

ROUGE RIVER AOC HABITAT COLONIAL & VENOY RESTORATION

U. S. Environmental Protection Agency (USEPA), Great Lakes Restoration Initiative (GLRI) Grant - \$1,834,000 awarded in 2020 for design & implementation

In 2020 the Alliance of Rouge Communities (ARC) received grant funding from the USEPA GLRI to design and implement habitat restoration at Wayne County's Colonial Park and Venoy Dorsey Park within the Rouge River Watershed.

The Rouge River watershed is a designated 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, and Loss of Fish and Wildlife Habitat. The Rouge River Advisory Council (RRAC), the Public Advisory Council (PAC) for the Rouge AOC, in March 2016 approved a list of projects that need to be completed to remove the Rouge AOC habitat BUIs. As part of that list, habitat restoration at Wayne County's Colonial Park and Venoy Dorsey Park were considered as having significant impact on the removal of the BUIs.

This project will create habitat in the floodplain by restoring degraded areas and converting mowed areas to habitat. This will provide habitat for birds, amphibians, and pollinators while providing stormwater storage and filtration to aid in the reduction of damaging flood flows within the river itself.

Project Outcomes:

- Create 6 acres of wetland habitat
- Improve 3 acres of wetland habitat
- Stabilize 150 feet of streambank
- Create 5 acres of tree plantings/reforestation
- Create 0.5 acres of meadow habitat
- Treat 4.0 acres of invasive species



Conditions Prior to Restoration at Colonial & Venoy Dorsey Parks

As water quality in the Rouge River continues to improve, this project will build on past efforts to restore some of the damage done during the last century. Tributaries of the Rouge River have suffered from loss and impairment of aquatic habitat and increased frequency and magnitude of flood flows, primarily due to increasing urbanization within the watershed. The flat river slope and the meandering channel can not pass the large flows associated with rain events. Upstream urbanization continues to exacerbate this problem as runoff from increased amounts of impervious surfaces culminates in flooding within the river system, bank erosion, and continued habitat degradation.



Rouge River prior to rain event



Flooding of Rouge River after rain event



Maintained lawns are being converted to prairie/wet meadows



Often flooded areas are being converted to wetlands/wet meadows

Colonial Park Restoration Activities

Colonial Park is adjacent to the Lower Rouge River in the City of Inkster. Much of the park area is routinely mowed and used for active recreation. However, the park is low and often floods. This project is creating wetlands in maintained lawn areas by establishing wet meadow habitat and depression wetlands to provide habitat and manage floodwater. Additionally, invasive species is being managed in the proposed wetland enhancement areas. Maintained lawn areas are being converted to wetlands through excavation of shallow depressions and planting of a diverse native wet-meadow seed mix. The wet meadow community will contain diverse flowering forbs that provide food for pollinators. Small mammals and birds will benefit by the increased habitat diversity and cover. Wetland diversity in the maintained lawn areas will also increase through the excavation of shallow depressions in low lying areas that store floodwater. The more diverse topography will increase plant diversity by creating varying hydrological conditions.



Colonial Park conceptual plan

Anticipated Outcomes

- Increased wetland habitat
- Improved floodwater storage
- Improved water quality
- Increased plant diversity



Earthwork to expand existing wetlands



Wetlands creation



Mowed turf reforested with trees/shrubs



Prescribed burn to remove invasive Phragmites



Earthwork to expand existing wetlands to better manage stormwater

Venoy Dorsey Park Restoration Activities

Venoy Dorsey Park is located along the Lower Rouge River with sections in both the City of Inkster and the City of Westland. Portions of the park area are routinely mowed and used for active recreation. However, the park is low and often floods. Some areas in the park are forested wetlands but many wetlands are not hydrologically connected. This project is creating and restoring wetlands in the park by establishing depression wetlands which hydrologically connect the existing wetlands. Additionally, a section of failing streambank is being stabilized using bioengineering methods. Lastly, invasive species is being treated and managed in a portion of the existing riparian and wetland habitat.



Before



After

Bank stabilization

Anticipated Outcomes

- More diverse and intact riparian habitat
- Improved stormwater management
- Improved water quality
- Increased plant diversity