BF 09094 Local Road Over Toad Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 4 m, h = 1.5 m, T_h = 8 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 0.6 m/s, Q = 6 cms
At Channel Capacity : Y = 2.3 m, V = 0.9 m/s, Q = 14 cms

Historical Highwater Data :

HW was over the road in April 1974 (pipe was running close to full, then u/s bevel uplifted, blocking culvert flow, backing up water which then went over the road). A 1968 report notes a HWM with Y = 2.4m.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1971, April 1974, April and July 1982, July 1986, July 1990, and April 1997. The largest storms in the storm database are 145mm of rainfall in July 1953, and about 115mm in July 1937 and July 1982.

Basin Runoff Potential :

d = 50 mm, T_p = 20 hrs, q = 0.7 cms/km^2.
Gross DA = 95 km^2.
Q_p = 65 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 0.9 m/s, Q = 14 cms.