Issue Brief: ICRCC Invasive Carp Action Plan

Northeast-Midwest Institute

What is the ICRCC?

The Invasive Carp Regional Coordinating Committee (ICRCC) is comprised of 26 federal, state, provincial, tribal, and local agencies, and co-chaired by the USEPA and the US Fish and Wildlife Service. The Committee is tasked with preventing invasive carp from reaching the Great Lakes, facilitating collaboration between partner agencies, and conducting research to inform carp management strategies.

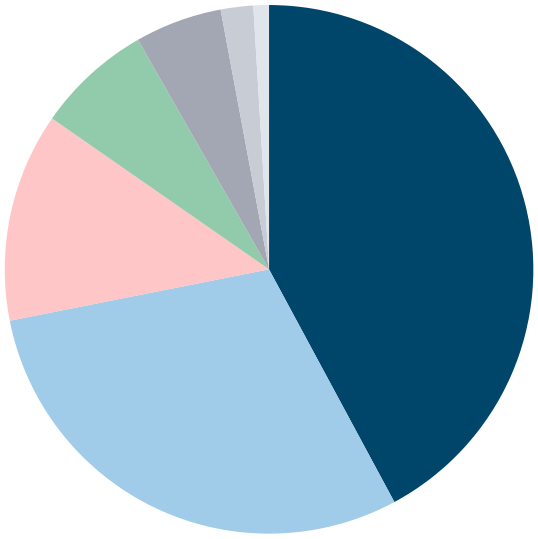
The ICRCC fulfills those objectives through its yearly action plan, which details the invasive carp projects funded this year. In 2024, 45 projects will be funded with $26.4 million in agency funding, and $21 million from the GLRI, for a total of $47.4 million. Projects are sorted into seven categories (see funding breakdown at right).

Preventing Invasive Carp Movement Through the Illinois Waterway (IWW)

The Chicago Area Waterway System (CAWS) is widely acknowledged to be the most at-risk entry point for invasive carp to enter the Great Lakes. Bighead and silver carp are the primary focus, as those species are the closest to the Lakes and haven't yet been introduced. These carp have been found as close to Lake Michigan as the Dresden pool – still 47 miles away – an invasion front that hasn't advanced in a decade. Work in the IWW is separated into three categories, which collectively make up about 79% of total funding:

Deterrent Technology and Operation: The Electric Dispersal Barrier System (EBDS), a series of underwater electrical currents, is the main system currently in place to deter carp from migrating up the Illinois River towards the Great Lakes. Most of the funding in this section goes towards the U.S. Army Corps of Engineers' (USACE) for the operation of the EDBS, with the rest dedicated to development and evaluation of deterrents for eventual use alongside an electrical barrier at the Brandon Road Lock and Dam. These include underwater acoustics, bubble curtains, and carbon dioxide injections into water.

Funding Breakdown:



Further Reading:

About the ICRCC

ICRCC Action Plan

ICRCC Invasive Carp Fact Sheets

NEMWI Invasive Carp Briefing

Army Corps of Engineers Brandon Road Infrastructure Project Report

One project of interest is the pilot project of the Bio-Acoustic Fish Fence (BAFF) pilot project at the Barkley Dam on the Tennessee-Cumberland River. The action plan says that evaluation will be completed in 2024, a timeline that is reinforced in the 2024 Energy and Water appropriation. The Water Resources Development Act recently advanced by the Senate Environment and Public Works Committee, however, extended the project through 2029.

Contract Fishing: Over $3 million in funding in the action plan goes to contract fishing efforts to reduce the population of invasive carp in the upper and lower Illinois River. In total, the ICRCC hopes that commercial fishing efforts supported by this funding will remove 7 million pounds of invasive carp, maintaining the current invasion front and keeping the population at bay.

Early Detection and Monitoring: Early detection and monitoring programs will be conducted below the EBDS, using electrofishing and nets to capture carp above the invasion front. It is due in large part to these continued programs that only one bighead and two silver carp have been found above the EBDS since 2010. Two two-week periods of intensive sampling will take place in the spring and fall above the EBDS to capture any carp that could potentially invade Lake Michigan. Also supported are hydroacoustic surveys of carp populations near the EBDS and eDNA surveys in the Great Lakes Basin.

Hydrologic Barriers in Intermittent Waterways

Funding in this category will go towards building a hydrologic barrier in Little Killbuck Creek, part of the Mississippi River basin. During high-water events, the creek connects to the Black River, which drains into Lake Erie. To close off this connection, the Ohio DNR has finished the first construction phase of six, closing off the pathway of highest risk. Funding in 2024 and beyond will support other phases and maintenance of existing infrastructure. Funding in this category also goes to maintenance of barriers in the Lake Erie Canal.

Preventing Grass Carp Establishment

Unlike the three other species of invasive carp, grass carp have already been found in the Great Lakes. However, there is not yet an established population, mitigating adverse impacts. About half of the funding in this category ($3 million) goes towards capturing and removing grass carp in the Great Lakes and its tributaries. Funding also goes to determining how and where grass carp spawn, including monitoring eggs to find spawning locations, fine-tuning spawning forecasting, and analyses to determine the reproductive capacity of grass carp in Great Lakes. The aquaculture industry stocks infertile grass carp to control invasive plants. Having data on the proportion of fertile to infertile grass carp helps inform management decisions. Other projects include telemetry tracking of grass carp to better understand movement and habitats, and evaluation of grass carp response to deterrent technologies similar to those above to inform an eventual barrier in the Sandusky River in Ohio.

Black Carp Monitoring and Research

Black carp are less of an immediate threat to the Great Lakes than are bighead or silver carp, as their invasion front is father south down the Mississippi River. A lower funding total in this area reflects this relatively decreased urgency. Funding in this category will go towards research on black carp and on management and capture strategies, and enhanced detection of carp in the Illinois River.