Anne Arundel County

Susans Branch East

Anne Arundel County, Maryland

A municipality improves water quality and advance progress toward nutrient reduction and impervious area treatment goals by restoring a degraded urban stream and its riparian floodplain.

SERVICES
Ecological Restoration

To help Anne Arundel County, Maryland improve water quality and advance progress toward its nutrient reduction and impervious area treatment goals, Biohabitats worked with the Bureau of Watershed Protection and Restoration to restore Susans Branch East. Located in a highly urbanized watershed, Susan's Branch East is a tributary to Broad Creek and ultimately the South River, a major tributary to the Chesapeake Bay. Multiple outfalls deliver stormwater from surrounding development directly into the stream. Over time, that stormwater eroded the stream's vulnerable, native Coastal Plain soils. Severely incised, with banks as high as four feet, Susans Branch was in dire need of restoration and floodplain reconnection.

Biohabitats collaborated with the County to design a baseflow channel with adjacent floodplain restoration. The design, which raises the channel bed and lowers and retrofits the outfalls, restores hydraulic function, habitat, and resilience to the stream and its riparian floodplain while protecting private property and nearby roadways. It also helps the County comply with stringent NPDES and MS4 permit requirements, and meet its waste load allocation towards the Chesapeake Bay Total Maximum Daily Load (TMDL).

Biohabitats also managed project permitting and supervised construction, which was implemented by Underwood & Associates.