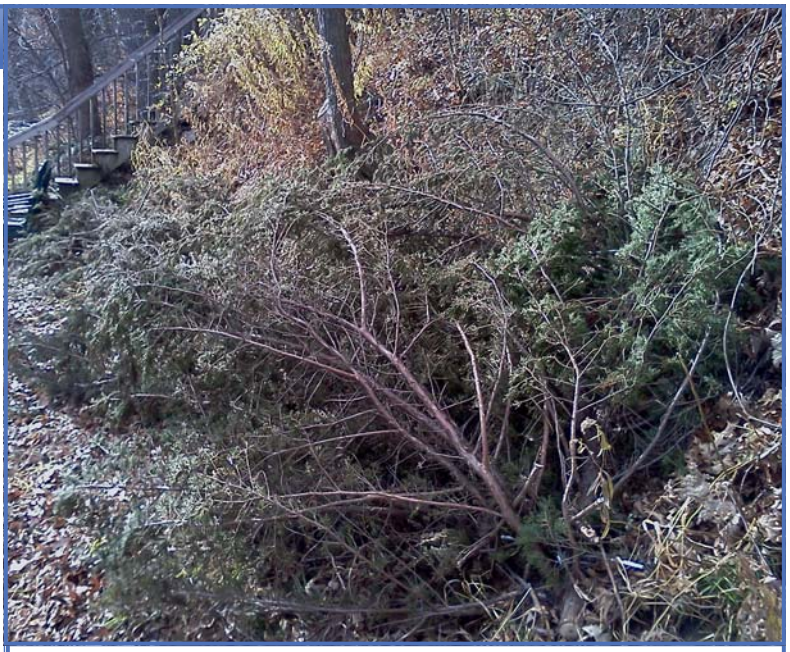
Project Profile

Blackburn Riverbank Stabilization *Ramsey, MN*

Riverbank Stabilization

Project Summary

Cedar tree revetments are a cost-effective, bioengineering practice that can be used to stabilize actively eroding riverbanks. Anoka Conservation District (ACD) staff installed a cedar tree revetment on a residential property that borders the Rum River in Ramsey during the fall of 2011. Erosion at the property, which was dominated by bank undercutting, was in the beginning stages of creating a more serious issue. Bare soil and tree roots were becoming clearly visible as a result of the erosion. Installation of the 55 foot revetment will slow or stop the erosion and reduce the likelihood of a much larger and more expensive corrective project in the future. Excessive erosion along riverbanks threatens property and associated structures, contributes sediment and nutrients to the receiving water body, and eliminates wildlife habitat. The cedar tree revetment installed as part of this project works to correct these problems. The project was funded through the Lower Rum River WMO (LRRWMO), ACD's water quality cost share program, and landowner contribution.



Completed project in the fall of 2011.

Project Specs

Date Installed	November 2011
Project Length	55 feet

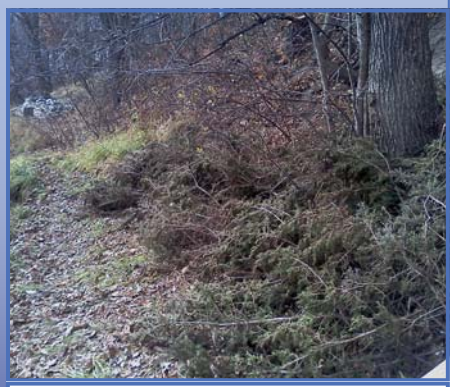
Project Funding

LRRWMO Water Quality Cost Share	$ 543.46
County Ag Preserves Cost Share	$ 543.45
Landowner Contribution	$1,086.91
Total Project Cost	$2,173.82

Installation Process

Pre-stabilization conditions consisted of an actively eroding riverbank and sparse understory vegetation, which provided no benefits to water quality. Bare soil and exposed tree roots were becoming clearly visible.

Cedar trees were tied together using cable and cable clips. The trees were then secured to the riverbank using a duckbill anchor with the trunks facing upstream to divert the flow of water away from the bank.



The cedar trees lie parallel to the shoreline and create an area of decreased turbulence that decreases bank erosion and actually allows sediment deposition to rebuild the riverbank.