Trust for the National Mall

Constitution Gardens

Washington, DC.



A water feature on the National Mall is retrofitted with a biofiltration wetland system to replicate the functions once provided by the historic riparian wetlands underlaying the site.

SERVICES

Climate Adaptation & Resilience Nature Based Solutions Water Strategies onstitution Gardens, occupying a quiet section of the National Mall in Washington, D.C., was dedicated in 1976 to commemorate the American Revolution Bicentennial. The Gardens' main focal point, a human-built 6.5-acre lake, was not designed to sustain significant aquatic life. The concrete lining of its banks and bottom led to elevated water temperatures during the summer. This, coupled with limited habitat availability, resulted in reduced populations of fish, amphibians, and other aquatic organisms. High waste inputs from waterfowl further degraded water quality. The lake resides in a low-lying area along the Potomac River floodplain, where riparian wetlands were historically filled with an unpredictable mosaic of materials, leading to poor soil quality and high flood risk.

After a national competition, the Trust for the National Mall selected PWP Landscape Architecture to redesign Constitution Gardens and restore ecological function to the lake. As a key member of the project team, Biohabitats designed a biofiltration wetland system to improve water quality by treating nutrient inputs from stormwater runoff, waterfowl, and other lake organisms.

This system provides deeper depths to enhance habitat and is one of the largest of its kind in Washington, D.C., restoring the function once provided by riparian wetlands and ultimately filtering 11,000,000 gallons of annual stormwater runoff. Constitution Gardens remains an integral part of a busy tourist area that is vulnerable to higher intensity flooding events from the Potomac, underscoring the need for the robust, resilient biofiltration system.