildlife Federation Action Fund; Sierra Club, Illinois Chapter, mailer campaign; and Sierra Club, Illinois Chapter, letter campaign.

**Public Meetings:** The public meetings ran from 2:00 pm to 8:00 pm, in two sessions (except for Chicago, which was held from 12:00 pm to 7:00 pm). Displays presented information about GLMRIS, and handouts were available that explained different aspects of GLMRIS. There were also forms for submitting written comments and documents. USACE staffed each meeting with agency representatives who made presentations about GLMRIS. After the presentation, the public was invited to provide comments and ask questions. Court reporters were present at each meeting to record the proceedings; the transcripts are available on the GLMRIS Web site. Computer terminals were available for submitting comments via the GLMRIS Web site.

About 540 people attended the GLMRIS public scoping meetings. The GLMRIS public scoping meetings were attended by people from Federal agencies, elected state and local officials, the media, environmental groups, and other interested parties. About 170 individuals

provided oral comments at one or more meetings. An average of 15 people provided oral comments at each meeting. The greatest number of speakers was at Traverse City, Michigan (44); only one person spoke at the Vicksburg meeting. Fifteen individuals submitted written comments at the meetings, not including the people who provided written submittals of their oral comments. Nearly 50% of the meeting commenters were representing organizations.

**Web site and Other Comment Submittals:** The GLMRIS Web site received 620 comment documents from individuals, environmental organizations, sports fishing organizations, business and industry, state agencies, and Native American Tribes. The project received 38 comments by mail. About 90% of the Web comment submittals were received from individuals. About 70% of the by mail submittals were from individuals.

### 3 SUMMARY OF SCOPING COMMENTS

This section summarizes comments received from the public following the November 16, 2010, NOI in the Federal Register.

#### 3.1 COMMENTS RELATED TO THE SPREAD OF ASIAN CARP AND OTHER INVASIVE SPECIES

Nearly all of the scoping comment submittals included statements about the importance of stopping the spread of Asian carp and other aquatic nuisance species (ANS). Many commenters communicated a sense of urgency, fearing that the carp would be impossible or too costly to control if they became established in the Great Lakes.

**Environmental Impacts on the Great Lakes:** Commenters were concerned about the adverse impacts the Asian carp could have on the Great Lakes ecosystem. Their fears were based on the damage Asian carp have already done to the ecosystem of the Mississippi River basin by competing with native species for habitat and food. They noted that carp consume the very bottom of the food chain quickly and effectively and, therefore, outcompete native species that directly or indirectly rely on those food supplies. In addition, because of their large size, the adult carp do not have any natural predators. They also noted the damage that had already been done by other well-known ANS, such as zebra mussels, quagga mussels, and round gobies. Some commenters voiced specific concerns that Asian carp would spread rapidly in Lake Erie because of its abundant supply of plankton and phytoplankton and relatively shallow depth.

**Environmental Impacts on the St. Lawrence Seaway and Canada:** Many commenters also expressed similar concerns about impacts on the ecosystem of the St. Lawrence Seaway. A few organizations noted a risk assessment study by Canada's Department of Fisheries and Oceans that concluded that if Asian carp successfully colonized the Great Lakes there is a high probability that they would spread across the Great Lakes and possibly even through the Canadian Prairie provinces.

**Economic Impacts:** Commenters were concerned about the cascading economic effects that would result from environmental impacts associated with an invasion of Asian carp. The loss of native fish populations would seriously impact the Great Lakes commercial and recreational fishing and boating industries, estimated to be valued in the billions of dollars. Tourism dollars would also be lost, as well as jobs associated with these industries.

A few commenters were concerned that an invasion of Asian carp could affect lakefront property values. The point was also made that decreased property values could result in reduced property tax revenues. One commenter wanted GLMRIS to look at the impact of decreased tax revenue on communities around the Great Lakes.

**Impacts on Recreation:** Commenters wrote about how the increased numbers of Asian carp have already affected water-related recreational activities in the Lower Illinois and

Mississippi Rivers. For example, native fish populations (e.g., perch, walleye, and trout) have been greatly reduced, which affects recreational fishing. They also noted that fears about being harmed by jumping carp were deterring people from using these waters for swimming, boating, scuba diving, and other water sports. They were concerned that similar problems would be experienced in the Great Lakes Basin if the carp were not stopped.

**Impacts on Quality of Life:** Many commenters described the Great Lakes as a national treasure. Their comments communicated the importance of the Great Lakes to their quality of life and the need to preserve this ecosystem for future generations.

**Impacts on Water Quality:** Some commenters noted that it was important to protect the Great Lakes because they are the source of about one-fifth of the Earth's fresh water, and a source of drinking water for millions of people. These commenters were afraid the Asian carp would threaten the water quality of the Great Lakes.

**Impacts on Native American Fishing:** USACE received scoping comments from Native American organizations. They were concerned that the introduction of Asian carp and other ANS would adversely impact traditional fishing practices that are important to their livelihood and culture and, therefore, asked USACE to make closing the Chicago Area Waterway System (CAWS) pathway a priority. They also reminded USACE of the government's responsibility to protect the resources of the Tribes through the Treaty of 1836 and the 2000 Great Lakes Consent Decree. Snakehead fish in the Delaware River basin were also mentioned as a species of concern due to the hazards they present to the ecosystem.

**ANS Other than Asian Carp:** Commenters expressed concerns about aquatic nuisance species other than Asian carp. They reiterated the study objective of including all ANS and their movement *between* the basins (not just from the Mississippi Basin to the Great Lakes) in GLMRIS. The following examples were given:

- Invasive plants and animals coming from the northern (Canadian) side of the Great Lakes,
- Invasive grasses in the Saginaw Bay shorelines,
- Snakehead fish in the Delaware River basin, and
- Nutria (semi-aquatic rodents) and salvinia (a small free-floating plant) in the New Orleans area.

