BF 72957 Local Road Over Henderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.004
B = 4 m, h = 2.2 m, T_h = 9 m
Use n = 0.05

At Bank Height : Y = 2.2 m, V = 1.5 m/s, Q = 22 cms
At Channel Capacity : Y = 3.2 m, V = 2.2 m/s, Q = 52 cms

Historical Highwater Data :

HW was observed in June 1976 (HW to 0.3 to 0.6m below u/s and d/s crown, Y = 3.0 – 3.5m) and in 1977 (1.1m below u/s and d/s crown, Y = 2.5 – 3.0m). A 1968 report noted a HWM to the deck (Y = 3.0m) and the survey notes a HWM at Y = 3.6m.

There are no WSC gauges on this stream. Nearby gauges suggest June 1990 as the largest event recorded, with other HW events noted in April of 1974 and 1997. There are no storms in the database that exceed 100mm in rainfall for this area.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 1.0 cms/km^2.
Gross DA = 65 km^2.
Q_p = 65 cms.

Conclusion :

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

Recommended parameters : Y = 3.2 m, V = 2.2 m/s, Q = 52 cms.