BF 00178 Local Road Over Dogpound Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0007
B = 14 m, h = 4.0 m, T_h = 24 m
Use AT equation

At Bank Height : Y = 4.0 m, V = 1.7 m/s, Q = 125 cms
At Channel Capacity : Y = 5.0 m, V = 2.0 m/s, Q = 200 cms

Historical Highwater Data :

Washouts occurred in 1901 and HW was noted in 1902 with Y = 4.0m. The east abutment was washed out in 1948 (ice run). A 1958 report notes a HWM with Y = 5.0m, and reports in 1966 and 1967 note HWM with Y = 3.0 – 4.0m.

There are no WSC gauges on Dogpound Ck. Nearby gauges with longer records show a wide variety of flood responses, with some of the more common being in June 1990 and May 1967. The largest storms in the database for this area are June 1970 and June 1928 with about 120mm of rainfall. There are many other storms with rainfall in the 90 to 100 mm range.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 995 km^2.
Q_p = 700 cms.

Conclusion :

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

Recommended parameters : Y = 5.0 m, V = 2.0 m/s, Q = 200 cms.