BF 07590 Local Road Over Whitford Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 4 m, h = 1.3 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 1.3 m, V = 0.6 m/s, Q = 5 cms
At Channel Capacity : Y = 2.0 m, V = 0.8 m/s, Q = 13 cms

Historical Highwater Data :

Reports from 1953 and 1958 note HWM with Y = 1.5 – 2.4m and estimate Q = 5 – 12cms. A 1993 design was based on Q = 18cms and Y = 2m.

There are no WSC gauges on this stream. Gauges in the area suggest large runoff events in spring of 1971, 1974, 1979, and 1997. The largest storms in the database for this area are in July 1962, June 1965, and June 1973 with rainfall in the 100 – 110 mm range.

Basin Runoff Potential :

d = 35 mm, Tp = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 262 km^2.
Q_p = 65 cms.

Conclusion :

The channel capacity values are consistent with historic observations, and are within the range of basin runoff supply.

Recommended parameters : Y = 2.0 m, V = 0.8 m/s, Q = 13 cms.