BF 06673 North Branch of Crowfoot Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 5 m, h = 1.2 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 1.2 m, V = 0.6 m/s, Q = 5 cms
At Channel Capacity : Y = 1.8 m, V = 0.8 m/s, Q = 12 cms

Historical Highwater Data :

A 1964 report estimates Q = 21 – 28cms (based on drainage area) with no observed HWM. BF9944 u/s reports a HWM with Y = 1.2m (Q ~ 10cms).

There are no WSC Gauges on this stream. Gauge 05BM008 is on Crowfoot Ck d/s, and has recorded large runoff events in April 1969 and April 1971. The largest storms in the database are about 110mm in June 1942 and July 1966.

Basin Runoff Potential :

d = 35 mm, T_p = 40 hrs, q = 0.25cms/km^2.
Gross DA = 70 km^2.
Q_p = 18 cms.

Conclusion :

The channel capacity estimate is consistent with the upstream historic observations and is close to basin runoff potential.

Recommended parameters : Y = 1.8 m, V = 0.8 m/s, Q = 12 cms.