BF 78812 Hwy 201 Over Bow River
Hydrotechnical Summary

Channel Capacity :

S = 0.0018
B = 80 m, h = 4 m, T_h = 130 m
Use AT equation

At Bank Height : Y = 4 m, V = 2.5 m/s, Q = 1000 cms
At Channel Capacity : Y = 5 m, V = 2.9 m/s, Q = 1600 cms

Historical Highwater Data :

No HW data is available on the bridge file. The 1982 design was based on Y ~ 6m and Q = 2300cms.

WSC Gauge 05BH004 (DA ~ 7870km^2, 1911 – Now) reports Q ~ 1500cms (1932), 1300cms (1929) and 1100cms (1915). A 1929 gauging at Q ~ 1300cms shows a stage rise ~ 3.5m and a mean depth ~ 4m. Historic photos from Calgary show higher events in 1879, 1897, and 1902, with estimates of Q > 2000cms.

Basin Runoff Potential :

Gross DA = 7670 km^2, runoff potential is not applicable

Conclusion :

Historic observations govern. Recommended parameters :

Y = 5.5 m, V = 3.2 m/s, Q = 2000 cms
EL 1075.0m (AP164-4)