BF 02190 Local Road Over White Earth Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.006
B = 3 m, h = 0.8 m, T_h = 6 m
Use n = 0.055

At Bank Height : Y = 0.8 m, V = 1.0 m/s, Q = 4 cms
At Channel Capacity : Y = 1.3 m, V = 1.5 m/s, Q = 10 cms

Historical Highwater Data :

Icing problems were noted prior to construction of a culvert in 1969, and the pipe was completely blocked by a beaver dam in 1993.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1971, April 1974, April 1978, and April 1997. The largest storms in the storm database are 105mm of rainfall in June 1973, and about 85mm in July 1937, June 1944, and June 1962.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 62 km^2.
Q_p = 35 cms.

Conclusion :

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

Recommended parameters : Y = 1.3 m, V = 1.5 m/s, Q = 10 cms.