BF 02113 Local Road Over Lonepine Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 2 m, h = 1.5 m, T_h = 6 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 1.1 m/s, Q = 7 cms
At Channel Capacity : Y = 2.3 m, V = 1.7 m/s, Q = 17 cms

Historical Highwater Data :

HW was observed at this site in 1917 with a washout. A 1968 report notes a HWM to the bottom of the stringers (Y ~ 2.5m). Rock was added to the abutments in 1972. The culvert installed in 1984 was designed based on Q = 21cms.

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 = 67 km^2.
Q_p = 17 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.7 m/s, Q = 17 cms.