BF 73335 Local Road Over Blindman River
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 5 m, h = 3 m, T_h = 8 m
Use n = 0.045.

At Bank Height : Y = 3.0 m, V = 1.2 m/s, Q = 24 cms
At Channel Capacity : Y = 4.0 m, V = 1.7 m/s, Q = 45 cms

Historical Highwater Data :

HW was observed in July 1982 with water just over the deck (Y = 3.6 – 4.0m) and a washout at the abutments. A washout also occurred in June 1944.

WSC gauge 05CC008 (DA = 352km^2, 1965 – Now) is located d/s. The highest reported discharge is 330cms in July 1990, with other large events in July of 1981, 1982, and 1986. The rating curve suggests Y = 4.7m for Q = 330cms, although the highest measured flow is Q = 114cms with Y = 2.6m. The largest storm in the database for this area is July 1990 with 145mm of rainfall, followed by July 1986 with 125mm and July 1982 with 115mm.

Basin Runoff Potential :

d = 70mm, T_p = 20hrs, q = 1.0 cms/km^2.
Gross DA = 45 km^2.
Q_p = 45 cms.

Conclusion :

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

Recommended parameters : Y = 4.0 m, V = 1.7 m/s, Q = 45 cms.