BF 73774 Hwy 49 Over Hunting Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 4 m, h = 1.5 m, T_h = 8 m (constructed ditch)
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 0.9 m/s, Q = 8 cms
At Channel Capacity : Y = 2.3 m, V = 1.3 m/s, Q = 18 cms

Historical Highwater Data :

HW was noted in 1963 (Y ~ 2.4m, icing at d/s culverts). A 1961 report notes a HWM with Y = 1.2 – 1.8m and estimates Q = 7cms. The 1997 design was based on Y = 1.0m and Q = 18cms. A 1991 BIM report notes a HWM with Y = 2m. HW was noted at several sites in this reach in 1963 and 1965, and at BF73535 d/s in 1996.

There are no gauges on this stream. Gauges in the area suggest HW events in August 1964, April 1965, April 1974, April 1997, and April 2003. The largest storms in the storm database are about 120mm in August 1982 and about 90mm in June 1993.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 50 km^2 (rough estimate).
Q_p = 43 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 = 1.3 m/s, Q = 18 cms.