BF 08820 Local Road Over Blindman River
Hydrotechnical Summary

Channel Capacity :

S = 0.0011
B = 8 m, h = 3.5 m, T_h = 18 m
Use n = 0.04

At Bank Height : Y = 3.5 m, V = 1.4 m/s, Q = 65 cms
At Channel Capacity : Y = 4.5 m, V = 1.8 m/s, Q = 115 cms

Historical Highwater Data :

A 1957 report notes a HWM with Y = 4.3m. HW was observed in April 1974 (Y = 3.3m, south headslope washed out), July 1986 (Y = 3.8m, over the deck), and July 1990 (Y = 4.3m, over deck, erosion behind NE wingwall).

WSC gauge 05CC008 (DA = 352km^2, 1965 – Now) is located d/s with a highest reported Q = 330cms in July 1990, with other large events in July of 1981, 1982, and 1986 (190 – 230cms). The rating curve shows a stage rise of just under 5m for the July 1990 event, with Q based on extrapolation (highest gauged event Q = 114cms, Y = 2.5m) and may be in the 260 – 300cms range. 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 = 147 km^2.
Q_p = 150 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 = 115 cms.