BF 02404 Local Road Over Sturgeon River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 2 m, h = 1.2 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 1.1 m/s, Q = 5 cms
At Channel Capacity : Y = 1.8 m, V = 1.6 m/s, Q = 12 cms

Historical Highwater Data :

A 1968 report estimates Q = 11cms and notes that HW may have been to the bottom flange. A 2006 photo shows a hanging outlet and large d/s scour hole. HW was noted at BF75155 u/s in April 1962.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in August April 1971, April 1974, and April 1982. The largest storms in the storm database are about 155mm in July 1953, and 110mm in July 1937 and June 1965.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 35 km^2.
Q_p = 19 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 = 1.6 m/s, Q = 12 cms.