BF 07391 Hwy 16 Over Kilini Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0007
B = 2.5 m, h = 1.2 m, T_h = 4 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 0.5 m/s, Q = 2 cms
At Channel Capacity : Y = 1.8 m, V = 0.8 m/s, Q = 5 cms

Historical Highwater Data :

HW is reported for the previous 18' bridge at Y = 1.8m in August 1954. Also, HW is reported to 0.5m below the outlet crown in July 1986 (Y = 1.3m). HW is also on record for these events at BF13905 just d/s, as well as June 1965 (Q = 6cms) and water over the highway in 1954 (previous grade and structure).

There are no WSC gauges on this stream. Gauges in the area report HW events in April 1971, April 1974, July 1986, and July 1990. The largest storms in the database for this area are June 1944 with about 150mm of rainfall, and July 1982 with about 120mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 38 km^2.
Q_p = 26 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 = 0.8 m/s, Q = 5 cms.