BF 70798 Local Road Over Poplar Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.006
B = 3 m, h = 2.0 m, T_h = 7 m
Use n = 0.055

At Bank Height : Y = 2.0 m, V = 1.6 m/s, Q = 15 cms
At Channel Capacity : Y = 3.0 m, V = 2.4 m/s, Q = 40 cms

Historical Highwater Data :

HW was noted in July 1986 (bevel damage, drift), and July 2001 (to inlet crown). A large d/s scour hole was observed in 2003. A 1953 report estimates Q = 10cms and a 1955 report notes a HWM with Y = 2.7m. A 2003 assessment was based on Q = 21cms and Y = 2.3m. HW was noted at BF73947 d/s in July 1986 with water over the road (Q > 30cms if no blockage).

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in June 1965, June 1980, July 1982, July 1986, July 1990, and July 1999. The largest storm in the storm database is about 150mm of rainfall in July 1982, and about 120mm in July 1990 and June 1965.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 47 km^2.
Q_p = 40 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 2.4 m/s, Q = 40 cms.