BF 71975 Hwy 677 Over Saddle River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.014
B = 2.5 m, h = 1.2 m, T_h = 6 m
Use n = 0.06

At Bank Height : Y = 1.2 m, V = 1.6 m/s, Q = 8 cms
At Channel Capacity : Y = 1.8 m, V = 2.4 m/s, Q = 20 cms

Historical Highwater Data :

HW was noted in June 1964 with water ponded 20' above the u/s crown (est. Q = 17cms). It was also noted that rock was washed 20m d/s following HW in June 1990. In 1968, it was decided not to add an additional pipe, but to repair a scour hole. A 2005 photo shows the inlet completely blocked by drift. The 1960 design was based on Y = 1.8m and Q = 7cms.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in June 1968, April 1974, June 1990, and April 1997. The largest storms in the storm database are ~ 110mm of rainfall in June 1964, 1965, and 1990.

Basin Runoff Potential :

d = 75 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 20 km^2.
Q_p = 20 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 2.4 m/s, Q = 20 cms.