

US Army Corps of Engineers® Rock Island District

April 2022

# BRANDON ROAD INTERBASIN PROJECT



QUARTERLY UPDATE

### 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 will 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 deterrent, 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 Developing the Gauntlet States and Provinces Forum Update

## **Project Status Update**

Over the past three months, exciting progress has been made on the preconstruction engineering and design of the Brandon Road Interbasin Project. In mid-January, the U.S. Army Corps of Engineers, Rock Island District, received big news that new start construction funding for the Brandon Road Interbasin Project, in the amount of \$226 million, was being allocated as part of the Infrastructure Investment and Jobs Act. This critical funding will allow for completion of the preconstruction engineering and design phase and construction of Increment I of the project, which includes site preparation, rock excavation, installation of an air bubble deterrent and narrow acoustic deterrent array as well as construction of a control building and upstream boat launch. Following the funding announcement, Senators Dick Durbin and Tammy Duckworth made a visit to the Brandon Road Lock and Dam to get an update on the project and see firsthand where features would be constructed.

Collaborative efforts including a value-based design charette and a navigation workshop were also held in the second quarter of fiscal year 2022. Discussion during the design charette focused on support buildings, equipment, site operations, utilities, and future considerations. At the navigation workshop, the team shared their finalized Engineering and Evaluation Report (EER), which used information and proposals gathered during multiple design charrettes, ongoing modeling and analysis, navigation workshops, and design team meetings, to evaluate the use of different layouts for the engineered channel. Based on the information gathered during this process, the team has narrowed the layout options and modeling and testing will be used to analyze their impacts and effectiveness through the remainder of this year.

At the USACE Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, testing continues with the large-scale flushing lock and engineered channel models and fish monitoring and data collection is ongoing at Lock 19 in Keokuk, lowa, where the U.S. Geological Survey and ERDC installed a test underwater acoustic deterrent last year. The information collected during the vital stage of preconstruction engineering and design is crucial to developing effective elements that will prevent invasive carp movement.



Personnel from Kaskaskia Engineering Group perform a field gradation test on material obtained from test pits during Phase I of the field exploration which included limited site preparation and geophysical testing. Test pits on the peninsula were performed to investigate the composition of the materials that make up the spoil piles which were placed during construction of the original navigation channel. Data gathered from the geophysical testing will be used to evaluate electrical resistivity of the subsurface.



### **Developing the Gauntlet**

Although the preconstruction engineering and design phase has primarily focused on structural elements at Brandon Road Lock, it is important to point out that the recommended plan for the Brandon Road Interbasin Project includes a layered system of structural and non-structural control measures.

The Federal Risk Management Plan as laid out in the Chief's Report includes a 'Population Reduction Zone' below Brandon Road Lock and monitoring, management and control zones above Brandon Road Lock. The Monitoring and Response Work Group (MRWG), which is an interagency group of fisheries biologists and scientists, manages these zones and implements

response actions when changes in the Invasive Carp populations are detected. The Brandon Road Report recognizes the importance of continuing these efforts into the future as the Brandon Road structural deterrents are constructed. Nonstructural measures. include public education and outreach, monitoring, integrated pest management, manual or mechanical removal, and research and development.

Many of the structural features being considered are new and innovative technologies that have never been combined to create a barrier of this magnitude. Thus, the continuation and implementation of nonstructural measures is critical to the effort

to combat the transfer of aquatic nuisance species from the Mississippi River Basin into the Great Lakes Basin.

In the spirit of shared responsibility, the U.S. Fish and Wildlife Service, U.S. Geological Survey and Iliniois Department of Natural Resourcres will implement or coordinate implementation of nonstructural measures to the extent authorizations and appropriations allow. In the coming weeks and months, the Brandon Road Project Delivery Team will continue working with partner agencies on a plan for implementation of nonstructural measures to maximize effectiveness and risk reduction provided by the project.

### Completed EVENTS

📩 JANUARY 2022 Design Charrette #5 Quarterly Update Webinar

FEBRUARY 2022 Navigation Workshop #3

### Upcoming EVENTS

T APRIL 2022 Quarterly Update Webinar

🛗 JUNE 2022 Facilitated Partnering Meeting #3

#### 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.



### States & Provinces Forum Update

The States and Provinces Forum, facilitated by the Great Lakes Commission, has continued to work together to share information and provide direction for successful implementation of Brandon Road Interbasin Project. The Forum met on November 30, 2021 to review progress provided by USACE and to discuss pathways forward for funding of project construction.

In December, the states requested full federal funding of the project for authorization in the Water Resources Development Act of 2022. The Forum will meet again in April 2022 to review the engineering planning progress and continue to discuss pathways forward for successful implementation of both structural and non-structural measures for the Brandon Road Interbasin Project.