

OAK CREEK STREAMBANK STABILIZATION PROVIDES MANY BENEFITS

A progressively eroding streambank along the Oak Creek in Milwaukee County was threatening the collapse of the highest bluff along the creek and the adjacent Oak Creek Parkway road. In addition, the excessive sediment from the eroding streambank was negatively impacting the health of the stream - an important spawning stream for several Lake Michigan fish species. Milwaukee County took action to stabilize the streambank and improve the overall habitat of the riparian zone and ultimately, the creek.

Early on in the project, Milwaukee County assembled a stakeholder committee to help drive project goals. The committee included representatives from the Wisconsin Department of Natural Resources (DNR), Southeastern Wisconsin Regional Planning Commission (SEWRPC), Southeastern Wisconsin Watershed Trust (Sweet Water), Milwaukee Metropolitan Sewerage District (MMSD), United States Army Corps of Engineers (USACE), City of South Milwaukee, and Milwaukee County Parks. The design for a solution began in 2020. The project design required data collection and review, geomorphic analysis, and permitting. Alternative solutions were created, and specific solutions for streambank stabilization, creek routing, floodplain design,

storm sewer infrastructure, site access, fish passage, and construction means and methods were developed.

The project began in the early months of 2022 and construction activities were planned with help from the DNR to ensure the project would have minimal impact on aquatic species. During the summer of 2022, a temporary bypass system to divert water during construction was installed, and the key elements of the design began to take shape. Much of the project was completed by September 1, 2022 — just 10 days before the largest 24-hour September rainfall in Milwaukee County recorded history. The recently stabilized streambank handled this massive storm extremely well and was a welcomed test of the project’s success.

In the spring of 2023, numerous emergent and floodplain plants have begun to “green up” the site and are actively receiving their first year of dedicated plant maintenance. Since project completion, many local anglers and hikers have enjoyed the improved access to this stretch of creek just upstream from the mouth of the river as it empties into Lake Michigan. The project is considered a model for future streambank work in the Milwaukee County Park system.



An angler enjoying the creek.
Courtesy of Milwaukee County