

Timbers at Troy Stream Restoration

Elkridge, Maryland



Clockwise from top left: Before restoration; After restoration; Aerial view of site

Offering some of the best of Maryland's countryside, the Timbers at Troy Golf Course showcases rolling hills, mature trees, and meandering streams. One such meandering stream, a tributary to Deep Run, was chosen as a priority site for restoration by Howard County as part of their comprehensive watershed planning efforts.

Biohabitats was able to provide assessment, permitting, design, and oversight for the project implementation and worked to perform the permitting required for post construction monitoring as well. The goal of this project was to optimize riparian habitats and stream stability

Biohabitats optimized riparian habitats and stream stability at the Timbers at Troy Golf Course under a tight timeframe.

within a tight time frame. To complete this difficult 1,800 linear feet stream restoration project Biohabitats had to ensure that the project was ready for construction in less than one year, working around, and minimizing impacts to, the golf course's schedule and layout. Collaboration with local agencies and stakeholders ensured the project started on-time (mid-December 2017) and was quickly completed less than three months later (early March 2018), all prior to the start of golf season.

The restoration approach realigned the channel, where necessary, within the existing valley section and imposed a step pool/cascade morphology in the steep upper reach that transitioned into a riffle-pool morphology in the flat lower reach. This approach maximized floodplain reconnection and, by raising the stream invert in the lower reach and

back watering existing gullies and depressions, the project influence extended laterally across the stream valley and formed valuable amphibian habitat and rearing areas for fish.

Complementing the channel restoration, a small flood prone bench was created at the edge of the stream and vegetated with native, dense rooting perennial grasses, herbs, and low growing shrubs. Adjacent to the flood prone bench, the work area was restored with a native riparian plant community that was designed to be compatible with the golf course, minimize the need for ongoing maintenance, and provide enhanced water quality benefits, shade, and habitat for the stream channel.

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