BF 13892 Hwy 689 Over Beaton Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0004
B = 9 m, h = 2.5 m, T_h = 15 m
Use n = 0.04

At Bank Height : Y = 2.5 m, V = 0.7 m/s, Q = 22 cms
At Channel Capacity : Y = 3.5 m, V = 1.0 m/s, Q = 45 cms

Historical Highwater Data :

A 1982 report notes a HWM with Y = 3.3m and a 1968 report notes a HWM with Y = 1.5m and estimates Q = 34cms. The 1969 survey notes a HWM with Y = 4.0m (based on observation from local residents), and a 1999 BIM report notes a HWM with Y = 1.5m. HW was noted d/s at BF 74213 in May 1958 (dyke washout), May 1964 (Y = 3.3m, dyke washout, drift), May 1965 (Y = 3.3m), and 1978 (drift jam, d/s floodgate washout).

There are no WSC gauges on this stream. Gauges in the area suggest HW in June 1963, May 1964, June 1972, May 1974, June 1977, May 1978, May 1984, and June 1990. The largest storms in the database for this area are about 120mm in August 1982 and 110 mm in July 1963.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 272 km^2.
Q_p = 190 cms.

Conclusion :

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

Recommended parameters : Y = 3.5 m, V = 1.0 m/s, Q = 45 cms.