BF 72586 Local Road Over Little Smoky River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.006
B = 2 m, h = 1.2 m, T_h = 5 m
Use n = 0.05

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

Historical Highwater Data :

A 1954 report notes a HWM with Y = 0.9m and estimates Q = 7cms. HW was observed over the grade twice in spring 1963, with an estimated Q = 15cms. Rock was recommended to be added in 1974. A 2002 assessment was based on Q = 8cms and Y = 0.9m.

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 = 18 km^2.
Q_p = 15 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 = 1.8 m/s, Q = 12 cms.