One commenter was hoping that GLMRIS would uncover information that would help address the problem of ANS that have become established and accepted as part of the ecosystem, such as the European (common) carp, noting that these fish hinder ecosystem restoration efforts.

### 3.2 COMMENTS RELATED TO THE STUDY TIMELINE

Given what they thought was an imminent threat to Lake Michigan, commenters felt that USACE should focus its efforts on the Chicago Area Waterways System (CAWS) and complete that part of the study within 18 months. However, a few commenters cautioned against compressing the CAWS schedule, stating that a 5-year study is needed to provide valid scientific information and that interim measures are being implemented to control the movement of Asian carp.

Many commenters suggested that the GLMRIS timeline could be shortened by using data from credible existing studies or from studies that would be completed in the near future. They argued that by integrating this work (after determining that it met USACE's technical standards), both time and money would be saved. A few commenters suggested looking at Chinese studies of Asian carp. One asked if GLMRIS had considered involvement with the Great Lakes–St. Lawrence River Basin Water Resources Compact.

The following studies were among those listed:

The Great Lakes Commission and the Great Lakes and St. Lawrence Cities Initiative: This study evaluates options for achieving hydrological separation between the Mississippi River and the Great Lakes basins. It is looking at the impacts on recreational and commercial navigation; wastewater and storm water management; and the ecology of the CAWS and Lake Michigan. The economic costs associated with various hydrological separation options are also being analyzed. This study is due to be completed in January 2012.

Natural Resource Defense Council (NRDC) and the Alliance for the Great Lakes: These organizations both prepared engineering studies that described options for hydrological separation in the CAWS.

U.S. Fish and Wildlife Service and Fisheries and Oceans Canada: Each of these organizations has completed a risk assessment of the impacts of Asian carp on the Great Lakes and Canadian waters, respectively.

Great Lakes Aquatic Non-indigenous Species Information System of the National Oceanographic and Atmospheric Administration: This database lists both current and future potential invasive species in the Great Lakes.

*Economic Impacts of Waterborne Shipping on the Indiana Lakeshore*, a 2010 report commissioned by the Ports of Indiana, that looked at local, regional, and state economic impacts generated by maritime activities at the Indiana lakeshore.

*A Modal Comparison of Domestic Freight Transportation Effects on the General Public*, a 2009 Texas Transportation Institute report prepared for the U.S. Department of Transportation Maritime Administration and the National

Waterways Foundation. The report looks at the impacts associated with a modal shift from waterways to railway or trucks.

The Chicago Metropolitan Agency for Planning; Metropolitan Reclamation District of Greater Chicago; and the Chicago Region Environmental and Transportation Efficiency (CREATE) Program were also mentioned as sources of useful information.

Comments from waterway operators cautioned against using the studies prepared by the Great Lakes Commission study or the NRDC because they considered them to be advocacy pieces rather than true feasibility studies.

### **3.3 COMMENTS RELATED TO PATHWAYS FOR AQUATIC NUISANCE SPECIES INTRODUCTION**

Commenters wanted GLMRIS to look at a variety of pathways for the transfer of ANS between the Mississippi River and Great Lakes basins, including non-aquatic pathways and human transfer.

**Waterways and Shipping:** Commenters discussed barge traffic and international shipping as one of the leading vectors for ANS movement between the Mississippi and Great Lakes basins. They pointed out that ballast and bilge water releases have contributed to the spread of ANS and that ballast/bilge water regulations have been largely ineffective. The development and operation of canals was also said to contribute to the spread of ANS, as was the transfer of cargo from vessels within ANS-infested waters to vessels in non-infested waterways.

**Human Transport:** Commenters gave examples of both inadvertent and deliberate human vectors for introducing ANS. Some noted the illegal transport of live Asian carp through the Great Lakes watershed by truck for fish farm operations.

Several commenters discussed the inadvertent transfer of immature Asian carp via bait sales, noting that efforts to control the spread of VHS (viral hemorrhagic septicemia) have imposed local minnow harvesting restrictions that force buyers to import bait fish from areas of the country (e.g., Arkansas) that have established Asian carp populations. Therefore, bait sellers may unknowingly purchase bait that contains immature carp. Fishermen using the bait can then introduce those carp to previously non-infested waters.

Another vector mentioned was the aquarium and ornamental fish trade; ANS can be introduced by dumping aquarium water containing live fish into surface water or into storm drains.

One commenter pointed out that as more waterways become infected and people use those waters for recreation, the possibility for transfer increases, because people are not informed on how to disinfect or inspect their gear.

**Waterfowl:** A few commenters were concerned about the transfer of ANS by waterfowl that carry fish eggs from one body of water to another. The spread of fish eggs by wading birds and juvenile fish was also mentioned.

**Man-made Fish Passages:** One organization pointed out that fish passages installed in dams on the Upper Mississippi River to allow fish to pass upstream could allow the carp to migrate further up the Mississippi.

**Hydrological Connections/Other Pathways:** Commenters cited several locations between and within the Great Lakes and Mississippi River basins where there was the potential for ANS transfer, and suggested that further evaluation of these areas is needed. Among the areas mentioned were the wetlands of the Libby Branch of the Swan River in Itasca and Aitkin Counties, Minnesota (Tamarack Lowlands); the Hastings lock in Minnesota; the St. Anthony Falls and Ford lock in the Minneapolis-St. Paul area; the Clinton River watershed in Michigan; Long Lake, Ohio, as a connection between the Ohio River and Lake Erie; the Dover Dam on the Tuscarawas River in Ohio; Grand Lake St. Mary's, Ohio; the Wabash River and Lake Erie; and the Welland Canal (connecting Lakes Erie and Ontario) in Canada. The U.S. Environmental Protection Agency, Region 5, stated that the ANS risk evaluation should include key sub-basins such as the Ohio River and Missouri River sub-basins, and should consider the Hudson River sub-basin.

