BF 13832 Hwy 663 Over Tawatinaw River
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 7 m, h = 3.0 m, T = 14 m
Use n = 0.04

At Bank Height : Y = 3.0 m, V = 1.5 m/s, Q = 50 cms
At Channel Capacity : Y = 4.0 m, V = 2.0 m/s, Q = 90 cms

Historical Highwater Data :

A 1960 report notes a HWM with Y = 3 – 3.6m. The 1961 design was based on Y = 4.0m. A 1990 photo shows drift along the d/s left bank, and a note in 1995 refers to bank erosion near the bridge.

There are no WSC gauges on the Tawatinaw River. Nearby gauges suggest large runoff events in April 1971, 1974, 1979 and 1997. The largest storms for this area in the database are July 1953 and June 1970 with about 100mm of rainfall.

Basin Runoff Potential :

d = 40 mm, T_p = 20 hrs, q = 0.55 cms/km^2.
Gross DA = 688 km^2.
Q_p = 380 cms.

Conclusion :

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

Recommended parameters : Y = 4.0m, V = 2.0 m/s, Q = 90 cms.