BF 74710 Hwy 40 Over Berland River
Hydrotechnical Summary

Channel Capacity :

S = 0.007
B = 25 m, h = 2.5 m, T_h = 50 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 2.9 m/s, Q = 270 cms
At Channel Capacity : Y = 3.5 m, V = 3.9 m/s, Q = 550 cms

Historical Highwater Data :

HW was observed in 1969 (pier scour, drift), 1971 (washout, Y ~ 2.5 – 3m), and 1997 (Y ~ 2m). The 2008 design was based on Y ~ 3.5m (Q ~ 380cms).

WSC Gauge 07AC007 (DA ~ 4740km^2, 1986 – Now) reports Q ~ 1100cms in July 1997 and Q ~ 850cms (August 1987, stage increase ~ 3m), with highest gauging at Q ~ 600cms.

Basin Runoff Potential :

d = 70/100mm, q ~ 1.2cms/km^2
Gross DA ~ 550 km^2
Q_p ~ 650cms.

Conclusion :

Historic observations govern. Recommended parameters :

Y = 3.5 m, V = 3.9 m/s, Q = 550 cms.
EL 1382.5 m (DD1798)