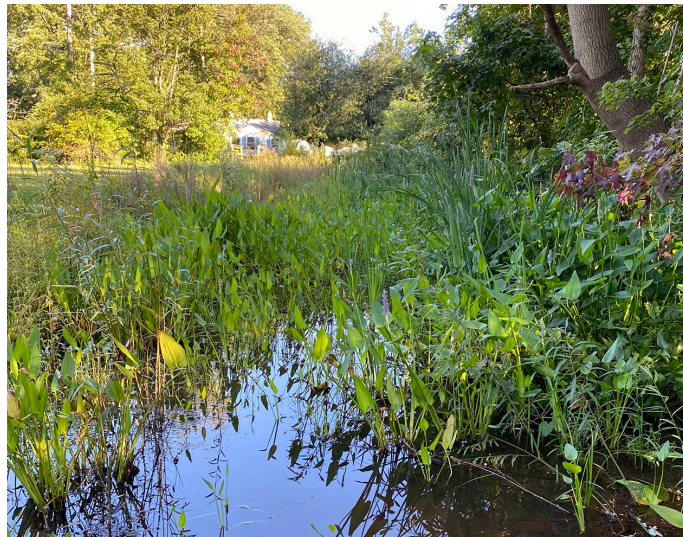


Holly Hill Harbor Community Park Water Quality Retrofit

Edgewater, Maryland



From top: One of the in-line wetlands helps treat stormwater runoff before it flows into the Rhode River; Playground and swales post-construction.

The waterfront community of Holly Hill Harbor is located on the Rhode River, a tributary to the Chesapeake Bay. When water quality monitoring near the neighborhood's

community park revealed high bacteria counts following rain events, the non-profit Arundel Rivers Federation recognized the need to reduce the amount of stormwater entering the

By retrofitting a neighborhood park with green infrastructure, a waterfront community helps improve water quality in a tributary to the Chesapeake Bay.

river. For help in identifying and designing methods to capture runoff, the Federation turned to Biohabitats.

Biohabitats began by performing a thorough site assessment, which included wetland delineation and an evaluation of soil profiles, and analyzing site hydrology and hydraulics. Biohabitats then conducted a feasibility analysis of retrofit options and held a public design workshop to present and discuss those options with residents and other stakeholders.

Informed by the analysis and community input, Biohabitats designed four interconnected, in-line wetlands and bioswales to capture and treat stormwater while still allowing the site to function as a neighborhood park. The wetlands feature a sand and wood chip mix that promotes infiltration into the soil media and absorption by native plants. By allowing a

greater volume of water to be captured during storms, the wetlands serve as a demonstration project for nearby neighborhoods that also have high water tables.

Combined, the projects will treat up to 6.2 acres of drainage (assumed 38% impervious cover). The wetlands were designed and permitted in accordance with the Maryland Department of the Environment's stringent Stormwater Design Guidance for environmental site design and scaled to fit within the limitations of an Anne Arundel County Standard Grading Plan.

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