BF 76558 Hwy 40 Over Wildhay River
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 25 m, h = 2.5 m, T_h = 40 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 2.7 m/s, Q = 200 cms
At Channel Capacity : Y = 3.5 m, V = 3.5 m/s, Q = 400 cms

Historical Highwater Data :

HW was observed in August 1969 (bank erosion), and June 1997 (Y ~ 2.5m). The 1969 design was based on Y ~ 3.5m.

WSC gauge 07AC001 (DA = 959 km^2, 1965 – Now) reports Q ~ 165cms (June 1980, gauged at Q ~ 140cms, stage rise ~ 2m) and Q ~ 130cms (June 1997).

Basin Runoff Potential :

Gross DA = 1030 km^2 (beyond range of technique)

Conclusion :

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

Y = 3.5 m, V = 3.5 m/s, Q = 400 cms.
EL 1227.0 m (5255-P)