# BF 74228 Hwy 40 Over Wapiti River
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.001
B = 100 m, h = 7 m, $T_h$ = 150 m
Use AT equation

At Bank Height : Y = 7 m, V = 2.9 m/s, Q = 2500 cms
At Channel Capacity : Y = 8 m, V = 3.2 m/s, Q = 3300 cms

**Historical Highwater Data :**

HW was observed in 1964 (Y ~ 6m), 1965 (Y ~ 8m), 1972 (Y ~ 9.5m), 1982 (Y ~ 10.5m), and 1990 (Y ~ 9.5m, damage to d/s spur).

WSC Gauge 07GE001 (DA = 11,300km$^2$, 1917-18, 1960 - Now) reports Q ~ 6300 in July 1982 (stage rise ~ 9.5m), Q ~ 5400cms in June 1990, Q ~ 4700cms in June 1972, and Q ~ 2750cms in July 1965. The highest gauging is at Q < 2000cms, so published flows are highly extrapolated.

**Basin Runoff Potential :**

DA = 11,600km$^2$, beyond range of technique.

**Conclusion :**

Historic observations govern. Recommended parameters :

Y = 10.5 m , V = 3.9 m/s, Q = 5500 cms.
EL 527.0m (5738-P)