BF 76495 Local Road Over South Heart River
Hydrotechnical Summary

Channel Capacity :

S = 0.0009
B = 10 m, h = 3 m, T_h = 20 m
Use n = 0.0009

At Bank Height : Y = 3.0 m, V = 1.5 m/s, Q = 65 cms
At Channel Capacity : Y = 4.0 m, V = 1.9 m/s, Q = 120 cms

Historical Highwater Data :

The 2004 design was based on a HW elevation of 605.6m (Q=125cms, V=1.3m/s).

There are five gauges on this stream with limited data, operating for one to ten years. Downstream gauge 07BF004 reports a Qmd of 85cms in 1930 while upstream gauge 07BF010 reports a Qmd of 21cms in 2003.

The storm on basin tool reports large storm events in the area in July 1983 (~125mm) and June 1993 (~120mm).

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.33 cms/km^2.
Gross DA = 2200 km^2.
Q_p = 730 cms.

Conclusion :

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

Recommended parameters : Y = 4.0 m, V = 1.9 m/s, Q = 120 cms.