BF 70214 Local Road Over Spring Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 3 m, h = 2.0 m, T_h = 7 m
Use n = 0.05

At Bank Height : Y = 2.0 m, V = 1.1 m/s, Q = 11 cms
At Channel Capacity : Y = 3.0 m, V = 1.7 m/s, Q = 30 cms

Historical Highwater Data :

HW was observed in May 1974 with an uplift failure of the inlet (water ponded to 7.5m u/s, Y ~ 2.5m d/s). Reports from 1960 and 1961 note HWM with Y ~ 3.5m (likely affected by degradation), and estimated Q = 20 – 25cms. A 1959 photo shows a large drift jam at the bridge.

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 = 126 km^2.
Q_p = 110 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.7 m/s, Q = 30 cms.