

Park Drive RSC Gully Restoration Design Build

Southeast Washington, DC



top: After restoration; bottom left: Initial conditions; bottom right: During construction



Stormwater runoff is the primary source of degradation to local waterways within the District of Columbia. This was the issue on the ecologically sensitive hill slope of Fort DuPont Park (National Park Service Land) where heavy storm flows from

A highly unstable, eroded gully that was both a source of sediment and a potential safety hazard is transformed into a series of boulder cascades and pools that infiltrate and filter stormwater and provide important wildlife habitat in an ultra-urban environment.

an outfall, located near two busy streets, carved out a 300 foot long and 15 to 20 foot deep gully. Needing to restore this gully, the DC Water Planning Division turned to Biohabitats for help.

The team began by conducting a physical and biological assessment of the degraded site. With a regenerative stormwater conveyance (RSC) approach, Biohabitats then developed a design that not only improved stormwater attenuation and treatment, but restored ecological function and stability to the degraded ephemeral outfall channel in a way that enabled it to continue developing habitat and natural water treatment as it evolved.

Crafted to ensure minimum disturbance to the site's

existing forest resources, the design utilized the existing gully for construction access, filled the channel to the surrounding top of the bank during construction using sand and mulch supplemented with bio-char to further filter out pollutants, and created a series of cascades and pools to restore stable conveyance to the valley bottom. While attenuating and filtering polluted stormwater, the pools also provide aquatic and terrestrial habitat. After permitting the design, the design-build team of Biohabitats, ARRC, and ER&M constructed and planted the project for DC Water.

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