BF 72313 Local Road Over Cardinal Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 3 m, h = 1.8 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.8 m, V = 0.8 m/s, Q = 6 cms
At Channel Capacity : Y = 2.7 m, V = 1.2 m/s, Q = 16 cms

Historical Highwater Data :

A photo from 1975 shows water ponded u/s for a wide area at the small culvert crossing. A 2002 photo notes erosion at the south-east corner of the bridge. A 1997 BIM report notes a HWM with Y = 2.5m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1968 and June 1990. The largest storm for this area in the storm database is about 100 mm of rainfall in July 1963.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 59 km^2.
Q_p = 32 cms.

Conclusion :

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

Recommended parameters : Y = 2.7 m, V = 1.2 m/s, Q = 16 cms.