One commenter made a more general suggestion to look at marshland areas that could temporarily connect the two watersheds during flooding conditions.

A few organizations believed that control measures in place in Focus Area I (the CAWS) were effective in controlling the Asian carp and that USACE should turn its attention to Focus Area II (Other Pathways).

**Asian Carp Survival:** Some commenters felt that more information was needed on whether or not Asian carp would be able to establish a breeding population in the Great Lakes. They wondered if they could survive on the algae and other available food sources in the lakes or if their habitat would be limited to shorelines and the mouths of tributaries. They also asked if the carp could spawn in rivers with higher velocities than, for example, the Illinois River.

A few commenters noted that climate change could cause the waters in the Great Lakes area to become warmer and, therefore, become a more suitable habitat for Asian carp. In addition, increased flooding could lead to new pathways for ANS to invade the Great Lakes.

### **3.4 COMMENTS RELATED TO ANS CONTROLS**

Many commenters discussed interim measures that are currently in place to help control the spread of Asian carp and other ANS. Most of these commenters felt that these measures were an important part of the near-term solution, but that ultimately hydrological separation would be needed. They noted that individual technologies such as acoustic bubble screens, electric barriers, and chemical poisoning are not 100% effective. One organization stressed the

importance of continuing research to develop better methods for controlling ANS. On the other hand, commenters from waterway-related industries indicated that the current control measures (eDNA monitoring, electric barrier, fish netting, and rotenone) were effectively protecting Lake Michigan from Asian carp invasion.

One organization noted that the Great Lakes and Mississippi basins would remain vulnerable to ANS invasion through pathways not covered by GLMRIS. Therefore, it is vital to continue to improve physical, chemical, and biological technologies for controlling ANS.

**Surveillance:** Commenters felt that it was important to continue monitoring and surveillance activities, including eDNA testing, as part of the effort to control ANS. Several commenters had questions about how to interpret eDNA testing results, particularly with respect to eDNA being found beyond the electric barriers and false positive results. At least one commenter wanted increased eDNA surveillance of Lake Erie because a few Asian carp had been caught by commercial fishing in the mid-1990s. One commenter suggested doing eDNA testing in Southern Lake Michigan, not far from the Chicago River where there is purported to be a “giant plankton doughnut.” Another commenter thought ANS monitoring systems should be established to track the movement of ANS at suspected invasion fronts and high-risk pathways.

One commenter suggested using acoustic technologies that would document the movement of fish in the vicinity of a physical barrier system and provide input that would enable the system to respond to the detection of suspect activity (e.g., fish or human movement).

**Electric Barriers:** Many people commented on the effectiveness of the electric barriers that are in place in the Chicago Sanitary and Shipping Canal. Some noted that the electric current is too weak to repel juvenile Asian carp and does not eliminate the movement of other macro- or micro-organisms that are considered ANS. The point was made that power failures, diverting power for local use, human tampering, or a technical failure could cause an electric barrier to fail. A few commenters suggested installing additional electric barriers, locating them farther downstream in the Illinois River and in canals that connect Great Lakes.

Many people made the point that since the electric barriers are not 100% effective, hydrological separation is needed. A few commenters thought that the electric barriers were performing adequately in Focus Area I.

Note: See the section on Harvesting or Killing Carp for additional information.

**Physical Barriers:** Commenters discussed the use of physical barriers, such as dams or fences, as an interim solution to controlling Asian carp and other ANS, particularly in Focus Area II. Some pointed out the fallibility of these barriers: they can be knocked down and small fish or fish eggs can get through some barriers.

Some commenters mentioned physical barriers that could be built or modified to control the spread of Asian carp and other ANS. One commenter mentioned the proposed Coon Rapids Dam expansion above the Twin Cities in Minnesota, which is being considered as a means for



preventing Asian carp from spreading to Minnesota's lakes. This commenter preferred creating the barrier by closing the Ford Dam #1 lock, which he felt would better protect the water supply.

One organization felt that multiple dams on the Upper Mississippi River and the St. Louis River would be the best solution for preventing ANS transfer via Tamarack Lowlands in Minnesota.

Other commenters suggested an interim measure that would involve constructing a physical barrier in the CAWS that would block the movement of Asian carp but not require changing the flow of the Chicago River; water would be pumped over the barrier to allow downstream flow to continue.

**Hydrological Separation:** Many people commented on the importance of re-establishing the hydrological separation between the Mississippi River and Great Lakes basins, arguing that this was the only permanent and sustainable way to prevent the movement of ANS between the two basins. They felt that the Chicago portion of the study should focus on comparing the costs of separating the basins at many potential locations, using various technology options. Some argued that interim measures to control Asian carp, such as the electric barriers, were not adequate. A few commenters wanted to temporarily close the locks in the Chicago area while other short- and long-term solutions were pursued. The Minnesota Department of Natural Resources pointed out that Minnesota and many other states would be impacted by decisions made regarding preventive measures implemented in the CAWS; impacts are not limited to the Chicago area.

Commenters used a variety of phrases to describe hydrological separation, including closing the Chicago Sanitary and Ship Canal, reversing the flow to their original watersheds, closing the Chicago locks, blocking the canals, physical separation, and ecological separation.

While most of the comments referred to the Chicago area, some commenters stressed the importance of closing all potential access points between the basins where Asian carp and other ANS could enter.

Note: The Hydrological Connections/Other Pathways subsection from Section 3.3 of this report gives examples provided by commenters of areas where hydrological separation should be considered.

