



Capital Improvement Project

Lakeville: 205th Street Channel Reconstruction Project-Phase 2



The 205th Street channel in the City of Lakeville was re-graded and stabilized using various forms of erosion-control and planted with native species.

The project was completed cooperatively by the:

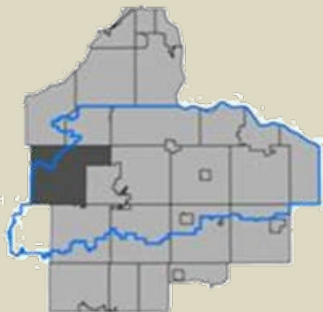
- City of Lakeville
- Vermillion River Watershed Joint Powers Organization

Protecting Lake Marion

Stormwater flow caused erosion and bank failure and carved a six to eight foot deep ravine in the 1,000-foot long drainage channel at 205th Street in Lakeville. Sediment- and nutrient-laden waters from the channel drain into Lake Marion and create several water quality issues, such as cloudy water, algae blooms, and low dissolved oxygen. In 2009, the Vermillion River Watershed Joint Powers Organization (VRWJPO) provided financial assistance to the City of Lakeville to stabilize the first 600 feet of channel.

Financial assistance from the VRWJPO was provided to assist the City of Lakeville in designing and constructing phase 2. This included re-grading the channel, stabilizing banks with a combination of rock and native vegetation to prevent erosion, and reducing sediment and nutrients running into Lake Marion. The water quality improvements in Lake Marion will enhance year-round fishing and recreation. It will also protect Lake Marion from exceeding State water quality standards and becoming a nutrient-impaired Lake.

Location



City of Lakeville, Minn.
between Jupiter Way and
Kensington Way





Phase 2 of the channel stabilization reduced 30 tons of sediment and 6 pounds of phosphorus from reaching Lake Marion annually.



**Vermillion River Watershed
Joint Powers Organization**
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952-891-7000

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:

- Stormwater flow and poor bank stability caused erosion in the channel near 205th Street
- Water carried sediment and nutrients into Lake Marion

Actions:

- Re-established natural channel shape and floodplain
- Used rock and native vegetation to stabilize and armor eroded slopes and channel so that it is able to slow water velocities and convey flows from the 531-acre watershed without excess sediment and nutrient transport

Benefits:

- Reduces water quality problems such as cloudiness, algae blooms, and low dissolved oxygen by reducing erosion and pollution into Lake Marion
- Enhances wildlife habitat
- Improves aesthetics
- Allows for education, outreach, and stewardship
- Protects Lake Marion from exceeding State water quality standards and becoming a nutrient-impaired lake

Costs and contributions:

- City of Lakeville: \$160,623 – engineering, construction costs, and construction oversight
- Vermillion River Watershed Joint Powers Organization: \$100,000 cash match

