BF 74141 Local Road Over Oldman River
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 70 m, h = 5 m, T_h = 110 m
Use AT Equation

At Bank Height : Y = 5.0 m, V = 3.3 m/s, Q = 1500 cms
At Channel Capacity : Y = 6.0 m, V = 3.8 m/s, Q = 2100 cms

Historical Highwater Data :

HW has been observed in 1953 (Y ~ 5.5m), 1975 (Y ~ 5m), and 1995 (Y ~ 6.5m, AENV EL1041.2m, north approach washout). Estimated 1995 total peak inflow into dam was estimated to be Q ~ 3500cms (DA ~ 4400km^2), with peak outflow routed to Q ~ 2700cms.

Gauge 05AA024 (DA = 4400km^2, 1966 – Now, 1995 peak missing) reports Q ~ 1600cms in 1975 and Q ~ 1100cms in 2005. Gauge 05AB007 (DA = 5760km^2, 1910 – 1948) reports Q ~ 2500cms in 1923 and Q ~ 1150cms in 1942 and 1948.

Basin Runoff Potential :

Gross DA = 4380 km^2, runoff potential is not applicable.

Conclusion :

Historic observations govern (1995). Recommended parameters :

Y = 7.0 m, V = 4.3 m/s, Q = 3000 cms.
HW EL 32.0m (Dwg. 1195, local datum)