BF 75752 Hwy 2 Over Lesser Slave Lake Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.007
B = 5 m, h = 2.0 m, T_h = 9 m
Use n = 0.05

At Bank Height : Y = 2.0 m, V = 2.0 m/s, Q = 30 cms
At Channel Capacity : Y = 3.0 m, V = 2.9 m/s, Q = 65 cms

Historical Highwater Data :

HW was noted in July 1988 (Y = 2.7m), and June 1996 (Y = 2.5m, right headslope eroded). The 1986 design was based on Y = 2.8m and Q = 51cms. A 1995 BIM report notes a HWM with Y = 3m.

There are no gauges on this stream. Gauges in the area suggest HW events in June 1983, July 1988, and June 1996. The largest storms in the storm database are June 1970, July 1979, and June 1983 with about 95mm of rainfall.

Basin Runoff Potential :

d = 90 mm, T_p = 20 hrs, q = 1.25 cms/km^2.
Gross DA = 50 km^2.
Q_p = 65 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 2.9 m/s, Q = 65 cms.