BF 09840 Hwy 881 Over Lac La Biche Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 3 m, h = 1.5 m, T = 6 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 0.7 m/s, Q = 5 cms
At Channel Capacity : Y = 2.3 m, V = 1.1 m/s, Q = 12 cms

Historical Highwater Data :

HW was noted in July 1951 (washout), July 1962 (water over the road, Y = 2.4m, estimated Q = 9cms), and April 1974 (Y = 1.7m, estimated Q = 5cms). The 1983 design was based on Y = 1.1m and Q = 6cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1974 and 1996. The largest storms in the storm database are June 1962, 1970, and 1973 with about 105mm of rainfall.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
DA = 113 km^2.
Q_p = 60 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.1 m/s, Q = 12 cms.