BF 76118 Highway 2 over Saulteaux River
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 12 m, h = 3.5 m, T_h = 25 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 2.2 m/s, Q = 140 cms
At Channel Capacity : Y = 4.5 m, V = 2.7 m/s, Q = 250 cms

Historical Highwater Data :

Reports of HWMs were noted as Y~5.6m (1988) and Y~5.2m (1996). The original design in 1966 used a highwater depth of Y=4.8m.

There are no gauges on this stream. Gauges in the area suggest large runoff events in July 1979, July 1977, June 1965, and July 1983. The largest storms in the storm database are 105mm in June 1970 and 100mm in July 1988.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.69 cms/km^2.
Gross DA = 2700 km^2.
Q_p = 1875 cms

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 2.7 m/s, Q = 250 cms.