

# MONITORING FISH COMMUNITY RESPONSES TO RESTORATION ACTIVITIES IN THE ROUGE RIVER WATERSHED

The U-M Water Center engages researchers, practitioners, policymakers, and non-profit groups with the goal of supporting, integrating, and improving current and future restoration and protection efforts.

The grants program is an important part of the Water Center's efforts to enhance restoration and protection activities by engaging exceptional multi-sector teams in advancing evaluation and assessment of restoration projects.

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## FOR MORE INFORMATION

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### Project Summary

The Rouge River is situated in a highly urbanized watershed in southeast Michigan. It serves as the catchment area for three counties and 1.35 million people, and is a major tributary to the Detroit River. Despite persistent water quality issues in the Rouge River, it appears to support a unique fish community. The river has undergone restoration efforts aimed at improving water quality and enhancing biotic communities that include adding combined sewer overflow retention treatment basins throughout the watershed and removing a migration barrier in the lower reaches to improve habitat connectivity within the watershed. Preliminary work in 2012 suggests that fish biodiversity has increased in the last 20 years and that there are substantial native fish populations inhabiting the river.

This project will characterize the fish community in the watershed, focusing on the Lower Rouge, to understand the ways in which watershed-level restoration efforts impact community composition. A key focus will be on monitoring changes associated with potential upstream migration of the nonindigenous round goby (*Neogobius melanostomus*) due to the removal of a dam at Wayne Road. Data will be integrated into a GIS database to evaluate both large-scale and local processes that may impact fish habitat quality, by combining local stream reach data with catchment-level assessment related to streamflow and habitat connectivity. These data will be useful for both monitoring changes in the river based on restoration efforts as well as assisting management efforts aimed at removing beneficial use impairments that have resulted in the Rouge's designation as an Area of Concern.



Photo courtesy of Friends of the Rouge



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