

DELLWOOD RIVER PARK RUM RIVERBANK STABILIZATION, CITY OF SAINT FRANCIS



Project Summary

Moderate to severe bank erosion along 630 feet of Rum Riverbank in Dellwood River Park (St. Francis) was causing significant tree and soil loss and was threatening a public walking trail. Several practices were used to armor the bank where needed, and to enhance habitat value where possible:

- Two severely eroding washout zones totaling 180 feet were built back out, and armored with rock riprap and rootwads.
- Moderate toe erosion along 450 feet of riverbank was treated with a bio-engineering technique called cedar tree revetment.
- Three rock bendway weirs protruding at 45° upstream from the bank, redirect flow toward the middle of the channel, reducing scour on the outer bank, and creating in-stream flow variance.

Funding came from the Outdoor Heritage Fund (OHF) with contributions from the City of Saint Francis and Anoka County. Project design, construction oversight, and cedar tree revetment installation were provided by ACD with engineering assistance from Wright SWCD and Hakanson Anderson. Final site restoration took place in spring, 2024.



Photo nine months post-construction showing bendway weir directing flow off the previously eroded bank and native vegetation taking hold above the rock.

Project Specifications

Installed..... November 2023
Project Length..... 630 feet
Habitat Enhanced..... 0.72 acres
TSS Reduction..... 60.5 tons/yr
Phosphorus Reduction....51.4 lbs/yr

Project Cost

ACD Labor..... \$31,580.56
Engineering\$7,529.25
Construction \$167,506.26
Total Project Cost \$206,616.07

Project Funding

OHF Grant\$146,840.48
City of Saint Francis \$25,632.61
Anoka County..... \$32,918.55
ACD (In-Kind)..... \$1,224.43
Total Project Cost.....\$206,616.07

Project Details



A range of moderate toe erosion to severe bank washouts existed. Several practices were implemented to armor where needed and enhance habitat where possible. These included; rock riprap, rootwads, cedar revetment, bendway weirs, and native live stakes and seed.



By redirecting flow and erosive scour away from the bank, we were able to minimize the riprap hard armoring to just the most severe areas. This greatly reduced the clearing of mature trees and unnecessary disturbance of the bank along the entire length.



Rootwads at the rock/water interface provide additional cover and habitat value in the armored areas. Large boulders were placed on each rootwad, providing stable footing to fish from shore at a popular public park.