# BF 78950 Local Road Over Whitecourt Ck Tributary
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.015
B = 3 m, h = 1.2 m, $T_h$ = 5 m
Use n = 0.06

At Bank Height : Y = 1.2 m, V = 1.7 m/s, Q = 8 cms
At Channel Capacity : Y = 1.8 m, V = 2.5 m/s, Q = 20 cms

**Historical Highwater Data :**

Photos from 1997 and 2004 show large drift blockages at the inlet. A 1977 report notes a HWM with Y = 1.2m and estimates Q = 9cms. The 1978 design was based on Y = 1.8m and Q = 20cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1985, August 1989, and June 2001. The largest storms in the database for this area are 150mm in June 1944, 135mm in June 1965, and 125mm in July 1990.

**Basin Runoff Potential :**

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

**Conclusion :**

Basin runoff potential governs for this site.

Recommended parameters : Y = 1.7 m, V = 2.4 m/s, Q = 18 cms.