BF 07398 Hwy 845 Over Oldman River
Hydrotechnical Summary

Channel Capacity:

S = 0.0009
B = 140 m, h = 7.5 m, T_h = 200 m
Use AT equation

At Bank Height: Y = 7.5 m, V = 2.9 m/s, Q = 3700 cms
At Channel Capacity: Y = 8.5 m, V = 3.2 m/s, Q = 4800 cms

Historical Highwater Data:

HW has been noted at this site in 1902, 1908 (Y ~ 8.5m), 1953, 1964, 1972 (Ice), 1975, 1995 (Y ~ 8m), 2005, and 2013.

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)

Basin Runoff Potential:

Gross DA = 17800 km^2, runoff potential is not applicable

Conclusion:

Historic observations govern. Recommended parameters:

Y = 8.5 m, V = 3.2 m/s, Q = 5000 cms
HW EL 787.5m (corrected elev. Dwg. 7751-C)