BF 09588 Local Road Over Dogpound Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 10 m, h = 2.5 m, T_h = 15 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 2.1 m/s, Q = 65 cms
At Channel Capacity : Y = 3.5 m, V = 2.7 m/s, Q = 125 cms

Historical Highwater Data :

The 1951 report notes a HWM with Y = 2.7m, and a 2002 BIM report notes a HWM with Y = 1.5m. The 2003 preliminary engineering report refers to two houses in the floodplain u/s which apparently have seen water up to the foundations. Survey suggests HW about 0.5m above the top of bank (Y = 3.0m).

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 = 0.83 cms/km^2.
Gross DA = 275 km^2.
Q_p = 230 cms.

Conclusion :

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

Recommended parameters : Y = 3.5 m, V = 2.7 m/s, Q = 125 cms.