BF 71546 Local Road Over Peace River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.007
B = 2 m, h = 1.2 m, T_h = 5 m
Use n = 0.055

At Bank Height : Y = 1.2 m, V = 1.2 m/s, Q = 5 cms
At Channel Capacity : Y = 1.8 m, V = 1.8 m/s, Q = 13 cms

Historical Highwater Data :

Reports from 1957 to 1960 notes HW with Y = 1.5 – 1.8m and estimate Q = 6 – 9cms (icing noted to Y = 1.5m). Overtopping of an u/s ice weir was noted in 1975. A 1990 BIM report notes a HWM with Y = 2m (no description). The 2002 design was based on Y = 2.4m and Q = 14cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1974 and April 1997. The largest storm in the database for this area is 100mm in July 1957.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.83 cms/km^2.
Gross DA = 26 km^2.
Q_p = 20 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.8 m/s, Q = 13 cms.