BF 07305 Local Road Over Iron Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0006
B = 5 m, h = 1.3 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 1.3 m, V = 0.5 m/s, Q = 5 cms
At Channel Capacity : Y = 2.0 m, V = 0.7 m/s, Q = 12 cms

Historical Highwater Data :

HW was observed in 1974 with water to the top of the subdeck and over the road to the south by 6". From the road profile, this would suggest Y = 1.6m.

WSC gauge 05FB003 (DA = 121 km^2, 1978 – 1995) on Iron Ck reports Q = 3.7cms in July 1983. Gauge 05FB002 (DA = 3500km^2, 1965 - Now) on Iron Ck reports Q = 68cms in April 1974, with no other flow over Q = 20cms. A gauging was taken close to the peak with an increase in stage on 3.4m. The largest storms for this area in the database are about 120mm in July 1962 and June 1973.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2
Gross DA = 105 km^2.
Q_p = 26 cms.

Conclusion :

The channel capacity estimate appears to be consistent with historic data and within the basin runoff potential.

Recommended Parameters : Y = 2.0 m, V = 0.7 m/s, Q = 12 cms.