BF 76041 Hwy 33 Over Chalmers Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.016
B = 8 m, h = 1.2 m, T_h = 12 m
Use AT equation

At Bank Height : Y = 1.2 m, V = 2.7 m/s, Q = 30 cms
At Channel Capacity : Y = 1.8 m, V = 3.7 m/s, Q = 70 cms

Historical Highwater Data :

HW was noted at this site in July 1988 with erosion of the right bank u/s and a large d/s scour hole formed. HW was noted at about 1.2 – 1.5m d/s, and to EL. 779.1m u/s. Drift blockage was likely a factor. Flow was likely in the 30 – 40cms range with outlet velocities exceeding 4m/s. Headslopes were reconstructed at the previous bridge in 1971, and a drop at the outlet was noticed in 2001 after having been repaired in 1990, indicating that some class 3 rock was moved.

There are no WSC gauges on this stream. Gauges in the area suggest HW events in July 1971, July 1979, June 1983, July 1988, August 1989, May 1991, and June 1996. The largest storms in the database for this area are July 1988 with about 160mm of rainfall, June 1996 with 140mm, and June 1983, August 1989, and June 1993 with 130mm.

Basin Runoff Potential :

d = 100mm, T_p = 20hrs, q = 1.4 cms/km^2.
Gross DA = 29 km^2.
Q_p = 40 cms.

Conclusion :

Basin runoff potential governs for this site and is consistent with historical information.

Recommended parameters : Y = 1.4 m, V = 3.0 m/s, Q = 40 cms.