BF 72279 Hwy 49 Over Henderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 8 m, h = 3.3 m, T_h = 18 m.
Use n = 0.045.

At Bank Height : Y = 3.3 m, V = 1.8 m/s, Q = 80 cms
At Channel Capacity : Y = 4.3 m, V = 2.4 m/s, Q = 150 cms

Historical Highwater Data :

HW photos for June 1990 suggest water to about 1m below the bottom flange (Y > 4.0m). DD806 notes HW for 1935 at Y = 4.3m and for 1976 at Y = 4.6m.

There are no WSC gauges on this stream. Nearby gauges suggest June 1990 as the largest event recorded, with other HW events noted in April of 1974 and 1997. There are no storms in the database that exceed 100mm in rainfall for this area.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 178 km^2.
Q_p = 180 cms.

Conclusion :

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

Recommended parameters : Y = 4.3 m, V = 2.4 m/s, Q = 150 cms.