BF 78221 Hwy 584 Over Teepee Pole Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.009
B = 4 m, h = 1.4 m, T_h = 7 m
Use n = 0.05

At Bank Height : Y = 1.4 m, V = 1.8 m/s, Q = 14 cms
At Channel Capacity : Y = 2.1 m, V = 2.7 m/s, Q = 35 cms

Historical Highwater Data :

HW was noted at this site in June 1990 with Y = 2.0m u/s of the culvert (over bank), a large scour bowl formed d/s, and a new channel cut d/s. Reports from 1970 and 1975 note HWM with Y = 1.2m. A photo from April 2002 shows icing to about ½ full in the culvert. The culvert was designed for Q = 28cms and Y = 1.8m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1970, June 1972, July 1986, June 1990, June 1995 and July 1999. The largest storms in the database for this area are July 1965 and June 1970 with 110mm of rainfall, and June 1928, June 1972, July 1986, and July 1999 with 100mm.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2
Gross DA = 62 km^2.
Q_p = 60 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 2.7 m/s, Q = 35 cms.