



Lawrence Technological University Wetland Habitat Design



In partnership with:



\$125,000 in grant funds provided by the Great Lakes Restoration Initiative (GLRI) through the U. S. Environmental Protection Agency (USEPA) for design

The LTU Wetland Habitat Design will:

- Restore one acre of floodplain wetland habitat.
- Improve water quality within the Rouge River watershed.

In 2021 the Alliance of Rouge Communities (ARC) received grant funding from the U. S. Environmental Protection Agency (USEPA) Great Lakes Restoration Initiative (GLRI) to design and implement habitat restoration at the Evans Branch of the Rouge River located at Lawrence Technological University (LTU) in Southfield within the Rouge River Watershed.

The Rouge River watershed is designated as an Area of Concern (AOC) under the Great Lakes Water Quality Agreement (GLWQA) and has three Beneficial Use Impairments (BUIs) associated with fish and wildlife habitat: Degraded Fish and Wildlife Populations, Degradation of Benthos, Loss of Fish and Wildlife Habitat. The Rouge River Advisory Council (RRAC), the Public Advisory Council (PAC) for the Rouge AOC, finalized a list of projects that need to be completed in order to remove the habitat BUIs in March 2016. As part of that list, creation/restoration of wetlands on Lawrence Technological University's (LTU) campus in Southfield, Michigan was considered as having significant impact on the removal of the BUIs.

The LTU Wetland project is located on LTU's campus in Southfield, Michigan. The watershed area upstream of the project location is defined as the Rummell Drain that becomes Evan's Creek on the LTU campus after exiting a box culvert under Northwestern Highway. The project plan proposes to create a 1.0-acre wetland adjacent to the creek in the disconnected floodplain. The floodplain wetland will contain a diversity of wetland plants, providing habitat for wading birds, waterfowl, amphibians, reptiles, and aquatic insects. Small mammals and birds will benefit by the increased habitat diversity and cover.

