BF 76486 Local Road Over Redwater River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 3 m, h = 1.5 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 1.0 m/s, Q = 7 cms
At Channel Capacity : Y = 2.3 m, V = 1.5 m/s, Q = 17 cms

Historical Highwater Data :

A 1965 report notes a HWM with Y = 2.1m and estimates Q = 11 – 14cms. A 1967 report notes a HWM with Y = 1.8m.

There are no gauges on this stream. Gauges in the area suggest HW events in April 1974, 1985, 1987, and 1997. The largest storm in the storm database is July 1953 with about 150mm of rainfall.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 35 km^2.
Q_p = 19 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 = 1.5 m/s, Q = 17 cms.