BF 00460 Local Road Over Dogpound Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0012
B = 12 m, h = 3.3 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 3.3 m, V = 1.9 m/s, Q = 95 cms
At Channel Capacity : Y = 4.3 m, V = 2.3 m/s, Q = 160 cms

Historical Highwater Data :

A 1957 report notes a HWM with Y = 4.0m and water having been over the west approach grade (possibly 1948). A 1966 report notes water to the bottom of steel (based on drift) and the subsequent design was based on Y = 4.6m. A 1996 BIM report notes a HWM with y = 2.5m and some erosion of the east bank d/s noted.

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 = 650 km^2.
Q_p = 450 cms.

Conclusion :

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

Recommended parameters : Y = 4.3 m, V = 2.3 m/s, Q = 160 cms.