BF 70294 Hwy 688 Over Pats Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 4 m, h = 1.5 m, T_h = 8 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 1.4 m/s, Q = 12 cms
At Channel Capacity : Y = 2.3 m, V = 2.1 m/s, Q = 30 cms

Historical Highwater Data :

HW was noted in 1958 (washout, Q ~ 23 – 28cms), April 1965 (Full Flow, Y = 2.1m d/s, ~1m headloss, Q ~ 18cms), and April 1974 (Ponding to 3' below u/s crown, Q ~ 28cms). A 1994 BIM report notes a HWM with Y = 4m u/s.

There are no gauges on this stream. Gauges in the area suggest large runoff events in April 1965, April 1974, and April 1997. The largest storm in the storm database is 90mm of rainfall in July 1935.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 150 km^2.
Q_p = 130 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 2.1 m/s, Q = 30 cms.