# BF 13897 Local Road Over Beavertail Ck
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0015
B = 7 m, h = 1.6 m, $T_h$ = 14 m
Use n = 0.045

At Bank Height : Y = 1.6 m, V = 0.9 m/s, Q = 16 cms
At Channel Capacity : Y = 2.4 m, V = 1.3 m/s, Q = 38 cms

**Historical Highwater Data :**

A report from 1990 notes a HWM over the south grade (Y = 2.0m) and estimates Q = 20cms. A 1998 BIM report notes a HWM with Y = 1m.

WSC Gauge 07GD002 (DA = 662km$^2$, 1983 – Now) located d/s reports Q = 123cms in June 1990, (gauged at Q = 35cms), followed by Q = 50cms in April 1997. The largest storms for this area in the storm database is about 100mm of rainfall in June 1964 and 1990.

**Basin Runoff Potential :**

d = 70 mm, $T_p$ = 20 hrs, q = 1 cms/km$^2$.
Gross DA = 263 km$^2$ .
$Q_p$ = 260 cms.

**Conclusion :**

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

Recommended parameters : Y = 2.4 m, V = 1.3 m/s, Q = 38 cms.