Current conditions



Existing wetland conditions

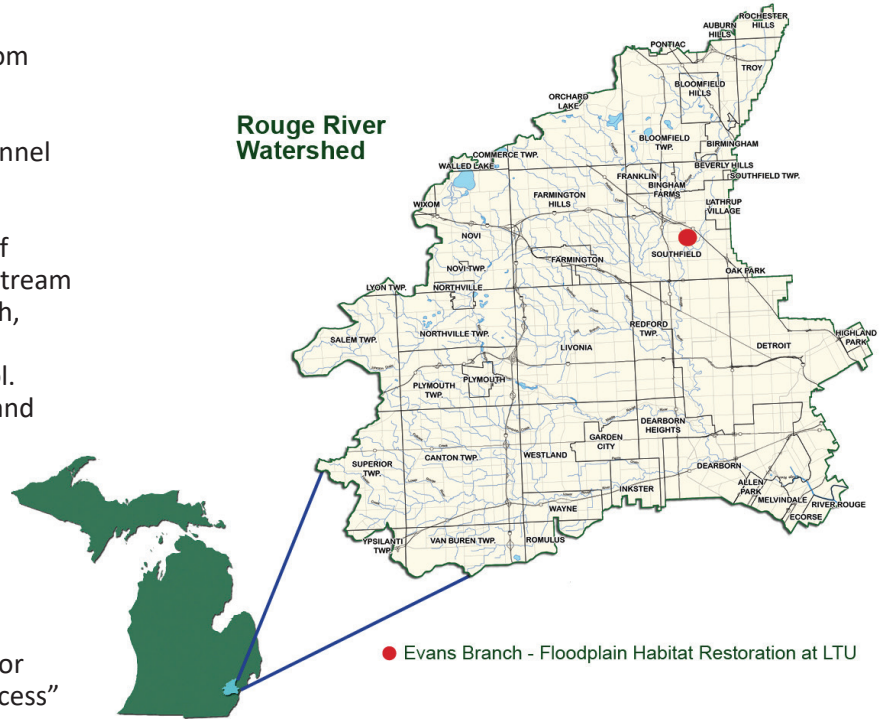


Existing stream conditions

History of the project

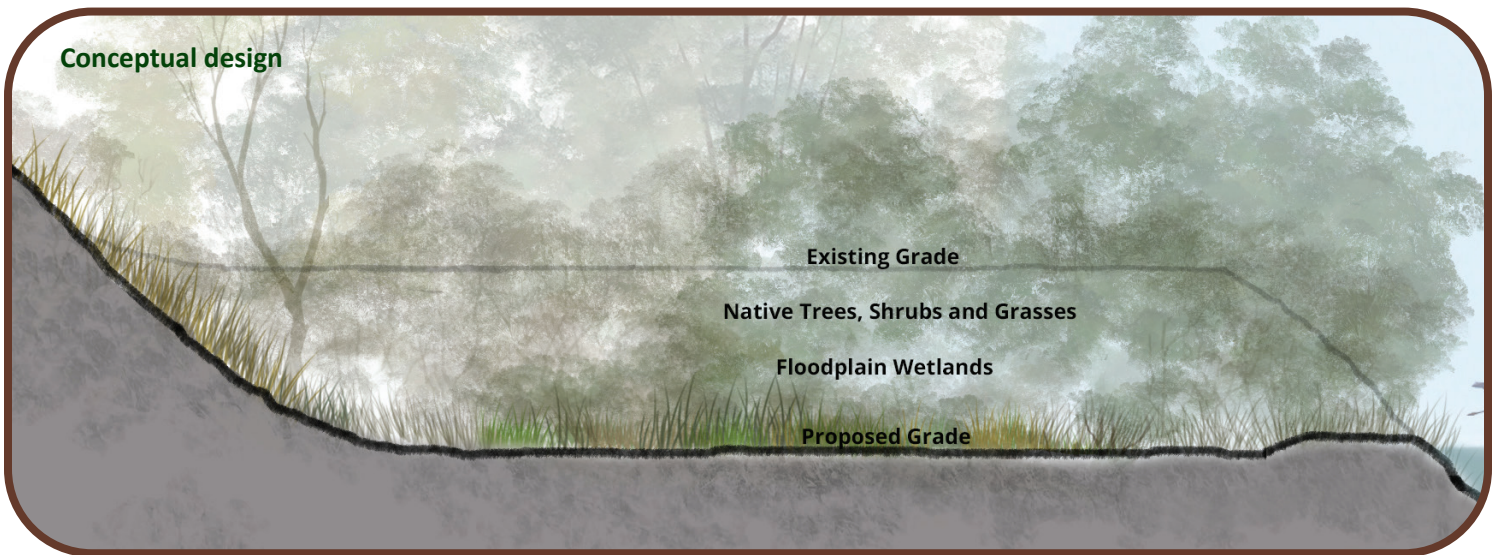
During the last century, the Rouge River has suffered from declining water quality and increased flood conditions, primarily due to increasing urbanization within the watershed. The flat river slope and the meandering channel could not pass the large flows associated with major precipitation events. Upstream urbanization continued to exacerbate this problem due to increased amounts of impervious surfaces culminating in floods within downstream local communities. Water quality in recent years, though, has improved since 1992 thanks to the federally funded Rouge Project and post construction stormwater control. For example, 89 of the 127 miles of the larger streams and tributaries in the watershed are now free from public health threats associated with uncontrolled combined sewer overflow discharges. Water quality improvement is exhibited by increased dissolved oxygen levels needed to sustain fish and aquatic life. Increased populations and diversity of benthos, fish and wildlife have been measured along the river since 1999. Also, the U.S. EPA Office of Inspector General declared the Rouge Project “a blueprint for success” (EPA OIG report number 2002-P-00012).

Rouge River Watershed



● Evans Branch - Floodplain Habitat Restoration at LTU

Conceptual design



About the Alliance of Rouge Communities

The ARC is a 501(c)(3) non-profit organization consisting of local municipalities, counties, educational institutions and stewardship groups working together to improve the Rouge River. Founded in 2005, the ARC is funded by membership dues from local governments and supported by grants. The ARC and its partners work cooperatively to meet water quality requirements mandated by the state's stormwater permit and to restore beneficial uses, such as canoeing, fishing and other recreational activities, to the Rouge River. That means better water quality for less cost to its members!

For more information about this project and other ARC activities visit our website at: www.allianceofrougecommunities.com

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