BF 71046 Local Road Over East Prairie River Tributary
Hydrotechnical Summary

Channel Capacity :

S = 0.0007
B = 6 m, h = 2.0 m, T_h = 12 m (based on BF71030 u/s)
Use n = 0.045

At Bank Height : Y = 2.0 m, V = 0.7 m/s, Q = 13 cms
At Channel Capacity : Y = 3.0 m, V = 1.0 m/s, Q = 30 cms

Historical Highwater Data :

A 1929 report notes Y = 2.5m with no velocity (backed up from d/s confluence) and notes potential for overflow from East Prairie River. HWM for BF8722 and BF71030 u/s are in the Y = 2.0m range.

There are no WSC gauges on this stream. Gauges in the area suggest HW in June 1920, July 1986, July 1988, and April 1997. The largest storms in the database for this area are in July 1931 with 130mm of rainfall and June 1970 with about 105mm.

Basin Runoff Potential :

d = 60mm, T_p = 20hrs, q = 0.85 cms/km^2.
Gross DA = 64 km^2.
Q_p = 54 cms.

Conclusion :

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

Recommended parameters : Y = 3.0 m, V = 1.0 m/s, Q = 30 cms.