BF 74328 Highway 543 Over Tongue Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004 (LiDAR)
B = 1.5 m, h = 0.8 m, T_h = 4 m
Use n = 0.05

At Bank Height : Y = 0.8 m, V = 0.8 m/s, Q = 2 cms
At Channel Capacity : Y = 1.3 m, V = 1.3 m/s, Q = 5 cms

Historical Highwater Data :

BIM HWMs reported Y~1.4m (1995), Y~1.6m (2003); reports of upstream ponding due to landowner's berm construction.

There are no WSC gauges on this stream. A gauge on Tongue Ck (05BL016, 1923-36, DA=267sqkm) reports HW in 1923 (Q~13cms). The largest storms in the database for this area are June 1992 with about 135mm of rainfall and June 1929 with about 120mm.

Basin Runoff Potential :

d = 40mm (near border between d = 60mm and d = 15mm), T_p = 20hrs, use q = 0.5 cms/km^2.
Gross DA = 12 km^2.
Q_p = 6 cms.

Conclusion :

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

Recommended parameters : Y = 1.3 m, V = 1.3 m/s, Q = 5 cms.