Capital Improvement Project
Empire: North Creek Culvert Improvements at State Highway 3



Figure 1. Upstream end of the field access road culvert on North Creek slated for replacement. The photo demonstrates the sharp acceleration of the stream velocity as it enters the culvert.

The North Creek tributary of the Vermillion River runs through highly developed areas in the cities of Lakeville and Farmington, and portions of the creek are Minnesota Department of Natural Resources (DNR)-designated trout stream – a rare combination of circumstances. Preserving and improving aquatic habitat in this stream reach is one of the primary missions for the Vermillion River Watershed Joint Powers Organization (VRWJPO).

Upstream of State Highway 3 in the City of Empire, existing creek crossings disconnect stream reaches and make them impassable by fish and other aquatic organisms. The creek is significantly over-widened and shallow in the project area due to erosion from high stream velocities, which limits available habitat.

The VRWJPO plans to reconnect the stream segments by replacing an undersized, perched culvert at a field access road with properly sized and placed box culverts and modifying an existing culvert at a residential driveway to deepen continuous stream flow. The intent is to reduce stream velocities and provide passage for fish and other organisms. This will be combined with natural stream narrowing and bank stabilization techniques to secure eroded stream banks and improve aquatic habitat.

A Conservation Partners Legacy (CPL) grant from the DNR will support this project.

3/2026

Partners:

- VRWJPO
- Minnesota DNR

Installation (anticipated): Summer 2026

Location: Empire

Subwatershed: North Creek

Costs and Contributions (anticipated):

- VRWJPO: $121,550 (cash), $18,263 (in-kind)
- Conservation Partners Legacy Grant from DNR: $500,000

Benefits:

- Replacing the perched culvert will provide access to deeper stream flows, narrower channels, and vegetated stream banks well-suited for fish and macroinvertebrate habitats and recreational opportunities.
- The project will complement other work done upstream, such as a remeander project near 190th St W and a concurrent culvert replacement near Denali Way.



Figure 2. Downstream end of the pipe culvert slated for replacement at the field road.



Figure 3. Downstream end of the culvert at the driveway crossing, which will be modified to deepen normal flow conditions.

A Conservation Partners Legacy grant from the Outdoor Heritage Fund, one of four funds established by the Clean Water, Land & Legacy Amendment, supports this project.

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