



Great Lakes Fishery Commission

ESTABLISHED BY CONVENTION BETWEEN CANADA AND THE UNITED STATES TO IMPROVE AND PERPETUATE FISHERY RESOURCES

June 19, 2002

Hon. Harry Reid, Chairman
Subcommittee on Energy and Water
Committee on Appropriations
127 Dirksen Senate Office Building
Washington, DC 20510

Hon. Pete Domenici, Ranking Member
Subcommittee on Energy and Water
Committee on Appropriations
127 Dirksen Senate Office Building
Washington, DC 20510

Dear Mr. Chairman and Ranking Member:

Three species of threatening Asian carp (silver, bighead, black) are poised to invade the Great Lakes from the Mississippi River basin. These fish have the potential to seriously damage or destroy the Great Lakes ecosystem, posing a danger to the fish communities and disrupting the food web. Fortunately, the Great Lakes have a first-line of defense against these invaders: a new barrier activated recently in the Chicago-area to block the migration of these and other invasive species. This barrier was built and is operated by the U.S. Army Corps of Engineers. On behalf of the Great Lakes Fishery Commission (GLFC), the Council of Lake Committees (CLC), and citizen Advisors to the commission, I am writing to communicate the need for immediate and annual operating funds for this barrier.

According to best estimates, \$360,000 in one-time costs are needed immediately for the barrier to be fully functional and \$340,000 are needed annually for operations. The attached summary describes how these funds will be used. These funds are managed by the Corps of Engineers, Chicago District Office.

These funds are required immediately to ensure the safety of the Great Lakes from invaders from the Mississippi River. Additional control measures will be required to protect the Great Lakes from other invading species from the Mississippi. Management agencies on the Great Lakes are working to develop options to ensure this protection.

The three threatening species of Asian carp were introduced to the southern U.S. by the aquaculture industry as a way to manage problematic algae blooms and problematic snails. As often happens, these species escaped from confinement (during a major flood event in 1993) and entered the Mississippi River. Over time, they have moved up through the Mississippi River system and now occur in the Illinois River and ship/sanitary canal. This canal is connected to the Great Lakes in the city of Chicago. Based upon their current rate of dispersal, these carp could reach Lake Michigan within the next year. After that, their spread to the other Great Lakes would be inevitable.

These three species of Asian carp pose real, significant threats to the Great Lakes. These fishes can grow to immense sizes (up to six feet and 110 pounds). They are known to become very abundant. Silver and bighead carp strain large amounts of zooplankton and phytoplankton and have the potential to interact strongly and adversely with sport and commercial fishes in the Great Lakes. Black carp eat mollusks and, thus, could put additional pressure on native clams—some endangered—already impacted by zebra and quagga mussels. Moreover, 50-80 pound silver carp pose a threat to human safety as they are known to jump vertically (as high as 10 feet!) out of the water when startled, even jumping into water crafts.

The potential Asian carp invasion has been a topic of discussion during recent meetings of the Council of Lake Committees (CLC), the Great Lakes Fishery Commission (GLFC), and the Committee of Advisors. The CLC is a committee of state, provincial, and tribal fishery managers with primary management authority on the Great Lakes. The GLFC is a U.S.-Canadian agency responsible for protecting fish stocks of common concern. The Committee of Advisors is a federally-legislated group of citizens who monitor fishery management activities and make recommendations to the GLFC. These groups and agencies are unanimous in calling for immediate funding for the barrier and for adequate annual costs to operate it. We are also aware that the House and Senate Great Lakes Task Forces have asked for funds for this barrier as well. Attached is a resolution for an effective barrier, passed by both the CLC and the Advisors and endorsed by the GLFC.

Unlike the case with other aquatic nuisance species, the government today has a rare opportunity to prevent the entry of potentially devastating invaders. The barrier is in place and is operational. We just need the funds to ensure an effective barrier and to continue to operate it. Government management agencies and the public are united in urging Congress to appropriate the funds we have identified. Thank you for your consideration in this matter.

