BF 70277 Hwy 22 Over Clearwater River
Hydrotechnical Summary

Channel Capacity :

S = 0.0012
B = 40 m, h = 4.5 m, T_h = 70 m
Use AT Equation

At Bank Height : Y = 4.5 m, V = 2.2 m/s, Q = 550 cms
At Channel Capacity : Y = 5.5 m, V = 2.6 m/s, Q = 830 cms

Historical Highwater Data :

HW was observed in 1965 (Y ~ 4.5m), 1986 (Y ~ 3m), and 1999 (Y ~ 3m). The 1971 design was based on Y ~ 6m (Q ~ 1000cms).

WSC Gauge 05DB006 (DA = 2230km^2, 1975 – Present) reports Q ~ 940cms (June 2005, gauged at Q ~ 820cms, stage rise ~ 5m), and Q ~ 340cms (June 1990). WSC Gauge 05DB003 (DA = 1340km^2, 1959 – 1992) reports Q ~ 510cms (June 1965, gauged at Q ~ 180cms). WSC Gauge 05DB001 (DA = 3220km^2, 1914 – 1931, 1944 - 1975) reports Q ~ 1350cms (June 1915).

Basin Runoff Potential :

Gross DA = 2265 km^2 (beyond range of technique).

Conclusion :

Historic observations govern. Recommended parameters :

Y = 6.0 m, V = 2.8 m/s, Q = 1000 cms.
EL 277.0 m (6053-P)