BF 00599 Hwy 552 Over Highwood River
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 60 m, h = 6 m, T_h = 90 m
Use AT equation

At Bank Height : Y = 6 m, V = 3.7 m/s, Q = 1700 cms
At Channel Capacity : Y = 7 m, V = 4.2 m/s, Q = 2300 cms

Historical Highwater Data :

HW iwas observed in May 1990 at EL. 964.5m (Y ~ 3.5m). Therefore, Y ~ 5m in June 1995 (based on WSC rating curve), agrees with flood photos. The 1990 design (not yet built) was based on Y ~ 5.5m.

WSC gauge 05BL024 (DA = 3990km^2, 1970 – Now) reports Q ~ 1120cms (June 1995, max gauging at Q ~ 900cms). Summing observed flows at upstream gauges for both the Highwood River and Sheep River suggests that flows in the 1000cms range would also have occurred in 1915, 1963, 1967. Flows recorded u/s in 1923, 1929, and 1942 also suggest flows in the range of the 1995 event at this site.

Basin Runoff Potential :

Gross DA = 3695 km^2 (exceeds range of technique).

Conclusion :

Historic observations govern. Recommended parameters :

Y = 5 m, V = 3.4 m/s, Q = 1200 cms.
EL 966.5 m (DD1392)