BF 76117 Highway 2 over Otauwau River
Hydrotechnical Summary

Channel Capacity :

S = 0.003
B = 10 m, h = 3.5 m, T_h = 20 m
Use AT equation

At Bank Height : Y = 3.5 m, V = 2.6 m/s, Q = 135 cms
At Channel Capacity : Y = 4.5 m, V = 3.2 m/s, Q = 235 cms

Historical Highwater Data :

Reports of HWMs were noted as Y~3.2m (1983), Y~4.1m (1988), and Y~3.8m (1996). The original design in 1965 used a highwater depth of Y=4.0m.

There are no gauges on this stream. Gauges in the area suggest large runoff events in July 1979, July 1977, June 1965, and July 1983. The largest storms in the storm database are 105mm in June 1970 and 100mm in July 1988.

Basin Runoff Potential :

d = 50mm, T_p = 20hrs, q = 0.69 cms/km^2.
Gross DA = 525 km^2.
Q_p = 365 cms

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 3.2 m/s, Q = 235 cms.