



Capital Improvement Project



Farmington: Rambling River Park Stream Habitat Restoration

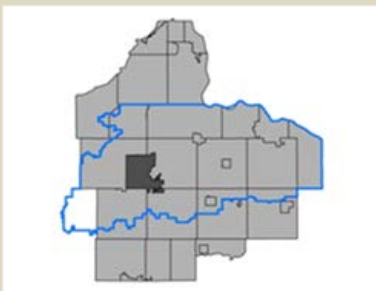
Restoring the Vermillion River

The project consists of restoring a reach of the Vermillion River in Rambling River Park in the City of Farmington, a well-known fishing destination as well as a haven for native and migrating bird species.

A project completed cooperatively by:

- City of Farmington
- Dakota County Soil and Water Conservation District
- Southern Dakota County Sportsmen's Club
- Vermillion River Watershed Joint Powers Organization

Location



Four bends of the Vermillion River in Rambling River Park were fit with bioengineering features to provide in-stream habitat and bank stability.

Rambling River Park in the City of Farmington is a popular recreation destination, featuring picnic areas, hiking/biking trails, and a trophy trout stream with a self-sustaining brown trout population. The Vermillion River through Rambling River Park is impaired for turbidity, insufficient dissolved oxygen, and aquatic life. These problems arise from insufficient in-stream habitat, streambank erosion and excess sediment from upstream sources, inadequate connection to the flood plain, and lack of native riparian vegetation.

This project includes:

- Construct bioengineering practices on the banks and channel of the Vermillion River, including cedar tree revetments rootwad installations, and encapsulation soil lifts with integrated woody material.
- Excavate excess floodplain soils to better connect the Vermillion River to its floodplain.
- Control site access to sensitive areas with the intent of minimizing wetland impacts.
- Excavation that minimizes damage to existing site conditions.
- Landscaping practices including seeding, erosion control blanket, installation of mulch, and other various site landscaping.
- Reconstruct the existing bituminous trail in the project work area and extension of a spur trail to provide a fishing access.



After

Insufficient in-stream habitat, streambank erosion, inadequate connection to the floodplain, lack of native riparian vegetation, and numerous water quality impairments related to these issues made this a high priority site for restoration.



Vermillion River Watershed Joint Powers Organization

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The Vermillion River is a vital natural resource that is important to public health and recreation, as well as to preserving unique wildlife habitats. It flows from New Market Township in Scott County, through residential and agricultural areas in central Dakota County, and cascades into a 100-foot ravine before it enters the Mississippi River near the Cities of Hastings and Red Wing, Minnesota. Throughout its journey, the river reflects urban and rural life within its 335-square-mile watershed.

Problem:

- Insufficient stream habitat
- Streambank erosion
- Existing trail was at risk of failure from streambank erosion
- Poor floodplain connection
- Lack of native riparian vegetation
- Lack of dissolved oxygen

Actions:

- Installation of cedar tree revetments
- Rootwad installation with both boulder toe and toewood stabilization
- Encapsulated soil lifts with integrated woody material
- Controlled site access to sensitive areas to minimize wetland impacts
- Excavation of floodplain soils in a priority area
- Native seeding and stabilization
- Reconstruction of the bituminous trail in the project work area and an extension of spur trail to provide a fishing access

Benefits:

- Improved quantity, quality, and diversity of habitats for aquatic biota
- A slightly narrower channel can more easily move sediment, resulting in deeper pools, better channel substrate, adequate cover, and more areas for fish to spawn
- Added habitat features provide cooler temperatures and improved dissolved oxygen concentrations
- Improvements to the channel and its habitat make it easier to fish the stream

Costs and contributions:

- VRWJPO: \$2,125.82 VRWJPO cash match and \$58,813.91 VRWJPO/Dakota Soil and Water Conservation District in-kind design and construction oversight
- City of Farmington: \$8,227.96 in-kind construction oversight
- Southern Dakota Sportsmen's Club: \$1,650 for sitting stones and installation within designated fishing access
- Minnesota Department of Natural Resources Conservation Partner's Legacy (CPL) grant: \$166,625.14



A grant from the Clean Water Fund, one of four funds established by the Clean Water, Land & Legacy Amendment, supported this project.