BF 71329 Local Road Over Athabasca River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 2 m, h = 1.0 m, T_h = 4 m
Use n = 0.05

At Bank Height : Y = 1.0 m, V = 0.7 m/s, Q = 2 cms
At Channel Capacity : Y = 1.5 m, V = 1.0 m/s, Q = 5 cms

Historical Highwater Data :

A 1951 report notes a HWM with Y = 1.5m and estimates Q = 3cms. A 1957 report notes a HWM with Y = 1.2m and estimates Q = 4cms. A 1999 BIM report notes a HWM with Y = 1.0m (drift to inlet crown). HW was noted at BF72111 u/s in April 1974 with a culvert washout.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1970, July 1971, April 1974, July 1986, July 1988 and April 1997. The largest storms in the storm database are about 110mm in June 1970, and June 1971.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 49 km^2.
Q_p = 27 cms.

Conclusion :

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

Recommended parameters : Y = 1.5 m, V = 1.0 m/s, Q = 5 cms.