BF 02241 Local Road Over Yelling Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 3 m, h = 1.5 m, T_h = 6 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 1.3 m/s, Q = 9 cms
At Channel Capacity : Y = 2.3 m, V = 2.0 m/s, Q = 22 cms

Historical Highwater Data :

HW was observed at this site in April 1974 (1.1m above u/s crown, 0.1m above d/s crown, estimated Q = 18cms), and April 1987 (2/3 full d/s, to crown u/s, high outlet velocity). Reports from 1962 and 1966 note HWM with Y = 1.5 – 1.8m and estimate Q = 22 – 25cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1974, April 1979, April 1996, and April 1997. The largest storms in the storm database are 115mm of rainfall in June 1970, and 95mm in June 1944 and June 1962.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 109 km^2.
Q_p = 60 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 = 2.0 m/s, Q = 22 cms.