BF 71345 Hwy 13 Over Driedmeat Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0002
B = 4 m, h = 1.5 m, T_h = 9 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 0.3 m/s, Q = 3 cms
At Channel Capacity : Y = 2.3 m, V = 0.5 m/s, Q = 7 cms

Historical Highwater Data :

HW data for April 1974 states 0.3m of head d/s (Y = 2.4m) and 0.6m head u/s, which equates to a flow estimate of 5 – 6cms for both the tailwater and the culvert. This is a similar flow value to design estimates for u/s and d/s structures.

WSC Gauge 05FA018 (DA = 1150km^2, 1976 – 1995) located d/s reports Q = 16cms in July 1983. Other nearby gauges suggest possible HW for this site in April 1974. The storm database indicates that the largest storms were June 1970 and June 1973 with about 100mm of rainfall.

Basin Runoff Potential :

d = 35mm, T_p = 20 hrs, q = 0.25 cms/km^2.
Gross DA = 135 km^2.
Q_p = 34 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 0.5 m/s, Q = 7 cms.