

NATIONAL AQUARIUM

National Aquarium Floating Wetland

Baltimore, Maryland



The 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 help advance the institution's mission

to inspire conservation of the world's aquatic treasures. The new campus would celebrate the tidal marsh habitat that once existed there while demonstrating novel approaches to regenerate the ecological services it provided.

After working with the Aquarium to develop a suite

Highly visible floating wetlands at the National Aquarium work to improve water quality, support wildlife, reconnect people to a lost tidal marsh ecosystem, and regenerate ecological services in an ultra-urban environment.

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. A 16,000-square-foot floating wetland is proposed to sit in the canal between the Aquarium's two piers. The wetland will serve as a Life Support System (LSS) for blue crabs, oysters, rockfish, night herons, and other species, while working to improve water quality and engage the Aquarium's many visitors and passersby. The system includes various microhabitats, a tidal canal, and aeration attached to a floating platform with adjustable buoyancy. Design Development plans have been prepared.

It was critical to test the operations and performance of this innovative floating wetland approach prior to completion of the construction documents. A 450-square-foot prototype of the floating wetland was constructed and installed in the fall of 2017. The system is being operated, maintained, and monitored for biodiversity and water quality by Aquarium staff. To date, the floating wetland has been found to support a broad community of nekton, aquatic mammals, reptiles, wading birds and waterfowl. Monitoring of the prototype will continue through 2020.

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