BF 78258 Local Road Over North Ram River
Hydrotechnical Summary

Channel Capacity :

S = 0.0065
B = 10 m, h = 1.2 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 1.2 m, V = 1.8 m/s, Q = 30 cms
At Channel Capacity : Y = 1.8 m, V = 2.5 m/s, Q = 70 cms

Historical Highwater Data :

Drift was to be removed from this site in July 1981, with HW noted at d/s bridges. The 1970 report notes a HWM with Y = 0.9m and the 1975 report notes a HWM with Y = 1.4m. HW was noted at BF77595 d/s in June 1980, July 1982, July 1986, May 1990, and July 1999.

WSC Gauge 05DC011 (DA = 348km^2, 1975 – Now) is located near this site and reports HW events in July 1981 (Q = 72cms, stage increase = 1.2m), June 1980 (Q = 54cms), and July 1999 (Q = 58cms). The largest gauged event was in June 1980 with Q = 51cms and Y = 1.0m increase, T = 25m, V = 2.2m/s). The largest storms in the database for this area are July 1981 with 140mm of rainfall, June 1972 with 120mm, and August 1925, June 1952, and June 1970 with 105mm.

Basin Runoff Potential :

d = 75 mm, T_p = 20 hrs, q = 1.05 cms/km^2
Gross DA = 273 km^2.
Q_p = 290 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 2.5 m/s, Q = 70 cms.