BF 76761 Local Road Over North Sask. River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.008
B = 1 m, h = 1.0 m, T_h = 2 m
Use n = 0.055

At Bank Height : Y = 1.0 m, V = 1.1 m/s, Q = 2 cms
At Channel Capacity : Y = 1.5 m, V = 1.7 m/s, Q = 6 cms

Historical Highwater Data :

A 1967 report notes that water has been over the road at the small culvert crossing and estimates Q = 3 - 4cms. A 1993 BIM report notes a HWM with Y = 1.5m (no description). A 1994 design estimates Q = 5cms.

There are no WSC gauges on this stream. Gauges in the area indicate HW events in June 1965, April 1974, July 1982, July 1986, and July 1990. The storm database notes storms in June 1944 (150mm), July 1982 (140mm), and about 110mm in June 1965, July 1978, and July 1990.

Basin Runoff Potential :

d = 50 mm, T_p = 20 hrs, q = 0.7 cms/km^2.
DA = 12 km^2.
Q_p = 8 cms.

Conclusion :

The channel capacity estimate is consistent with historic observations and within the basin runoff potential.

Recommended parameters : Y = 1.5 m, V = 1.7 m/s, Q = 6 cms.