BF 08963 Hwy 672 Over Beavertail Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0006
B = 10 m, h = 4.0 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 4.0 m, V = 1.5 m/s, Q = 85 cms
At Channel Capacity : Y = 5.0 m, V = 1.9 m/s, Q = 130 cms

Historical Highwater Data :

HW has been reported at this site in 1965, April 1969, and June 1990 with Y in the 4.3 to 4.9m range. Other sites upstream also report large runoff events in 1965 and 1990.

WSC Gauge 07GD002 (DA = 662km^2, 1983 – Now) is located near this crossing. The largest event reported is Q = 123cms (Y = 4.1m > zero flow stage) in June 1990, although the largest gauged value is Q = 35cms (Y = 3.4m > zero flow stage). The next largest events are Q = 50cms in April 1997. The rating curve shows a sharp break at about Y = 3.1m (Q = 20cms), likely indicating the influence of the floodplain. The largest storms for this area in the storm database is about 100mm of rainfall in June 1964 and 1990.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1 cms/km^2.
Gross DA = 660 km^2 .
Q_p = 660 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 = 1.9 m/s, Q = 130 cms.