BF 72966 Local Road Over Rousseau Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 3 m, h = 1.8 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.8 m, V = 1.2 m/s, Q = 10 cms
At Channel Capacity : Y = 2.7 m, V = 1.8 m/s, Q = 25 cms

Historical Highwater Data :

A 1954 report notes a HWM with Y = 2.7m. A 1959 report notes a HWM with Y = 2.7m and estimates Q = 14cms. A 1990 BIM report notes a HWM with Y = 2m.

There are no WSC gauges on Rousseau Ck. Gauge 07HC002 on Buchanan Ck reports its highest flow in June 1990. Other gauges in the area suggest HW events in May 1964, July 1972, July 1963, June 1977, May 1978, and April 1997. The largest storms in the storm database for this area are August 1982 (120mm) and July 1963 (90mm).

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 92 km^2.
Q_p = 50 cms.

Conclusion :

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

Recommended parameters : Y = 2.7 m, V = 1.8 m/s, Q = 25 cms.