BF 07295 Hwy 766 Over Dogpound Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0012
B = 13 m, h = 3.5 m, T_h = 22 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 1.9 m/s, Q = 115 cms
At Channel Capacity : Y = 4.5 m, V = 2.3 m/s, Q = 190 cms

Historical Highwater Data :

A HWM from 1912 shows Y = 2.4m. Reports from 1958 and 1961 note a HWM with Y = 4.9m (close to the bridge deck at the time), with the 1961 report referring to ice damage to Y = 4.3 – 4.9m. HW was observed in April 1969 with Y ~ 3 – 3.5m.

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 = 900 km^2.
Q_p = 630 cms.

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 2.3 m/s, Q = 190 cms.