BF 01253 Hwy 864 Over Oldman River
Hydrotechnical Summary

Channel Capacity:

S = 0.0007
B = 140 m, h = 8 m, T_h = 220 m
Use AT equation

At Bank Height: Y = 8 m, V = 2.7 m/s, Q = 3900 cms
At Channel Capacity: Y = 9 m, V = 3.0 m/s, Q = 5000 cms

Historical Highwater Data:

HW has been observed at this site in 1902, 1908, 1953 (Y ~ 8m), 1975 (Y ~ 7m), 1986 (Ice, Y ~ 6.5m), 1995 (Y ~ 8.5m), and 2002.

WSC Gauge 05AD007 (DA ~ 17000 km^2, 1911 – Now) reports
Q ~ 4670 cms in 1995 (Y ~ 9 m, gauged at Q ~ 4100 cms)
Q ~ 2400 – 3200 cms (1923, 1942, 1948, 1953, 1975, 2005 and 2014, Y ~ 7.5 – 8 m)

Gauge 05AG006 (DA ~ 27500 km^2, 1964 – 1968, 1982 – Now) reports
Q ~ 4640 cms in 1995 (highest gauging at Q < 2000 cms)
Q ~ 1600 – 2200 cms (2002, 2005, 2013, 2014)

Basin Runoff Potential:

Gross DA = 24880 km^2, runoff potential is not applicable

Conclusion:

Historic observations govern. Recommended parameters:

Y = 9.0 m, V = 3.0 m/s, Q = 5000 cms.
HW EL 755.0m (Dwg. 18238)