BF 07721 Hwy 870 Over Iron Ck
Hydrotechnical Summary

Channel Capacity:

S = 0.0005 m/m
B = 5 m, h = 1.8 m, T_h = 11 m
Use n = 0.045

At Bank Height: Y = 1.8 m, v = 0.6 m/s, Q = 8 cms
At Channel Capacity: Y = 2.7 m, v = 1 m/s, Q = 20 cms

Historical Highwater Data :

HW was observed in 1969 at BF 8983 where the water was 0.6 m above the road.

WSC gauge 05FB003 (DA = 121 km^2, 1978 – 1995) on Iron Ck reports Q = 3.7 cms in July 1983. Gauge 05FB002 (DA = 3500 km^2, 1965 - present) on Iron Ck reports Q = 68 cms in April 1974, with no other flow over Q = 20 cms. A gauging was taken close to the peak with an increase in stage on 3.4 m. The largest storms for this area in the database are about 120 mm in July 1962 and June 1973.

Basin Runoff Potential :

d = 35mm, T_p = 40hrs, q = 0.25 cms/km^2
Gross DA = 1440 km^2.
Q_p = 360 cms.

Conclusion :

The channel capacity estimate appears to be consistent with historic data and within the basin runoff potential.

Recommended Parameters : Y = 2.7 m, V = 1 m/s, Q = 20 cms.