BF 76998 Hwy 40 Over Hells Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.15
B = 3 m, h = 5.0 m, T_h = 7 m
Use n = 0.06

At Bank Height : Y = 5.0 m, V = 10 m/s, Q = 240 cms
At Channel Capacity : Y = 6.0 m, V = 12 m/s, Q = 415 cms

Historical Highwater Data :

This site is known to have experienced high sediment loads/mud flows in the past. The existing culvert (1997) was designed for Q = 5.3 cms, V = 5.9 m/s.

There are no WSC Gauges on this stream. Gauges in the area suggest HW events in June 1972, and July 1997. The largest storms in the storm database are 125mm in July 1997 and 120mm in June 1972.

Basin Runoff Potential :

d = 70 mm, T_p = 20 hrs, q = 0.97 cms/km^2
Use a conservative q = 1.25cms/km^2 due to small drainage basin size.
(Runoff depth method developed based mainly on larger, gauged basins)
Gross DA = 3 km^2.
Q_p = 4 cms.

Conclusion :

Basin runoff potential governs for this site.

Recommended parameters : Y = 0.5 m, V = 3.5 m/s, Q = 4 cms.