BF 07447 Hwy 539 Over Bow River
Hydrotechnical Summary

Channel Capacity :

S = 0.0005
B = 160 m, h = 7.0 m, T_h = 210 m
Use AT equation

At Bank Height : Y = 7.0 m, V = 2.3 m/s, Q = 2900 cms
At Channel Capacity : Y = 8.0 m, V = 2.5 m/s, Q = 3800 cms

Historical Highwater Data :

HW has been observed in 1928 (ice jam), 1947 (ice jam, Y ~ 6.5m), and 1969 (ice jam). The 2004 design was based on Y ~ 7.5m and Q ~ 4000cms.

WSC Gauge 05BM004 (DA = 20250km^2, 1910 – 1933, 1964 – Now) reports Q ~ 2500cms (1915, 1929), 2200cms (1923, 1932) and 2000cms (2005).

Basin Runoff Potential :

Gross DA = 20175 km^2, runoff potential is not applicable

Conclusion :

Historic observations govern. Recommended parameters :

Y = 6.5 m, V = 2.2 m/s, Q = 2500 cms
EL 746.0m (22952-C)