BF 08347 Hwy 858 Over Plamondon Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 3 m, h = 1.4m, T = 6 m
Use n = 0.05

At Bank Height : Y = 1.4 m, V = 0.6 m/s, Q = 4 cms
At Channel Capacity : Y = 2.1 m, V = 0.9 m/s, Q = 9 cms

Historical Highwater Data :

A 1961 report notes a HWM with Y = 1.2m and estimates Q = 9cms. A 2003 design report notes that water has been close to the girders several times (local information) and estimates Y = 2m and Q = 15cms.

There are no WSC Gauges on this stream. Gauges in the area indicate HW events occurred in June 1920, and April 1971, 1974, and 1997. Gauge 07CA004 on Lac La Biche (1976 – Now) d/s shows the highest level in 1997, with 1996 and 1979 also being relatively high. There are no storms in the database that exceed 100mm of rainfall for this area.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 116 km^2.
Q_p = 64 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 0.9 m/s, Q = 9 cms.