BF 00698 Hwy 20 Over Blindman River
Hydrotechnical Summary

Channel Capacity :

S = 0.0009
B = 18 m, h = 4.5 m, T_h = 35 m
Use AT equation

At Bank Height : Y = 4.5 m, V = 1.9 m/s, Q = 230 cms
At Channel Capacity : Y = 5.5 m, V = 2.3 m/s, Q = 350 cms

Historical Highwater Data :

HW was observed in 1948 (Y = 4.5m), July 1982 (Y = 4.7m), July 1986 (Y = 4.9m), July 1990 (Y = 5.8m, 0.5m above bottom flange, likely increased headloss), and July 2000 (Y = 4.7m). Ice damage occurred in 1917, 1920, and 1927.

WSC gauge 05CC008 (DA = 350km^2, 1965 – Now) reports Q = 330cms (July 1990, gauged at Q ~ 110cms, stage rise at peak ~ 5m), and Q ~ 190 – 230cms (July 1981, 1982, and 1986). Gauge 05CC001 (DA = 1790km^2, 1916 – 1922, 1962 - Now) reports Q ~ 400cms in July 1990.

Basin Runoff Potential :

d = 70mm, T_p = 20hrs, q = 1.0 cms/km^2.
Gross DA = 690 km^2.
Q_p = 690 cms.

Conclusion :

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

Y = 5.5 m, V = 2.3 m/s, Q = 350 cms.
EL 885.0m (3922-P)