BF 77168 Local Road Over Kneehills Creek Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.007
B = 1 m, h = 0.5 m, T_h = 2 m
Use n = 0.055

At Bank Height : Y = 0.5 m, V = 0.7 m/s, Q = 1 cms
At Channel Capacity : Y = 1.0 m, V = 1.3 m/s, Q = 3 cms

Historical Highwater Data :

The 1976 design was based on Y = 0.9m and Q = 3 – 4cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in spring of 1969, 1971, 1974, and 1997. There are no storms in the database that have exceeded 100mm of rainfall in this area.

Basin Runoff Potential :

d = 35 mm, T_p = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 9 km^2.
Q_p = 2 cms.

Conclusion :

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

Recommended parameters : Y = 1.0 m, V = 1.3 m/s, Q = 3 cms.