BF 71821 Hwy 682 Over Hines Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 12 m, h = 2.5 m, T = 20 m
Use AT equation

At Bank Height : Y = 2.5 m, V = 2.7 m/s, Q = 110 cms
At Channel Capacity : Y = 3.5 m, V = 3.5 m/s, Q = 210 cms

Historical Highwater Data :

HW has been noted at this site in 1948 (bridge washed away), May 1951 (high V, drift erosion, Y = 2.5 – 3.0m), May 1958 (Y = 2.5 – 3.0m, scour at east abutment), and June 1990 (Y = 1.2m).

WSC gauge 07FD011 (DA = 374km^2, 1975 – Now) reports highest flows of Q = 45cms (stage increase = 2.7m) in May 1984 and Q = 30cms in June 1990, with the highest gauged Q = 8cms in April 1990. WSC gauge 07FD008 (DA = 1240km^2, 1972 – 1991) report the highest flow of Q = 120cms in April 1974. The largest storms in the storm database are July 1963 and July 1987 with about 105mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7cms/km^2.
Gross DA = 1240 km^2
Q_p = 870 cms.

Conclusion :

The channel capacity estimate for this site is consistent with historic observations and is within basin runoff potential.

Recommended parameters : Y = 3.5 m, V = 3.5 m/s, Q = 210 cms