BF 73982 Hwy 719 Over Henderson Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0035
B = 8 m, h = 3 m (low bank), T_h = 20 m.
Use n = 0.045

At Bank Height : Y = 3 m, V = 2.2 m/s, Q = 90 cms
At Channel Capacity : Y = 4.5 m, V = 3.1 m/s, Q = 220 cms

Historical Highwater Data :

HW has been over the grade (8m cover) in 1990 and 1976, with other HW noted in 1964, 1977 and 1984. Most HW events have been associated with drift problems. The 1990 event was estimated by a consultant to be about 170cms. HW was noted at BF 72279 in 1976 (Y = 4.5m) and in 1935 (Y = 4.3m). BF73032 u/s was designed in 1969 for Y = 4.3m based on drift observations. BF71643 d/s (XS is wider) had HW in 1976 (Y = 3.7m) and 1957 (Y = 2.5m), and an inspection shortly after the 1990 event estimated Y = 2.5m.

There are no WSC gauges on this stream. Nearby gauges suggest June 1990 as the largest event recorded, with other HW events noted in April of 1974 and 1997. There are no storms in the database that exceed 100mm in rainfall for this area.

Basin Runoff Potential :

d = 60 mm, T_p = 20 hrs, q = 0.83 cms/km^2.
Gross DA = 330 km^2.
Q_p = 275 cms.

Conclusion :

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

Recommended parameters : Y = 4.5 m, V = 3.1 m/s, Q = 220 cms.