BF 78318 Local Road Over Bear River
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 5 m, h = 2.0 m, T_h = 11 m
Use n = 0.045

At Bank Height : Y = 2.0 m, V = 1.6 m/s, Q = 25 cms
At Channel Capacity : Y = 3.0 m, V = 2.3 m/s, Q = 60 cms

Historical Highwater Data :

HW was noted in June 1986 (water to the deck and over the north approach, Y = 3.0m). A 1970 report notes a HWM with Y = 2.1m, and a 1975 report notes a HWM over the deck (Y ~ 2.5 – 3.0m).

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in August 1984, April 1987, and April 1997. The largest storms in the storm database are about 200mm of rainfall in July 1987, and about 150mm in June 1986 and June 1991.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 90 km^2.
Q_p = 90 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 2.3 m/s, Q = 60 cms.