BF 13821 Hwy 2 Over West Prairie River
Hydrotechnical Summary

Channel Capacity :

S = 0.0009
B = 25 m, h = ? m, T_h = 55 m (degradation has lowered streambed significantly)
Use AT equation

Historical Highwater Data :

HW was observed in May 1953 (close to bottom flange, drift jam, Y ~ 5 - 6m), April 1956 (d/s Ice Jam, Y ~ 4m), June 1971 (Y ~ 5m), July 1983 (Y ~ 5.5m), July 1988 (Y ~ 5.5m), June 1996 (Y ~ 6.5m), and July 2004 (Y ~ 5m). The 1971 design was based on Y ~ 5m (Q ~ 250cms).

WSC gauge 07BF002 (DA ~ 1,160km^2, 1921 – 1931, 1959 – Now) reports Q ~ 540cms (June 1996), and Q ~ 340cms (July 1983, gauged at Q ~ 160cms, 4m stage rise at peak).

Basin Runoff Potential :

Gross DA = 1,200 km^2 (beyond range of technique)

Conclusion :

Historic highwater observations govern. Recommended parameters :

Y = 6.5 m, V = 2.4 m/s, Q = 600 cms.
EL 593.0 m (5922-P)