BF 08196 Hwy 41 Over Beaver River
Hydrotechnical Summary

Channel Capacity :

S = 0.00025
B = 40 m, h = 4 m, T_h = 70 m
Use AT equation

At Bank Height : Y = 4 m, V = 1.1 m/s, Q = 240 cms
At Channel Capacity : Y = 5 m, V = 1.3 m/s, Q = 380 cms

Historical Highwater Data :

HW was observed in 1920 (washout), June 1962 (Y ~ 6m), July 1970 (Y ~ 4.5m), and July 1997 (Y ~ 5m). The 1985 design was based on Y ~ 5m (Q ~ 510cms).

WSC Gauge 06AD006 (DA = 14,500km^2, 1955 – Now) reports Q ~ 620cms in June 1962 (gauged near peak, stage rise ~ 7m), Q ~ 400cms (April 1974), and Q ~ 340cms (July 1997).

Basin Runoff Potential :

Gross DA ~ 11,730 km^2 (exceed range of technique).

Conclusion :

Historic observations govern. Recommended parameters :

Y = 6 m, V = 1.5 m/s, Q = 550 cms.
EL 514.5 m (11744-P)