BF 07809 Hwy 740 Over Peace River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.025
B = 2 m, h = 1.2 m, T_h = 5 m (estimated from u/s)
Use n = 0.06

At Bank Height : Y = 1.2 m, V = 2.1 m/s, Q = 9 cms
At Channel Capacity : Y = 1.8 m, V = 3.2 m/s, Q = 23 cms

Historical Highwater Data :

Flooding of u/s field noted in 2004 (Y = 1.8m in BIM report), but likely due to reduced capacity caused by deposition near drift catcher at u/s end of pipe. A 1998 BIM report notes a HWM with Y = 1.0m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1974 and April 1997. The largest storm in the database for this area is 100mm in July 1957.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.83 cms/km^2.
Gross DA = 37 km^2.
Q_p = 30 cms.

Conclusion :

Channel at site is not representative of u/s channel. Based on capacity at BF71546 u/s and accounting for additional inflow, design Q ~ 20cms.

Recommended parameters : Y = 1.7 m, V = 3.0 m/s, Q = 20 cms.