BF 08814 Hwy 47 Over Sundance Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 8 m, h = 2.0 m, T_h = 15 m
Use n = 0.04

At Bank Height : Y = 2.0 m, V = 1.9 m/s, Q = 45 cms
At Channel Capacity : Y = 3.0 m, V = 2.7 m/s, Q = 100 cms

Historical Highwater Data :

HW was noted in July 1965 (about 2' below the u/s crown, estimated Q = 40cms). The 1962 design was based on Y = 3.5m, and a 1990 assessment estimated Q = 90cms.

WSC gauge 07AF012 (DA = 174km^2, 1973 – Now) reports Q = 17cms in July 1982 and 1997. The largest storms in the database for this area are June 1958 and July 1965 with about 110mm of rainfall.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.83 cms/km^2.
Gross DA = 397 km^2.
Q_p = 330 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 2.7 m/s, Q = 100 cms.