



THE GREAT LAKES AND MISSISSIPPI RIVER INTERBASIN STUDY NEWSLETTER

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If you have questions or comments about the GLMRIS Newsletter or have suggestions for future topics you would like to see addressed, please contact the Chicago District Public Affairs Office at ChicagoDistrict.PAO@usace.army.mil or call us at (312) 846-5330.

Additional information about GLMRIS, including previous issues of the newsletter are available online at glmrис.anl.gov.

You can also find information about GLMRIS on Facebook and Twitter.

GREETINGS FROM THE GLMRIS TEAM!

In this issue of the GLMRIS newsletter we invite you to meet a couple key members of the GLMRIS Team and introduce you to the first interim GLMRIS product, a white paper to better define the species of concern in the study area. If you haven't already, be sure to visit the GLMRIS Web site to see the latest updates, become our friend on Facebook, or follow us on Twitter. Point your browser to: <http://glmrис.anl.gov>

SCOPING COMMENTS NOW ONLINE

USACE solicited public comment on the scope of the Great Lakes Mississippi River Interbasin Study (GLMRIS) during the NEPA scoping period held from November 16, 2010, thru March 31, 2011.

Over 900 comments were submitted through the Web site, mail and at 12 NEPA public scoping meetings held throughout the Great Lakes and Mississippi River basins. All comments, as well as transcripts from the public meetings, have been posted to the GLMRIS Web site: <http://glmrис.anl.gov>. Use the Web site's interactive search tools to view these comments.

The GLMRIS Team thanks those who commented on the scope of this significant study. We truly appreciate and value your input and interest!

ANS WHITE PAPER TO BE RELEASED IN JULY

The GLMRIS Team expects to release its first interim product, the ANS White Paper, in July.

In this paper, a list of non-native aquatic species, as well as those native species that occur in one basin or the other, was developed along with the associated risk of their potential to disperse and become invasive. This list is the first step in establishing the current and future without project conditions for alternative plan formulation purposes.

The ANS White Paper identifies a list of 40 high-risk species that are poised to potentially transfer between the Great Lakes and Mississippi River basins through the Chicago Area Waterway System. Stay tuned to the GLMRIS Web site, Facebook page, and Twitter for more details.

GLMRIS TEAM SPOTLIGHT

MEET GARY

Gary O’Keefe is a program manager with the U.S. Army Corps of Engineers, Great Lakes and Ohio River Division, and is a licensed engineer in the state of Michigan and a Project



Management Institute certified project management professional. His education includes an undergraduate degree in civil engineering from University of Detroit, and a master’s degree in water resources systems engineering from UCLA.

O’Keefe has been with USACE for 31 years, primarily with the Detroit District. During his tenure with USACE, he has participated in the planning, design and construction phases of various projects, and his experience encompasses a range of the organization’s ecosystem restoration, flood risk management, and federal navigation missions. His experience includes chief of Detroit District’s Planning Office and deputy district engineer for Project Management.

O’Keefe assumed this current program management responsibility in March 2011. In this role, he is responsible for executive oversight and overall program management for all aspects of GLMRIS, with emphasis on the integration of non-USACE study efforts; the synchronization of USACE study efforts and PDTs; the coordination of efforts to streamline, accelerate, and cycle out interim study reports and recommendation, if appropriate; and the active executive level engagement of key regional and national stakeholders.

MEET DAVE

Dave Wethington is a project manager with the U.S. Army Corps of Engineers, Chicago District, and is a licensed engineer in the state of Illinois. His education includes an undergraduate degree in chemical



engineering from Iowa State University, as well as a master’s degree in civil & environmental engineering from the University of Iowa.

Wethington has been with USACE for nine years. During his tenure with USACE, he has been responsible for working on the environmental components of Civil Works projects, primarily involving water resources in the Chicago area. Wethington has participated in the planning, design and construction phases of USACE projects, and his experience encompasses a range of the organization’s ecosystem restoration, flood risk management and federal navigation missions.

In 2009, Wethington assumed this current project management responsibility. In this role, he leads a team of planners, economists, scientists and technical experts in conducting GLMRIS. His team currently focuses on evaluating options and control technologies for preventing aquatic nuisance species transfer between the Great Lakes and Mississippi River basins via the Chicago Area Waterway System.

Wethington aspires to serve as a steward to the environment and an advocate for sustainable practices, while endeavoring to cultivate a dedicated relationship with the Great Lakes region.

CLOSING A BACK DOOR TO ANS — A CLOSER LOOK AT THE OTHER AQUATIC PATHWAYS

BY MARTIN WARGO, BUFFALO DISTRICT

The Great Lakes and Mississippi River Interbasin Study (GLMRIS) is being conducted in two parts, referred to as “focus areas.” Focus Area I consists of the Chicago Area Waterway System (CAWS) and Focus Area II consists of all aquatic pathways outside the CAWS that exist or are likely to form during certain flood events across the nearly 1,500-mile long basin divide separating precipitation that flows into the Mississippi Basin from precipitation that flows into the Great Lakes Basin (Figure 1).

