BF 13450 Local Road Over Horseguard Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0011
B = 3 m, h = 1.0 m, T_h = 7 m
Use n = 0.05

At Bank Height : Y = 1.0 m, V = 0.5 m/s, Q = 2.5 cms
At Channel Capacity : Y = 1.5 m, V = 0.7 m/s, Q = 6.5 cms

Historical Highwater Data :

A HWM of Y ~ 1.8m was noted in 2005 and Y ~ 1.4m in 1982. Downstream about 5km, a HWM of Y ~ 1.5m was noted in 2004.

This stream is ungauged but flows into the gauged Medicine River near WSC gauge 05CC007. The highest flows at this gauge were reported in July 1990 and July 1986. The largest storm in the database for this area occurred in June 1970 with 115mm of rainfall and July 1986 with 100mm.

Basin Runoff Potential :

d = 50mm, T_p = 25hrs, q = 0.55 cms/km^2.
Gross DA = 100 km^2.
Q_p = 55 cms.

The drainage area is generally poorly defined and contains low lying marsh/pond areas which may result in some flow attenuation and storage.

Conclusion :

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

Recommended parameters: Y = 1.5 m, V = 0.7 m/s, Q = 6.5 cms.