BF 74198 Local Road Over Ksituan River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 2 m, h = 1.4 m, T = 5 m
Use n = 0.05

At Bank Height : Y = 1.4 m, V = 1.2 m/s, Q = 6 cms
At Channel Capacity : Y = 2.1 m, V = 1.9 m/s, Q = 15 cms

Historical Highwater Data :

A 1958 report notes that water has been over the road. A 1970 note states that Alberta Environment channel improvements u/s were designed based on Q = 12cms. A slide occurred in 1991, and the inlet was noted to be blocked by drift in 1997.

There are no gauges on this stream. Gauges in the area suggest HW events in June 1968, April 1974, May 1984, June 1990, April 1997. The largest storms in the storm database are about 110mm in July 1935 and June 1990, and 100mm in August 1982.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 79 km^2.
Q_p = 66 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 1.9 m/s, Q = 15 cms.