BF 13436 Local Road Over Blindman River
Hydrotechnical Summary

Channel Capacity :

S = 0.0011
B = 7 m, h = 3.5 m, T_h = 17 m
Use n = 0.04

At Bank Height : Y = 3.5 m, V = 1.4 m/s, Q = 60 cms
At Channel Capacity : Y = 4.5 m, V = 1.8 m/s, Q = 105 cms

Historical Highwater Data :

HW was over the bridge and the approach road in July 1990, with water up to the bottom of the rail (Y = 4.3m) and a small drop in water elevation across the structure. HW was also up to 0.2m below the deck in July 1982, with V = 1.1m/s, and 0.1m drop across the structure. D/s structures also report HW in 1982, 1986 and 1990 with Y in the 3.5 to 4.5m range.

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 cms/km^2.
Gross DA = 125 km^2.
Q_p = 125 cms.

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 1.8 m/s, Q = 105 cms.