BF 71631 Hwy 43 Over Woodpecker Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0033
B = 3 m, h = 1.5 m, T_h = 6 m
Use n = 0.05

At Bank Height : Y = 1.5 m, V = 1.1 m/s, Q = 7 cms
At Channel Capacity : Y = 2.3 m, V = 1.6 m/s, Q = 18 cms

Historical Highwater Data :

HW was noted in April 1963 (0.6m > u/s crown, Q ~ 15cms) and April 1966 (~ 0.8m < u/s crown). A 1988 BIM HWM was noted with Y = 1.6m, and a 1996 photo shows drift to about 0.8m < u/s crown. Past designs have been based on Q = 17 – 27cms.

There are no WSC gauges on this stream. Gauges in the area suggest HW in July 1971 and June 1996. The largest storms in the database for this area are about 130mm in July 1987 and about 100mm in Jun 1961, August 1976, July 1982, and June 1993.

Basin Runoff Potential :

d = 70mm, T_p = 20hrs, q = 1.0 cms/km^2.
Gross DA = 54 km^2.
Q_p = 54 cms.

Conclusion :

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

Recommended parameters : Y = 2.3 m, V = 1.6 m/s, Q = 18 cms.