BF 06985 Hwy 1 Over Crowfoot Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 15 m, h = 3.5 m, T_h = 30 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 1.5 m/s, Q = 120 cms
At Channel Capacity : Y = 4.5 m, V = 1.9 m/s, Q = 200 cms

Historical Highwater Data :

HW was observed in 1948 (Y ~ 4m). Bridges have been washed out in 1911, 1918, 1925, and 1928. The 1985 design was based on Y ~ 5m (Q ~ 175cms).

WSC Gauge 05BM008 (DA = 1375km^2, 1951 – Now) reports Q ~ 100cms in April 1969 and 1971 (gauged near peak, 3.5m stage rise), and Q ~ 80cms in April 1967, 1974, and 1980.

Basin Runoff Potential :

Gross DA = 1345 km^2 (beyond range of technique)

Conclusion :

The channel capacity estimate is consistent with historic observations. Recommended parameters :

Y = 4.5 m, V = 1.9 m/s, Q = 200 cms.
EL 820.0 m (11143-P)