

## PROJECT PROFILE

### *Synopsis*

- **Project Title: Reconnecting Black River Tributaries with Lake Huron**
- **Grantee Organization: Huron Pines**
- **Project Team**
  - Lisha Ramsdell, Program Director, Huron Pines
  - Jesse Campbell, Manager, Alcona County Road Commission
  - Andrea Ania, Fish Biologist, U.S. Forest Service (formerly with U.S. Fish and Wildlife Service)
  - Becky Rivard, Engineer, Huron Engineering
- **Contact Person**
  - Lisha Ramsdell, Program Director, Huron Pines, [lisha@huronpines.org](mailto:lisha@huronpines.org), 989-448-2293 ex. 29
- **Grant Amount: \$46,387**
- **Time Frame: August 2013-December 2014**
- **Focus Areas: EHSFP Habitat Protection and Restoration**
- **Brief Project Summary:** This project restores fish habitat on the Black River, a tributary to Lake Huron in Alcona County. Through the replacement of two perched culverts on Haynes Creek, a headwater tributary to Black River, this project reconnected 8 river miles for spawning and nursery habitat for native fish, including brook trout, within the watershed, and for migratory fish in the adjacent waters of Lake Huron.

### *Project in Context*

This orientation to the project should provide key background information on its purpose, location (where appropriate), and broader significance. You may wish to consider:

In 2009, Huron Pines and numerous local and regional partners completed a Coastal Stewardship Plan focusing on shoreline habitat and small coastal tributaries feeding into northern Lake Huron. Through the development of this plan the Black River Watershed in Alcona County was identified as one of the top priority areas based on ecosystem criteria and the importance of this river system to lake-run brook trout. Additionally, a volunteer led road/stream crossing inventory was conducted where fish passage data, sediment loading, photographs and other data were collected at each crossing. This information was then prioritized and has been used, along with input from the Alcona Road Commission, U.S. Fish and Wildlife Service and other resource professionals, to improve the health of the watershed by replacing crossings that act a barriers to aquatic organisms and/or input excessive amount of sediment into the river.

Replacement of the crossings at Haynes Creek/Quick Road and Haynes Creek/Beaton Road has reconnected 8 river miles for resident and migrating fish species. It builds upon 2012 Black River/Sucker Creek Road timber bridge installation, instream habitat improvement projects and aggressive efforts to reduce invasive species along Lake Huron at the mouth of the river.

### *Goals of the Effort*

The key goal of the project is to restore the natural hydrology and function of the river system by replacing two road/stream crossings. Poor road/stream crossings interrupt aquatic organism and

nutrient flow; add excessive amounts of sediment and other polluted runoff to the river; impound water resulting in higher temperatures and oftentimes are safety and/or maintenance concerns. The cumulative impact of systematically replacing these crossings, in conjunction with other watershed restoration efforts, will result in a more resilient and healthier ecosystem.

## **Results**

In this section, briefly summarize the key findings or results of the project. Identify the results, i.e., fishery habitat restored, products developed, outreach engaged in, participation/use of materials achieved, feedback received.

Two road/stream crossing were replaced as a result of this project. In both cases the existing culverts were undersized and perched (meaning there was a drop at the end of the culvert). This created scour holes, downstream erosion, and impeded fish passage, In addition the embankments were very steep leading to excessive sediment loading, washouts on Beaton Road and chronic maintenance costs for the road commission. Replacing these two crossings resulted in reconnecting 8 river miles and eliminating an estimated 11 tons of sediment from the river annually.

Specific activities that have been completed include completing survey and engineering designs, obtaining permits, developing contracts and installing adequately sized culverts at two of the three sites. Fixing these two sites has reconnected 8 river miles.

Specific information for each site include:

### Haynes Creek/Beaton Road:

- Replacement of the existing perched 120" x 84" culvert with a 142" x 91" pipe arch. The new culvert has been buried two feet into the streambed in order to eliminate the aquatic organism barrier at this site and allow natural streambed material to deposit within the structure. The new culvert length has been increased from 50' long to 92' long and the ends are beveled in order to accommodate a gradual embankment slope.
- Crushed limestone aggregate was placed on the gravel road approaches to reduce the amount of sediment runoff into the river and standard slope restoration BMP's were installed included stone riprap, seed and mulch.



Top: Haynes Creek/Beaton Road before replacement  
Bottom: Haynes Creek/Beaton Road after replacement

### Haynes Creek/Quick Road:

- Replacement of the existing perched 120" X 84" culvert with a 171" X 110" pipe arch. The new culvert has been buried two feet into the streambed in order to eliminate the aquatic organism barrier at this site and allow natural streambed material to deposit within the structure. The new culvert length has been increased from 50' long to 96' long and the ends are beveled in order to accommodate a gradual embankment slope.
- The existing road surface was asphalt and the disturbed area was replaced. Standard slope restoration BMP's were installed including stone riprap, seed and mulch.



Left: Haynes Creek/Quick Road before replacement  
Right: Haynes Creek/Quick Road new culvert to be installed

### **Products and Resources**

List, and provide addresses for, related websites developed for or through the project or that provide additional information. Provide site title, full address, and a brief (1–2 sentence) description of the relevant content. List any other communications outlets, publications, media coverage, etc. for the work. If these are available online, please hyperlink the listing. Items that are *planned* or *in process* should be so designated.

The two road/stream crossing projects were highlighted in the Huron Pines 2014 Annual Report, which is distributed to 4,000 in hard copy and through our electronic communications to 3,000 people. In addition a page has been set up on our website featuring the project and funders.

Huron Pines 2014 Annual Report

<http://www.huronpines.org/downloads/2014annualreportweb.pdf>

Project Page: Description of the watershed and highlights the road/stream crossing completed.

<http://www.huronpines.org/projectinfo.asp?pjtpv&pid=37>

In addition to print and web communications project staff presented about the benefit of road/stream crossing replacements at a regional road commission meeting reaching 50 managers/commissioners and at the County Road Association Meeting reaching nearly 200 engineers/managers/commissioners. As part of the presentation an infographic on the importance and benefit of crossing replacement was created.

[http://www.huronpines.org/media/projects/media/rsx\\_infographic\\_and\\_resources\\_1.pdf](http://www.huronpines.org/media/projects/media/rsx_infographic_and_resources_1.pdf)