BF 71300 Local Road Over Steeprock Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 7 m, h = 2.5 m, T_h = 12 m
Use n = 0.045

At Bank Height : Y = 2.5 m, V = 1.6 m/s, Q = 35 cms
At Channel Capacity : Y = 3.5 m, V = 2.1 m/s, Q = 75 cms

Historical Highwater Data :

HW was noted in 1964 with water to 0.3m below the deck (Y = 3.6m). A 1998 BIM report notes a HWM with Y = 2.5m. The 1986 design was based on Y = 3.6m and Q = 65cms.

WSC Gauge 07GD002 (DA = 662km^2, 1983 – Now) located d/s on Beavertail Ck reports Q = 123cms in June 1990, (gauged at Q = 35cms), followed by Q = 50cms in April 1997. 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 = 260 km^2 .
Q_p = 260 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 = 2.1 m/s, Q = 75 cms.