
GEAUGA PARK DISTRICT

Beaver Creek Restoration

Munson Township, Ohio



Photo by David Lee Photography

Beaver Creek after construction.

Stream and floodplain restoration enhances water quality at the headwaters of the Chagrin River, one of only 15 State-designated Wild, Scenic and/or Recreational Rivers in Ohio.

SERVICES

Ecological Restoration
Water
Urban Ecology
Design & Build

Glacially-formed Bass Lake is an Ohio EPA-designated Exceptional Warmwater Habitat and the headwaters of the 71-mile Chagrin River, a State Scenic River and important natural resource. In a design-build capacity, Biohabitats is helping the Geauga Park District to restore Beaver Creek, which flows into Bass Lake. Previously channelized to accommodate agriculture, the eroding Beaver Creek had become disconnected from its floodplain and had experienced erosion, diminished habitat, and poor ecological function. The land surrounding the creek had become inundated with invasive reed canary grass (*Phalaris arundinacea*).

Biohabitats developed a design to restore stability, ecological function, and floodplain connectivity to the stream while reestablishing its riparian corridor and improving habitat throughout. The design created a new channel, which included recontoured sections of the old channel and incorporated a series of interconnected oxbow wetlands. The design also created vernal pools and used large woody debris to construct basking logs, standing snags, brush piles, root wads, and other habitat features. Submerged aquatic vegetation was mapped and preserved in the old channel as much as possible, and where necessary, it will be transplanted to provide instream habitat and nutrient uptake in the new channel. The restoration also transforms the invasive species-dominated field surrounding the stream into a functioning, native vegetative community using native seed mixes, herbaceous plugs, clusters of live stakes and posts, container grown woody trees and shrubs, and available onsite material.

The restored stream and floodplain will reduce sediment load in the creek and its receiving waterbodies while also enhancing local habitat and ecology.