BF 00479 Local Road Over Drywood Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.008
B = 25 m, h = 1.8 m, T_h = 50 m
Use AT equation

At Bank Height : Y = 1.8 m, V = 2.5 m/s, Q = 170 cms
At Channel Capacity : Y = 2.7 m, V = 3.5 m/s, Q = 400 cms

Historical Highwater Data :

HW was observed in 1975 (Y ~ 2m) and 1995 (Y ~ 2.5 – 3m, scour at SW corner). The 1973 design was based on Y ~ 2.7m.

WSC Gauge 05AD010 (DA ~ 240km^2, 1920 – 1931, 1967 – Now) reports Q ~ 350cms (June 1995), and Q ~ 280cms (June 1975, gauged at Q ~ 180cms – 1.5m stage rise).

Basin Runoff Potential :

d = 100 mm, T_p = 20 hrs, q ~ 1.5 cms/km^2.
Gross DA = 275 km^2.
Q_p = 400 cms.

Conclusion :

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

Y = 2.7 m, V = 3.5 m/s, Q = 400 cms.
EL 18.0 m (DD714)