BF 07229 Hwy 20 Over Anderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 8 m, h = 4.0 m, T_h = 18 m
Use n = 0.04

At Bank Height : Y = 4.0 m, V = 1.5 m/s, Q = 75 cms
At Channel Capacity : Y = 5.0 m, V = 1.8 m/s, Q = 130 cms

Historical Highwater Data :

HW was noted in May 1948 (Y ~ 3.5m), 1965 (Y ~ 2.5m), 1974 (Ice jam, close to u/s crown), July 1982 (0.7m above u/s crown, estimated Q = 70cms), July 1986 (close to u/s crown), July 1990 (0.9m over road, estimated Q = 100cms in pipes plus flow over road), and July 2000 (1m over u/s crown, close to d/s crown).

There are no WSC gauges on Anderson Ck. Gauges on the Blindman River d/s suggest HW events in 1974, 1981, 1986, 1990, and 2000. The largest storms in the storm database for this area are July 1990 (140mm), July 1982 and July 1986 (120mm).

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 161 km^2.
Q_p = 161 cms.

Conclusion :

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

Recommended parameters : Y = 5.0 m, V = 1.8 m/s, Q = 130 cms.