BF 07720 Local Road Over Dickson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 2.5 m, h = 1.4 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.4 m, V = 1.0 m/s, Q = 5 cms
At Channel Capacity : Y = 2.1 m, V = 1.5 m/s, Q = 13 cms

Historical Highwater Data :

A report from 1961 notes a HWM with Y = 1.5m and estimates Q = 9cms. A report from 1980 notes a HWM with Y = 1.2m and estimates Q = 7cms. The 1984 design was based on Q = 6cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1972, July 1982, July 1986, June 1990, July 1990, and July 1999. The largest events in the storm database for this area are June 1970 with 130mm and 115mm, and 105mm in June 1928 and August 1938.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 88 km^2.
Q_p = 48 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 1.5 m/s, Q = 13 cms.