BF 73757 Local Road Over Castle River
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 50 m, h = 3 m, T_h = 90 m
Use AT equation

At Bank Height : Y = 3 m, V = 2.7 m/s, Q = 600 cms
At Channel Capacity : Y = 4 m, V = 3.4 m/s, Q = 1000 cms

Historical Highwater Data :

HW was observed in June 1964 (Y ~ 3m), July 1975 (Y ~ 3.5m), and June 1995 (abutment washout, Y ~ 4.5m d/s). The 1980 design was based on Y ~ 3m.

WSC Gauge 00AA022 (DA = 820km^2, 1945 – Now) reports Q ~ 1430cms in June 1995 (max. gauging at Q < 600cms, stage rise at peak ~ 5m), Q ~ 750cms (June 1975), and Q ~ 510cms (June 1964). WSC Gauge 00AA028 (DA = 375km^2, 1967 – Now) reports Q ~ 650cms in June 1995 (max. gauging at Q ~ 330cms, stage rise at peak ~ 3.5m) and Q ~ 400cms in June 1975.

Basin Runoff Potential :

Gross DA = 1125 km^2(beyond range of technique)

Conclusion :

Historic observations govern. Recommended parameters :

Y = 4.5 m, V = 3.8 m/s, Q = 1300 cms.
EL 1132.0 m (8584-P)