BF 77060 Hwy 881 Over Surmont Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 5 m, h = 2.0 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 2.0 m, V = 1.3 m/s, Q = 20 cms
At Channel Capacity : Y = 3.0 m, V = 1.9 m/s, Q = 50 cms

Historical Highwater Data :

HW was noted to bottom of stringer in 1982 (Y ~ 2m). A 1969 report notes that water may go over the road (Y ~ 2m) and a 2003 BIM report notes a HWM with Y = 2.1m.

There are no WSC Gauges on this stream. There is a gauge on Gregoire Lake d/s reporting the largest event in July 1970, with other large runoff events in 1977, 1985, and 2005. The largest storms in the storm database are about 160mm in July 1960, ~ 140mm in August 1980 and 1995, and ~ 120mm in June 1970 and August 1976.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 180 km^2.
Q_p ~ 100 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.9 m/s, Q = 50 cms.