BF 79458 Hwy 881 Over Gregoire River
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 7 m, h = 2.0 m, T_h = 12 m
Use n = 0.04

At Bank Height : Y = 2.0 m, V = 0.9 m/s, Q = 17 cms
At Channel Capacity : Y = 3.0 m, V = 1.3 m/s, Q = 40 cms

Historical Highwater Data :

The 1980 design was based on Y = 3m.

WSC Gauge 07CE001 (DA = 263km^2, 1969 – Now, Gregoire Lake) reports highest levels in 1976, 1985, and 1995. The storm database shows 170mm in July 1960, 130mm in August 1980 and 1995, and 120mm in June 1970.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 343 km^2.
Q_p = 225 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.3 m/s, Q = 40 cms.