Sincerely,



Ald. Bernard J. Hansen
Chairman, U.S. Section

Cc: Co-chairs, Great Lakes Task Force
Joy Mulinex, Director, Great Lakes Task Force
Chair and Vice-Chair, Council of Lake Committees
Chair and Vice-Chair, Committee of Advisors

Chicago Sanitary and Ship Canal Dispersal Barrier Funding Needs

In April 2002, after years of planning and design the Chicago Sanitary and Ship Canal aquatic nuisance species dispersal barrier located near Romeoville, IL was energized. This project, funded under section 1202 of the National Invasive Species Act (NISA 1996), is the first line of defense against potentially devastating invasive species from the Mississippi River basin. However, the project currently falls short of that which was envisioned and recommended by the dispersal barrier advisory panel, a multi-agency stakeholder group assembled to guide development of the dispersal barrier.

Back-up Generator

The most troubling feature omitted from this 'electric fish fence' is back-up power. Short-term power outages that occur in this area would disrupt the effectiveness of the barrier. Two Asian fish, the bighead carp and silver carp, are known to occur a mere 30 miles downstream from the barrier site. The dispersal barrier is the only obstacle standing between these fish and the Great Lakes. A back-up generator would help to assure that the electric field does not falter and allow movement of invasive species between the Great Lakes and Mississippi River basin.

Operation and Maintenance

Another immediate need is funding for the operation and maintenance contract and to pay for the electricity to operate the array in the coming federal fiscal year (2003). No funds have been allocated to the U.S. Army Corps of Engineers, Chicago District for the operation and maintenance contract or for electrical costs in the coming fiscal year. Without additional funding, the electric array would be shut down and as a result, protection from the spread of invasive fishes would be lost.

Second Barrier Site

Less immediate, though just as critical are funds needed for investigation of a site for a second barrier array. The material used for the electrodes in the current array has a relatively short (3 years) expected lifespan. The barrier will have to be shut down for replacement. For this reason a second barrier is required as a failsafe.

Monitoring

Finally effectiveness of the barrier needs to be monitored. Current efforts involve tracking individual fish with radio tags. This type of monitoring will likely be supported through 2003 through a combination of grant and agency funds. Beyond 2003, funds will be needed to maintain the monitoring effort and to add an acoustic array to monitor fish movement near the dispersal barriers.

Acoustic Array

The acoustic array (\$60,000) is promising technology that should enhance the effectiveness of the barrier system by possibly deterring a greater variety of organisms.

Summary of Funding Needs (to U.S. Army Corps of Engineers, Chicago District):

- Back-up Generator - \$250,000 (includes generators and installation)
- Operation and Maintenance Contract - \$150,000 (annual)
- Electrical Costs - \$40,000 (annual)
- Second Barrier Site - \$50,000
- Monitoring - \$150,000 (annual)
- Acoustic array - \$60,000

One-time costs: \$360,000

Annual costs: \$340,000

Resolution Concerning Additional Funding for Continued Operation and Evaluation for the Chicago River Sanitary Ship Canal Electric Transmigration Barrier

Whereas invaders such as the round goby and zebra mussels in the Great Lakes have invaded the Mississippi River basin, and

Whereas other species such as the ruffe may likewise expand their range from the Great Lakes into the Mississippi River basin, and

Whereas, invaders (Asian carps) from Mississippi River basin are poised to invade the Great Lakes basin, and

Whereas, the Cal-Sag and Chicago Sanitary and Ship Canals are the expected routes for these range expansions, and

Whereas, critical components of the electric barrier in the Sanitary and Ship Canal have a three-year life expectancy, and

Whereas, there is no back-up power system in case of mainline power failure, and

Whereas, no funds are currently appropriated for operation and maintenance of the electric barrier in the coming fiscal year,

Therefore be it resolved that the Committee of Advisors, in the absence of adequate primary safeguards from shipping and aquaculture-mediated invasions, find

that U.S. federal funding is required on an emergency basis for maintenance, operation and improvement (including a backup generator) of the Chicago Sanitary and Ship Canal electrical barrier, constructed as a demonstration study by the U.S. Army Corps of Engineers under NISA 1996, and

that U.S. federal funding is required on an emergency basis for identifying and evaluating a site for a second barrier array, and

that U.S. federal funding is required to evaluate and implement additional options for enhancing barriers to prevent range expansion of invasive species between the Great Lakes and Mississippi River basins.

Resolution 02-03

Passed, June 4, 2002

Similar resolution passed by the Council of Lake Committees, April, 2002