BF 07713 Local Road Over Threehills Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 1.5 m, h = 1.2 m, T_h = 4 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 1.0 m/s, Q = 3 cms
At Channel Capacity : Y = 1.8 m, V = 1.5 m/s, Q = 8 cms

Historical Highwater Data :

HW was noted at this site in April 1952 with water 0.2m below the u/s crown (Y = 1.9m u/s). The 1950 design was based on Y = 1.8 – 2.1m. The 1998 BIM report notes a HWM with Y = 1.5m.

There are no gauges on this stream. Gauges in the area suggest HW events in April 1969, 1971, 1974, 1996, and 1997. The largest storm in the storm database is June 1928 with about 95mm of rainfall.

Basin Runoff Potential :

d = 35 mm, T_p = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 32 km^2.
Q_p = 8 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.5 m/s, Q = 8 cms.