# BF 72407 Local Road Over Bear River Tributary
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.004
B = 4 m, h = 1.4 m, $T_h$ = 8 m
Use n = 0.045

At Bank Height : Y = 1.4 m, V = 1.4 m/s, Q = 11 cms
At Channel Capacity : Y = 2.1 m, V = 2.0 m/s, Q = 27 cms

**Historical Highwater Data :**

Reports from 1954, 1961, and 1964 note HWM with Y = 1.5 – 2.1m, and estimate Q = 14cms. A 1998 BIM report notes a HWM with Y = 2m.

There are no WSC gauges on this stream. Gauges in the area suggest a HW event in April 1997. The largest storms in the storm database are June 1964 with about 130mm, and June 1965, June 1971, and June 1990 with about 100mm.

**Basin Runoff Potential :**

d = 60 mm, $T_p$ = 20 hrs, q = 0.83 cms/$km^2$.
Gross DA = 65 $km^2$.
$Q_p$ = 54 cms.

**Conclusion :**

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

Recommended parameters : Y = 2.1 m, V = 2.0 m/s, Q = 27 cms.