## US ARMY CORPS OF ENGINEERS, DETROIT DISTRICT

## Task Order #1: Detroit District, Underwood Creek Section 206 Feasibility Study

Wauwatosa, Wisconsin





top: Initial conditions (inset). From concrete-lined channel to natural stream bottom: Butler's garter snake (Thamnophis butleri)

iohabitats has partnered with Short Elliot & Hendrickson (SEH) to provide ecological restoration services for the Underwood Creek Rehabilitation and Flood Management Project. To rehabilitate the channel and floodplain within a highly developed, urban watershed outside of Milwaukee, Underwood Creek has been altered considerably since the mid-1960s. The creek's channel has been widened, realigned, and-along a significant portion of its eight mile length until its confluence with the Menomonee Riverlined with concrete. These

The rehabilitation of a highly urbanized and manipulated stream incorporates the added benefit of critical flood storage. The restoration provides steelhead and northern pike with access to upstream waters, and creates riparian and wetland habitat for the State threatened Butler's garter snake.

alterations have limited fish migration and viability contributed to downstream flooding conditions along portions of the Menomonee River, as well as, limiting fish migration and viability.

To make life safer for the public and friendlier for fish and aquatic life, the U.S. Army Corps of Engineers and the Milwaukee Metropolitan Sewerage District are removing nearly one mile of concrete from the creek channel and rehabilitating the creek to restore a more natural meandering system with pools and riffles and wetland and riparian habitat. The project also includes the design and installation of an extensive floodwater storage facility adjacent to Underwood Creek.

Biohabitats and SEH will prepare a feasibility study for approximately 4,400 linear feet of Underwood Creek, starting at its confluence of the Menomonee River. The study will address key concerns such as embankment stability, sediment transport, existing fish migration barriers, riparian restoration, and flood management.

## SERVICES

Inventory & Assessments Design Permitting Post-construction Monitoring Management Public Outreach

conservation planning ecological restoration regenerative design



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