BF 71653 Local Road Over Spring Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 2.5 m, h = 1.4 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.4 m, V = 0.9 m/s, Q = 5 cms
At Channel Capacity : Y = 2.1 m, V = 1.3 m/s, Q = 12 cms

Historical Highwater Data :

Reports from 1952 and 1959 note HWM with Y ~ 1.5m and estimate Q = 5 – 8 cms. The 1999 design was based on Q = 16cms and Y = 2.1m. HW was observed at BF70214 d/s in May 1974.

There are no gauges on this stream. WSC gauges in the area suggest HW in April 1974, June 1990, and April 1997. The largest storms in the storm database are about 110mm of rainfall in June 1965 and July 1982, and about 100mm in June 1964, August 1982, and June 1990.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 63 km^2 (small lake u/s).
Q_p = 55 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 1.3 m/s, Q = 12 cms.