BF 01074 Hwy 3 Over Oldman River
Hydrotechnical Summary

Channel Capacity:

S = 0.0009
B = 130 m, h = 7 m, T_h = 190 m
Use AT equation

At Bank Height: Y = 7 m, V = 2.9 m/s, Q = 3100 cms
At Channel Capacity: Y = 8 m, V = 3.2 m/s, Q = 4000 cms

Historical Highwater Data:

HW has been noted at this site in 1902 (timber bridge washed away), 1908 (adjacent flooding, approach washout, estimated Y ~ 9.5m), 1923, 1942, 1953, 1964, 1972 (Ice), 1975, 1995 (estimated Y ~ 8.5 to 9.0 m, equivalent to 827.4 m), and 2005.

WSC Gauge 05AD007 (DA ~ 17000 km^2, 1911 – Now) reports
Q ~ 4670 cms in 1995 (Y ~ 8.5 to 9.0 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 = 17000 km^2, runoff potential is not applicable

Conclusion:

Historic observations govern. Recommended parameters:

Y = 9 m, V = 3.4 m/s, Q = 5000 cms.
HW EL 2716.0’ (Dwg. 4170-C).