BF 78896 Hwy 53 Over Battle River
Hydrotechnical Summary

Channel Capacity :

S = 0.00045
B = 20 m, h = 3.5 m, T_h = 40 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 1.2 m/s, Q = 130 cms
At Channel Capacity : Y = 4.5 m, V = 1.5 m/s, Q = 220 cms

Historical Highwater Data :

HW was observed in April 1974 (Y ~ 4m) and July 1990 (Y ~ 5m).

WSC Gauge 05FA001 (DA = 1830km^2, 1913 – 1931, 1967 – Now) reports Q ~ 290cms (July 1990, gauged at Q ~ 270cms, stage rise ~ 4m) and Q ~ 110cms (April 1974). The July 1990 storm is the largest in the database for this site, with about 110mm of rainfall. July 1982 is the next largest with about 100mm.

Basin Runoff Potential :

Gross DA ~ 1785 km^2 (exceed range of technique).

Conclusion :

Historic observations govern. Recommended parameters :

Y = 5 m, V = 1.7 m/s, Q = 275 cms.
EL 804.0 m (4806-P)