# BF 00116 Hwy 590 Over Threehills Ck
# Hydrotechnical Summary

**Channel Capacity** :

S = 0.0009
B = 4 m, h = 2 m, $T_h$ = 8 m
Use n = 0.045

At Bank Height: Y = 2.0 m, V = 0.8 m/s, Q = 9 cms
At Channel Capacity: Y = 3.0 m, V = 1.1 m/s, Q = 23 cms

**Historical Highwater Data:**

A 1963 report notes a HWM with Y = 3m and estimates Q = 25 - 28cms (note rechannelization in 1963). A 1953 report notes a HWM with Y = 2.1m and estimates Q = 28cms. A sketch from 1900 shows a HWM with Y = 2.7m.

WSC Gauge 05CE018 (1971 – Now, DA = 197km$^2$) is located about 1km downstream, and reports Q = 24cms in April 1974. The largest storm in the storm database is about 100mm of rainfall in July 1937.

**Basin Runoff Potential :**

d = 35 mm, $T_p$= 40 hrs, q = .25 cms/km$^2$.
Gross DA = 135 km$^2$.
$Q_p$ = 35 cms.

**Conclusion :**

Channel capacity estimate is consistent with historic observations, and matches the runoff potential for the area.

Recommended parameters : Y = 3.0 m, V = 1.1 m/s, Q = 23 cms.