BF 72615 Local Road Over Spirit River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 4 m, h = 3.0 m, T_h = 10 m
Use n = 0.05

At Bank Height : Y = 3.0 m, V = 1.5 m/s, Q = 32 cms
At Channel Capacity : Y = 4.0 m, V = 2.1 m/s, Q = 65 cms

Historical Highwater Data :

A 2004 BIM report notes a HWM with Y = 3.0m (based on grass on struts). A 1954 report notes a HWM with Y = 1.7m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1968 and June 1990. The largest storms for this area in the storm database are about 110 mm of rainfall in July 1935, August 1982, and June 1990.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 121 km^2.
Q_p = 100 cms.

Conclusion :

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

Recommended parameters : Y = 4.0 m, V = 2.1 m/s, Q = 65 cms.