BF 77273 Hwy 743 Over Whitemud River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.045
B = 1 m, h = 1.0 m, T_h = 2 m.
Use n = 0.06

At Bank Height : Y = 1.0 m, V = 2.1 m/s, Q = 3 cms
At Channel Capacity : Y = 1.5 m, V = 3.4 m/s, Q = 9 cms

Historical Highwater Data :

A slide caused failure of the pipes in 1990. Temporary pipes near top of fill failed in spring of 1992 with water over the road. Ponding u/s and erosion d/s was noted in 1996. HW was noted in 2003 with Y = 1.5m and drift blockage of the inlet. A 1989 BIM report notes a HWM with Y = 1.5m.

There are no gauges on this stream. Gauges in the area suggest large runoff events in June 1990 and April 1997. The largest storm in the storm database is 120mm in August 1982.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
Gross DA = 32 km^2.
Q_p = 18 cms.

Conclusion :

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

Recommended parameters : Y = 1.5 m, V = 3.4 m/s, Q = 9 cms.