BF 08827 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 :

A 1959 report estimates Q = 17cms. A 1996 BIM report notes a HWM with Y = 2m. The 1999 design is based on Y = 2.2m and Q = 29cms.

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 = 88 km^2.
Q_p = 73 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.