BF 71461 Local Road Over Irvine Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 2 m, h = 1.5 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 0.7 m/s, Q = 4 cms
At Channel Capacity : Y = 2.3 m, V = 1.1 m/s, Q = 10 cms

Historical Highwater Data :

HW was noted in 1963 with water to 1.2m below crown (Y ~ 1.0m). A 1956 report estimates Q = 7cms. The pipe was modified in 1986 to match recent channel improvement works.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1971, April 1974, April 1982, April 1985, July 1990, and April 1997. The storm database shows the largest storms to be about 110mm of rainfall in July 1937, June 1944, July 1953, June 1965, and July 1990.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 121 km^2.
Q_p = 66 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 = 1.1 m/s, Q = 10 cms.