BF 76634 Hwy 58 Over Sousa Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 10 m, h = 3.3 m, T_h = 18 m
Use AT equation

At Bank Height : Y = 3.3 m, V = 1.7 m/s, Q = 75 cms
At Channel Capacity : Y = 4.3 m, V = 2.1 m/s, Q = 130 cms

Historical Highwater Data :

HW was noted in May 1969 (1.8m below deck, Y = 4.3m), June 1979 (scour of right bank, marks on nose plate suggest Y = 4.0m), and June 1986 (Y = 3.2m). The 1968 design was based on a HW mark about 3.0m above the ice level (Y ~ 4.0m).

There are no WSC gauges on this stream. Gauge 07OA001 on Sousa Ck notes a HW event in June 1977. The storm database notes storms in July 1987 (190mm), July 1998 (150mm), and August 1993 (140mm).

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 870 km^2.
Q_p = 480 cms.

Conclusion :

The channel capacity values are consistent with historic observations, and are within the range of basin runoff supply.

Recommended parameters : Y = 4.3 m, V = 2.1 m/s, Q = 130 cms.