

In-Progress Project Summary: Stream Function Restoration in Mill Creek Tributary

Anticipated Completion: 2018

Project Overview

The project area is located at the intersection of Kemper and Mosteller Roads in Sharonville, Ohio. The site currently contains an open water "basin." The basin present onsite is, in fact, an over-widened stream channel. The over-widening has impaired the habitat, hydraulic functions and sediment transport functions of the stream.

The project will restore a natural stream channel through the existing basin, containing constructed riffles and pools, which will create valuable in-stream habitat in a highly developed urban area. Rock toe along the edge of the new stream banks will provide perimeter boulder habitat for small fish and macro-invertebrates, while also preventing bank scour during flood events. Outside of the banks of the stream channel, open water will be converted to wet meadow floodplain populated with native warm season grasses and field forbs. The grasses and field forbs will provide habitat for native wildlife, including pollinators, while also providing deep root systems to hold the newly established floodplain terrace and stream banks.

The restoration of a functioning stream also encompasses the preservation of the floodplain storage benefits conferred by the current site configuration. The open water areas in the basin are currently within the 100-year floodplain of the main stem of the Mill Creek, and the site would provide flood storage for lower flows through the basin. The native vegetation proposed for the site will add roughness to the floodplain, slowing water down as it moves across the meadow.

This project will create high quality aquatic and terrestrial habitat, restore healthy stream morphology, and reintroduce natural sediment transport in a highly developed area. The Mill Creek Watershed contains primarily impacted streams, including the stream reach to be remedied through this project.