BF 08517 Local Road Over Lasthill Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 3 m, h = 1.6 m, T_h = 6 m
Use n = 0.045

At Bank Height : Y = 1.6 m, V = 0.8 m/s, Q = 6 cms
At Channel Capacity : Y = 2.4 m, V = 1.3 m/s, Q = 15 cms

Historical Highwater Data :

HW was noted in May 1952 with a washout and water over the grade (Y = 2.1 – 2.4m), and in July 1990 (just over the top of bank d/s, ponding u/s). The 1991 design was based on Q = 9cms and Y = 1.2m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1972, July 1982, July 1986, July 1990 and July 1999. The largest storms in the storm database are August 1925, June 1972, and July 1986 with about 110mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 37 km^2.
Q_p = 26 cms.

Conclusion :

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

Recommended parameters : Y = 2.4 m, V = 1.3 m/s, Q = 15 cms.