BF 71814 Hwy 35 Over Stowe Ck Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0025
B = 3 m, h = 1.3 m, T = 7 m
Use n = 0.05

At Bank Height : Y = 1.3 m, V = 0.9 m/s, Q = 6 cms
At Channel Capacity : Y = 2.0 m, V = 1.3 m/s, Q = 15 cms

Historical Highwater Data :

HW was noted in spring 1958 (highway cut open, water over road with Y = 2.1 – 2.4m u/s, likely Y = 1.5m d/s), April 1965 (0.5m below roof, icing, Y = 1.0m). A 1953 report notes a HWM with Y = 1.5m and estimates Q = 7cms. A 1958 report notes a HWM with Y = 2.4m u/s of the culvert, over the grade, and estimates Q = 12cms. A 1962 report estimates Q = 12cms. A 1995 BIM report notes a HWM with Y = 1m, and a 1999 BIM report notes a HWM with Y = 1.5m (drift above u/s crown).

There are no WSC gauges on this stream. Nearby gauges suggest large runoff events in April 1979, June 1990, and April 1997. The largest storm for this area in the database is August 1982 with about 100mm of rainfall.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
Gross DA = 64 km^2.
Q_p = 35 cms.

Conclusion :

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

Recommended parameters : Y = 2.0 m, V = 1.3 m/s, Q = 15 cms.