BF 76478 Hwy 2 Over Arcadia Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 8 m, h = 3.5 m, T = 18 m
Use n = 0.04

At Bank Height : Y = 3.5 m, V = 1.7 m/s, Q = 75 cms
At Channel Capacity : Y = 4.5 m, V = 2.1 m/s, Q = 140 cms

Historical Highwater Data :

HW has been observed at this site in July 1971 (Y = 3.5m), July 1988 (Y = 3.6m), and June 1996 (Y = 4.2m).

Gauge 07BH001 (DA = 180 km^2) is located on Arcadia Ck but has no published flow records. Gauges in the area suggest HW events in May 1917, June 1983, July 1988, and June 1996. The largest events in the storm database for this area are June 1993 with about 140mm of rainfall, and June 1996 with 100mm.

Basin Runoff Potential :

d = 80mm, T_p = 20hrs, q = 1.1 cms/km^2.
Gross DA = 197 km^2.
Q_p = 220cms.

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 2.1 m/s, Q = 140 cms.