WATER QUALITY PROJECT FACT SHEET

SAND CREEK STREAMBANK STABILIZATION

Why did SWMO choose this Project?

Six years of water quality monitoring found that the middle Sand Creek subwatershed contributed 10 times the amount of sediment to Sand Creek than any other subwatershed. A feasibility study was completed in 2015 identifying the highest sediment producing sites within the middle Sand Creek subwatershed and also the Picha Creek tributary watershed. This study used LiDAR analysis of regression rates and sites were chosen for field reconnaissance based predominately on the estimated sediment savings. One of these sites that was identified and subsequently stabilized is the subject of this fact sheet.

This project consisted of 410 linear feet of streambank being stabilized. The eroding bluff is roughly 24 feet in height from the stream toe to the top of the bank. The estimated sediment savings from stabilizing this site are roughly 32 tons per year.

Stabilization consisted of using large wood (a minimum 15" diameter and 25' in length) placed along the toe of the stream to create a bench for sediment on the upper bluff to accumulate on as it sloughs and to also move flows away from the bluff toe. Large boulders, weighing over a ton, were attached to the bottom layer of logs to counter act the buoyancy of wood.

The project was a collective effort with the Board of Water and Soil Resources, Scott Watershed Management Organization and Scott County Highway Department. Funding was also provided to the project from the Clean Water Land and Legacy Act.

QUICK FACTS

Major River Basin: Minnesota River

Water Bodies Affected: Sand Creek

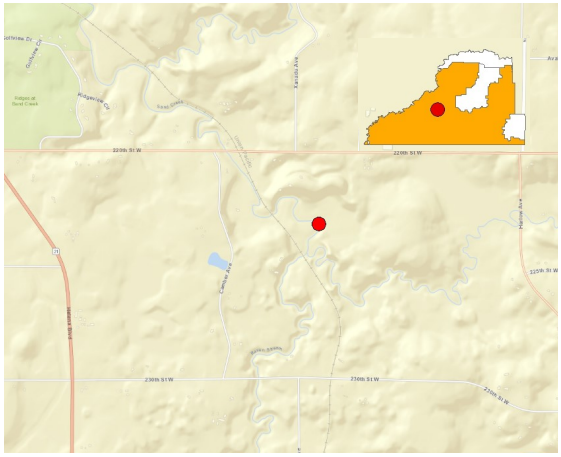
Project Goals:

1. Reduce sediment and phosphorus to Sand Creek
2. Use natural materials
3. Reduce costs to address additional future sites

Timeline: Winter of 2019/2020

Costs: $180,244.00

Project Designs and Management by: Scott County WMO, Scott County Highway Department and Inter-Fluve, Inc.



Project Location Map

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MAJOR OUTCOMES

- 410 linear feet of stabilization
- 32 tons of sediment and 32 pounds of phosphorus annually reduced from entering Sand Creek
- Improved aquatic habitat

PHOTOS

Above (left to right): Log to boulder connection; Fabric Encapsulated Lift with native prairie seeding underneath; log to log cabling
Middle: Two photos of the project site prior to construction starting.
Bottom (left to right): Vertical log installation; log with boulder connection being placed

⇒ Visit our website for more information on previously constructed or upcoming projects
http://www.scottcountymn.gov

CLEAN WATER LAND & LEGACY AMENDMENT

Minnesota Board of Water & Soil Resources

Watershed Management Organization Scott

Scott

SCOTT WATERSHED MANAGEMENT ORGANIZATION (SWMO)
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