BF 71794 Local Road Over North Saskatchewan River Tributary Hydrotechnical Summary

Channel Capacity :

S = 0.012
B = 1 m, h = 0.5 m, T_h = 3 m
Use n = 0.06

At Bank Height : Y = 0.5 m, V = 0.8 m/s, Q = 1 cms
At Channel Capacity : Y = 1.0 m, V = 1.6 m/s, Q = 4 cms

Historical Highwater Data :

Reports from 1954 and 1964 note HWM with Y = 0.9 – 1.5m and estimate Q = 2 – 4cms. A 1996 photo shows icing to about ½ full.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in 1974, April 1979, and April 1997. The largest storms in the storm database are about 100mm in July 1937, June 1944, June 1962, and June 1973.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 5 km^2.
Q_p = 3 cms.

Conclusion :

Basin runoff potential governs.

Recommended parameters : Y = 1.0 m, V = 1.5 m/s, Q = 3 cms.