BF 73032 Local Road Over Henderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 8 m, h = 3.3 m, T_h = 18 m.
Use n = 0.045.

At Bank Height : Y = 3.3 m, V = 2.0 m/s, Q = 85 cms
At Channel Capacity : Y = 4.3 m, V = 2.6 m/s, Q = 160 cms

Historical Highwater Data :

HW photos for June 1990 show water well overbank and apparently close to the bottom of the girders (Y > 4.0m), with some drift caught against the u/s side of the bridge. The 1969 design was based on a HW mark with Y = 14' (4.3m). HW was noted at BF 72279 in 1976 (Y = 4.5m) and in 1935 (Y = 4.3m). Water has been over the grade (8m cover) at BF73982 d/s in 1990 and 1976, with other HW noted in 1964, 1977 and 1984.

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 = 200 km^2.
Q_p = 200 cms.

Conclusion :

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

Recommended parameters : Y = 4.3 m, V = 2.6 m/s, Q = 160 cms.