BF 08487 Local Road Over Willow Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 30 m, h = 3.5 m, T_h = 50 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 1.8 m/s, Q = 250 cms
At Channel Capacity : Y = 4.5 m, V = 2.2 m/s, Q = 400 cms

Historical Highwater Data :

HW was observed in June 1963 (to deck, over road, Y ~ 5m d/s), and June 2005 (Y ~ 4.5m). The 1980 design was based on Y ~ 6m (Q ~ 370cms).

WSC gauge 05AB021 (DA ~ 1180km^2, 1944 – Now) reports Q = 700cms (June 2005, gauged at Q ~ 440cms but inconsistent flow area, stage rise ~ 4.5m at peak) and Q ~ 500cms (June 1995).

Basin Runoff Potential :

Gross DA = 1150 km^2, exceeds range of technique

Conclusion :

Historic observations govern. Recommended parameters :

Y = 5.0 m, V = 2.3 m/s, Q = 500 cms.
EL 900.0 m (8749-P)