

Stream Fragmentation: Putting The Pieces Back Together In Ozaukee County

Fish and other aquatic organisms require different habitats to complete their life cycle. In streams, fish and other species must often travel great distances to find suitable habitat for spawning, rearing young, or surviving the winter.

Unfortunately, dams, culverts, and other artificial structures create barriers that fragment and isolate parts of many rivers and streams. As a result, a wide range of aquatic species lose access to critical habitat. This loss ultimately diminishes the recreational opportunities available to fishermen, river enthusiasts, and outdoor patrons in many watersheds.



Sediment Deposited Below a Railroad Bridge Impeding Aquatic Life Passage In Ulao Creek



Example of an Impassable Perched Culvert in Ozaukee County

Fortunately, many adverse stream barrier affects can be reversed by removing artificial barriers. Recent trends in natural resources management increasingly support barrier removal as a means of reclaiming stream habitat, rejuvenating fisheries, and improving public recreational opportunities. Identifying and evaluating barriers is the first step in this process.

The Ozaukee County Planning, Resources, and Land Management Department and Northern Environmental Technologies, Incorporated along with the Wisconsin Department of Natural Resources are currently working together to restore habitat access routes for northern pike (*Esox lucius*), an important game fish species, in Ozaukee County. As the first step of this project, Northern Environmental's staff located and evaluated barriers on 11 warmwater streams in Ozaukee County, including Ulao Creek. The 11 project streams were selected based on their historic use by northern pike and linkage to existing habitats.

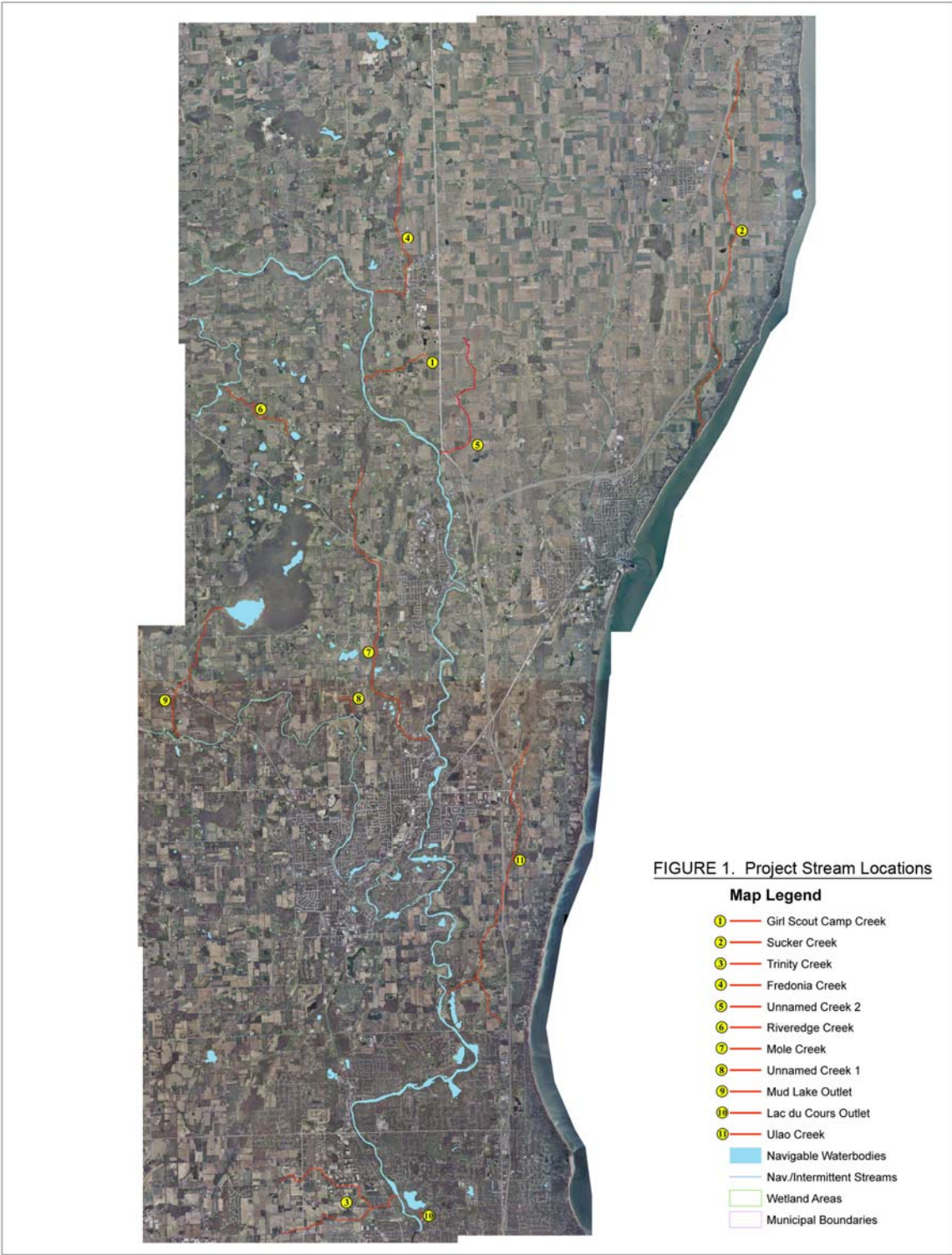
Using remote sensing and field inspections, Northern Environmental investigated and evaluated 32 reaches of Ulao Creek and identified 10 suspected barriers to aquatic life passage along its course. With help from the Ulao Creek Partnership, watershed landowners, concerned citizens, and local municipality representatives, the inventory of suspected barriers in Ulao Creek and the other project streams will lay a foundation for improving the aquatic resources in our county.

Ozaukee County's *Stream Passage Impediments and Aquatic Habitat Fragmentation Inventory* project is partly funded by the Wisconsin Coastal Management Grant program and will lay the groundwork for reconnecting many miles of stream and aquatic habitat by removing existing artificial barriers and preventing new ones.

If you would like to learn more about the habitat implications of stream barriers or discuss restoration opportunities on a waterway near you, please contact the Ozaukee County Planning, Resources, and Land Management Department's Andy Holschbach at (262) 284-8270 or Northern Environmental's Ryan McCone at (262) 643-9169.



A Low-Head Dam Fragmenting Aquatic Habitats in an Ozaukee County Creek



Project Stream Locations For Ozaukee County's *Stream Passage Impediments and Aquatic Habitat Fragmentation Inventory*