



1. Before – frequent beaver activity required maintenance. 2. The road constantly washed into the stream. 3. After – a timber bridge provides access to recreationists and allows for a natural stream bottom.

## Otter Creek Timber Bridge

September 2008 through October 2009

Otter Creek is 2.1 miles long with its watershed entirely contained within the Sleeping Bear Dunes National Lakeshore. Otter Creek flows from the connected Deer, Bass and Otter Lakes, and empties into Lake Michigan. The marl soils found within this watershed are the source of constantly bubbling springs found in the nearby woods and feeder streams of Otter Creek. Otter Creek has a naturally reproducing brook trout population, with potential for the fish to migrate between the creek and Lake Michigan.

The major problem site on Otter Creek was the Aral Road crossing, comprised of rusting, undersized culverts that were constantly blocked with woody debris from beavers. An existing hiking and skiing trail, and needs for fire and hunting access required that a crossing be maintained at Aral Road. Partners worked together to construct a single lane timber bridge that allowed for the natural stream width and bottom of Otter Creek. Construction was a challenge with the marl soils, and timber piles having to be driven 20' down until stable ground was found. Ironically, a wooden bridge was originally built at this site when the logging town of Aral was established on Otter Creek in the late 1800s.

**PROJECT COST: \$84,107**

**LOCATION:** N 44.761605 W 86.074147

### BEST MANAGEMENT PRACTICES:

- Replace twin 48" diameter culverts with an 18' wide single lane timber bridge
- Fieldstone placement & revegetation

### PROJECT BENEFITS:

- **Reconnect 2 miles of Otter Creek**
- Restore fish passage
- Restore natural movement of woody debris, substrate, & aquatic insects
- **Halt annual input of up to 4 tons of sediment from the road into the creek**
- Provide natural stream bottom under roadway
- Ensure safe crossing for vehicle & recreational access
- Reduce road maintenance

### PARTNERS:

- Environmental Protection Agency
- Grand Traverse Band of Ottawa and Chippewa Indians
- NRCS – Conservation Innovation Grant
- CRA's River Care Program – The Oleson Foundation & George Fund
- Benzie County Road Commission
- National Park Service – Sleeping Bear Dunes Lakeshore
- Michigan Department of Natural Resources
- Michigan Department of Environmental Quality
- Krenn Bridge Company

