BF 13148 Local Road Over Bear River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 4 m, h = 1.6 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.6 m, V = 1.3 m/s, Q = 12 cms
At Channel Capacity : Y = 2.4 m, V = 1.8 m/s, Q = 30 cms

Historical Highwater Data :

The 1954 report for this site notes a HWM with Y = 2.1m and estimates Q = 14cms. A note from 1982 reports that water frequently overtops the grade to the east (Y = 2.0m). The 1998 BIM report notes a HWM with Y = 2.0m.

There are no WSC gauges on this stream. Gauges in the area suggest a HW event in April 1997. The largest storms in the storm database are June 1964 with about 130mm, and June 1965, June 1971, and June 1990 with about 100mm.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 80 km^2.
Q_p = 66 cms.

Conclusion :

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

Recommended parameters : Y = 2.4 m, V = 1.8 m/s, Q = 30 cms.