BF 01447 Hwy 20 Over Blindman River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.01
B = 1 m, h = 1.0 m, T_h = 2 m
Use n = 0.05

At Bank Height : Y = 1.0 m, V = 1.7 m/s, Q = 2 cms
At Channel Capacity : Y = 1.5 m, V = 2.3 m/s, Q = 6 cms

Historical Highwater Data :

There are no HW observations at this site. A 1955 report for BF00712 u/s notes no outflow from Gull Lake in last 10 – 20 years. 1953 report for this site notes not much water but 2 pipes recommended due to icing problem.

WSC Gauge 05CC006 (DA = 289km^2, ~1960 – Now plus some spot measurements) is located u/s on Gull Lake. Stage rises up to 0.4m in a season have been recorded in 1982 and 1990, with other noticeable rises in 1974, 1981, and 1986. The storm database indicates that no storms have covered this basin with more than 100mm of rainfall, although storms in the 90mm range occurred in June and July of 1990.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 290 km^2 (routed through Gull Lake with DA about 1/3 of basin area).
Q_p = 2 cms (assume 5m weir with init. WL at top of weir and H = 0.4m)

Conclusion :

Basin runoff potential governs for this site and is consistent with historic observations.

Recommended parameters : Y = 1.0 m, V = 1.7 m/s, Q = 2 cms.