BF 06754 Hwy 842 Over Bow River
Hydrotechnical Summary

Channel Capacity:

S = 0.0009
B = 130 m, h = 5.0 m, T_h = 160 m
Use AT equation

At Bank Height: Y = 5.0 m, V = 2.3 m/s, Q = 1700 cms
At Channel Capacity: Y = 6.0 m, V = 2.7 m/s, Q = 2400 cms

Historical Highwater Data:

HW has been observed in 1928 (ice jam, washout), 1948 (ice jam, washout, Y ~ 7m), 1967 (Y ~ 5m), and 1995 (Y ~ 5.2m).

WSC Gauge 05BM002 (DA = 15665km^2, 1956 – Now) reports Q ~ 3300cms (2013), 1500cms (2011), 2000cms (2005), 1700cms (1995), and 1200cms (1963, 1967, and 1969).

WSC Gauge 05BM004 (DA = 20250km^2, 1910 – 1933, 1964 – Now) reports Q ~ 2500cms (1915, 1929), 2200cms (1923, 1932), 2000cms (2005), 1330cms (2011), 3400cms (2013).

Basin Runoff Potential:

Gross DA = 17700 km^2, runoff potential is not applicable

Conclusion:

Historic observations govern. Recommended parameters:

Y = 7.0 m, V = 2.9 m/s, Q = 3000 cms
EL 818.05m (M-6754-98-5)