BF 72142 Local Road Over Baptiste River
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 30 m, h = 2.5 m, T_h = 60 m
Use AT Equation

At Bank Height : Y = 2.5 m, V = 1.8 m/s, Q = 220 cms
At Channel Capacity : Y = 3.5 m, V = 2.4 m/s, Q = 450 cms

Historical Highwater Data :

HW was observed in July 1982 (Y ~ 3m), July 1986 (Y ~ 3.5m, bridge washed out), and July 1999 (Y ~ 2.5m). The 1986 design was based on Y ~ 3.5m and Q ~ 600cms.

WSC Gauge 05DC012 (DA = 1350 km^2, 1985 – Now) reports a peak flow Q ~ 540cms in July 1986, but the gauge was not in operation at the time. Q ~ 310cms (~ 2m stage increase) is reported for June 2005. The largest storms in the storm database are ~ 160mm in July 1986 and ~ 130mm in June 1972.

Basin Runoff Potential :

Gross DA = 1325 km^2 (exceed range of technique)

Conclusion :

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

Y = 3.5 m, V = 2.4 m/s, Q = 450 cms.
EL 885.0 m, (DD1202)