BF 78345 Local Road Over Firebag River
Hydrotechnical Summary

Channel Capacity :

S = 0.0007
B = 50 m, h = 3.0 m, T_h = 80 m
Use AT equation

At Bank Height : Y = 3.0 m, V = 1.4 m/s, Q = 270 cms
At Channel Capacity : Y = 4.0 m, V = 1.8 m/s, Q = 500 cms

Historical Highwater Data :

There are no HW observations on the bridge file.

WSC Gauge 07DC001 (DA = 5990km^2, 1971 – Now) reports Q ~ 250cms (1973, 1985), and 200cms (1979, 2005). The WSC rating curve suggests a 2m rise in stage at Q ~ 250cms.

Basin Runoff Potential :

Gross DA = 5950 km^2, runoff potential is not applicable

Conclusion :

Channel capacity estimate governs and is consistent with historic observations. Recommended parameters :

Y = 4.0 m, V = 1.8 m/s, Q = 500 cms.
EL 97.5 m (M-78345-96-5)