



PROJECT PROFILE

NAHRING RIVERBANK STABILIZATION RAMSEY, MN

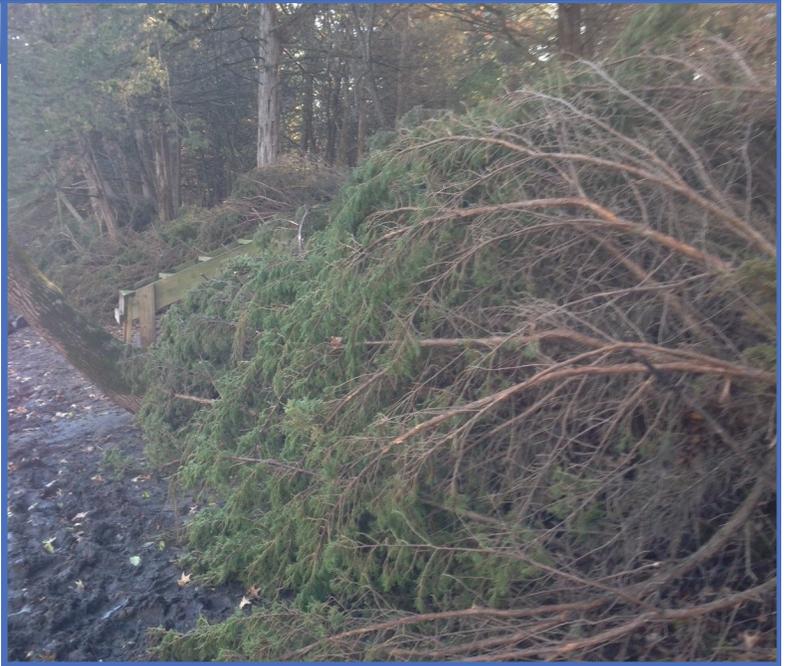


Riverbank Stabilization



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 with the help of the Conservation Corp of Minnesota (CCM) installed a cedar tree revetment on a residential property that borders the Rum River in Ramsey during the fall of 2016. 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 clearly visible as a result of the erosion. Installation of the 458 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. Funding for this project was provided from the Outdoor Heritage Fund, a CCM crew labor grant funded as a part of the Clean Water, Land and Legacy Amendment, and a landowner contribution.



Completed project in the fall of 2016.

Project Specs

Date Installed.....November 2016
 Project Length.....458 feet

Project Expenses

Installation (labor).....\$7,621.71
 Materials.....\$3,623.44
 Planning/Admin.....\$1,567.89
 Overhead (grant ineligible)...\$3,069.00
 Total.....\$15,882.03

Project Funding

Outdoor Heritage Funds.....\$6,111.56
 CCM Crew Labor Grant.....\$3,739.44
 In-kind (materials).....\$2,040.00
 Landowner Contribution.....\$922.03
 Other State Funds.....\$3,069.00
 Total Project Cost.....\$15,882.03

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 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 were anchored parallel to the shoreline and willow stakes were added between the trees. This creates an area of reduced turbulence and allows sediment deposition and revegetation to occur.