BF 74831 Local Road Over Lonepine Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 2 m, h = 1.2 m, T_h = 5 m
Use n = 0.05

At Bank Height : Y = 1.2 m, V = 0.8 m/s, Q = 4 cms
At Channel Capacity : Y = 1.8 m, V = 1.2 m/s, Q = 9 cms

Historical Highwater Data :

A 1969 report notes a HWM over the grade and several washouts at the existing pipe (capacity ~ 4 – 5cms). Scour was noted at the SW wingwall in 1981, and a 2001 BIM report notes a HWM with Y = 0.9m (no description).

There are no gauges on this stream. Gauges in the area suggest HW events in April 1969, 1971, and 1997. The largest storms in the database for this area are June 1928 and 1970 with about 100mm of rainfall.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, use q = 0.25 cms/km^2.
Gross DA = 44 km^2.
Q_p = 11 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.2 m/s, Q = 9 cms.