BF 81946 Local Road Over Saddle River
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 9 m, h = 3.0 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 3.0 m, V = 2.5 m/s, Q = 100 cms
At Channel Capacity : Y = 4.0 m, V = 3.2 m/s, Q = 190 cms

Historical Highwater Data :

HW was observed at this site in July 2004 with water over the grade and a partial washout of the low level crossing.

WSC gauge (DA = 538km^2, 1968 – Now) located d/s reports Q = 440cms in June 1968 and June 1990 (largest gauged measurement Q = 365cms in June 1990 with stage rise = 4.5m). The largest storms for this area in the storm database are about 110 - 120mm of rainfall in June 1964, 1965, and 1990.

Basin Runoff Potential :

d = 70 - 80 mm, T_p = 20 hrs, q = 1 – 1.1 cms/km^2.
Gross DA = 170 km^2.
Q_p = 190 cms.

Conclusion :

The channel capacity estimate is consistent with historic observations and the basin runoff potential.

Recommended parameters : Y = 4.0 m, V = 3.1 m/s, Q = 190 cms.