BF 78730 Hwy 501 Over Lee Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 20 m, h = 2 m, T_h = 40 m
Use AT equation

At Bank Height : Y = 2 m, V = 2.2 m/s, Q = 130 cms
At Channel Capacity : Y = 3 m, V = 3.1 m/s, Q = 300 cms

Historical Highwater Data :

HW was observed in June 1995 (Y ~ 3m) and June 2002 (Y ~ 2m). The 1979 design was based on Y ~ 3.3m.

WSC Gauge 05AE002 (DA ~ 310 km^2, 1909-1914, 1920 – Now) reports Q ~ 320 cms (June 1964, gauged at Q ~ 250cms, 3m stage rise at peak), and Q ~ 300cms (June 1995).

Basin Runoff Potential :

d = 100 mm, T_p = 20 hrs, q ~ 1.4 cms/km^2.
Gross DA = 280 km^2.
Q_p = 400 cms.

Conclusion :

The channel capacity estimate is consistent with historic observations. Recommended parameters :

Y = 3.0 m, V = 3.1 m/s, Q = 300 cms.
EL 1130.0 m (8251-P)