BF 71294 Local Road Over Sturgeon Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 2 m, h = 1.2 m, T_h = 5 m (assumed)
Use n = 0.055

At Bank Height : Y = 1.2 m, V = 0.8 m/s, Q = 3 cms
At Channel Capacity : Y = 1.8 m, V = 1.2 m/s, Q = 9 cms

Historical Highwater Data :

A 1960 report notes a HWM with Y = 1.2m and estimates Q = 6 – 7cms. A 1998 BIM report notes a HWM with Y = 1.8m (drift blockage). HW was noted at BF71748 u/s in June 1996.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in August 1976, April 1977, August 1987, June 1996, and April 1997. The largest storms in the storm database are about 100mm of rainfall in July 1983, June 1990, and June 1996.

Basin Runoff Potential :

d = 65 mm, T_p = 20 hrs, q = 0.9 cms/km^2.
Gross DA = 14 km^2.
Q_p = 12 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.2 m/s, Q = 9 cms.