BF 09893 Local Road Over Cardinal Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0009
B = 6 m, h = 1.2 m, T_h = 12 m
Use n = 0.045

At Bank Height : Y = 1.2 m, V = 0.6 m/s, Q = 6 cms
At Channel Capacity : Y = 1.8 m, V = 0.9 m/s, Q = 16 cms

Historical Highwater Data :

A 1955 report refers to a HWM with Y = 1.5m. A 1999 BIM report notes a HWM with Y = 1m. A 1992 report notes lake influence from d/s and the 1994 design was based on Y = 1.5m and Q = 13cms.

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 = 92 km^2.
Q_p = 50 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 0.9 m/s, Q = 16 cms.