BF 70566 Hwy 33 Over Paddle River
Hydrotechnical Summary

Channel Capacity :

S = 0.0003
B = 25 m, h = 4.5 m, T_h = 45 m
Use AT Equation

At Bank Height : Y = 4.5 m, V = 1.3 m/s, Q = 200 cms
At Channel Capacity : Y = 5.5 m, V = 1.5 m/s, Q = 300 cms

Historical Highwater Data :

HW was observed in June 1944 (Y ~ 5.5m), April 1974 (over approaches, Y ~ 5.5m), 1985 (Y ~ 2.5m), and August 1989 (Y ~ 3m). The 1958 design was based on Y ~ 4.5m.

Gauge 07BB006 (DA = 2380km^2, 1972 – Now) reports Q ~ 360cms (April 1974, gauged Q ~ 340cms, stage rise ~ 4.7m), and Q ~ 100cms (April 1982 and 1997).

Basin Runoff Potential :

Gross DA = 2340 km^2 (beyond range of technique)

Conclusion :

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

Y = 5.5 m, V = 1.5 m/s, Q = 300 cms.
EL 635.5 m (2348-C)