BF 77109 Local Road Over Maskwa Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0005
B = 5 m, h = 1.4 m, T_h = 8 m
Use n = 0.04

At Bank Height : Y = 1.4 m, V = 0.6 m/s, Q = 5 cms
At Channel Capacity : Y = 2.1 m, V = 0.8 m/s, Q = 12 cms

Historical Highwater Data :

HW was noted in April 1974 (approach washed out), and July 1990 (Y = 1.4m). The 1969 design was based on Q = 20cms.

WSC gauge 05FA014 (DA = 80km^2, 1972 – Now) reports Q = 9cms in April 1974 (stage rise = 1.3m, gauged), and Q = 5.5cms in April 1982. The largest storms in the storm database are July 1990 with 125mm of rainfall, June 1911 with 110mm and July 1982 with 105mm.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2.
Gross DA = 141 km^2.
Q_p = 35 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 0.8 m/s, Q = 12 cms.