BF 77059 Hwy 881 Over Gregoire River
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 6 m, h = 1.2 m, T_h = 12 m
Use n = 0.045

At Bank Height : Y = 1.2 m, V = 0.6 m/s, Q = 6 cms
At Channel Capacity : Y = 1.8 m, V = 0.8 m/s, Q = 15 cms

Historical Highwater Data :

HW was noted in July 1970 (Y ~ 1.5m). A control structure was built in 1973 at the outlet of the lake just u/s, based on Q = 11cms and Y = 1.6m at this site.

WSC Gauge 07CE001 (DA = 263km^2, 1969 – Now, Gregoire Lake) reports 475.9m (weir EL. = 475.5m, Des EL. = 476.1m, built 1973) 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 = 256 km^2.
Q_p = 140 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 0.8 m/s, Q = 15 cms.