BF 01182 Local Road Over Irvine Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 3 m, h = 1.2 m, T = 5 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 0.8 m/s, Q = 4 cms
At Channel Capacity : Y = 1.8 m, V = 1.1 m/s, Q = 9 cms

Historical Highwater Data :

HW was observed in April 1963 to 0.8m below the u/s crown, and in 1971 to 1.0m above the u/s crown (rise = 0.9m) with a partial washout and d/s scour hole. A 1992 BIM report notes a HWM with Y = 0.7m, and a 1999 note refers to drainage improvement plans involving lowering the streambed.

There are no WSC gauges on this stream. Gauges in the area indicate the largest runoff event to be April 1974, with others in July 1990 and April 1982. The largest storms for this area in the database are June 1965 with about 130mm of rainfall, and July 1937 with about 110mm.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
DA = 102 km^2.
Q_p = 56 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.1 m/s, Q = 9 cms.