BF 73809 Hwy 43 Over McLeod River
Hydrotechnical Summary

Channel Capacity :

S = 0.0014
B = 120 m, h = 5.0 m, T_h = 1840 m
Use AT Equation

At Bank Height : Y = 5.0 m, V = 2.6 m/s, Q = 2000 cms
At Channel Capacity : Y = 6.0m, V = 3.0 m/s, Q = 2800 cms

Historical Highwater Data :

HW was noted in 1908 (Ice Jam, within banks), 1943 (ice jam, extensive flooding, Y ~ 6.5 – 7m), 1954 (Y ~ 5.5m, headslope washout), 1958 (Ice Jam, Y ~ 6m), 1963 (Ice Jam, Y ~ 6m), 1969 (east concrete headslope destroyed), 1980 (Y ~ 4.5m), and 1986 (Y ~ 4.5m).

Gauge 07AG001 (DA = 6310 km^2, 1914 – 1930, 1958 – 1983), 07AG007 (DA = 7150km^2, 1984 – Now), and 07AG004 (DA = 9100 km^2, 1968 – Now) note large events in August 1969, June 1980, and July 1986 with Q ~ 2000cms and Y ~ 5.0m above zero flow stage. Q > 1000cms was also noted in June 1972 and July 1982.

Basin Runoff Potential :

Gross DA ~ 9500 km^2, beyond range of method.

Conclusion :

Historic observations govern. Recommended parameters :

Y = 5.5m, V = 2.8 m/s, Q = 2300 cms
EL 696.0m (17637-P)