BF 75194 Hwy 734 Over Simonette River
Hydrotechnical Summary

Channel Capacity :

S = 0.0015
B = 70 m, h = 7 m, T_h = 120 m
Use AT equation

At Bank Height : Y = 7 m, V = 3.3 m/s, Q = 2200 cms
At Channel Capacity : Y = 8 m, V = 3.7 m/s, Q = 2900 cms

Historical Highwater Data :

HW was observed in 1987 (Y ~ 11m, includes BW from drift and structure that was washed away, Y ~ 10m with no BW), 1965 (High ice, bridge rolled out, over piers, Y ~ 7m), 1972 (drift), 1982 (Y ~ 5.5m, drift, erosion), 1983 (Y ~ 4m), 1990 (Y ~ 5m), and 1997 (Y ~ 5m).

WSC Gauge 07GF001 (DA = 5,050km^2, 1969 - Now) reports Q ~ 6500 in Aug. 1987 (stage rise ~ 11m, max gauging Q < 500cms), Q ~ 1500cms in July 1982, Q ~ 1150cms in July 1983, and Q ~ 1000cms in June 1990.

Basin Runoff Potential :

DA = 5,060km^2, beyond range of technique.

Conclusion :

Historic observations govern. Recommended parameters :

Y = 10 m , V = 4.4 m/s, Q = 4500 cms.
EL 502.0m (12618-P)