



US Army Corps
of Engineers®
Rock Island District

BRANDON ROAD INTERBASIN PROJECT



QUARTERLY UPDATE

November 2022

The PROJECT

The Brandon Road Interbasin Project is a complex ecosystem protection effort designed to prevent upstream movement of invasive carp and other aquatic nuisance species into the Great Lakes from the Illinois Waterway.

Brandon Road Lock and Dam near Joliet, Illinois, has been identified as the critical pinch point where layered technologies could be used to prevent movement of invasive carp populations into the Great Lakes.

The PLAN

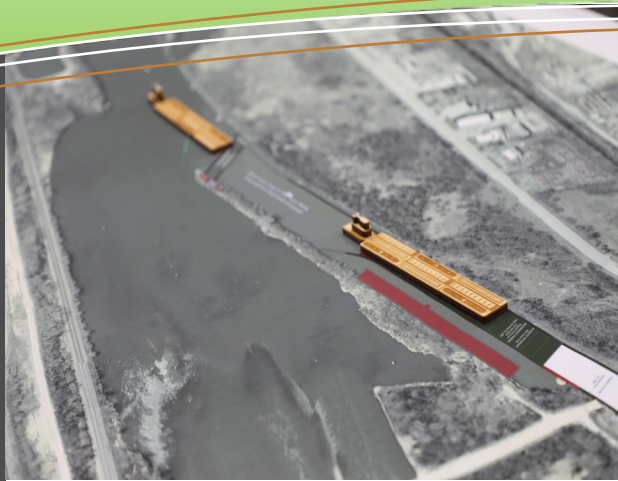
The recommended plan involves a layered system of structural and non-structural control measures.

Structural measures could include technologies such as a flushing lock, an engineered channel with electric barrier, underwater acoustic deterrent, and air bubble curtain.

Non-structural measures, implemented in conjunction with other federal agencies, could include public education and outreach, monitoring, integrated pest management, manual or mechanical removal, and research and development.

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In this issue

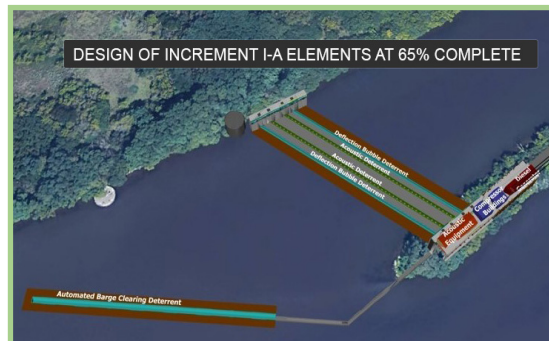
Project Status Update

New Deterrent Technology Tested

Thousands of Fish Help Test New Design

Project Status Update

Over the past several months, the Brandon Road Interbasin Project team has continued making progress on pre-construction engineering and design of Increment I-A. Plans and specifications for Increment I-A, which includes downstream bubbler and acoustic deterrents, an automated barge clearing deterrent, upstream boat launch, and facilities to support the deterrents, are now 65 percent complete.



with the project and the Coast Guard's integral role in helping to determine the safety factors and operational parameters for the project. A cost schedule risk analysis meeting was also conducted to develop a

new certified total project cost summary, scheduled to be completed in December. Work continues to negotiate a Project Partnership Agreement (PPA) with the state of Illinois. A fully signed PPA provides necessary access to \$226.8 million federal funds allocated

under the 2022 Bipartisan Infrastructure Law needed to award future fabrication and construction contracts.

