BF 09661 Local Road Over Redwater River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 3 m, h = 1.8 m, T_h = 7 m
Use n = 0.05

At Bank Height : Y = 1.8 m, V = 0.9 m/s, Q = 8 cms
At Channel Capacity : Y = 2.7 m, V = 1.4 m/s, Q = 22 cms

Historical Highwater Data :

HW was noted in 1955 with Y = 2.1m..A 1955 report notes a HWM with Y = 2.7m (over the deck) and estimates Q = 7cms. A 1961 report notes a HWM close to the deck with Y = 2.4m.

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 = 82 km^2.
Q_p = 45 cms.

Conclusion :

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

Recommended parameters : Y = 2.7 m, V = 1.4 m/s, Q = 22 cms.