

Brewer Pond Shoreline Protection

Sherwood Forest, Anne Arundel County, Maryland



Brewer Pond is a 22-acre tidal pond along the Severn River that is surrounded by 50 acres of riparian forest called Brewer Pond Natural Area. An important spawning site for fish, amphibians, and reptiles, the pond is also a breeding area for bald eagles, colonial waders and reclusive forest interior dweller birds.

Over the years, natural wave action, boat wakes, and tidal inundation caused the tidal marsh to erode, even after the construction of the stone revetment. In addition, the sediment source for the very existence of the tidal marsh feature extending into Brewer Pond may have been cut off or redirected after the 1995

construction of stone breakwaters immediately north of the project site.

In a joint venture with Century Engineering, Biohabitats helped the Anne Arundel County Department of Public Works (DPW) evaluate the potential breaching of a section of stone revetment constructed in 1995 and the cause of erosion of a section of a previous tidal marsh restoration. The project also included the design of a stable and resilient condition at the Brewer Pond County Park.

Directly adjacent to the project site is an extensive bed of submerged aquatic vegetation (SAV), an important component of the Chesapeake Bay

The hybrid living shoreline design approach transforms a stone revetment into a marsh sill and restores stability and ecological function to low and high tidal marsh while limiting disturbance to surrounding natural resources.

ecosystem for water quality and habitat. It was important to limit disturbance to this important natural resource.

The team's design applied a hybrid living shoreline approach to provide shoreline protection through a combination of tidal marsh restoration, a marsh sill, and adjacent formed oyster reef structures to prevent further erosion and loss of tidal marsh habitat. The hybrid living shoreline will be constructed in a manner that avoids/minimizes impact to the existing SAV to

the maximum extent possible. For example, construction access will be from the water using a shallow water barge or similar vessel and construction activities will coincide with tide elevations that will avoid/minimize impact to the SAV.

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