BF 73712 Local Road Over Threepoint Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.0065
B = 13 m, h = 1.6 m, T_h = 20 m
Use AT equation

At Bank Height : Y = 1.6 m, V = 2.2 m/s, Q = 60 cms
At Channel Capacity : Y = 2.4 m, V = 3.1 m/s, Q = 130 cms

Historical Highwater Data :

HW was noted in June 1969 (erosion at abutment of temporary bridge), May 1990 (Y = 1.5m), June 1990 (Y = 1.2m), and June 1995 (Y = 1.5m). A 1954 report notes a HWM over the deck (Y ~ 2.5m). A 1970 report notes a HWM with Y = 2.4m and estimates Q = 56cms. A 1991 BIM report notes a HWM with Y = 1m.

Gauge 05BL013 (DA = 507 km^2, 1909, 1912 – 1916, 1966 - Now) reports the Q = 280cms in May 1967 (gauged at Q = 160cms with stage rise ~ 2.5m). The largest storms for this area in the storm database are June 1929 (145mm), and June 1932 (115mm).

Basin Runoff Potential :

d = 80 mm, T_p = 20 hrs, q = 1.1cms/km^2.
Gross DA = 129 km^2.
Q_p = 140 cms.

Conclusion :

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

Recommended parameters : Y = 2.4 m, V = 3.1 m/s, Q = 130 cms.