US Army Corps of Engineers

Great Lakes and Mississippi River Interbasin Study
Brandon Road Shipper & Carrier Surveys Fact Sheet

Study Overview:
The Great Lakes and Mississippi River Interbasin Study – Brandon Road Study is a feasibility study that builds on the foundation of the Great Lakes and Mississippi River Interbasin Study (GLMRIS) Report released in January 2014. The GLMRIS Brandon Road survey effort serves to supplement the extensive surveying effort completed as a part of the GLMRIS Report in 2011. The GLMRIS survey effort accounted for greater than 90% of tons transiting the Chicago Area Waterway System (CAWS) between 2007 and 2009 and included several companies within Indiana and the Burns Harbor area; these responses will also be used to help estimate the costs to carriers and shippers due to the potential implementation of ANS control technologies in the vicinity of Brandon Road Lock and Dam.

This feasibility study assesses the viability of establishing a single point to control the upstream transfer of aquatic nuisance species (ANS) from the Mississippi River (MR) Basin into the Great Lakes (GL) Basin near the Brandon Road Lock and Dam (L&D) in Joliet, Illinois.

Economic Analyses:
Evaluations will characterize the potential changes in the economic value of activities that may be affected given the implementation (or lack) of ANS controls near Brandon Road L&D. The economic analyses address potential changes to the economic value of the national output of goods and services, as well as changes in regional economic activities.

The commercial cargo navigation economic analysis will estimate the impact to commercial cargo navigation from the implementation of these ANS control measures at Brandon Road L&D. This assessment will identify the commodity types, tonnages, and lock usage statistics for Brandon Road L&D, as well as impacts to transportation benefits.

If ANS control measures are not implemented in the vicinity of Brandon Road L&D, future ANS transfer from the MR Basin to the GL Basin could impact the quality or quantity of fisheries within receiving waters. Analyses will estimate potential changes in the economic value of activities such as commercial, recreational, and charter fishing in the GL Basin.

Commercial Cargo Navigation – Economic Analysis:
The GLMRIS Report surveys established the ultimate origin and destination of waterborne commodity movements on the CAWS; identified how shippers, carriers, river terminal operators, and other affected users would respond to various unexpected lock closure periods; and described how these events would affect their operational, transportation, and logistics costs.

The GLMRIS Report survey included 90 interviews yielding data on 139 docks. It established a comprehensive understanding of how the CAWS functions within a larger transportation network, the cost of moving commodities on this system, and the increases to these costs under various closure periods. This information was necessary to identify impacts to transportation benefits for the alternatives considered in the GLMRIS Report.

Since the locks analyzed in the original GLMRIS effort have a high degree of traffic commonality with Brandon Road Lock and Dam, the shipper and carrier responses from that GLMRIS survey serve as appropriate approximations of how shippers and carriers will respond to changes to the Brandon Road Lock.

Waterborne commerce contributes to several activities in the region. In order to identify impacts to users of Brandon Road L&D, the Corps is conducting a commercial cargo navigation analysis to understand how shippers and carriers would respond to changes in the availability of the waterway at or near Brandon Road Lock specifically.

A part of the commercial cargo navigation analysis involves estimating increases in transportation or logistical costs attributable to the restricted use of Brandon Road Lock L&D and/or the waterway in its vicinity for with-project conditions (construction and operation) due to potential ANS control measures. However, this navigation economic evaluation solely addresses increases in transportation costs as accrued by the directly affected users.

The study team recognized that a limited carrier-response survey and shipper-response survey could serve to facilitate the commercial cargo navigation analysis. The USACE Waterborne Commerce Statistics Center database was used to identify carriers that utilized Brandon Road Lock between years 2010 and 2013. Nine shippers and nine carriers were identified to participate in the GLMRIS Brandon Road survey effort based on their relative shares of tonnage and ton-miles within the various commodity groups transiting Brandon Road Lock. This method allowed for the consistent application of selection criteria to identify potential survey participants, and limited the immediate introduction of biases.

The information collected from shippers and carriers will be used by our study team to inform our analysis of the economic impacts to the commercial cargo industry from the implementation of aquatic nuisance species (ANS) technologies at Brandon Road. The navigation economics team uses models to simulate how traffic might change due to implementation of ANS technologies and to estimate the associated costs to industry stemming from these changes. Modeling of the system requires estimates of current operating costs, understanding of operational changes carriers might make, and how shippers might respond to changing costs and lock availability. The Corps' Planning Center of Expertise for Inland Navigation and Risk Informed Economics Division (PCXIN-RED) has operational data such as costs and fleet information and can use the 2011 GLMRIS survey results to model the reactions of shippers and carriers to lock delays and closures. However, we are always looking for ways to improve and/or validate these cost numbers and to ensure we have a solid understanding of how affected industries would react to changes. The information from the surveys will be used to validate and/or refine the inputs into these models.