



Capital Improvement Project Ravenna Trail Ravine Stabilization (Ravenna Township)



Figure 1. An aerial map of the location of the Ravenna Ravine Stabilization Project and the surrounding lands.

Portions of the lower Vermillion River are abutted by steep, erodible hillsides near Ravenna Trail that deposit sediment in the river during rain events and contribute to this part of the river being impaired for turbidity. The Dakota County Soil & Water Conservation District has identified erosion issues at this location with the original landowner since the late 1990s and worked with them on water control projects above the ravines as recently as 2012. However, the channel slope and highly erodible soil resulted in continued erosion of the downstream ravines, as well as observed sediment deposits in the river and on the adjacent roadway (Ravenna Trail).

Leveraging Clean Water Fund grant money, along with local funds from VRWJPO and Dakota County, ravine stabilization measures will address this chronic area of erosion depositing sediment in the Vermillion River, improving this reach that is a popular fishing and recreation area for local communities.

Partners:

- Vermillion River Watershed Joint Powers Organization
- Dakota County Environmental Resources & Transportation Departments
- Dakota County Soil & Water Conservation District
- Clean Water Fund

Installation:

- Planned for 2023

Location:

- Ravenna Township

Watershed:

- Vermillion River

Costs and Contributions (anticipated):

- VRWJPO: \$50,000 in cash match, design assistance, and grant administration
- Dakota County: \$150,000 in cash match, design assistance, and project management
- Clean Water Fund: \$495,000 in grant funding

Benefits:

- It is estimated that the project will reduce total suspended solids (TSS) pollution by 130 tons/year and total phosphorus pollution (TP) by 78 pounds/year.
- The project will help restore the lower Vermillion River, a popular reach for fishing, paddle-sports, and other aquatic recreation, and benefit fish and macroinvertebrate habitat that can be inundated by sediment.



Figure 2. A heavily eroded section of the ravine slope.



Figure 3. A worker examines the soil of the eroding ravine.



A grant from the Clean Water Fund, one of four funds established by the Clean Water, Land & Legacy Amendment, supports this project. [Clean Water Stories](#) can be found on the Minnesota Board of Water and Soil Resources website.