

## **Benefits of a Healthy Rouge Oxbow**











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#### The Rouge Oxbow Restoration Project will:

- Restore a connection to the Rouge River for benthic macro-invertebrates, amphibians, birds, fish and small mammals.
- Provide benefit to bass, channel catfish and bowfin by the creation of lacustrine habitat.

The Rouge Oxbow Restoration Project effort began in 2000, with the restoration of the Oxbow channel. With that project, the Oxbow wetland and aquatic environment was restored and provided 13 acres of aquatic, wetland, and upland habitat but did not provide a direct open-cut connection to the Rouge River. In 2005, the southeast connection was restored, providing an open cut connection between the channelized Rouge River and the restored Oxbow. The current project provided the design to complete the connection to the Rouge River with the open-cut at the northwest end.

Water conditions at the northwest end of the Oxbow are still and more lake-like and the lack of accessibility to the Rouge River at this end of the Oxbow limits access to species and their ability to utilize the Oxbow. Such an environment can result in the settling and build up of sediments, which can limit or deteriorate the habitat available for fish, benthic macroinvertebrates, herpetofauna, and other aquatic organisms. By completing the hydraulic restoration at the northwest end and providing an opening at both sides of the Oxbow to the Rouge River, the Oxbow will once again function as a riverine habitat, benefiting both aquatic animals and improving the health and function of the Rouge River.



#### Native Plants & Seed Mixes

Native plants and seed mixes chosen for the Oxbow Restoration Project will enhance habitat for wildlife and increase opportunities for wildlife viewing. Native plants installed along rivers and streams provide food and shelter for a variety of insects, amphibians, reptiles, songbirds, mammals and fish. Native vegetation also helps to prevent the establishment and spread of non-native and invasive plants and protect the streambank from the erosive forces of moving water. The deep, extensive root structure of native grasses, shrubs, and trees prevents erosion and undercutting of banks. Native riparian vegetation acts as a living filter to protect water quality by slowing runoff and increasing the amount of water that is absorbed into the soil which allows nutrients and pollutants to be taken up by the plants instead of running into the river.

# Largemouth & Smallmouth Bass

Both largemouth and smallmouth bass are typically the top predators and play an important role in maintaining a balanced population of prey species. These bass, when in a healthy ecosystem, provide a well-sought after sport fishery for anglers. Connection of the Oxbow to the Rouge River will help maintain a healthy population of prey items for these fish, which can help to produce big and healthy bass.

#### **Yellow Perch**



Yellow perch are already found in the Oxbow and are a prized sport fish for their delicious filets. The Oxbow already appears to be a nursery spot for the younger individuals and the reconnection to the Rouge River can provide more access to the young yellow perch residing in the Rouge River seeking nursery habitat.



Sunfish play an important role in both feeding (they will feed on most anything that will fit in their mouth), as well as being a primary food source for many larger predators. These fish are also highly sought after by anglers who enjoy the small but enthusiastic fight and their delicious filets.

#### Bullhead



Both the black and yellow bullhead are found in the Rouge River. These fish can tolerate a wide variety of habitats and oxygen levels and are sometimes targeted by anglers. They mostly feed on the bottom substrates, their diets consisting of a wide variety of insects, dead and live fish, crayfish, and many others. Having a wide variety of native Rouge River species inhabit that Oxbow, such as the black and yellow bullheads, helps to maintain and restore the degraded fishery by offering high quality habitat for numerous species.

#### **Northern Pike**



Northern pike are a highly sought-after game fish species that can grow to enormous sizes. They are found in some sections of the Rouge River, but poor water quality and a lack of habitat contribute to their lower numbers. The open-cut to the Rouge River will provide areas of high quality feeding and cover for this species and may even be an attractive spawning area with sufficient vegetation. These habitat improvements can help to maintain higher numbers of this prized sport fish within the Rouge River.





The Oxbow Restoration Project will provide benefits for a number of native amphibian and reptile species. The open-cut to the Rouge River will provide turtles in the river cover and refuge in the backwater area of the Oxbow. The natural shoreline and muddy bottom of the Oxbow will provide habitat that can be used for foraging, cover, breeding and nursery, and overwintering refuge that the Rouge River in this area does not provide. The Oxbow Restoration Project will also include the installation of habitat features that benefit amphibians and reptiles such as basking logs, woody aquatic structure, hibernacula sites, and nesting locations.

#### Birds & Mammals



The benefit to fish, amphibians and reptiles due to the Oxbow Restoration Project will benefit wildlife in general, as these animals play a major role in ecological food webs, both as predator and prey. As the diversity and abundance of these animals grow, opportunities for increased use by avian species such as great blue herons, and mammals such as raccoons improve because of new foraging opportunities.

#### Aquatic Bugs



Improving vegetation and restoring natural flow to the Oxbow may attract and be the home to numerous insect species such as dragonflies, dobsonflies, and caddisflies. These species are important for the cycling of nutrients in the benthic environment and act as a food source for amphibians, fish, and other aquatic fauna, contributing significantly to the health and well-being of aquatic systems.

#### Pollinators



Both territorial native bees and migratory butterflies have suffered from habitat loss. The Oxbow restoration will provide additional habitat that will function within the existing framework of native habitat already existing along the Rouge River.

#### 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