BF 74884 Local Road Over Pine Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 2 m, h = 1.0 m, T_h = 5 m
Use n = 0.055

At Bank Height : Y = 1.0 m, V = 0.8 m/s, Q = 3 cms
At Channel Capacity : Y = 1.5 m, V = 1.2 m/s, Q = 7 cms

Historical Highwater Data :

A 1958 report notes a HWM over the grade (Q_{est} = 5cms) and bases the design on Q = 7.5cms. Scour holes at both ends were repaired with rock in 1966. A 1998 BIM report notes a HWM with Y = 1m.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1974, August 1996 and April 1997. The largest storms in the storm database are about 100mm of rainfall in June 1970, June 1973, and August 1980.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 18 km^2.
Q_p = 10 cms.

Conclusion :

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

Recommended parameters : Y = 1.5 m, V = 1.2 m/s, Q = 7 cms.