An expedited Preliminary Risk Characterization Study was conducted in 2010 which took a conservative approach in initially identifying 36 potential other aquatic pathways where interbasin transfer of ANS appeared possible. After narrowing this down in 2010 to the 18 highest potential risk locations shown in Figure 1, USACE in 2011 has now initiated a more in-depth look at these sites and is leading an interagency team of hydrologists and biologists to further characterize the risks at each of the identified aquatic pathways through locating and assessing relevant records, performing field investigations, and interviewing individuals who may have direct observational knowledge of local conditions

during high water. This effort is made more difficult by the flat topography and lack of precise topographic elevation contours which make it difficult to identify the exact location of the basin divide and establish flow directions. A significant number of the 18 potential aquatic pathway locations were locations where an aquatic pathway generally does not exist but the level of uncertainty in the hydrologic information initially precluded assignment of a low risk rating. The identified aquatic pathways also included locations where surface water flow patterns have been changed through the building of navigation canals and through excavation of ditches and construction of sewers to facilitate storm water management for agricultural, flood damage reduction or other water management purposes. Also, many of the potential aquatic pathways identified were locations where extensive natural wetlands exist in close proximity to, and in some instances, appear to span the basin divide.

To assure a comprehensive and consistent process is used to complete this qualitative risk characterization of ANS transfer at each location, the study team is following a slightly modified version of the

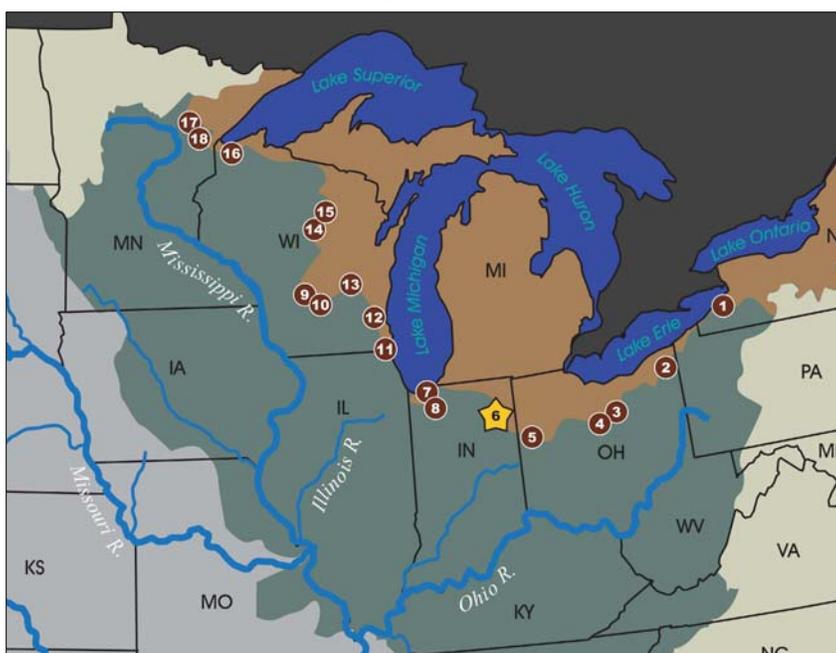


Figure 1. Great Lakes-Mississippi River basin divide showing 2010 preliminary Other Aquatic Pathway locations outside of the Chicago Area Waterway System. Eagle Marsh in Indiana was the highest priority pathway based on the 2010 Preliminary Risk Characterization Report and is shown as site number six.

methodology outlined by the Aquatic Nuisance Species Task Force in their 1996 document entitled *Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process* (Figure 2). The first phase of the 2011 study is to assign qualitative hydrologic risk ratings of Low, Medium, or High using uniform criteria at each location where a pathway exists or may form from up to a 1 percent annual return frequency storm event. Such a storm is a rainfall event that has a 1 percent probability (1 chance in 100) of being equaled or exceeded in any given year, and is commonly referred to as a 100-year storm event. Those locations receiving high risk ratings, and some that receive medium ratings, will then be subjected biological risk assessments again using uniform criteria intended to characterize the site according to how well its hydrologic conditions would allow for transfer and subsequent establishment of a specific list of ANS in either basin. Key to this assessment is consideration of each pathway in its watershed context and in combination with the effect of any upstream or downstream barriers, as well as the habitat preferences, range information, methods of locomotion, and reproductive strategies of relevant species. Hydrologic and biological risk ratings will then be collectively assessed by a team of experts giving an overall risk rating for each location, and resulting in a prioritized list of potential ANS interbasin transfer locations.

What’s Next?

The conclusions of the risk characterization report will include problem and opportunity statements for each pathway location and identify potential strategies or actions for reducing or eliminating the risk of interbasin transfer of ANS. Where the risk of interbasin transfer of ANS is rated high, and at appropriate locations rated medium, USACE intends to produce a site specific feasibility study that will identify and evaluate alternatives to prevent the interbasin transfer of ANS. At locations where USACE is deemed the most appropriate agency to implement all or part of a solution and there is willing non-Federal project sponsor, this feasibility study will serve as the basis for promptly completing all remaining and applicable planning and environmental compliance actions. However, the study will also provide an opportunity for state or local jurisdictions, other federal agencies, or even other non-governmental stakeholder organizations to identify ways that they may more efficiently and expeditiously implement all or parts of the solution.

