BF 74107 Local Road Over Assineau River
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 8 m, h = 4.0 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 4.0 m, V = 2.4 m/s, Q = 125 cms
At Channel Capacity : Y = 5.0 m, V = 2.9 m/s, Q = 200 cms

Historical Highwater Data :

HW has been observed at this site in July 1961 (Y = 6.4m u/s, drift removed), July 1988 (0.7m above east approach, drift blockage, superstructure washed d/s), and June 1996 (east abutment washed out). The 1955 report notes a HWM with Y = 6.1m (0.6m over the deck). The 1974 report suggests that the deck height increased (degradation?) by 0.6m between 1961 and 1974.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1983, July 1988, and June 1996. The largest storms in the database for this area are July 1988 with about 125 mm of rainfall, and June 1961, July 1979, June 1983, and June 1993 with 105 mm.

Basin Runoff Potential :

d = 90mm, T_p = 20hrs, q = 1.25cms/km^2
Gross DA = 148 km^2.
Q_p = 185 cms.

Conclusion :

Basin runoff potential governs for this site (possibly due to increased channel capacity from degradation) and is consistent with historic observations accounting for headloss through the bridge due to blockage.

Recommended parameters : Y = 4.8 m, V = 2.8 m/s, Q = 185 cms.