A few organizations were against closing the locks or any other form of hydrological separation, maintaining it would adversely impact industry, local economies, and the economy of the country. They also pointed out that there are mechanisms other than aquatic pathways that can enable the transfer of ANS from one body of water to another.

Commenters on both sides of the hydrological separation issue discussed areas that would be impacted by this action, including commercial shipping, ground transportation, storm water management, flood control, wastewater treatment, tourism, and recreational boating. Some advocates of hydrological separation in the Chicago area gave examples of positive outcomes

that could result from infrastructure upgrades that would be implemented as a result of this action, including the following:

- An enhanced system for transporting goods around the Great Lakes basin, including integrating light rail, intermodal freight terminals, and overland trucking;
- An upgraded wastewater treatment system that would discharge to Lake Michigan under cleaner standards;
- An upgraded storm water and flood control management system; and
- Improved water quality in the Illinois River, Des Plaines River, and other waterways in the Mississippi River basin, since they would not be receiving treated wastewater from the Chicago area.

They also mentioned available technologies such as boat lifts or marine railways that could be built to move barges and other water craft if locks are closed. A hull and bilge washing system could be used to prevent ANS from being carried from one waterway to another.

Commenters opposed to hydrological separation argued that it would negatively affect commercial and recreational navigation. They pointed out that moving goods by truck or rail rather than by barge would result in increases in traffic, traffic fatalities, air emissions, and road maintenance.

**Other Technology-Related Solutions:** Commenters described technologies they had developed to control ANS. One commenter proposed using a tall, barbed wire electric fence with a curved top to stop fish. Another company described a technology that uses a sequenced array of electrical fields to drive fish from a lock chamber into the open river, or an area where they could be harvested or killed, before a vessel would be allowed to enter. Another commenter suggested using a combination of high and extremely low sound frequencies to drive fish from specific locations.

**Harvesting or Killing:** Several commenters had ideas on ways to reduce the number of Asian carp. Some suggested exporting them to China, where there is an established market, or creating a food market for them in the United States. Other suggestions included finding commercial applications for the carp such as pharmaceuticals, pet and animal food, and fertilizer. Commenters pointed out that there must be sufficient incentive for fishermen to harvest the carp.

Other commenters advocated killing the carp and did not necessarily have suggestions for their use. Examples include putting a bounty on carp; reducing numbers through recreational and competitive fishing/bow hunting; setting the electric barriers to kill fish; electroshocking and netting the carp; creating netting ponds off of the canal or along other waterways; and providing free fishing licenses for non-game invasive species and free commercial permits.

A few commenters discussed the use of chemicals to control Asian carp. Most of these people were not in favor of the continued use of chemicals, specifically rotenone. One reason given was that chemical barriers require constant treatment and detoxification; another was the regulatory limits on chemical releases under the Clean Water Act. One commenter suggested adding chlorine to the waters in conjunction with the electric barriers, since fish swim away from chlorine.

One commenter suggested creating a dead zone by turning off the aeration and seepage stations along the canal as a temporary measure until hydrological separation could be achieved. Another suggested using an electromagnetic fence.

Several commenters supported efforts to block or eradicate carp, but did not want these measures to unnecessarily degrade water quality or harm native species.

**Biological Means:** Several commenters had suggestions for controlling Asian carp through biological means. Many suggested finding a native predator for the carp, particularly targeting eggs, fry, and juvenile carp, and stocking them in areas where there are carp, including the CAWS. Other suggestions included disrupting or reducing the viability of the eggs after spawning; interfering with the life cycle and/or reproductive capability of the carp; introducing a disease or infection specific to Asian carp; and restoring native fish populations. One commenter suggested conducting studies to determine whether their abundant food supply is connected to runoff associated with a particular land use condition.

**Education:** A few commenters discussed the importance of increasing public awareness about ANS. They felt that the general public, as well as commercial navigation, should be informed about the consequences of aquatic invasive species, how to identify them, and the best practices for preventing their transfer from one waterway to another. Guidelines for cleaning boats properly and disposing of bait safely were given as examples. This could be accomplished with public seminars and could be done in conjunction with federal, state, and local agencies.

**Regulations on Ballast/Bilge Water:** Commenters advocated passing stronger legislation on the federal level and/or stricter enforcement of existing regulations on bilge/ballast water as a means to control the spread of ANS. One commenter offered New York State's standards for ships entering the Great Lakes as an example of a workable solution to the ballast water threat.

A few commenters suggested separate fleets for the Great Lakes basin and the Mississippi River basin. Cargo would be sanitized, then transferred to specific ships, barges, railroad cars, or trucks. These controls could be applied to ships in the St. Lawrence–Great Lakes waterways. One organization proposed that no foreign vessels be allowed to routinely enter the Great Lakes waterways. Instead, a Great Lakes shipping fleet would transfer cargo; exceptions would undergo bilge disinfection procedures.

One commenter suggest having the Coast Guard or other agency board incoming vessel to ensure ANS were killed by proper treatment of ballast tanks; others thought ships should be required to blow out their bilges and dump ballast water before entering the Great Lakes.

**Other Legal/Regulatory Solutions:** Some commenters noted that current laws and regulations were ineffective in controlling ANS, specifically Asian carp; others called for stricter enforcement of existing laws and voiced support for additional legislation designed to control or ban the import, possession, and transport of Asian carp and other ANS in the United States. Commenters mentioned the introduction of the Permanent Prevention of Asian Carp Act of 2010, which requires the Secretary of the Army to study the feasibility of the hydrological separation of the Great Lakes and Mississippi River basins. One commenter pointed out the inadequacies the Lacey Act (enacted to combat trafficking in “illegal” wildlife, fish or plants), which was recently updated to include bighead carp.

