

Projects funded by the 2016 Aquatic Habitat Grant

Mill Creek Restoration

Recipient: Kent County Parks

Department

Funding Received: \$100,000

Matching Funds: \$50,000

A former DNR fish hatchery, the site for this project on Mill Creek has a retaining wall and lined banks that were installed in the early 1900's. No longer operating as a hatchery, the site is now Dwight Lydell Park and the retaining walls are nearing failure. These walls and lined banks constrict the river into unnatural flow patterns, disconnect the river and fish from floodplain habitats, and increase nutrient-laden runoff into the river. This project will remove the concrete walls to restore natural river banks and floodplains. The retaining walls will be replaced with vegetated buffers of native trees and other plants that will mitigate runoff into this important coldwater stream to protect habitat for salmon, steelhead, trout, and other fishes.



Degraded retaining walls that restrict natural flow patterns and disconnect the river from its floodplain will be removed and replaced with vegetated streambanks.

Red Cedar Watershed Protection and Restoration

Recipient: Ingham County Drain Office

Funding Received: \$427,178

Matching Funds: \$872,822

This project is part of a larger project to restore the Red Cedar River in the Lansing area. The larger project addresses concerns in the Montgomery Drain, whose 300-acre watershed is 80% impervious and drains into the Red Cedar River. Funds from the Aquatic Habitat Grant will be used to complete another component, whereby 4,000 feet of the Red Cedar River channel will be restored using a natural channel design approach. The project serves as a demonstration project for these approaches in high-traffic, urban areas and will enhance fish habitat in the Red Cedar River, reduce erosion, and restore natural channel dimensions to the stream.



Over 4,000 feet of the Red Cedar River will be restored using Natural Channel Design concepts.

Milligan Creek Restoration

Recipient: Huron Pines

Funding Received: \$370,200

Matching Funds: \$265,729

Two road/stream crossings– Waveland Road over Milligan Creek and Brady Road over Milligan Creek– will be replaced during this project period. Sediment input to the stream will be reduced by nearly 7.5 tons annually and 7 miles of upstream aquatic habitat will be reconnected. These crossing replacements will restore natural river processes and increase habitat diversity throughout the Milligan Creek system. The project will provide long-term solutions such as the installation of new structures that meet bankfull width and can accommodate larger flows to increase the functionality and resiliency of Milligan Creek. Results will not only enhance water quality but will benefit native aquatic species such as brook trout and lake sturgeon which have been seen spawning below the Waveland Road crossing. This comprehensive effort will bring together national, regional and local partners to implement these priority projects.



This downstream view of the culvert at Waveland Road shows the fish passage barrier, one of two that will be remediated on Milligan Creek.

Restoring Sanborn Creek, a Headwaters Stream of the Pere Marquette River

Recipient: Conservation Resource Alliance

Funding Received: \$95,000

Matching Funds: \$225,000

The primary objective of the project is to restore connectivity to 14.6 miles of Sanborn Creek by improving the last 4 remaining undersized road/stream crossings. These 4 undersized culverts prevent natural fish passage and allow an excessive amount of sediment to be deposited into Sanborn Creek. These 4 road/stream crossings are the final element of a strategic plan to remove all fish passage barriers from Sanborn Creek and halt the excessive input of sediment into the stream. Sanborn Creek is a key tributary to the Pere Marquette River, boasting cold water temperatures and providing habitat for a steady population of brook trout, along with brown trout, rainbow trout, and sculpin.



Improperly sized culverts such as this one on Sanborn Creek will be remediated to allow for fish passage.

Avon Creek Phase IV Habitat Restoration

Recipient: City of Rochester Hills

Funding Received: \$257,622

Matching Funds: \$270,000

Avon Creek Phase IV Habitat Restoration proposes to restore approximately 300 feet of Avon Creek directly upstream of the Clinton River. The City of Rochester Hills successfully completed stream restoration projects for other portions of Avon Creek by obtaining grant funding from the U.S. Fish and Wildlife Service. With the completion of Phase I, II, and III habitat restoration projects, Phase IV

will complete the restoration initiative for Avon Creek that began in 2010. The proposed project is expected to establish a more self-sustaining hydrological and ecological stream that supports trout fisheries in the Clinton River Main Sub-Watershed. A natural channel design approach consisting of fluvial geomorphology, sediment transport, and aquatic ecology will be utilized to reconnect the floodplain, improve sediment transport, and provide aquatic biodiversity. Streambank stabilization techniques will be incorporated into the design to provide vegetated banks that reduce soil erosion and create riparian buffers in order to reduce stream temperatures. These restoration methods will improve in-stream and riparian habitat.



Broken concrete, unnatural debris, and incised banks will be remediated in Avon Creek to improve this critical nursery habitat for fishes.