BF 77096 Local Road over tributary to Buck Lake Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.0055
B = 1.5 m, h = 1 m, T_h = 3 m
Use AT equation

At Bank Height : Y = 1.0 m, V = 0.9 m/s, Q = 2 cms
At Channel Capacity : Y = 1.5 m, V = 1.4 m/s, Q = 5 cms

Historical Highwater Data :

The only HW recorded in the file occurred in 1968; the 1969 bridge report indicated that the flow was over the road.

There are no WSC gauges in the basin. Gauge 05DE911 has been operational since 1996 (DA = 11700 km^2). The next closest gauge, 05DE009, is located on Tomahawk Creek and has records since 1984 (DA = 105 km^2). Both basins are considerably larger than the basin for BF 77096 (DA = 14 km^2). The largest storms over these basins occurred July of 1986, 1982 and 1990 and had a runoff of 141 mm, 139 mm and 128 mm respectively.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2
Gross DA = 14 km^2.
Q_p = 12 cms.

Conclusion :

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

Recommended parameters : Y = 1.5 m, V = 1.4 m/s, Q = 5 cms