BF 72342 Local Road Over Heart River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0045
B = 2 m, h = 1.2 m, T_h = 4 m
Use n = 0.055

At Bank Height : Y = 1.2 m, V = 1.0 m/s, Q = 4 cms
At Channel Capacity : Y = 1.8 m, V = 1.5 m/s, Q = 9 cms

Historical Highwater Data :

A 1987 BIM report notes a HWM with Y = 1.2m. A 2000 design report notes that the pipe has seen full flow. The 2000 design was based on Q = 10cms and Y = 1.6m.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in April 1974, April 1997, and April 2003. The largest storm in the storm database is about 85mm of rainfall in July 1985.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.85 cms/km^2.
Gross DA = 22 km^2.
Q_p = 19 cms.

Conclusion :

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

Recommended parameters : Y = 1.8 m, V = 1.5 m/s, Q = 9 cms.