



Capital Improvement Project

Lakeville: South Creek Prescribed Burn and Re-seeding



A restored reach of South Creek had become overgrown with woody plant species and invasive cool-season grasses. To re-establish native vegetation, a prescribed burn was conducted to eradicate invasive plants and the area was re-seeded with native species to stabilize banks and improve habitat.

Completed cooperatively by:

- Vermillion River Watershed
- City of Lakeville
- Dakota County Soil and Water Conservation District

Restoring habitat along South Creek

The City of Lakeville and the Minnesota Department of Natural Resources remeandered a straightened stream immediately east of Cedar Avenue and south of Highway 50 in 1999-2000. By restoring the natural stream channel's bends and curves, the project introduced natural complexities that prevent erosion, provide fish habitat, and improve water quality.

In 2006, the city took the next step in restoring healthy stream habitat by requesting cost share for a prescribed burn and native plant re-seeding project for the remeandered stream. Native grass species have deep roots to stabilize stream banks, while also filtering stormwater runoff before it reaches the stream. Native plants also provide habitat for diverse wildlife.

The prescribed burn covered approximately eight acres of land, eradicating woody plant species and invasive cool-season grasses that had taken over the streambanks. Native plants already established in the area also have a greater chance of survival after a prescribed burn and may be able to take over areas previously supporting invasive species.

Accessible portions of the site were seeded with these species: Big bluestem, Side oats grama, Canada wild rye, Switch grass, Little bluestem, Indian grass, and Prairie dropseed.

The Minnesota DNR remeandered the South Creek reach in 1999-2000. The prescribed burn and reseeded area is outlined on the map (left) in red.





The Minnesota DNR reseeded this stretch of South Creek in 1999-2000.



City of Lakeville within the Vermillion River Watershed.



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:

- A reseeded reach of the South Creek immediately east of Cedar Avenue and south of Highway 50 received minimal vegetation management after completion in 1999-2000.
- Cool-season invasive grasses and woody species such as cottonwood and willow took over the streambank restoration.

Actions:

- A prescribed burn was completed on eight acres surrounding the stream reseed.
- Existing native shrubs and trees were protected from the fire by a mowed fire break 15 feet from the creek.
- All accessible portions of the burn site were inter-seeded using a native seed drill.

Benefits

- Reduces erosion and pollutant loads
- Eradicates invasive species and encourages growth of native species
- Enhances wildlife habitat
- Improves aesthetics
- Allows for education, outreach, and stewardship

Costs and contributions

- City of Lakeville: \$2,450 – planning, city water truck, and labor
- Vermillion River Watershed Joint Powers Organization: \$5,314.75 – cost share for prescribed burn and native grass inter-seeding
- Dakota County Soil and Water Conservation District: technical assistance



*Little bluestem (*Schizachyrium scoparium*) was among the native grasses seeded in the South Creek restoration area.*

Project completed 2006