BF 77448 Hwy 55 Over Tributary to Beaver River
Hydrotechnical Summary

Channel Capacity :

S = 0.001
B = 5 m, h = 1.0 m, T_h = 10 m
Use n = 0.045

At Bank Height : Y = 1.0 m, V = 0.6 m/s, Q = 4 cms
At Channel Capacity : Y = 1.5 m, V = 0.8 m/s, Q = 10 cms

Historical Highwater Data :

The 1985 design was based on Q = 7cms.

There are no WSC gauges on this outlet of Rich Lake. Gauges in the area suggest HW events in 1962, 1970, 1971, 1974, and 1996. The largest storms for this area in the database are about 120mm in June 1970 and 100mm in June 1962.

Basin Runoff Potential :

d = 40mm, T_p = 20hrs, q = 0.55 cms/km^2.
Gross DA = 273 km^2.
Q_p = 150cms (several large lakes u/s).

Conclusion :

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

Recommended parameters : Y = 1.5 m, V = 0.8 m/s, Q = 10 cms.