BF 70050 Hwy 730 Over Montagneuse River
Hydrotechnical Summary

Channel Capacity :

S = 0.001 (steeper locally due to realignments)
B = 7 m, h = 2.0 m, T_h = 15 m
Use n = 0.04

At Bank Height : Y = 2.0 m, V = 1.0 m/s, Q = 25 cms
At Channel Capacity : Y = 3.0 m, V = 1.4 m/s, Q = 55 cms

Historical Highwater Data :

HW was noted in June 1990 (Y = 1.4m) and April 1997 (Y = 2.5m). Reports from 1951, 1961, 1962, and 1968 note HWM with Y ~ 3.0 – 3.3m. Headslopes and bed were re-shaped, protected and rock weir added in 1968 following channel adjustment to cutoffs. The south headslope was protected with class 2 rock in 2006.

WSC Gauges 07FD012 (DA = 230, 1976 - 2003) is located at this site. It has recorded HW events in May 1984 (Qi = 30.6cms, stage rise = 2.2m), July 1988 (Qi = 19.9cms) and April 1997 (Qi = 28.4 cms). The largest storms in the storm database are 123mm of rainfall in Aug 1982, and about 110mm in Jul 1963.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 230 km^2.
Q_p ~ 190 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.4 m/s, Q = 55 cms.