

Rock Creek Tennis Center LID Retrofit Design-Build

Washington, District of Columbia



from top: Stormwater BMP captures runoff from parking lot, before and after; Capturing runoff near main stadium entrance, before and after; Bioretention cells capture stormwater, before and after

The Rock Creek Tennis Center is located less than six miles from the U.S. Capitol in Rock Creek Park, one of the

An expansive Washington, DC tennis center and park that was developed without stormwater controls is retrofitted with green infrastructure to improve its surrounding and downstream environment.

first national parks established in the U.S. This busy and popular spot for tennis enthusiasts and concertgoers is situated at the headwaters of Blagden Run, a tributary to Rock Creek and ultimately the Potomac River. The 26-acre site boasts 25 tennis courts, a 7,500-seat stadium, and a 3,700-seat amphitheater. It also included a great deal of pavement.

Developed before the District enacted its stormwater regulations, the Center experienced uncontrolled, concentrated storm flows from these impervious surfaces. Over time, the stormwater carved eroded gullies in the surrounding forest, lowered infiltration and groundwater tables, and degraded habitat of native protected species. So severe was the site's environmental degradation, it was identified as a priority restoration area by the U.S. Fish and Wildlife Service and the National Park Service due to its impact on habitat along Rock Creek.

To help the District Department of Energy and

Environment restore Rock Creek's natural hydrology, prevent gully erosion, reduce stormwater pollution, and restore habitat, Biohabitats provided design-build services to retrofit more than seven acres of impervious surface with Green Infrastructure. The retrofit involved creating eight bioretention basins, sub-soiling compacted fields, disconnecting impervious surface with a level spreader, and installing in-channel stabilization structures in seven outfall channels.

As it functions to manage stormwater and enhance habitat, the green infrastructure also adds beauty and elements of connectivity to the site's park environment.

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