Commenters also suggested the following actions to control ANS:

- Prohibit bringing any watercraft into the Great Lakes watershed without thorough cleaning and inspection;
- Prohibit the movement of live catch, bait fish, or other aquatic organisms into the Great Lakes watershed;
- Establish a coherent national aquaculture policy: New Zealand’s *Hazardous Substance and New Organisms Act* and Canada’s *National Code on Introductions and Transfers of Aquatic Organisms* were given as examples to follow;
- Establish regulations that allow the aquarium and ornamental fish industry to trade in potential ANS, but require a bond equal to the projected cost of an ANS outbreak; and
- Back up the regulations by issuing substantial fines to violators.

Several commenters expressed their displeasure and frustration at government’s inability to deal with the spread of Asian carp and other ANS. They noted that the existing legislation did not stop the spread up the Mississippi River. Many of these commenters referred to court rulings on lawsuits that were filed to close the O’Brien and Chicago locks. They thought politicians were being influenced by lobbyists representing the economic concerns of the shipping and transportation industry and pointed out that revenue from the fisheries industry is greater than that of the shipping industry in the Chicago area. One commenter noted that a study recommendation of hydrological separation will not automatically result in action; new laws may have to be passed.

**Funding:** A few commenters stressed the importance of continued federal funding for GLMRIS. At least one commenter wanted to make sure the government continued to fund research on developing effective control technologies for different ANS. Another wondered if industries that contribute to the ANS problem (e.g., fish farms and shipping) would be required to help pay for mitigation actions. Other commenters did not want GLMRIS funding to jeopardize federal funding to Great Lakes states for other prevention, containment, and control activities (e.g., Great Lakes Restoration Initiative funding).

### 3.5 COMMENTS RELATED TO PROCESS AND PUBLIC INVOLVEMENT

**Prevention vs. Risk Reduction:** Many commenters took issue with USACE’s use of the phrase “risk reduction.” They argued that it weakened the intent of the congressional mandate under the Water Resources Development Act of 2007, which was to “prevent the spread of aquatic nuisance species between the Great Lakes and Mississippi River basins. . .” Some commenters felt that expanding the scope of the GLMIS study to include risk reduction would divert time and resources that should be directed toward prevention. Others noted that risk reduction and mitigation activities have been authorized and funded separately from GLMRIS and that millions are spent each year on aquatic invasive species management. On the other hand, a few organizations thought the term “risk reduction” represented a realistic and logical approach to evaluating possible actions.

**Scoping Meetings and Public Outreach:** A few people commented on the GLMRIS scoping process. Some asked for meetings in additional locations, including Milwaukee, Wisconsin; New Orleans, Louisiana; Houston, Texas; and Ontario and Quebec, Canada. They also noted that there were states in the detailed study area where no meetings were scheduled.

Other commenters, noting the small attendance at some of the meetings, thought USACE could have done a better job publicizing the scoping meetings. More than one person said that two days’ notice in the newspaper was not enough. Commenters suggested targeting organizations that have an environmental focus or those that have a special interest in GLMRIS (e.g., boating and fishing organizations, and waterway industries) well ahead of any meetings. They also suggested making use of newspapers and other means of communicating information in addition to the Web site. Commenters also thanked USACE for hosting the meetings and for its public outreach efforts.

Commenters had the following suggestions for future public outreach activities:

- Hold regular discussion forums (perhaps twice a year) where the public could receive information on the progress and status of the project and interact with technical staff;
- Include all of the Upper Mississippi and Ohio River states in outreach efforts, not just those bordering the Great Lakes;
- Make sure future meetings are well publicized on the Web site, through social media, and in newspapers;
- Have GLMRIS representatives go to outdoor shows, sportsmen’s clubs, and other organizations that are potentially impacted as a means of proactively getting information on the project to the public—the Web site is not enough;
- Make interim reports and other findings available to the public in a timely manner and give the public an opportunity to comment on them;

- Use informational YouTube videos to inform the public, in addition to the information provided on the GLMRIS Web site; and
- Use an open docket system for future GLMRIS public comment periods, instead of waiting until the end of the comment period to post comments.

**Stakeholder Participation:** Commenters wanted to know what role the Great Lakes States would have in the GLMRIS process and if they would have a direct role in the final decision making process. They suggested additional participants for the Coordinating Committee, including representatives from each of the states in the Upper Mississippi Basin, Native American Tribes, and Canada.

Commenters asked USACE to include private industry, citizen action groups, members of the business community, and other key stakeholders as members of their review panels. About 20 organizations, including both private industry and government agencies, expressed their continued interest and support in the project. Some offered their assistance; others specifically asked to be given formal representation on the Executive Steering Committee.

**Interim Actions and Information:** A few commenters asked if USACE could take interim action if available data clearly indicated an area of increased vulnerability for ANS invasion. They also wanted USACE to develop a timeline for the federal review and approval process that must be completed before a construction project can begin.

### **3.6 COMMENTS SUGGESTING INFORMATION/ANALYSES TO BE INCLUDED IN THE DEIS**

Section 3.1 of this report summarized commenters' concerns about the harm that Asian carp and other ANS could inflict on the Great Lakes' region ecosystem and economy. Implied in these statements is the expectation that these issues will be addressed in GLMRIS. Commenters also made specific requests with respect to analyses and information to include in the DEIS.

Commenters wanted the study to include economic data that would provide the basis for cost-benefit analyses of alternatives under consideration for preventing the spread of Asian carp and other ANS between the two basins. Suggestions for analyses are as follows.

