

Thank you for your comment, Clare Luddy.

The comment tracking number that has been assigned to your comment is GLMRISSCR50002.

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Great Lakes and Mississippi River Interbasin Study (GLMRIS)  
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Attachment: Comment\_022113\_CEL.pdf

Comment Submitted:

Please see comments attached.

February 21, 2013

U.S. Army Corps of Engineers, Chicago District  
GLMRIS ANS Control Screening  
111 North Canal, Suite 600  
Chicago, IL 60606

Subject: Comments regarding the GLMRIS report  
(Inventory of Available Controls for Aquatic Nuisance Species of Concern -  
Chicago Area Waterway System)

As a lifelong denizen of the Great Lakes watershed, I strongly support Congress' action authorizing the United States Army Corps of Engineers (USACE) to perform a feasibility study of "the range of options and technologies available to prevent the spread of aquatic nuisance species [ANS] between the Great Lakes and Mississippi River Basins through the Chicago Sanitary and Ship Canal and other aquatic pathways." (§3061(d) of the Water Resource and Development Act (WRDA) of 2007). Further, I support their action to expedite this study and to focus on the option of permanent hydrologic separation. (§1538(b)(2) and (b)(4) of the Moving Ahead for Progress in the 21st Century Act (MAP-21), July 12, 2012).

While §1538 in MAP-21 is titled "Asian Carp", the legislation does not, in fact, narrow the WRDA study. Except in the title of §1538, MAP-21 does not refer to 'asian carp' at all. It directs the USACE to focus on the spread of ANS, such as the study of permanent hydrologic separation between the Great Lakes and the Mississippi River basins, and it hastens the completion of the study, both of which I support.

The USACE announced a public comment period on the GLMRIS report (Inventory of Available Controls for Aquatic Nuisance Species of Concern - Chicago Area Waterway System) on January 18, 2013 in 78 FR 4137. Comments are due by February 21, 2013.

Following are my comments regarding some of the identified ANS controls from the GLMRIS report. The controls that could reasonably affect the physically larger ANS, such as the fish (including the sea lamprey), can be grouped as follows:

#### **MECHANICAL METHODS**

##### **Miscellaneous Environmental Modifications**

- Accelerated water velocity
- Acoustic fish deterrents
- Lethal Temperature
- Sensory deterrent systems (including electric barrier already in use in Illinois)

##### **Physical barriers**

- Screens or Filters
- Vertical drop barrier

##### **Complete Hydrologic separation**

## Ongoing Control Methods

Williams Cage  
Controlled harvest & overfishing

## CHEMICAL, BIOLOGICAL METHODS

Deleterious gene spread  
Pheromones (Repellant & Attractant)  
Piscicides  
Targeted biological controls

## COMMENTS

1. Hydrologic separation is a possible solution to the threat of the identified ANS, especially of the so called 'asian carp'.  
Hydrologically connecting Lake Michigan to the Mississippi River system was a solution to Chicago's wastewater treatment problems of the 1800s and early 1900s. The consequences of that connection warrant revisiting that issue and possibly determining different solutions. After all, Chicago is the only Great Lakes' city that solved their water and wastewater problems in this way. Current water and wastewater treatment technologies have vastly improved over the last 50 years. These may provide new solutions that could work with hydrologic separation to continue to adequately supply the region with clean water and appropriate wastewater treatment.  
In the past, the USACE has provided project design and implementation on projects exceeding the scope of hydrologic separation the Mississippi River and Lake Michigan in the Chicago area. This is not an impossible job when compared to some of the other dam, reservoirs and canal systems that the USACE has created.
2. Even if complete hydrologic separation emerges as the best long term solution, multiple short term methods should be identified and utilized in the inevitably long interim before that solution can be put into effect by the state of Illinois, the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), and the USACE. Continued use of the electric barrier, use of chemical or biological methods, as well as other mechanical methods that can be implemented quickly may together provide the best short term solution.
3. Multiple solutions should be evaluated together. A combination of several options may provide the lowest cost solution for the greatest risk reduction.
4. Different locations call for different methods. For instance, if any fish ladders remain in the system they may benefit from the installation of a Williams Cage to trap to harvest the 'jumping' carp species that so threaten to move into the Great Lakes from the Mississippi.

5. It is worth employing methods that do not guarantee full, 100% success because, in fact, no method can guarantee such a thing. The ongoing fight against the sea lamprey, even as it has already settled into the Great Lakes, shows how such a fight can reduce the harm to and improve the overall quality of the Great Lakes for many years. Mitigation is worthwhile.
6. Mechanical methods tend to have fewer unknown consequences and because of that can be made environmentally safer. Barriers, noise, traps, and others listed above tend to affect the fish directly and in the short term, having few if any long term effects beyond that. This makes evaluating their long term effect simple and certain.
7. Evaluation of all chemical and biological methods of control of ANS should include long term consequences to plant or animal species affected. Risk associated with unknown long term effects should be taken into consideration when comparing methods.
8. Simply reducing the water flow in the Chicago Canal should be evaluated as a possible mitigation method, along with identifying possible seasonal effects on ANS. That is, if low flow during spawning season would be appropriate, or low flow outside the shipping season. This would require identifying minimum flows for different wastewater treatment scenarios, as well as various shipping requirements.

## **CONCLUSION**

I applaud the ongoing work of the USACE to investigate, clarify and quantify the dangers of ANS and the possible methods the United States can use to reduce those dangers. I hope my comments here can further assist in that work. I look forward to a speedy conclusion of such study and quick action by all the parties to reduce the dangers to both the Great Lakes and the Mississippi River system.

Thank you.

Sincerely,

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