BF 13114 Local Road Over Nose Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0009
B = 7 m, h = 1.6 m, T_h = 15 m
Use n = 0.045

At Bank Height : Y = 1.6 m, V = 0.7 m/s, Q = 13cms
At Channel Capacity : Y = 2.4 m, V = 1.0 m/s, Q = 30 cms

Historical Highwater Data :

A 1961 report notes a HWM with Y = 2.1m. A 2003 BIM report notes a HWM with Y = 1.9m.

WSC Gauge 05BH003 (DA = 893km^2, 1916-1917, 1973 – 1986) reports a highest Q = 40cms in 1916, and an estimated Q ~ 70cms based on partial data for 1915. Gauge 05BH901 (DA = 986km^2, 6 years in 1980's) reports a highest Q = 32cms in 1988. The largest storms in the storm database are 115mm of rainfall in June 1970, and about 100mm in June 1928.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 330 km^2.
Q_p = 180 cms.

Conclusion :

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

Recommended parameters : Y = 2.4 m, V = 1.0 m/s, Q = 30 cms.