BF 71417 Hwy 13 Over Driedmeat Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 7 m, h = 1.4 m, T_h = 12 m
Use n = 0.045

At Bank Height : Y = 1.4 m, V = 0.7 m/s, Q = 10 cms
At Channel Capacity : Y = 2.1 m, V = 1.0 m/s, Q = 22 cms

Historical Highwater Data :

HW was observed in April 1948 with 50' of highway washed out, Y = 1.5m and Q_{est} = 20cms. HW was also observed in April 1974 with about 60' of highway washed out, Y = 1.8m (had been just over the highway before the washout, 3.6m head u/s), Q_{est} = 40cms (based on observed V = 2m/s, but this was likely influenced by water flowing around the twp pipes blocking the flow area). Modelling suggests Q = 20cms just before washout.

There are no gauges on this stream. Gauges in the area suggest large runoff events in April 1974, and March 1985. No storms in the storm database exceed 100mm for this area.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2.
Gross DA = 157 km^2.
Q_p = 39 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 1.0 m/s, Q = 22 cms.