BF 79160 Local Road Over Kilini Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 6 m, h = 1.8 m, T_h = 9 m
Use n = 0.05

At Bank Height : Y = 1.8 m, V = 1.0 m/s, Q = 14 cms
At Channel Capacity : Y = 2.7 m, V = 1.5 m/s, Q = 32 cms

Historical Highwater Data :

A design for this site completed in 1982 was based on Y = 1.8m and Q = 31cms. A low level crossing was installed at this site in 1984. HWM was noted at BF71084 u/s (1956 and 1966 reports) with Y in the 2.4 – 2.7m range. HW was noted at BF70269 d/s in 1956 with Y = 2.4m. HW was noted at BF13905 u/s in 1956, 1965, and 1986.

There are no WSC gauges on this stream. Gauges in the area report HW events in April 1971, April 1974, July 1986, and July 1990. The largest storms in the database for this area are June 1944 with about 150mm of rainfall, and July 1982 with about 120mm of rainfall.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.7 cms/km^2.
Gross DA = 178 km^2.
Q_p = 125 cms.

Conclusion :

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

Recommended parameters : Y = 2.7 m, V = 1.5 m/s, Q = 32 cms.