BF 00135 Hwy 2 Over Belly River
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 35 m, h = 2.5 m, T_h = 60 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 1.8 m/s, Q = 220 cms
At Channel Capacity : Y = 3.5 m, V = 2.4 m/s, Q = 450 cms

Historical Highwater Data :

HW has been recorded in July 1901 (to bottom chord), February 1907 (ice blockage, flow over road), June 1908 (south approach washout), February 1916 (over south bank, bridge destroyed by ice), June 1948 (d/s bridge washed out), June 1951 (over hwy from colony to bridge), June 1953 (to bottom chord, Y ~ 3.0 – 3.3m), June 1955 (approach span piles washed out), June 1964 (Y ~ 3.0 – 3.3m at bridge, over road u/s), June 1975 (Y ~ 2.1 – 2.4m), and June 1995 (Y ~ 3.3. – 3.6m).

WSC gauge 05AD002 (DA = 1210km^2, 1911 – 1984) is located at this site. The largest flows reported are June 1975 (Q = 400cms), June 1964 (Q = 330cms), June 1953 (Q = 300cms), and June 1951 (Q = 270cms). Gauge 05AD005 (DA = 319km^2, 1912 – Now) is located u/s and reports the highest events in June 1964 (Q = 465cms), June 1975 (Q = 415cms), and June 1995 (Q = 330cms). The June 1995 event was also noted at gauge 05AD041 (DA = 657km^2, 1985 – Now) with Q = 570cms but this value appears questionable (extrapolated, sharp peak).

Basin Runoff Potential :

Gross DA = 1200 km^2, beyond the range of technique.

Conclusion :

Historic observations govern. Recommended parameters :

Y = 3.5 m, V = 2.4 m/s, Q = 450 cms
EL 986.0 m (4514-P)