

Physical Infrastructure



Watching the Water: How Saskatchewan Keeps Bridges Safe



In addition to rehabilitating and maintaining over 70 of Saskatchewan's dams and hundreds of kilometres of water supply canals, the Water Security Agency works jointly with the Ministry of Highways on Saskatchewan's Bridge Scouring Program.

The program focuses on identifying and protecting bridges that may be at risk from bridge scour. Bridge scour happens when fast-moving water washes away soil and sediment from around a bridge's foundations, such as piers and abutments. Over time, this erosion can create deep holes in the riverbed that weaken a bridge's support and, in severe cases, lead to structural failure.

Scour is more likely to occur during floods or periods of high water flow, when rivers move faster and carry more force. Bridges with shallow foundations are especially vulnerable because even small changes in the riverbed can affect their stability. The Bridge Scouring Program helps reduce these risks by closely examining how water interacts with bridge foundations and by taking action before serious damage occurs.

As part of the program, about 30 bridges across Saskatchewan are reviewed on a five-year cycle. During inspections, the Water Security Agency measures and maps the riverbed around bridge piers and compares current conditions with earlier surveys, including records from when the bridge was first built. This detailed monitoring helps identify changes over time and highlights areas where erosion may be increasing.

The partnership between the Ministry of Highways and the Water Security Agency allows this work to be done regularly and efficiently. By using in-house expertise and specialized equipment, inspections can be completed more frequently and cost effectively. The information gathered supports long-term maintenance planning, helps extend the life of bridge structures and ensures that public safety remains a top priority.

Why It Matters

Bridges are essential links that connect communities, support economic activity, and allow people and goods to move safely across the province and connect to the world. Saskatchewan's Bridge Scouring Program identifies and addresses erosion risks early, strengthening the reliability of highway systems especially during flooding and high-water events. Through proactive monitoring and planning, the Bridge Scouring Program has helped maintain a safe, dependable and resilient transportation network across Saskatchewan.

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