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National Aquarium

# National Aquarium Floating Wetland Prototype

Baltimore, Maryland



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*An innovative floating wetland prototype restores lost ecological function and services to an ultra-urban waterfront, sparking the creation of highly visible expanse of tidal marsh wetland in Baltimore's Inner Harbor.*

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## **SERVICES**

Design

## **NATURE-BASED SOLUTIONS**

Ecomimicry

**T**he National Aquarium is located on two piers on Baltimore Harbor's post-industrial waterfront. The Aquarium's leaders sought to transform their campus—including the pollution-plagued water between its two piers—into an engaging, programmable space that would advance the institution's conservation mission, celebrate the tidal marsh habitat that once existed there, and demonstrate novel approaches to regenerating ecological services.

After working with the Aquarium to develop a suite of innovative technologies to provide habitat, restore ecological function, and improve water quality between the piers, Biohabitats helped integrate these ideas into a larger campus master planning effort spearheaded by Ayers Saint Gross. The plan included a proposed 16,000-square-foot floating wetland system, which would support native wildlife while improving water quality and engaging passersby. The system include various microhabitats, a tidal canal, and aeration attached to a floating platform with adjustable buoyancy.

It was critical to test the operations and performance of the floating wetland approach before completing construction documents. A 450-square-foot prototype of the floating wetland was constructed and installed in the fall of 2017. Monitoring conducted by Aquarium staff showed that the prototype wetland supported a broad community of nekton, aquatic mammals, reptiles, and waterfowl, and the Aquarium chose to move forward with the planned expansion.