BF 77886 Hwy 986 Over Marten River
Hydrotechnical Summary

Channel Capacity :

S = 0.0001
B = 10 m, h = 1.8 m, T_h = 18 m.
Use AT equation

At Bank Height : Y = 1.8 m, V = 0.4 m/s, Q = 10 cms
At Channel Capacity : Y = 2.7 m, V = 0.6 m/s, Q = 25 cms

Historical Highwater Data :

A 1976 report estimates Q = 50 – 75cms. A 1981 inspection notes a HWM with Y = 3.5m (no description). A 1997 BIM report notes a HWM with Y = 0.5m.

Gauge 07HB001 is located just d/s of Cadotte Lake (DA = 880km^2, 1984 – Now), with a highest recorded flow in May 1997 of 33cms (stage rise of about 0.4m). The storm database indicates that the storms of June 1990 and 1993 covered this area with about 120mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 507 km^2.
Q_p = 350 cms.

Conclusion :

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

Recommended parameters : Y = 2.7 m, V = 0.6 m/s, Q = 25 cms.