

GEAUGA PARK DISTRICT

# Silver Creek Stream Restoration Design-Build

Russell Township, Ohio



top: Restored oxbow wetland  
bottom: Restored channel

Silver Creek was impounded in 1925 to form Silver Lake, which provided power for a small mill. The lake spanned 14 acres, capturing water from a 10.5 square mile watershed. In 1994, when the

*Thanks to an integrated restoration program Silver Creek will flow through a natural forest and provide ideal habitat for trout and other aquatic life.*

Geauga Park District acquired the lake, the Ohio Department of Natural Resources ordered the dam be removed because it was detrimental to trout habitat. The Geauga Park District dismantled the dam in 1996. In September of that same year, remnants of Hurricane Fran delivered rainfall that created the wettest month on record. The record high flows caused extreme erosion through the newly created channel in the former lake bed and large quantities of sediment deposition in the channel downstream.

reach, Biohabitats designed a more stable channel cross section, plan form, and profile. Because the soil in the old lake bed was easily eroded, the design incorporated wood structures such as rootwads, large woody debris deflectors, log toe, and log vanes to stabilize meander bends. Portions of the old channel were converted into wetlands to mimic natural oxbow channels. Native riparian trees, shrubs, grasses, and flowers were planted throughout the project area.

After the channel continued to experience erosion for six years, the Geauga Park District retained Biohabitats to design and restore Silver Creek to a stable, natural channel. Using an upstream section of Silver Creek as a reference

### SERVICES

- Inventory and Assessment
- Design
- Permitting
- Construction Management
- Construction Oversight
- Post-construction Monitoring
- Design-Build
- Public Outreach

conservation planning  
ecological restoration  
regenerative design



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