BF 71643 Local Road Over Henderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 15 m, h = 2.5 m (low bank), T_h = 30 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 2.2 m/s, Q = 125 cms
At Channel Capacity : Y = 3.5 m, V = 3.0 m/s, Q = 250 cms

Historical Highwater Data :

The BIM report for 1990 (inspected about 1 month after the June HW), notes Y = 2.5m. The 1989 design was based on Y = 3.7m.

There are no WSC gauges on this stream. Nearby gauges suggest June 1990 as the largest event recorded, with other HW events noted in April of 1974 and 1997. There are no storms in the database that exceed 100mm in rainfall for this area.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 400 km^2.
Q_p = 400 cms.

Conclusion :

The channel capacity estimate is consistent with historic observations and within the basin runoff potential.

Recommended parameters : Y = 3.5 m, V = 3.0 m/s, Q = 250 cms.