BF 73895 Hwy 889 Over Irrigation Ck
Hydrotechnical Summary

Channel Capacity :

S = 0.010
B = 2 m, h = 1.0 m, T_h = 4 m
Use n = 0.05

At Bank Height : Y = 1.0 m, V = 1.5 m/s, Q = 4 cms
At Channel Capacity : Y = 1.5 m, V = 2.2 m/s, Q = 10 cms

Historical Highwater Data :

The 1953 report notes a HWM with Y = 1.2m (Q_{des} = 5 – 6cms), and the 1992 BIM notes Y = 0.8m.

WSC gauge 05AF008 (DA = 202km^2, 1917 – 1930, 1936) is located d/s and reports the largest flows in March 1928 (Q = 11cms), and April 1922 (Q = 8cms). Gauges in the area suggest HW events in March 1943, April 1955, and March 1994. The largest storms in the database for this area are June 2002 with about 140mm of rainfall, and September 1986 and June 1998 with 100mm.

Basin Runoff Potential :

d = 35mm, T_p = 20hrs, q = 0.25cms/km^2 (possibly 0.3 – 0.4 due to Cypress Hills)
Gross DA = 15 km^2.
Q_p = 5cms.

Conclusion :

Basin runoff potential governs for this site and is consistent with historic observations.

Recommended parameters : Y = 1.1 m, V = 1.6 m/s, Q = 5 cms.