BF 01205 Local Road Over Irvine Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 3 m, h = 1.2 m, T = 5 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 0.9 m/s, Q = 4 cms
At Channel Capacity : Y = 1.8 m, V = 1.2 m/s, Q = 10 cms

Historical Highwater Data :

HW was observed in April 1974 to 0.9m above the u/s crown of the 1.5m pipe (Q ~ 6cms), Yd/s = 1.5m, and a scour hole d/s. HW was also noted in April 1999 to about 0.3m below the crown with Y = 1.5 – 1.8m u/s. A 1956 report notes a HWM over the grade at a 2 – 0.9m crossing.

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 = 74 km^2.
Q_p = 41 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 = 1.2 m/s, Q = 10 cms.