BF 78277 Path Over North Saskatchewan River
Hydrotechnical Summary

Channel Capacity :

S = 0.0023
B = 60 m, h = 2 m, T_h = 80 m
Use AT Equation

At Bank Height : Y = 2.0 m, V = 1.8 m/s, Q = 250 cms
At Channel Capacity : Y = 3.0 m, V = 2.4 m/s, Q = 500 cms

Historical Highwater Data :

There are no HW observations on the bridge file.

WSC Gauge 05DA009 (DA = 1920km^2, 1970 – Now) reports Q ~ 380cms in 1972, with Q ~ 300 – 350cms many times. The rating curve shows a 2.5m grade raise at Q ~ 350cms.

Basin Runoff Potential :

Gross DA ~ 1990 km^2, beyond range of method.

Conclusion :

Channel capacity governs.

Recommended parameters : Y = 3.0 m, V = 2.4 m/s, Q = 500 cms.