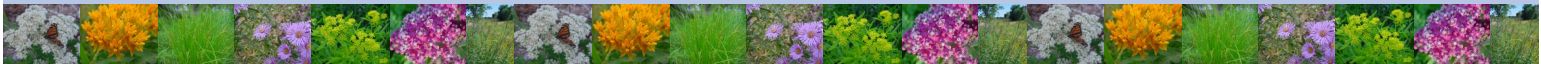


MARTZ/HANSON/HEATH PROPERTIES
BANK STABILIZATION OAK GROVE, MN



Riverbank
Stabilization



Project Summary

A 735-foot eroding riverbank in Oak Grove was one of the highest ranked sites contributing some of the most significant documented pollutant loading to the Rum River. Bank heights ranged from 12-feet to 40-feet, with much of the bank actively failing into the river. The stabilization project utilized a combination of hard armoring techniques including rock riprap and articulated concrete block mat to stabilize the very tall slope adjacent to water reaching 10-feet in depth. Moderately tall banks were graded back to provide a stable slope. Very tall banks were left steep above the toe armoring. A rock barb was included at the downstream end. Native seed, live stakes, and hydro-mulch were applied. Additional vegetation establishment work is planned for 2025. Stabilization of the bank will provide estimated annual reductions in TSS (467.4 tons) and TP (397.3 lbs) to the Rum River and enhances 330-feet and ~0.4 acre of riparian habitat. Project design, administration, and construction oversight were provided by ACD with engineering assistance from Stantec. The project was funded with grant dollars from the Clean Water Fund and Outdoor Heritage Fund (OHF), with match from landowners, Anoka County, and the Upper Rum River Watershed Management Organization.



Post-construction November, 2024. Photo faces upstream.

Project Specifications

Date Installed..... November 2024
Project Length..... 735 feet
Bank Height.....12-40 feet
Habitat Enhanced..... 0.4 acre
TP Reduction 397.3 lbs/year
TSS Reduction.....467.4 tons/year

Project Cost

Admin., Design, and Construction Oversight (ACD)..... \$87,171.94
Engineering\$22,293.24
Construction \$562,943.18
Total Project Cost\$672,408.36

Project Funding

CWF Grant \$355,518.89
OHF Grant.....\$211,608.69
Anoka County Match\$52,807.95
Landowner Match\$27,096.54
URRWMO Match \$25,351.08
ACD In-Kind Match..... \$25.21
Total Project Funding \$672,408.36

Project Details



Pre-project conditions consisted of a severely eroded, vertical bank with numerous fallen trees. Bank heights reached 40-feet with water depth exceeding 10-feet at the toe in places. Portions of the bank were receding in large chunks year over year.



Articulated concrete block mat was launched from a low bench on the upstream 405-feet to armor the deep toe. Rock was placed above and downstream to hide the mat and armor the remainder. Banks were graded where possible, seeded, hydro-mulched, and live-staked.