BF 73202 Hwy 40 Over Luscar Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.014
B = 4 m, h = 1.0 m, T_h = 10 m (LIDAR)
Use n = 0.05

At Bank Height : Y = 1.0 m, V = 1.8 m/s, Q = 13 cms
At Channel Capacity : Y = 1.5 m, V = 2.6 m/s, Q = 30 cms

Historical Highwater Data :

HW was observed in 1964 (Ice to stringer, Y ~ 1.0m), 1969 (washout, Qest ~ 17cms), and 1970 (channel realigned). A 1972 survey notes a HWM with Y ~ 1.5m, and a 1999 design was based on Y = 2m, and Q = 48cms.

There are no gauges on this stream. Gauges in the area suggest large events in 1969, and 1980. The storm database suggests large rainfall events in June 1980 (~160mm), Aug. 1969 (130mm), and about 110mm in June 1958, July 1986 and July 1987.

Basin Runoff Potential :

d ~ 70 – 80mm (Q ~ 1 – 1.1cms/km^2)
DA = 32km^2
Q_p ~ 35cms

Conclusion :

Channel capacity governs and is consistent with historic observations.

Recommended parameters : Y = 1.5m , V = 2.6 m/s, Q = 30 cms.