BF 70516 Hwy 43 Over Bear River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 1.5 m, h = 0.8 m, T_h = 3 m
Use n = 0.05

At Bank Height : Y = 0.8 m, V = 0.7 m/s, Q = 1 cms
At Channel Capacity : Y = 1.3 m, V = 1.1 m/s, Q = 4 cms

Historical Highwater Data :

A 1953 report notes a HWM with Y = 1.2m and Q = 6cms. The 1998 design was based on Q = 8cms. A 2000 BIM report notes a HWM with Y = 1m.

There are no gauges on this stream. Gauges in the area suggest large runoff events in June 1968, April 1974, August 1987, June 1990, and April 1997. The largest storms in the database for this area are 110mm of rainfall in June 1965, August 1982, and June 1990.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.83 cms/km^2.
Gross DA = 33 km^2.
Q_p = 27 cms.

Conclusion :

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

Recommended parameters : Y = 1.3 m, V = 1.1 m/s, Q = 4 cms.