BF 71147 Hwy 642 Over Riviere Qui Barre Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0018
B = 4 m, h = 1.4 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.4 m, V = 0.9 m/s, Q = 8 cms
At Channel Capacity : Y = 2.1 m, V = 1.3 m/s, Q = 18 cms

Historical Highwater Data :

HW was observed in April 1958 to the bottom of the stringers (Y = 1.8 – 2m). A 1958 report estimated Q = 14cms. The 2005 design was based on Q = 22cms, and Y = 2.1m.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in April 1971, 1974, and 1985. The largest storm for this area in the storm database is about 160 mm of rainfall in July 1953, with about 110mm in July 1937, June 1952, and July 1986.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 76 km^2.
Q_p = 42 cms.

Conclusion :

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

Recommended parameters : Y = 2.1 m, V = 1.3 m/s, Q = 18 cms.