BF 74031 Hwy 2 Over Sheep River
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 40 m, h = 3 m, T_h = 70 m
Use AT equation

At Bank Height : Y = 3 m, V = 2.7 m/s, Q = 450 cms
At Channel Capacity : Y = 4 m, V = 3.5 m/s, Q = 800 cms

Historical Highwater Data :

HW was observed in June 1929 (Y ~ 4m), June 1963 (Y ~ 4m), May 1990 (Y ~ 3m), June 1995 (Y ~ 4m), and June 2005 (Y ~ 4m). The 1985 design was based on Y ~ 6m (Q ~ 1700cms).

WSC Gauge 05BL012 (DA ~ 1500km^2, 1908 – 1920, 1965 – 1968) reports Q ~ 650cms (June 1915), and Q ~ 600cms (May 1967). WSC Gauge 05BL020 (DA ~ 1570km^2, 1957 - 1965) reports Q ~ 500cms (June 1963). WSC Gauge 05BL018 (DA ~ 455km^2, 1950 – 1969) reports Q ~ 340cms (June 1963), and Q ~ 300cms (May 1967). WSC Gauge 05BL014 (DA ~ 595 km^2, 1909 – 1916, 1968 – Now) reports Q ~ 380 cms (June 2005), Q ~ 365cms (June 1995), and Q ~ 320cms (June 1916).

Basin Runoff Potential :

Gross DA = 1470 km^2 (beyond range of technique)

Conclusion :

The channel capacity estimate is consistent with historic observations. Recommended parameters :

Y = 4 m, V = 3.5 m/s, Q = 800 cms.
EL 1017.0 m (11579-P)