BF 13751 Hwy 63 Over Pine Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 3 m, h = 1.3 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.3 m, V = 0.7 m/s, Q = 4 cms
At Channel Capacity : Y = 2.0 m, V = 1.0 m/s, Q = 10 cms

Historical Highwater Data :

HW was noted in June 1956 with water over the grade and channel erosion at existing small culvert crossing. A 1964 survey shows a HWM with Y ~ 4.0m, but there is no information to corroborate this and it did not appear to influence the design. A 2006 assessment was based on Y = 1.5m and Q = 20cms.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1974, August 1996 and April 1997. The largest storms in the storm database are about 100mm of rainfall in June 1970, June 1973, and August 1980.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 93 km^2.
Q_p = 51 cms.

Conclusion :

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

Recommended parameters : Y = 2.0 m, V = 1.0 m/s, Q = 10 cms.