BF 75756 Local Road Over Little Smoky River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0045
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 :

HW was noted in May 1963 with a small pipe washing out (capacity = 2 – 3cms). A 1967 note estimated the capacity of the bridge at Q = 7cms with Y = 1.4m. A 1997 BIM report notes a HWM with Y = 1.6m, but notes that there is ponding due to a d/s beaver dam.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1990, 1994, and 1997. The largest storms for this area in the storm database are about 110mm of rainfall in August 1982 and June 1993.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 23 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.