



**Clean Michigan Initiative
Nonpoint Source Grant**
1999-0040



Clare Conservation District
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Cedar River Road Crossings Project

August 31, 2000 through December 31, 2001

The Cedar River is part of the Lake Huron-Erie drainage area and is a tributary to the Tobacco, Tittabawassee, and Saginaw Rivers. The Cedar River originates in the southern portion of Roscommon County, Eastern Clare County, and the northwestern portion of Gladwin County. The watershed drains a surface area of approximately 120,000 acres. The land use for the Cedar River watershed consists approximately of 15% urban, 60% agriculture, 15% forest/wetland, and 10% recreation and other.

The primary pollutant of concern in the Cedar River watershed is sediment. The goal of this project was to stabilize 5 road-stream crossings using bituminous pavement and water turnouts on approaches to the river, in addition to erosion control fabric, riprap, and check dams to stabilize roadside ditches.



Grant Amount: \$58,188.00
Match Funds: \$59,448.27

Total Amount: \$117,636.27



Best Management Practices:

- 5 Water Turnouts
- 5 Re-grading Sites
- 5 Stabilized outlets
- 380 tons of Rock Riprap Placement
- Silt Fence
- 340 square yards of Geotextile Fabric
- 2,270 cubic yards of gravel
- 1,150 tons of asphalt for Paving roadway



Annual Load Reductions:

- Sediment: 411 tons
- Phosphorous: 863 pounds

I&E Activities:

- Published article in Conservation District newsletter
(2,794 mailed to residents)
- Semi-annual newsletter mailed to residents.



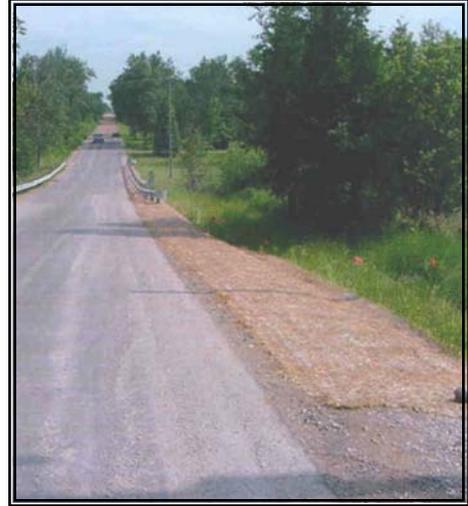
Partners involved:

- Clare Conservation District
- Cedar River Watershed Council
- Leon P. Martuch Chapter of Trout Unlimited
- Natural Resources Conservation Service
- Clare County Drain Commissioner
- Clare County Road Commission



Site 2 Before:

Runoff from the dirt road and the road sides was washing into the river at the stream crossing. The crossing is located at the low point on the road, which increased the flow of the runoff.



Site 2 After:

Runoff was decreased by raising the level of the road, paving 925 feet of road along the crossing, and installing a 500-foot spillway to direct water off the road. Plantings and check dams were also installed.



Site 5 Before:

Similar to Site 2 above, this crossing was experiencing excessive sedimentation into the river. This site was also located at a low point on the road.



Site 5 After:

Runoff was decreased by raising the level of the road, paving 400 feet of road along the crossing, and installing a 100-foot spillway. Plantings and check dams were also installed.