BF 01092 Hwy 821 Over Parlby Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0016
B = 6 m, h = 2.3 m, T_h = 12 m
Use n = 0.045

At Bank Height : Y = 2.3 m, V = 1.2 m/s, Q = 25 cms
At Channel Capacity : Y = 3.3 m, V = 1.6 m/s, Q = 55 cms

Historical Highwater Data :

HW was noted in 1965 with water close to the deck and over the grade (Y = 3.3m, estimated Q = 25cms, scour at abutment). A 1967 report notes a HWM with y = 3m and estimates Q = 40cms. A 1983 report notes a HWM on the u/s girder (Y ~ 3 – 3.5m).

There are no WSC gauges on this stream. Gauges 05CD007 (DA = 515km^2, 1984 – Now) and 05CD902 (DA = 843km^2, 1983 – Now) are located on Parlby Ck d/s, reporting Q = 20cms in April 1996. Other gauges in the area suggest HW in April 1974, July 1990, July 1982 and May 1920. The largest storm in the database for this area is June 1970 with about 130mm of rainfall.

Basin Runoff Potential :

Close to d = 40mm (20 hrs) and d = 35mm (40 hrs) – use q = 0.4 cms/km^2.
Gross DA = 220 km^2.
Q_p = 90 cms.

Conclusion :

The channel capacity estimate appears to be consistent with historic data and is within the basin runoff potential.

Recommended parameters : Y = 3.3 m, V = 1.6 m/s, Q = 55 cms.