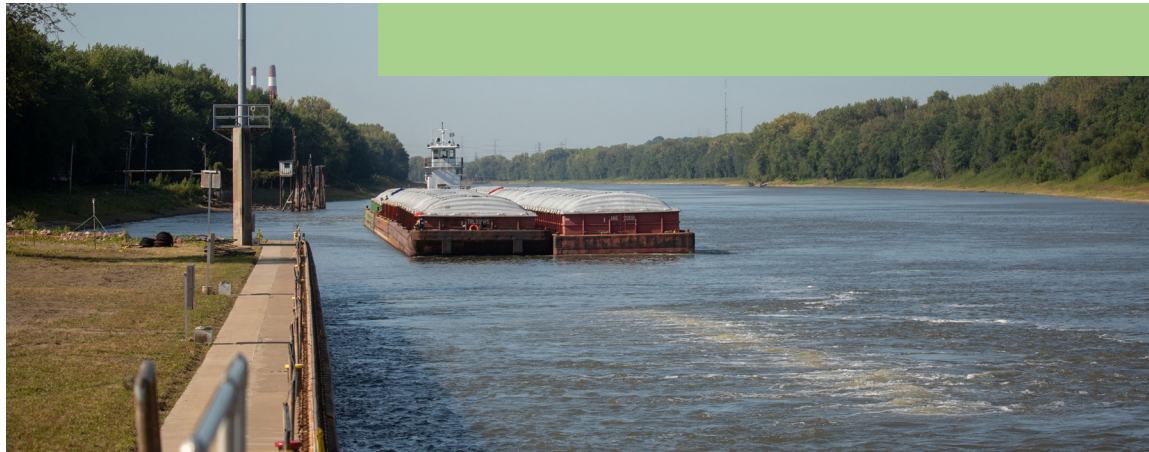
In late August, an automated barge clearing (ABC) deterrent was installed at Peoria Lock and Dam on the Illinois Waterway for testing. A team of specialists from USACE, U.S. Geological Survey, and U.S. Fish and Wildlife Service designed, constructed, and tested the ABC deterrent to remove live fish from the box-rake junction area of an operating barge. In September, a technical report for the electrical deterrent, developed by the USACE Engineer Research and Development Center's Cold Regions Research and Engineering Laboratory, was also submitted to the project team for a 95 percent review.

In October, the team hosted new leadership from the U.S. Coast Guard's Marine Safety Unit Chicago at the Brandon Road Lock and Dam to get them acquainted

U.S. Coast Guard Leadership Visits Brandon Road Lock and Dam



Cmdr. Timothy Tilghman and other leadership from the U.S. Coast Guard, Marine Safety Unit Chicago, recently visited Brandon Road Lock and Dam in Joliet, Illinois, to get acquainted with operations of the lock and dam facility and learn more about the Brandon Road Interbasin Project.



New Deterrent Technology Tested at Peoria Lock and Dam

An interagency group of specialists from USACE, U.S. Geological Survey and U.S. Fish and Wildlife Service, supported by Great Lakes Restoration Initiative (GLRI) funding, were recently successful in designing, constructing and testing a full-sized prototype of an automated barge clearing (ABC) deterrent at Peoria Lock and Dam in Peoria, Illinois. The new prototype involves a series of airlines and nozzles installed on the bottom of the river that blow a steady stream of air up through the water creating circular flow patterns designed to clear fish from the box to rake junction spaces within passing barges.

"We are trying to protect the Great Lakes from harmful invasive species using this new

experimental technology," said Mark Cornish, Environmental Technical Lead for the Brandon Road Interbasin Project. "This testing is important because we plan to use the new technology in the leading edge of deterrents being installed as part of Brandon Road Interbasin Project. We need to ensure it is safe to use around commercial and recreational vessels and that it performs as expected in removing small fish from the box to rake junction areas of the barge."

Colin Moratz, biologist, USACE Rock Island District added, "Previous studies have demonstrated that small fish could be entrained between barges in a tow when they were configured with a box to rake coupling and

transported long distances, at least 12 miles. This deterrent technology could provide a means to reduce the threat of small invasive carp reaching the Great Lakes by breaking the currents that carry fish between barges and forcing the fish out of the protected junction."

Cornish also noted that, "Technologies such as the ABC deterrent are necessary if we are going to protect the Great Lakes from aquatic invasive species while keeping our waterway open for low-cost transportation that helps enhance the U.S. economy." Although results from the testing are still being evaluated, the team was pleased with the overall performance of the deterrent and its ability to clear small fish from between barges.

Thousands of Fish Help Test New Design

During automated barge clearing (ABC) deterrent testing at Peoria Lock and Dam, representatives from the U.S. Fish and Wildlife Service manually placed thousands of tiny fish between barges to measure the effectiveness of the prototype system. Roughly 100 test runs were conducted over 18 testing days and color-coded fish were used to differentiate between various runs. Data collected from these tests will be used to evaluate the actual performance of this innovative deterrent while also exploring safety and operational considerations.



Completed EVENTS

 **AUGUST 2022**

Quarterly Update Webinar #4

 **OCTOBER 2022**

*USCG Visit Brandon Road
Cost Schedule Risk Analysis*

Upcoming EVENTS

 **NOVEMBER 2022**

Quarterly Update Webinar #5

 **DECEMBER 2022**

Facilitated Partnering Meeting #4

Stay CONNECTED

Looking for more information about the Brandon Road Interbasin Project? Click the website link below or scan the QR code with the camera app on your mobile device to learn more about the project's next steps, key leadership involved, and how to contact the project team.

<https://go.usa.gov/xF79Xa>



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