BF 73949 Hwy 2 Over Peace River
Hydrotechnical Summary

Channel Capacity :

S = 0.0003
B = 300 m, h = 12 m, T_h = 400 m
Use AT equation

At Bank Height : Y = 12 m, V = 2.6 m/s, Q = 11000 cms
At Channel Capacity : Y = 13 m, V = 2.8 m/s, Q = 13000 cms

Historical Highwater Data :

HW was observed in 1990 (4.5m below top of bank, Y ~ 10m – gauge rating curve). The 1957 design was based on Y ~ 13m.

WSC Gauge 07FD003 (DA = 130,000km^2, 1960 – 1969, 1974 - Now) reports Q ~ 11000cms (Y ~ 11.5m) in June 1964 (gauged at Q ~ 8000cms), and Q ~ 9000cms in 1961, 1965, and 1967. These events were dominated by inflows upstream of the Bennett Dam (near Gauge 07EF001, DA ~ 73,000km^2) which was opened in 1968. Since then, routing has reduced peak dam outflows. The largest dam outflow dominated flows since have been Q ~ 7400cms (1996) and Q ~ 6400cms (1972). The largest events dominated by inflows d/s of the dam have been Q ~ 7800cms (1990), Q ~ 6000cms (1987, 2001), and Q ~ 5500cms (1971, 1976, 1977).

Basin Runoff Potential :

DA = 130,000km^2, beyond range of basin runoff potential technique.

Conclusion :

Historic observations govern. Recommended parameters :

Y = 10.0m, V = 2.4 m/s, Q = 8000 cms
EL 346.0m (1924-P)