# BF 73425 Highway 35 Over Keg River
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0008
B = 10 m, h = 4.0 m, $T_h$ = 20 m
Use AT Equation

At Bank Height : Y = 4.0 m, V = 1.7 m/s, Q = 100 cms
At Channel Capacity : Y = 5.0 m, V = 2.0 m/s, Q = 165 cms

**Historical Highwater Data :**

A 1959 flood event estimated HW at elev 1274.0' (Y~4.7m). A 1965 ice jam event estimated ice up to 1m with Y~4.9m. The 1987 was the largest flood recorded (estimated Y~5.1m) resulting in flooding of the adjacent land.

WSC gauge 07HF002 (DA = 665 $km^2$, 1971 to now) reports its highest event of Q=142 cms in Aug 1987 (gauge under water), and Q=105cms in June 1991. The storm database reports the largest rainfall events in June 1991 (144mm) and in Aug 1987 (132mm).

**Basin Runoff Potential :**

d = 70mm, $T_p$ = 20 hrs, q = 0.97 cms/$km^2$.
Gross DA = 675 $km^2$.
$Q_p$ = 670 cms.

**Conclusion :**

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

Recommended parameters : Y = 5.0 m, V = 2.0 m/s, Q = 165 cms.