BF 74138 Local Road Over Williams Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.005
B = 15 m, h = 1.8 m, T_h = 22 m.
Use AT equation

At Bank Height : Y = 1.8 m, V = 2.2 m/s, Q = 75 cms
At Channel Capacity : Y = 2.7 m, V = 3.0 m/s, Q = 160 cms

Historical Highwater Data :

HW was noted in 1953 (washout), June 1965 (washout), and June 1990 (Y = 1.7m). The 1983 design was based on Y = 3m and Q = 190cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in June 1915, 1929, 1932, 1965, 1990, and 1995. There are many storms in the database for this area in the 100mm range.

Basin Runoff Potential :

d = 80 mm, T_p = 20 hrs, q = 1.1 cms/km^2.
Gross DA = 172 km^2.
Q_p = 190 cms.

Conclusion :

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

Recommended Parameters : Y = 2.7 m, V = 3.0 m/s, Q = 160 cms.