Port Futures: [Modeling] Adaptive Strategies for Healthy Great Lakes Ports

Project No. 1102  
Timeline 2016 – 2018  
Award Amount $78,500  
Team Leader Brian Davis | Sean Burkholder, Cornell University | University at Buffalo, SUNY, brd63@cornell.edu

This project design effort got us closer to answering the question, “What will ports and harbors of the Great Lakes basin look like in the future?” With budget restrictions, regulatory issues, and industrial decline, the region is poised for innovation. Outside-the-box thinking for sustainable alternatives – both ecologically and economically – is needed.

During this design grant, the team worked closely with a consortium of decisions-makers in the basin and met with port managers, industry leaders and other stakeholders in Minnesota, Wisconsin, Michigan, New York, Illinois and Ohio to better understand and identify the needs in the region. Through a massive compilation of the most up-to-date datasets (and development and piloting of new field data collection techniques), the team determined the range of sediment management technologies that exist within the Great Lakes system, in addition to where and how dredging occurs, and the characteristics of individual ports. The products from these efforts include a Port Atlas of the Great Lakes basin and a Mappings and Existing Strategies Catalog.

From these efforts, the team identified a range of sediment management opportunities for ports in the basin and places to pilot new strategies.

This planning grant successfully led to an implementation grant. The Fund’s Board of Directors awarded a subsequent grant of up to $1,590,000 to pilot an innovative passive sediment management strategy in two medium-sized ports; that if successful will be adopted in the over forty medium-sized port communities through all states in the Great Lakes basin.