BF 74282 Highway 43 Over Paddle River
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 8 m, h = 4 m, T_h = 18 m
Use n = 0.040

At Bank Height : Y = 4 m, V = 1.5 m/s, Q = 75 cms
At Channel Capacity : Y = 5 m, V = 1.8 m/s, Q = 125 cms

Historical Highwater Data :

The 2000 design was based on Q=150cms (V=1.4m/s). Highwater was noted in 1974 (Y~3.5m) and 1989 (Y~4m).

WSC Gauge 07BB005 (DA~300km^2, operating 1965 – present) notes high flow events in 1989 (Q~100 cms), 1971 (Q~65cms), and 1965 (Q~65cms).

The storm on basin tool reports large rainfall events in June 1965 (140mm), June 1944 (130mm), August 1989 (120mm), and July 1990 (100mm).

Basin Runoff Potential :

d=50mm, Tp = 20 hrs, q = 0.69 cms/km^2
Gross DA= 310 km^2
Qp= 215 cms

Conclusion :

The channel capacity values are consistent with observed high water and within the basin runoff potential :

Y=5m, V=1.8m/s, Q=125cms