BF 07683 Hwy 41 Over Sounding Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0003
B = 7 m, h = 2.0 m, T_h = 14 m
Use n = 0.04

At Bank Height : Y = 2.0 m, V = 0.6 m/s, Q = 11 cms
At Channel Capacity : Y = 3.0 m, V = 0.8 m/s, Q = 25 cms

Historical Highwater Data :

A 1915 note refers to several washouts on this stream. A 1942 note refers to a flood of several years prior with the deck lifted off (Y = 3 – 3.5m u/s). A 1954 report notes a HWM over the deck (Y = 3 – 3.5m). A 1968 design was based on Q = 48 – 60cms.

WSC gauge 05GA012 (DA = 2280 km^2, 1984 - Now) reports Q = 5cms in April 1997. Gauge 05GA008 (DA = 3000 km^2, 1968 - Now) reports Q = 26cms in April 1974 (stage rise of 2.3m for Q = 20cms). The largest storms in the storm database are June 1973 and July 1962 with about 130mm of rainfall.

Basin Runoff Potential :

d = 35mm, T_p = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 2660 km^2.
Q_p = 665 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 0.8 m/s, Q = 25 cms.