
Holmes County Park District

Killbuck Creek Reconnection

Millersburg, Ohio



The bank of Killbuck Creek was graded and stabilized to allow water to enter the wetland.

A collaborative design-build effort funded by H2Ohio creates over six acres of wetland, enhances biodiversity, and restores ecological function to a vital floodplain system.

SERVICES

Design-build
Ecological Restoration
Nature Based Solutions

In Millersburg, Ohio, legacy impacts of agriculture disrupted Killbuck Creek and its floodplain's ecological function. The lack of hydrologic connectivity led to flooding, bank instability, sedimentation issues, and loss of floodplain wetlands. To restore natural processes and recover ecosystem services that were degraded by decades of farming, the Holmes County Park District turned to Biohabitats.

As design-builders, Biohabitats worked collaboratively with the District, stakeholders, and regulatory agencies to develop and permit creative solutions tailored to the unique sand-bed stream systems and their floodplain. The design reconnected the floodplain to Killbuck Creek and Sand Run by excavating breaks in three areas along Killbuck Creek, and created and enhanced over six acres of floodplain wetland. To create a natural floodplain system, the project team planted the restored areas with native riparian, emergent, and scrub-shrub wetland vegetation, facilitating the resurgence of emergent wetlands, oxbow wetlands, vernal pools, and hummock and hollow habitat. During construction, the project team used resources found on-site when possible, minimizing impacts to existing resources and maximizing restoration outcomes while staying within budget.

The restoration of wetland hydrology and function allowed higher flows to access the floodplain, improving water quality and flood resiliency. Reconnecting both streams with their historic floodplains and managing invasive species post-construction improved site biodiversity, restored diverse habitat, and enhanced recreational opportunities for users of an adjacent park trail.