BF 76445 Local Road Over Fairydell Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 2 m, h = 1.5 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 0.7 m/s, Q = 4 cms
At Channel Capacity : Y = 2.3 m, V = 1.1 m/s, Q = 10 cms

Historical Highwater Data :

A 1966 report notes a HWM over the grade with Y = 1.5m and estimates Q = 9cms. A 1991 BIM report notes a HWM with Y = 2m.

There are no WSC gauges on Fairydell Ck. Gauges in the area suggest HW events in 1948, 1971, 1974, and 1997. The largest storm in the database for this area is the storm of July 1953, with about 120mm of rainfall.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
Gross DA = 89 km^2.
Q_p = 49 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.1 m/s, Q = 10 cms.