DC WATER

Hickey Run Stream Restoration

Washington, D.C.

From top: Tributary with exposed sewerline prior to restoration; A restored tributary with riffle protecting sewer and stream.

The restoration of an urban stream enhances the beauty and mission of the National Arboretum while improving water quality in the densely developed Anacostia River watershed.

The watershed surrounding Hickey Run, a tributary to the Anacostia River, was once home to five miles of vibrant streams and tributaries. As the watershed rapidly developed, however, much of Hickey Run was piped. Today, only a small section of the stream, which flows through the U.S. National Arboretum, remains above ground. This portion of the stream had become eroded and polluted by stormwater from the increasing impervious surface in the watershed. The stream was further degraded when emergency repairs were made to an aging and failing sewer line that ran adjacent to it. The repairs at the rupture location resulted in the need to restore the natural condition of the streambank slopes and riparian area and further protect the sewer line. In addition, two tributaries required stabilization at sewer crossings to protect the infrastructure and minimize sedimentation.

In an effort to restore stability, habitat, and natural function to the stream while also enhancing its ability to manage stormwater it receives from its densely developed watershed, DC Water initiated a project to restore Hickey Run.

As the prime of the design-build team contracted to DC Water through Anchor Construction, Biohabitats crafted and implemented the restoration. The team began by reviewing existing data and conducting a thorough site assessment. Biohabitats then crafted restoration designs and prepared permitting for five locations along the stream. In keeping with the Arboretum's mission, which includes enhancing the environmental value of its landscape, and its dedication to modeling best environmental practices, Biohabitats maximized the use of locally sourced, native material in the restoration, and implemented construction in a way that minimized disturbance to the Arboretum's grounds and programming. The design included stabilization of a floodprone bench and boulder toe along Hickey Run, and the installation of several riffle grade controls along the tributaries to stabilize the channels and abate sedimentation caused by excessive bank erosion. Instream habitat was enhanced through the incorporation of wood material salvaged from on-site and installed within the rock structures and pool areas. The site was revegetated with native material grown at the Arboretum.

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