# BF 80666 Local Road Over Eureka River Tributary
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.004
B = 4 m, h = 1.3 m, $T_h$ = 7 m
Use n = 0.05

At Bank Height : Y = 1.3 m, V = 1.0 m/s, Q = 7 cms
At Channel Capacity : Y = 2.0 m, V = 1.5 m/s, Q = 17 cms

**Historical Highwater Data :**

A 2001 BIM report notes HW with Y = 1.0m. A 1983 report notes that the channel will not handle the estimated Q = 18cms.

There are no gauges on this stream. Gauges in the area suggest HW events in April 1974 and April 1997. The largest event in the storm database for this area is July 1987 with 110mm of rainfall.

**Basin Runoff Potential :**

d = 60 mm, $T_p$ = 20 hrs, q = 0.83 cms/km$^2$.
Gross DA = 72 km$^2$.
$Q_p$ = 60 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 = 1.5 m/s, Q = 17 cms.