BF 73977 Local Road Over Sun Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 3 m, h = 1.6 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.6 m, V = 1.2 m/s, Q = 9 cms
At Channel Capacity : Y = 2.4 m, V = 1.9 m/s, Q = 22 cms

Historical Highwater Data :

Hw was noted in 1952 (Y = 2.4m), July 1982 (Y = 2.2m), and July 1990 (1.9m above u/s crown, inlet plugged with drift). A 1952 report estimates Q = 16cms. A 1967 report estimates Q = 9cms. The 1983 design was based on Y = 2.8m and Q = 14cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in July 1982, July 1986, July 1990, and July 1999. The storm database shows the largest storms to be July 1982 (140mm), July 1990 (120mm), and August 1989 (105mm).

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 28 km^2.
Q_p = 23 cms.

Conclusion :

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

Recommended parameters : Y = 2.4 m, V = 1.9 m/s, Q = 22 cms.