BF 70328 Local Road Over Redwater River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0018
B = 3 m, h = 1.3 m, T_h = 7 m
Use n = 0.05

At Bank Height : Y = 1.3 m, V = 0.8 m/s, Q = 5 cms
At Channel Capacity : Y = 2.0 m, V = 1.1 m/s, Q = 12 cms

Historical Highwater Data :

A 1953 report notes that water has been over the road (Y ~ 1.8m). The 1993 design was based on Y = 1.4m and Q = 13cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1971, 1974 and 1997. There are no storms in the database that exceed 100mm of rainfall for this area.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
Gross DA = 101 km^2.
Q_p = 56 cms.

Conclusion :

The channel capacity estimate appears to be consistent with historic data and is within the basin runoff potential.

Recommended parameters : Y = 2.0 m, V = 1.1 m/s, Q = 12 cms.