

HEALTHY PORT FUTURES



Great Lakes
Protection Fund

For Immediate Release 2/26/2018

The Healthy Port Futures team is excited to announce the successful funding of the research and implementation project by the Great Lakes Protection Fund at \$1.6 million. This award has been granted to the University at Buffalo with Primary Investigators Sean Burkholder from the Department of Architecture and Planning and Brian Davis from the Department of Landscape Architecture at Cornell University. The rest of the team consists of Modeling Lead Dr. Kimberly Hill from the Department of Civil, Environmental, and Geo-Engineering and St. Anthony Falls Laboratory at the University of Minnesota, and Aquatic Habitat Specialist Dr. Jeff Schaeffer from the USGS Great Lakes Science Center, with data collection methodologies and analysis provided by Dr. Matt Lewis of Michigan Aerospace.

Healthy Port Futures is a 3-year project that will test and develop new concepts of sediment management for Great Lakes ports. Using the expertise and resources of the team, Healthy Port Futures will physically and digitally model and test a wide range of sediment management options and develop design guidelines for the implementation of high-performance sediment projects in Northeastern Ohio in conjunction with the US Army Corps of Engineers. The design research will combine hybrid and multi-scalar modeling with visualization methods and fieldwork to develop rigorous and effective sediment strategies that will prioritize passive and adaptive techniques in nearshore environments. By engaging hybrid natural-infrastructure dynamics such as river flow, wetland development and sediment transport, and focusing on multi-value creation over time, the project aims to improve both public and ecosystem health.

Research products from Healthy Port Futures will be adaptable to changing environmental and economic demands and could be leveraged to enhance operational efficiencies, create multi-use infrastructures and provide new example cases for the use of natural and nature-based features in sediment management. The end goal of the research is to provide an approach designed so that its adoption in river and port communities will generate more desirable waterfronts for both recreational and ecological purposes while offering a cost-effective way of maintaining necessary navigation channels.

To maximize the adoption and impact of the approach, the team will develop and share the products of both of these efforts with a broad constituency across the Great Lakes Basin by way of webinars, newsletters and workshops. Healthy Port Futures hopes to shepherd a new attitude toward sediment and its management by shifting this process from a maintenance act producing a waste product to a productive operation contributing to revenue streams, land creation, risk reduction and habitat improvement. This process will both facilitate and drive the expectation that the sediment management process can become a strong tool in the enhancement of both the ecological and social conditions throughout the region.



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