# BF 74467 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 1955 report notes a HWM over the road (Y = 1.2m) and estimates Q = 6cms.

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 = 37 $km^2$.
$Q_p$ = 20cms.

**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.