BF 00805 Hwy 595 Over Red Deer River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.025
B = 1.5 m, h = 0.8 m, T_h = 3 m
Use n = 0.06

At Bank Height : Y = 0.8 m, V = 1.6 m/s, Q = 3 cms
At Channel Capacity : Y = 1.3 m, V = 2.6 m/s, Q = 8 cms

Historical Highwater Data :

A 1998 inspection notes a HWM 3.5m above the crown of the existing 900mm pipe, with Q ~ 2cms assuming no blockage.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1969, April 1971, April 1996, and April 1997. The largest storms in the storm database are 130mm in June 1970, 115mm in May 1951, and 105mm in July 1937.

Basin Runoff Potential :

d = 35 mm, T_p = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 82 km^2.
Q_p = 20 cms (Q_p = 5cms based on u/s channel capacity, B = 2m, h = 0.8m, T = 4m, S = 0.003).

Conclusion :

Basin runoff potential governs (limited by u/s channel capacity).

Recommended parameters : Y = 1.0 m, V = 2.1 m/s, Q = 5 cms.