At the aquatic pathways where the risk of inter-basin transfer of ANS is rated low, and for appropriate locations rated medium, USACE intends to produce a feasibility study that will identify and evaluate viable alternative approaches (including non-structural) to prevent the interbasin transfer of ANS that are applicable to all of the locations where sur-

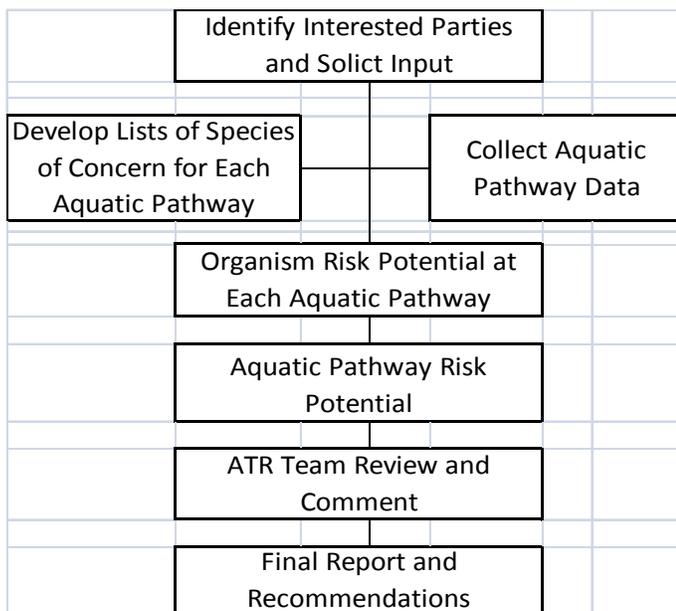


Figure 2. Aquatic pathway risk assessment process (adopted From ANSTF 1996).

face water flow may occur across the basin divide. At locations where USACE is deemed most appropriate to take the lead in implementing all or part of the solution and there is a willing non-Federal project sponsor, this feasibility study will serve as the basis for promptly completing all remaining and applicable planning and environmental compliance actions. Again, this document will provide an opportunity for state or local jurisdictions, other federal agencies, or even other non-governmental organizations to identify ways in which they may efficiently and expeditiously implement all or parts of a solution.

It should also be pointed out that this risk characterization effort is not intended to determine what level of risk is acceptable. Instead, it will present the relevant available hydrological and biological informa-

tion in a systematic manner, and provide the basis for a team of natural resource professionals to collaboratively evaluate and rate the likelihood of an aquatic pathway existing, and the relative risks of ANS establishment, at each location. Fundamental to the success of this study is working collaboratively with the other federal and state resource agencies. The level of knowledge and expertise provided by these other stakeholder agencies has been and continues to be critical to successfully accomplish the objectives of this investigation. The final *Other Aquatic Pathways Risk Characterization Report* should be available to the public in early 2012 following a technical review by an established team of professionals from various federal and state resource agencies, including USACE.

GLMRIS ANTICIPATED INTERIM PRODUCT MILESTONES:

* July 2011 - ANS White Paper - The purpose of the ANS White Paper is to identify and refine a list of aquatic nuisance species (ANS) for consideration in GLMRIS, and establish a set of definitions for scientific terms to be used in GLMRIS. Additionally, the ANS White Paper sets forth a list of high-risk ANS for potential transfer within the Chicago Area Waterway System (CAWS). Identification of the species in the ANS White Paper will aid the GLMRIS Team in focusing efforts toward identifying applicable control technologies and preventing the transfer of non-native species via aquatic pathways.

* August 2011 - NEPA Scoping Summary Report - The purpose of the NEPA Scoping Summary Report is to document the methods and procedures that were followed during NEPA Scoping process, as well as to summarize the comments received. The document will be utilized by the GLMRIS Team to assess topics of interest in order to refine the scope of GLMRIS to focus on significant issues, as well as eliminate issues that are not significant from further detailed study.

* Fall 2011 - Baseline Non-Cargo Commercial Navigation Summary - This document is intended to serve as a baseline assessment of lock traffic by commercial passenger, recreation, and governmental vessels within the Chicago Area Waterway System. The assessment includes an appraisal of historical traffic through the locks and a description of the lock operations. This effort will serve as the basis from which to compare expected changes as a result of potential control technologies which may be implemented to prevent ANS transfer between the Great Lakes and Mississippi River basins.

* Fall 2011 - ANS Control Technologies Report - The objective of this report is to identify available aquatic nuisance species (ANS) controls that could prevent ANS transfer through the Chicago Area Waterway System, as well as potential other aquatic pathways. The report will provide a brief description of each control/technology and will include citations from which additional information may be gathered. The GLMRIS Team will use the information in this document to develop and evaluate alternatives for GLMRIS.