- Current and projected costs of controlling ANS:
  - The costs of existing ANS control and monitoring activities—in particular, the costs of maintaining the electric barriers;
  - Life-cycle costs of all activities required to monitor, control, and remediate future ANS threats;

- The costs of controlling current nuisance species in the Great Lakes (e.g., round goby, sea lamprey, zebra mussel, and quagga mussel), which would provide an estimate of the potential cost of controlling Asian carp
  - The cost of removing Asian carp (and other ANS) from the Great Lakes if they become established;
  - The economic value associated with the Great Lakes sport and commercial fishing industries; recreational boating, fishing, and other water sport activities; and the tourist industry. Some commenters wanted the analysis to include Canada.
- Current costs of maintaining the CAWS and projected costs associated with hydrological separation:
    - Life-cycle costs of operating, maintaining, and replacing the existing infrastructure in the CAWS, such as transportation (e.g., traffic delays caused by opening bridges); wastewater and storm water management; and the locks;
    - The costs and impacts associated with a modal shift from waterways to rail or trucks, including fuel costs and increased air emissions, traffic congestion, and traffic fatalities;
    - The cost benefits that would be achieved by implementing hydrological separation at one of the locations where the CREATE project’s railway network will cross the Chicago Sanitary and Ship Canal;
    - The impacts on businesses that depend on raw materials shipped through the Chicago waterways, if waterway navigation is hindered or stopped;
    - The cost to build, maintain, and operate new infrastructures (e.g., boat lifts or marine railways) to replace waterway routes; all potential locations for hydrological separation should be evaluated; and
    - The costs associated with increased flooding that could occur as a result of hydrological separation, since some storm water runoff drains into the CAWS.
  - Other information to be included in the GLMRIS DEIS:
    - The positive and negative impacts on wildlife resources for all alternatives— the Minnesota Fish and Wildlife Service fish and wildlife resources were specifically mentioned;

- Specific locations of ANS control alternatives to determine whether U.S. Fish and Wildlife Service property could be affected;
- Fish and wildlife species and their habitats that could be impacted by the project—determine potential direct and indirect impacts, and identify mitigation measures;
- The potential for direct and indirect impacts on wetlands and riparian areas in the study area;
- Impacts on public water supplies and water quality from ANS;
- Impacts of alternatives for controlling ANS on ongoing river restoration activities;
- Impacts on commercial navigation, wastewater management, storm water and flood control, water quality, recreation, and tourism that would result from hydrological separation in the CAWS—impacts should be location specific; and
- The hydrological impact of physical separation on the Little Calumet River flood control project.

### **3.7 USACE RESPONSE TO SCOPING COMMENTS**

Public comments received through the GLMRIS scoping process are important to USACE and will be carefully reviewed. The issues, ideas, suggestions, and concerns expressed, will be incorporated into the future DEIS as is allowed within the authorized scope of this study.

GLMRIS was authorized by the U.S. Congress to study the potential for non-native nuisance species transfer within the U.S. only through aquatic means; non-aquatic transfer (including human) is outside the scope of this study. However, GLMRIS will investigate potential legal, cultural, and social measures that could be taken to help prevent future transfer of ANS through human transport and other non-aquatic pathways, and recommend ANS controls or additional studies.

Since GLMRIS is limited to waters of the United States, concerns regarding the St. Lawrence and Canada, while very real, are also outside the scope of this study. Additional studies are currently being conducted by a number of other Federal and State agencies with regard to non-native nuisance species. These include work being conducted by the National Oceanographic and Atmospheric Administration (NOAA), the United States Fish and Wildlife Service (USFWS), the United States Geographical Survey (USGS), and the Illinois Department of Natural Resources (IDNR).



## **4 INTERAGENCY COOPERATION AND GOVERNMENT-TO-GOVERNMENT CONSULTATION**

### **4.1 INTERAGENCY COOPERATION**

The size, scope, and complexity of GLMRIS demonstrated a need for access to a wider and deeper level of expertise in a wide range of scientific fields. To assist in this endeavor, an Executive Steering Committee (ESC) was created that includes a number of Federal and State agencies as well as some regional committees. This will enable GLMRIS to take advantage of the various centers of expertise of these organization. Current members of the ESC include:

- U.S. Army Corps of Engineers (USACE),
- U.S. Environmental Protection Agency (USEPA),
- U.S. Geological Survey (USGS),
- National Oceanic and Atmospheric Administration (NOAA),
- U.S. Department of Agriculture (USDA),
- U.S. Coast Guard (USCG),
- U.S. Fish and Wildlife Service (USFWS),
- U.S. Department of Transportation (DOT),
- International Joint Commission (IJC),
- Great Lakes Fisheries Commission (GLFC),
- State Departments of Natural Resources (State DNRs such as IL and IN), and
- The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC).

In a letter sent December 28, 2009, a number of Federal Agencies were invited to join the GLMRIS team (See Attachment 2). An initial meeting was held in Chicago in January 2010. The ESC held its first meeting in June 2010 and has been meeting regularly on a quarterly basis.

The ESC is serving to guide the overall study by (1) maintaining a working knowledge of the feasibility study; (2) providing advice with regard to the development and implementation of GLMRIS consistent with their authorities and funding; (3) coordinating with other members on emerging policy issues; (4) reviewing and commenting on written products associated with GLMRIS; and (5) advising the study management team.

## **4.2 GOVERNMENT-TO-GOVERNMENT CONSULTATIONS**

Tribal consultations for GLMRIS originally focused on Native American Tribes currently residing in, or with historic ties to, lands within the United States portion of the Great Lakes Basin. Letters were sent out on December 28, 2009, to 65 Native American Tribal governments inviting them to participate in GLMRIS (see Attachment 3). Responses were received from five Tribes, the Little Traverse Bay Band of Odawa Indians, the Sault Ste. Marie Tribe of Chippewa Indians, the Wyandotte Nation, the Delaware Nation and the St. Regis Mohawk. The Little Traverse Bay Band of Odawa Indians was the only Tribe to request specific consultation.

