BF 73439 Hwy 35 Over Bede Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.00045
B = 6 m, h = 2.5 m, T_h = 14 m
Use n = 0.04

At Bank Height : Y = 2.5 m, V = 0.7 m/s, Q = 18 cms
At Channel Capacity : Y = 3.5 m, V = 1.0 m/s, Q = 40 cms

Historical Highwater Data :

HW was noted in 1957 (Y = 3.5m, estimated Q = 27cms), April 1963 (over grade, Y = 3.0m d/s, Q ~ 40cms if no blockage), and May 1968 (Y = 2.5m d/s). An MPA (2004) report states that maintenance personnel reported that water went over the highway in 1974 and that water levels above the crown were common.

There are no gauges on this stream. Gauges in the area suggest HW events in May 1974, June 1977, and May 1979, and April 1997. The storm database indicates that the largest rainfall events are June 1991 and July 1987 (140mm).

Basin Runoff Potential :

d = 40mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 886 km^2.
Q_p = 490cms.

Conclusion :

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

Recommended parameters : Y = 3.5m, V = 1.0 m/s, Q = 40 cms