BF 72972 Local Road Over Battle River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 3 m, h = 1.3 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.3 m, V = 0.9 m/s, Q = 5 cms
At Channel Capacity : Y = 2.0 m, V = 1.3 m/s, Q = 12 cms

Historical Highwater Data :

A 1940 report notes a recent washout. A 1952 report notes a HWM 1.5' below deck (Y = 1.5m) and estimates Q = 14cms. A 1971 report notes a HWM 2' below deck (Y = 1.8m) and estimates Q = 9 – 10cms. A 1998 BIM report notes a HWM with Y = 1.8m.

There are no gauges on this stream. Gauges in the area suggest large runoff events in April 1974, and March 1985. No storms in the storm database exceed 100mm for this area.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2.
Gross DA = 100 km^2.
Q_p = 25 cms.

Conclusion :

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

Recommended parameters : Y = 2.0 m, V = 1.3 m/s, Q = 12 cms.