BF 74156 Local Road Over North Sask. River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.009
B = 3 m, h = 1.2 m, T_h = 5 m
Use n = 0.055

At Bank Height : Y = 1.2 m, V = 1.5 m/s, Q = 7 cms
At Channel Capacity : Y = 1.8 m, V = 2.1 m/s, Q = 17 cms

Historical Highwater Data :

HW was noted in July 1978, with an estimated Q = 10cms. A 1953 report notes a HWM with Y = 1.5 – 2.4m and estimates Q = 13cms. A 1992 design proposal was based on Y = 1.8m and Q = 14cms. A 2002 BIM report notes a HWM with Y = 2.5m (no description).

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1965, April 1974, July 1982, July 1986, and July 1990. The storm database notes storms in July 1982 (165mm), June 1944 (150mm), and June 1965 and August 1969 (100mm).

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 23 km^2.
Q_p = 19 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 2.1 m/s, Q = 17 cms.