BF 13370 Hwy 36 Over Bow River
Hydrotechnical Summary

Channel Capacity :

S = 0.0005
B = 160 m, h = 5 m, T_h = 250 m
Use AT equation

At Bank Height : Y = 5 m, V = 1.7 m/s, Q = 1800 cms
At Channel Capacity : Y = 6 m, V = 2.0 m/s, Q = 2500 cms

Historical Highwater Data :

HW was observed in 1923, 1948, 1952 (Y ~ 6m), 1958 (Y ~ 6m – Ice), 1967, and 1995.

WSC Gauge 05BM004 (DA ~ 20250km^2, 1910 – 1933, 1964 – Now) reports Q ~ 2500cms (1915, 1929), Q = 2300cms (1932), and Q = 2200cms (1923, gauged near peak, Y ~ 5.5m). Historic photos from Calgary (DA ~ 8000km^2) show highest events in 1879, 1897, and 1902, with estimates of Q > 2000cms.

Basin Runoff Potential :

Gross DA = 20900 km^2, runoff potential is not applicable

Conclusion :

Historic observations govern. Recommended parameters :

Y = 6.0 m, V = 2.0 m/s, Q = 2500 cms
EL 732.5m (1875-P)