



Conservation Resource Alliance

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RIVER CARE

Van Creek - Reed Rd. Connectivity Project Maple River Watershed, Emmet County

The Maple River is a high-quality, predominantly cold-water stream that flows roughly 53 miles of main-stem and tributaries and drains an area of approximately 148,000 acres before flowing into Burt Lake and into the Cheboygan River watershed. The East Branch Maple River is one of only eight rivers where the federally listed, endangered Hungerford's Crawling Water Beetle is located in Michigan. The Van Creek crossing located at Reed Road (E-13) just outside of Pellston, MI was a major source of habitat destruction and aquatic species barrier in need of replacement. The crossing consisted of 2 undersized culverts functioning more as a dam creating debris blockage, increased flow velocity for migrating aquatic species, and an overly wide channel at the crossing. Van Creek drains into the East Branch Maple River just downstream from Douglas Lake. To date the beetle has not been located in these waters. The current crossing is accelerating water velocities when they are not plugged with debris, and blocking connectivity to upper portions of the watershed. The previous condition of the structure was impounding sediment, blocking nutrient flow, widening the river upstream and downstream, blocking aquatic species passage, and fragmenting aquatic species populations. Erosion from the road shoulders and embankments were contributing excessive sand to the river and the undersized failing culverts may also have had the consequent effect of warming upstream waters. The project involved removing the existing culverts and installing a channel spanning timber bridge allowing for unrestricted aquatic species passage reconnecting upstream approximately 5.5 stream miles.

Project Cost: \$225,096

Contributors:

- U.S Fish & Wildlife Service – Fish Passage Program
- Little Traverse Bay Bands of Odawa Indians
- Emmet County Road Commission
- CRA River Care Program- Supported by DTE Energy Foundation
- The George Fund
- Grand Traverse Band of Ottawa and Chippewa Indians
- USDA-NRCS

Location:

Maple River Twp.
Section 11
Emmet County, MI
N 45.53478°
W -84.76748°



Best Management Practices:

- Timber bridge installation 16'x26'
- Fieldstone placement for slope stabilization
- Grading & re-vegetation
- Channel Restoration

Project Benefits:

- Restore natural function and movement of woody debris & sediment
- Halt an estimated annual 1.5 tons of sediment loading into stream from roadbed and embankments
- Reduced flooding potential & annual road maintenance
- 5.5 miles of enhanced unrestricted upstream passage and 6 miles downstream for migratory fish & other aquatic & terrestrial species

Partners involved:

Conservation Resource Alliance, Michigan Department of Environmental Quality, Michigan Department of Natural Resources, U.S Fish & Wildlife Service, Little Traverse Bay Bands of Odawa Indians (LTBB), Krenn Timber Bridge Inc., National Fish and Wildlife Foundation-SOGL



BEFORE – vastly undersized culverts with eroded road embankments





High waters often breached the culverts and road prism



During Construction



After – Timber deck installed and river channel open for AOP.