BF 77411 Local Road Over Pine Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 1 m, h = 0.7 m, T_h = 3 m
Use n = 0.055

At Bank Height : Y = 0.7 m, V = 0.5 m/s, Q = 1 cms
At Channel Capacity : Y = 1.2 m, V = 0.9 m/s, Q = 3 cms

Historical Highwater Data :

A 2002 assessment reports that HW has been over the grade multiple times (Y ~ 1.8m u/s, Q ~ 2 – 3cms with no blockage), and flooded u/s basement at least once. The 1971 report notes a HWM over the grade with the previous small culverts and estimates Q ~ 4cms.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in June 1920, April 1971, April 1974, and April 1997. The largest storms in the storm database are about 90mm of rainfall in July 1931, June 1970, and August 1980.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 40 km^2.
Q_p = 22 cms.

Conclusion :

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

Recommended parameters : Y = 1.2 m, V = 0.9 m/s, Q = 3 cms.