# BF 08077 Hwy 880 Over Milk River
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0006
B = 40 m, h = 4.5 m, $T_h$ = 90 m
Use AT equation

At Bank Height : Y = 4.5 m, V = 1.6 m/s, Q = 450 cms
At Channel Capacity : Y = 5.5 m, V = 1.9 m/s, Q = 725 cms

**Historical Highwater Data :**

HW was observed in 1917 (est Y ~ 6m), 1947 (ice jam), 1952 (ice jam, Y ~ 4.4m). The 1975 design was based on Y ~ 5.2m (1952 event).

WSC Gauge 11AA005 (DA ~ 2720 $km^2$, 1909 – Now) reports Q ~ 250 cms (1927, 1964, 1975, 2002, gauged close to peak, stage rise ~ 3 – 3.5m). WSC Gauge 11AA031 (DA ~ 6490 km2, 1909 – Now) reports Q ~ 300 – 350 (2002 , 1996, 1994).

**Basin Runoff Potential :**

Gross DA = 4800$km^2$ (beyond range of technique)

**Conclusion :**

The channel capacity estimate is consistent with historic observations. Recommended parameters :

Y = 5.5 m, V = 1.9 m/s, Q = 725 cms.