BF 08313 Local Road Over Redwillow Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 3 m, h = 1.0 m, T_h = 8 m
Use n = 0.045

At Bank Height : Y = 1.0 m, V = 0.5 m/s, Q = 3 cms
At Channel Capacity : Y = 1.5 m, V = 0.8 m/s, Q = 8 cms

Historical Highwater Data :

The 1960 design was based on Y = 1.5 – 1.8m and Q = 6cms. The 2000 design was based on Y = 1.7m and Q = 24cms.

WSC Gauge 05FC005 (DA = 825km^2, 1983 – 1990 including 05FC904) reports Q = 12cms in March 1985. Other gauges in the area suggest HW events in spring of 1969, 1971, 1974, 1996 and 1997. The largest storms in the database for this area are June 1970 with about 170mm, June 1944 and 1999 with about 130mm, and June 1973 with about 110mm of rainfall.

Basin Runoff Potential :

d = 35mm, T_p = 40 hrs, q = 0.25 cms/km^2.
DA = 107 km^2
Q_p = 27 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 = 0.8 m/s, Q = 8 cms.