BF 70668 Local Road Over St. Lina Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 4 m, h = 1.5 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 0.9 m/s, Q = 8 cms
At Channel Capacity : Y = 2.3 m, V = 1.3 m/s, Q = 20 cms

Historical Highwater Data :

HW was noted in April 1974 (Y = 1.5m d/s, little headloss, estimated Q = 8cms), and in April 1997 (uplift failure, pipe blocked by bevel, water over the road). A 1969 report estimates Q = 14cms and Y = 2.4m. HW has been noted at other nearby sites in 1954 and April 1971.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in July 1970, April 1971, April 1974, April 1997, and June 1997. The largest storms in the storm database are about 125mm in June 1970, and about 95mm in June 1962 and June 1973.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 165 km^2.
Q_p = 90 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 = 1.3 m/s, Q = 20 cms.