BF 74611 Hwy 897 Over Marwayne Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 4 m, h = 1.2 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.2 m, V = 0.9 m/s, Q = 6 cms
At Channel Capacity : Y = 1.8 m, V = 1.3 m/s, Q = 15 cms

Historical Highwater Data :

HW was noted 6' (1.8m) above stream bed in 1956. Past designs have been based on Q of 17 – 20cms. In 1974, HW was noted at BF 74613 (maybe to top deck, Y ~ 1.8m d/s) and BF78035 (Y ~ 1.8m downstream of the culvert).

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1997. The largest storms in the storm database are about 120mm of rainfall in Aug 1982, and about 110mm in Jul 1963.

Basin Runoff Potential:

d =35 mm, T_p = 40 hrs, q = 0.25 cms/km^2 (near q = 0.55cms/km^2 area).
Gross DA = 30 km^2.
Q_p = 8 cms (16 cms at q = 055cms/km^2).

Conclusion :

Channel capacity estimate is consistent with historic observations, and is within the range of runoff potential for the area.

Recommended parameters: Y = 1.8 m, V = 1.3 m/s, Q = 15 cms