BF 07649 Local Road Over Amisk Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0008
B = 5 m, h = 2.0 m, T_h = 10 m
Use n = 0.05

At Bank Height : Y = 2.0 m, V = 0.8 m/s, Q = 11 cms
At Channel Capacity : Y = 3.0 m, V = 1.1 m/s, Q = 27 cms

Historical Highwater Data :

HW was noted in April 1956 over the deck (Y = 3.5m u/s), estimated Q = 16 – 20cms. A 1980 report notes a HWM 0.8m below the deck (Y = 3.2m) and estimated Q = 26cms. A 1990 BIM report notes a HWM with Y = 2.7m. The 1989 design was based on Q = 27cms.

WSC Gauge 05EB016 (DA = 377km^2, 1976 – 1996) reports Q = 14cms in March 1985 (rating curve suggests 2.1m rise in stage). Other gauges in the area suggest a large runoff event in April 1974. The largest storm in this area in the storm database is June 1965 with about 120mm of rainfall.

Basin Runoff Potential :

d = 35 mm, T_p = 40 hrs, q = 0.25 cms/km^2.
Gross DA = 283 km^2.
Q_p = 71 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.1 m/s, Q = 27 cms.