BF 77327 Local Road Over Raven River
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 4 m, h = 1.5 m, T_h = 7 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 1.3 m/s, Q = 10 cms
At Channel Capacity : Y = 2.3 m, V = 1.9 m/s, Q = 25 cms

Historical Highwater Data :

HW was noted at this site in June 1972 with Y = 1.5m. The 1971 report suggests HW with Y = 1.8m and was designed for Q = 21cms. A scour hole was noted d/s in 2002. Other sites on this stream have observed HW in 1915, 1954, 1972, 1982, and 1999.

Gauge 05CB004 (DA = 647km^2, 1972 – Now) is located d/s, and reports the highest flows in June 1972 and July 1999. The largest storms in the database for this area are June 1970 with about 115mm of rainfall, and June 1928 with about 105mm.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 145 km^2.
Q_p = 100 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.9 m/s, Q = 25 cms.