BF 77696 Local Road Over Cardinal Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 5 m, h = 1.5 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 1.0 m/s, Q = 10 cms
At Channel Capacity : Y = 2.3 m, V = 1.5 m/s, Q = 25 cms

Historical Highwater Data :

A 1954 report notes a HWM to the deck and over the grade and estimates Q = 28 – 34cms. A 1955 report notes a HWM over the grade with Y = 2.1mand estimates Q = 22 – 25cms. A 1987 BIM report notes a HWM with Y = 2m (drift on struts).

There are no WSC gauges on this stream. Gauges in the area suggest HW events in 1974, 1979, 1990, and 1997. The largest event in the storm database for this area is July 1963 with 100mm of rainfall.

Basin Runoff Potential :

d = 40mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 134 km^2.
Q_p = 74 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.5 m/s, Q = 25 cms.