BF 08538 Local Road Over Ghostpine Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 3 m, h = 1.6 m, T_h = 6 m
Use n = 0.045

At Bank Height : Y = 1.6 m, V = 0.8 m/s, Q = 6 cms
At Channel Capacity : Y = 2.4 m, V = 1.3 m/s, Q = 15 cms

Historical Highwater Data :

A report from 1955 notes a HWM with Y ~ 2m and over the grade, and a 1974 report notes a HWM with Y = 11.8m and estimates Q = 13cms.

WSC gauge 05CE012 (DA = 518km^2, 1967 – 1969,) reports Q = 31cms in April 1969. Other gauges in the area suggest HW events in April 1969, 1971, 1974, 1996, and 1997. There are no storms in the database for this area that exceed 100mm of rainfall.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2.
Gross DA = 255 km^2.
Q_p = 64 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 = 1.3 m/s, Q = 15 cms.