NOAA - GREAT LAKES COMMISSION

Regional Partnership

Muskegon Lake AOC Habitat Restoration

The **Lower Muskegon River** habitat restoration project will improve habitat for fish and wildlife by restoring wetlands, reconnecting the former floodplain wetlands with the river, and restoring fish passage and habitat.

Photo provided by WMSRDC

Project Highlights

Restore 49.1 acres of emergent wetland and soften 2,825 feet of shoreline

Remove approximately 38,722 metric tons of fill

Completes one of the four, final habitat restoration management actions needed to remove Muskegon Lake from the list of Great Lakes Areas of Concern.

Funding is provided by the Great Lakes Restoration Initiative (GLRI) and U.S. Environmental Protection Agency through the National Oceanic and Atmospheric Administration (NOAA) and the Great Lakes Commission (GLC)

The West Michigan Shoreline Regional Development Commission (WMSRDC) is implementing this project

The Grand Valley State University Annis Water Resources Institute (GVSU AWRI) is monitoring the impact of restoration on the aquatic ecosystem

Environmental Benefits

Reconnect natural floodplain wetlands to Muskegon River, providing improved fish and wildlife habitat

Economic Benefits

Enhance the fishery of Muskegon Lake, which is conservatively estimated at $1.3 million annually

Community Benefits

Enhance passive recreational opportunities for canoers, kayakers, and local volunteer groups

Background of the Area of Concern (AOC)

Photo provided by WMSRDC

Within the lower Muskegon River watershed, lies the Muskegon Lake AOC, a drowned river mouth lake that flows into Lake Michigan along a shoreline that is part of the world's largest assemblage of freshwater sand dunes. Muskegon Lake was designated an AOC in 1985 due to ecological problems caused by industrial discharges, shoreline alterations, and the filling of open water and coastal wetlands.

Since 1992, community groups, governmental, and nongovernmental organizations have worked collaboratively to remediate contaminated sediments and to restore and protect fish and wildlife species and their habitats. Historic sawmill debris, foundry sand, and slag filled 798 acres of open water and emergent wetlands in the AOC. Nearly 25% of the lower Muskegon River's open water and shallow wetlands were filled and approximately 74% of the Muskegon Lake shoreline was hardened with wood pilings, sheet metal or concrete. This resulted in the loss and degradation of shallow water benthic (lake bottom) communities, isolation and fragmentation of coastal wetlands, and the associated degradation of water quality and fish and wildlife populations.

This project, along with three others already under development, will complete all of the management actions needed for the U.S. Environmental Protection Agency (U.S. EPA) to remove Muskegon Lake from the list of Great Lakes "toxic hotspots."

History of the River

The Muskegon River flows from the North Bay of Houghton Lake for over 200 miles, where it drains into Muskegon Lake. Historically, the river was used to transport logs to the numerous sawmills along the shoreline of Muskegon Lake. The project site had been used for celery farming and was separated from the river by a series of constructed dikes and was recently acquired by the County of Muskegon through a NOAA/EGLE AOC Acquisition grant for the purpose of restoration The project will restore wetlands, reconnect the former floodplain wetlands with the Muskegon River and restore fish passage and habitat for a variety of native fish and wildlife.

Project Progress

Major restoration efforts for the Lower Muskegon River project are expected to be completed in 2020, with monitoring and final restoration work to be completed in 2021.

Funding and Partners

$3.13 million is available for this project through the GLRI, a regional program that is supporting implementation of a comprehensive restoration plan for the Great Lakes, including cleaning up AOCs. The project funding comes from NOAA through a Regional Partnership with GLC. The project is being managed locally by WMSRDC and ecological monitoring is being performed by the GVSU AWRI.

For More Information

Eric Ellis, Habitat Restoration Project Manager
Great Lakes Commission, 734-396-6089, eellis@glc.org

Kathy Evans, Project Manager, West Michigan Shoreline Regional Development Commission, 231-722-7878 x 17, kevans@wmsrdc.org / www.wmsrdc.org

WMSRDC
WEST MICHIGAN SHORELINE
REGIONAL DEVELOPMENT COMMISSION