BF 73465 Hwy 35 Over Delphine Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.0012
B = 4 m, h = 1.5 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.5 m, V = 0.8 m/s, Q = 7 cms
At Channel Capacity : Y = 2.3 m, V = 1.1 m/s, Q = 17 cms

Historical Highwater Data :

HW was noted in May 1957 (over road, Y = 2.4m, possibly overflow from Indian Cabins Ck), August 1957 (Y = 2.1m), and May 1963 (culverts flowing full, Q = 10 – 14cms). A 1955 report notes water over the road (Y = 2.1 – 2.4m). The 1961 design was based on Y = 2.4m and Q = 14 – 17cms. A 1994 BIM report notes a HWM with Y = 1.7m.

There are no gauges on this stream. Gauges in the area suggest HW events in June 1977, and May 1979. The storm database notes close to 100mm in August 1993 and June 1988.

Basin Runoff Potential :

d = 40mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 59 km^2.
Q_p = 32 cms.

Conclusion :

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

Recommended parameters : Y = 2.3m, V = 1.1 m/s, Q = 17 cms.