BF 71672 Local Road Over Hines Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0003 (d/s of Gerry Lake)
B = 20 m, h = 2.0 m, T = 30 m
Use AT equation

At Bank Height : Y = 2.0 m, V = 0.8 m/s, Q = 40 cms
At Channel Capacity : Y = 3.0 m, V = 1.1 m/s, Q = 85 cms

Historical Highwater Data :

A 1958 report refers to a HWM with Y = 2.4m. Reports from 1953 and 1966 as well as photos from 1986 and 1997 show Y = 1.8 – 2.1m.

WSC gauge 07FD011 (DA = 374km^2, 1975 – Now) reports highest flows of Q = 45cms (stage increase = 2.7m) in May 1984 and Q = 30cms in June 1990, with the highest gauged Q = 8cms in April 1990. WSC gauge 07FD008 (DA = 1240km^2, 1972 – 1991) report the highest flow of Q = 120cms in April 1974. The largest storms in the storm database are July 1963 and July 1987 with about 105mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7cms/km^2.
Gross DA = 485 km^2
Q_p = 340 cms.

Conclusion :

The channel capacity estimate for this site is consistent with historic observations and is within basin runoff potential.

Recommended parameters : Y = 3.0 m, V = 1.1 m/s, Q = 85 cms