At the request of the Little Traverse Bay Band of Odawa Indians, a meeting was held with the Little Traverse Bay Band of the Odawa Indians in Traverse City on May 13, 2010. A second meeting was held between USACE and the Little Traverse Bay Band of Odawa Indians on January 28, 2011.

Tribal consultations were then expanded to include an additional 34 Tribal governments (for a total of 99 Tribes) residing in, or with historic ties to lands within the Upper Mississippi River Basin. These Tribes were invited to participate in GLMRIS in a letter sent March 2, 2011. No responses to this letter were received.

## **5 FUTURE OPPORTUNITIES FOR PUBLIC INVOLVEMENT**

Scoping is the first phase of public involvement under the NEPA process. Additional opportunities for public involvement will be announced through the GLMRIS Web site. The next formal phase under the NEPA process of the public involvement will be the public review and comment on the DEIS. USACE anticipates releasing the DEIS in 2015.

We also encourage you to subscribe to our e-mail newsletter and e-mail updates through the GLMRIS Web site. This e-mail service is intended to provide you quick, convenient access to important news and information. As a subscriber, you will receive periodic e-mails about the study, including public meeting notices, publication announcements for documents, and other news and events. You will also be informed of important additions to the GLMRIS Web site. You can also join the GLMRIS conversation on Facebook or Twitter.

## ATTACHMENT 1 Sample Scoping Meeting Press Release



# PRESS RELEASE

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

For Immediate Release:

Contact:  
Lynne Whelan, 312-846-5330  
Lynne.e.whelan@usace.army.mil

### U.S. Army Corps of Engineers Reschedules Ann Arbor Public Comment Meeting on Great Lakes Study

**ANN ARBOR, Mich.** – The public scoping meeting scheduled for Thursday, Feb. 3, 2011 by the U.S. Army Corps of Engineers, Corps, has been rescheduled for **Tuesday, March 8** for the same time and at the same location: from 2:00 p.m. to 8:00 p.m. at the Ann Arbor Marriott Ypsilanti at Eagle Crest, located at 1275 S. Huron St. The purpose of the meeting is to gather input on the Great Lakes and Mississippi River Interbasin Study, GLMRIS. The public is invited to attend to provide comments on GLMRIS. Identical presentations about the study will be given at 2:15 p.m. and 5:45 p.m., each followed by the comment period. The purpose of GLMRIS is to evaluate a range of options and technologies to prevent the transfer of aquatic nuisance species, ANS, such as Asian carp, between the Great Lakes and Mississippi River through aquatic pathways.

Using input obtained during the scoping period, the Corps will refine the scope of GLMRIS to focus on significant issues, as well as eliminate issues that are not significant from further detailed study. Issues associated with GLMRIS are likely to include, but will not be limited to: significant natural resources, such as ecosystems 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 and recreational navigation; and statutory and legal responsibilities relative to the effected waterways.

In addition to Ann Arbor, the Corps will hold upcoming public scoping meetings in the following metropolitan locations: St. Louis, Mo.; Vicksburg, Miss; Milwaukee, Wis. and New Orleans, La. Specific meeting venues and dates will be announced in Federal Register notices, the GLMRIS Web site and other media.

The public scoping comment period will end on March 31, 2011. If you plan to make an oral comment, please register on the GLMRIS Web site. Oral comments will be limited to three minutes per commenter. Comments can also be submitted electronically through the Web site. Each scoping meeting will consist of two separate three-hour sessions to allow as many attendees as possible.

An ANS is a nonindigenous species that threatens the diversity or abundance of native species; the ecological stability of infested waters; or the commercial, agricultural, aquacultural or recreational activities dependent on such water. As a result of international commerce, travel and local practices, 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 those waterways. Recent water quality improvements have lessened that impediment making it more likely for ANS transfer between the two basins to occur.

For more information regarding GLMRIS, the meeting agenda and scoping requirements of the National Environmental Policy Act, visit the GLMRIS Web site at [www.glmris.anl.gov](http://www.glmris.anl.gov) or call Dave Wethington, GLMRIS project manager, at 312-846-5522 or e-mail at [David.M.Wethington@usace.army.mil](mailto:David.M.Wethington@usace.army.mil). Social Media: Facebook.com/glmris and Twitter @GLMRIS.

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U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT  
111 N. Canal, Chicago, Illinois 60606  
[www.lrc.usace.army.mil](http://www.lrc.usace.army.mil)



**DEPARTMENT OF THE ARMY**  
 CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
 111 NORTH CANAL STREET  
 CHICAGO IL 60606-7206

Planning Branch  
 Environmental Formulation Section

Kenneth Westlake, Chief  
 Environmental Review Branch  
 U.S. EPA ME-19J  
 77 West Jackson  
 Chicago, IL 60604

28 DEC 2009

Re: Invitation to Join the Great Lakes and Mississippi River Interbasin Study (GLMRIS) Team

Dear Mr. Westlake:

The Chicago District, U.S. Army Corps of Engineers (Corps) invites your agency to join the Great Lakes and Mississippi River Interbasin Study (GLMRIS) Team. The GLMRIS encompasses a feasibility study and Environmental Impact Statement evaluating the options and methods that could be applied to prevent or reduce the risk of aquatic nuisance species (ANS) transfer between the Great Lakes (GL) and Mississippi River (MR) basins. This project is, in part, prompted by the spread of Asian carp up the Illinois River system.

The initial focus of the GLMRIS will be the immediate threat of Asian carp advancing toward Lake Michigan, and the evaluation of long-term measures to reduce the risk or prevent the Asian carp from using the Chicago-Area Waterway System to spread into the Great Lakes.

