# BF 77666 Local Road Over St. Lina Ck
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0015
B = 4 m, h = 1.5 m, $T_h$ = 8 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 0.9 m/s, Q = 8 cms
At Channel Capacity : Y = 2.3 m, V = 1.3 m/s, Q = 20 cms

**Historical Highwater Data :**

HW was noted in April 1971 (water over the south approach road,). Reports from 1954 and 1966 note HWM with Y = 1.5 – 1.8m and estimate Q = 11 - 14cms. A 2002 BIM report notes a HWM with Y = 1.6m. HW was noted at d/s sites in April 1974 and April 1997.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in July 1970, April 1971, April 1974, April 1997, and June 1997. The largest storms in the storm database are about 125mm in June 1970, and about 95mm in June 1962 and June 1973.

**Basin Runoff Potential :**

d = 40 mm, $T_p$ = 20 hrs, q = 0.55 cms/km$^2$.
Gross DA = 141 km$^2$.
$Q_p$ = 80 cms.

**Conclusion :**

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

Recommended parameters : Y = 2.3 m, V = 1.3 m/s, Q = 20 cms.