

US Army Corps of Engineers. Rock Island District

BRANDON ROAD INTERBASIN PROJECT



The **PROJECT**

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 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. Construction is planned in three increments:

Increment I: (A) Automated Barge Clearing Deterrent, Leading Edge Bubble Deterrent, Leading Edge Acoustic Deterrent Array, Leading Edge Support Facilities, and Upstream Boat Launch (B) Site Prep, Channel Rock Excavation

Increment II: Electric Deterrent, Wide Acoustic Deterrent Array, Complete Control Building, Right Descending Bank Wall Connect to Lower Guidewall, Flushing Lock, Downstream Boat Launch

Increment III: Complete Engineered Channel

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.

Disclaimer:

The articles and material provided in this newsletter are for general informational purposes only; nothing in them is to be considered legally binding. The Corps of Engineers makes no representations, attestations, guarantees or warranties, express or implied, regarding the information contained herein.



Project Status Update

Since April, pre-construction engineering and design of Increment I-A of the Brandon Road Interbasin Project has continued, and reviews of the 95 percent design are now underway. The physical modeling team at the USACE Engineer Research and Development Center has been working to fine tune design elements for various project features and continue to find solutions for better operations of the flushing lock and bubble deterrent. Preliminary work on Increment I-B has also started and a roundtable discussion to gather input on rock excavation techniques is scheduled this month.

In early June, the 600-foot lock chamber at Brandon Road Lock and Dam was dewatered to perform critical repairs and maintenance. During the dewatering, the Brandon Road Interbasin Project's environmental science team got a rare opportunity to monitor the chamber and conduct a fish assessment as the water

levels dropped. A variety of small fish, including emerald shiners and gizzard shad were observed in the shallow pools of water near the end of the dewatering process, but no invasive carp were seen.

The Brandon Road Interbasin Project's technical team also took advantage of the dewatered chamber and toured the site to look at existing structural elements and eroded sections of the chamber floor. Seeing the space in its dewatered state allowed the team to better evaluate their design and overcome the unique challenges of developing a project that will primarily exist under water.

In this issue Project Status Update Gaining New Perspective BRIP Featured on PBS

QUARTERLY UPDATE

In August, the Rock Island District hosted six professional staff members from the House Transportation and Infrastructure Committee at the Brandon Road Lock and Dam to give an update on the Brandon Road Interbasin Project and the critical maintenance work being done at the site this summer. Seeing the lock in its dewatered state gave the group a unique perspective on the immense scale of the project.

Accelerated funding from the states of Illinois and Michigan continues to support pre-construction engineering and design efforts through the end of the fiscal year. The \$226 million in federal funding appropriated in the 2022 Bipartisan Infrastructure Law as well as \$47.8 million in 2023 federal appropriations will become available for use when a Project Partnership Agreement is signed between the federal and non-federal partners.



Members of the Brandon Road Interbasin Project's technical team toured the inside of the dewatered lock chamber at Brandon Road Lock and Dam during a maintenance closure. The unique view of the chamber, which is normally submerged underwater, provided the engineers with a rare look at the space they have been digitally designing.



Gaining New Perspective from Inside the Lock

USACE Rock Island District hosted tours of the dewatered Brandon Road Lock in July for members of the Brandon Road Interbasin Project technical team. Participants included Rock Island District employees from multiple divisions as well as the representatives from the Illinois Department of Natural Resources, U.S. Coast Guard, U.S. Geological Survey, navigation industry and the USACE Engineer Research and Development Center (ERDC). This is the first time since 1995 the lock chamber has been dewatered, providing a rare opportunity for the team to view existing conditions and layout of the entire lock structure. For many of the tour participants, this was their first time inside a dewatered

lock and it opened their eyes to the true magnitude of the Brandon Road Interbasin Project.

One of the biggest challenges when designing a project on an existing structure that's over 100 years old, is identifying and considering modifications that may have occurred since original construction. Touring the inside of the dewatered lock chamber provided the team with the opportunity to physically view the spaces where new proposed features would be located and question if anything presently there, was unaccounted for in the new design. These modifications could have occurred intentionally or been a product of deviations from the as-built drawings during initial

construction. Deterioration of the existing infrastructure was also noted during the tour as it could significantly impact design of the new features.

During the tour, participants also got a better understanding of how the Brandon Road Interbasin Project's flushing lock feature would change the existing structure. Experts from ERDC, who have been working on the flushing lock test models, were able to see on a full-scale, how physical features like the new filling and emptying ports, lock discharge, and valve gates on their small-scale models, could be optimized.

To see more images from the dewatered lock tour or survey crew imaging, visit the project website at: www.usace.army.mil/BRIP/



Former USACE Lakes and Rivers Division Commander, Brig. Gen. Kimberly Peeples, took command of the USACE Mississippi Valley Division on July 12, 2023 and will now provide oversight for the Brandon Road Interbasin Project in the Rock Island District.

Stay CONNECTED



Brandon Road Interbasin Project Featured on PBS

The Brandon Road Interbasin Project was recently featured on PBS in a new show titled Human Footprint. In the first episode, Strangers in Paradise, biologist Shane Campbell-Staton travels to Brandon Road Lock and Dam near Joliet, Illinois, to talk with Scott Whitney from the USACE Rock Island District about how the project aims to stop invasive carp from moving into the Great Lakes. The episode covers information about how the invasive carp came to live in the Illinois Waterway and how the series of features being designed for the Brandon Road Interbasin Project will prevent them from passing through the lock. It also talks about how some of the non-structural efforts being done to manage the species in the state of Illinois while the project is still in design. Click the image to the right to view the show.



Human Footprint | Strangers In Paradise | Episode 1 | PBS Shane tracks down four invasive species that make him reconsider what it...

NOTE: The segment on invasive carp starts at 16:15 in the video.

Completed EVENTS

Cuarterly Update Webinar #6

MAY 2023 Great Lakes Commission and States & Provinces Forum Presentations

Upcoming EVENTS

AUGUST 2023 Quarterly Update Webinar #7