In parallel with the initial focus on Asian carp, the GLMRIS will serve as a larger study evaluating the entire extent of the GL and MR basins. This element of the broader GLMRIS is anticipated to include the following elements, among others:

- 1) Identification of potential hydraulic connections, including natural, anthropogenic, and episodic pathways, in addition to the Chicago Sanitary and Ship Canal (CSSC), that may exist between the GL and MR basins;
- 2) Exploration of additional nuisance species, including potential future ANS;
- 3) Analysis of the range of possible options and methods to prevent or reduce the risk of ANS transfer between the GL and MR basins; and
- 4) Completion of a thorough and comprehensive analysis of the gathered data and recommendation of alternatives to prevent or reduce the risk of ANS transfer between the basins. Recommended alternatives will be evaluated against present uses, such that adverse impacts can be fully understood and suitably mitigated.

The relevant overall area is made up of portions of 15 states, and includes the U.S. Army Corps of Engineers Chicago, Detroit, and Buffalo Districts within the Great Lakes & Ohio River Division and the St. Paul and Rock Island Districts within the Mississippi River Valley Division.

Please refer to the enclosed GLMRIS Plan Formulation Roadmap for additional details on the overall programmatic approach of the Study.

Collaboration with other Federal agencies is critical to the success of this project. The Chicago District encourages your agency to participate at whatever level possible. In particular, due to your agency's expertise in relevant issues the Corps invites you to become a cooperating agency in the study effort, as set forth in 40 C.F.R. 1501.6.

The Corps is organizing an Executive Steering Committee (ESC) to help scope and guide both the Chicago Area Waterway and larger Interbasin Studies. The ESC is conceptually comprised of senior leadership from coordinating agencies. As a recipient of this letter, you are invited to delegate a member of your agency to membership on the ESC. Given the rapt attention that the invasive species issue has garnered over recent weeks, the Corps wishes to move forward expeditiously with convening the ESC to address the immediate issues surrounding the Asian carp and the Chicago-Area Waterway System. A meeting date of January 20, 2010 has been identified to engage the ESC in scoping this topic.

Please provide your response to this invitation by letter or e-mail to reach our office no later than January 15, 2010. Mark your reply to the attention of Mr. Peter Bullock, U.S. Army Corps of Engineers, 111 North Canal Street, Suite 600, Chicago, Illinois 60606. If your agency chooses to become a team member, please also provide your agency's point of contact in your written response.

Questions regarding the feasibility study may be directed to Dave Wethington, Project Manager at 312/846-5522, or at [david.m.wethington@usace.army.mil](mailto:david.m.wethington@usace.army.mil). Your assistance is appreciated.

Sincerely,

*15/*  
 Susanne J. Davis, P. E.  
 Chief of Planning Branch

Encls

MFR: Consultation letter as required by NEPA.

Bullock PM-PL-E *Ref B/12/21/09*  
 Fleming PM-PL-E  
 Wethington PM-PM  
 Davis PM-PL-E *SAW 12/24/09*  
*SJ 12/28/09*

ATTACHMENT 2 Sample Consultation Letter

# ATTACHMENT 3 Sample Tribal Consultation Letter



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
111 NORTH CANAL STREET  
CHICAGO IL 60606-7206

Planning Branch  
Environmental Formulation Section

Dear Sirs,

March 2, 2011

The Chicago District, U.S. Army Corps of Engineers has been authorized to conduct the Great Lakes and Mississippi River Interbasin Study. This feasibility study is designed to provide a thorough and comprehensive analysis of the options, technologies, and alternatives for the prevention of inter-basin transfer of invasive, non-native aquatic nuisance species, between the Mississippi River and the Great Lakes basins, through aquatic pathways. This project is prompted by, but is not limited to, the spread of Asian carp up the Illinois River system.

Preliminary focus will include: 1) Analysis of any natural and made-man connections, in addition to the Chicago Sanitary and Ship Canal, that may exist between the two basins. 2) An examination of possible technological solutions that would prevent the transfer of nuisance species and their potential impacts to existing environmental, commercial, recreational, water management and other interests. 3) An investigation of potential legal, cultural, and social measures to prevent future transfer of non-native species through human intervention.

The project area is made up of portions of 15 states, and includes the U.S. Army Corps of Engineers Chicago, Detroit, Huntington, and Buffalo Districts within the Great Lakes & Ohio River Division and the St. Paul, Rock Island, and St. Louis Districts within the Mississippi River Valley Division. Tribal consultations are being conducted through the Chicago District in coordination with Karen Krepps, Tribal Liaison Detroit District, William Butler, Tribal Liaison Buffalo District, Ron Deiss, Tribal Liaison Rock Island District and Tom Crumb, Tribal Liaison St. Paul District, Aaron Smith, Tribal Liaison Huntington District, and Roberta Heyworth St. Louis District.

To have your comments included please respond by letter or email before the end of the scoping period, March 31, 2011. Mark your reply to the attention of Mr. Peter Bullock, U.S. Army Corps of Engineers, 111 North Canal Street, Suite 600, Chicago, Illinois 60606. You may also leave comments at our website [www.glmris.anl.gov](http://www.glmris.anl.gov). Questions may be directed to Mr. Bullock at 312/846-5587, or at [peter.v.bullock@usace.army.mil](mailto:peter.v.bullock@usace.army.mil). Your assistance is appreciated.

Sincerely,

*SDJ*  
Susanne J. Davis, P. E.  
Chief of Planning Branch

MFR: Tribal Consultation letter as required by NEPA.



*3/2/11*  
Bullock PM-PL-E

Fleming PM-PL-E

Wethington PM-PM

Mandaluk OC

Davis PM-PL-E

*SDJ 3/2/11*  
*NUM 3/2/11*  
*SDJ 3/2/11*