# BF 13587 Highway 41 Over Battle River
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0003
B = 20 m, h = 4 m, Th = 45 m
Use AT equation

At Bank Height : Y = 4 m, V = 1.1 m/s, Q = 150 cms
At Channel Capacity : Y = 5 m, V = 1.4 m/s, Q = 250 cms

**Historical Highwater Data :**

HW observed in 1948 (est Y~5.6m) and in 1974 (Y~5.4m; elev 1893' on DD400).

WSC gauge 05FE004 (DA=24,800km$^2$, 1978 – present) reports Q~80 -100cms in July 1983, April 1987, and April 2005. Gauge 05FE001 (DA=25,600km$^2$, 1944 -1979) reports Q~400cms (no rating curve), Q~280cms in 1948. Gauge 05FC001 (DA=7680km$^2$, 1986 - present) reports Q~240cms in April 1974.

**Basin Runoff Potential :**

Gross DA = 17,530 km$^2$ (beyond range of technique)

**Conclusion :**

Historic highwater observations govern.

Recommended parameters :

Y = 5.5 m, V = 1.5 m/s, Q = 290 cms