BF 00283 Local Road Over Jumpingpound Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0045
B = 20 m, h = 2 m, T_h = 40 m
Use AT equation

At Bank Height : Y = 2 m, V = 2.1 m/s, Q = 130 cms
At Channel Capacity : Y = 3 m, V = 3.0 m/s, Q = 300 cms

Historical Highwater Data :

HW was observed in 1990 (Y ~ 1 – 1.5m) and 2005 (Y ~ 3m, adjacent flooding). The 1996 design was based on Y ~ 2.8m.

WSC Gauge 05BH009 (DA ~ 570 km^2, 1965 – Now) reports Q ~ 215 cms (June 2005), and Q ~ 140cms (June 1969, gauged at Q ~ 130cms, stage increase ~ 2m).

Basin Runoff Potential :

d = 60/80 mm, T_p = 20 hrs, q ~ 1 cms/km^2.
Gross DA = 605 km^2.
Q_p = 600 cms.

Conclusion :

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

Y = 3.0 m, V = 3.0 m/s, Q = 300 cms.
EL 1128.0 m (16690-C)