BF 78591 Local Road Over Little Smoky River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 4 m, h = 1.5 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 1.4 m/s, Q = 15 cms
At Channel Capacity : Y = 2.25 m, V = 2.0 m/s, Q = 35 cms

Historical Highwater Data :

HW was observed in May 1977 (downstream channel erosion, rock too small). The 1975 design was based on Y = 2.4m and Q = 14cms. The 1992 design was based on Y = 1.8m and Q = 28cms.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1997 and April 2003. The largest storms in the storm database are about 120mm of rainfall in August 1982, and about 110mm in June 1990 and June 1996.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 65 km^2.
Q_p = 54 cms.

Conclusion :

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

Recommended parameters : Y = 2.25 m, V = 2.0 m/s, Q = 35 cms.