# BF 76990 Local Road Over Smoky River
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0016
B = 150 m, h = 5 m, T = 200 m
Use AT equation

At Bank Height : Y = 5.0 m, V = 2.9 m/s, Q = 2500 cms
At Channel Capacity : Y = 6.0 m, V = 3.3 m/s, Q = 3500 cms

**Historical Highwater Data :**

HW was noted in June 1972 (Y ~ 6.5m, bridge washed out), 1982 (50m washout at west abutment), and June 1990 (Y ~ 5m).

Gauge 07GA001 (DA = 3840 $km^2$, 1968 – Now) reports Q = 1380cms (stage rise ~ 4.8m) in June 1972 (gauged at Q = 670cms, stage rise = 3.5m), Q = 1010cms in July 1997, and Q = 810cms in July 2001. Gauge 07GJ001 (DA = 50300 $km^2$, 1916 – 1921, 1955 – Now) reports Q = 9400cms in June 1990 (stage rise ~ 9m), Q = 9200cms in July 1972, Q = 9020cms in July 1982, and Q = 7100cms in August 1987. The highest gauging was at Q = 3500cms and stage rise = 5.5m.

**Basin Runoff Potential :**

Gross DA = 12675 $km^2$ (exceeds range of application of runoff depth method).

**Conclusion :**

Historical observations govern. Recommended parameters :

Y = 6.5 m, V = 3.5 m/s, Q = 4000 cms
EL 29.5 m (10142-P)