BF 76190 Local Road Over Iosegun River
Hydrotechnical Summary

Channel Capacity :

S = 0.002 (sinuosity = 1.8)
B = 35 m, h = 3 m, T_h = 50 m
Use AT equation

At Bank Height : Y = 3.0 m, V = 2.2 m/s, Q = 280 cms
At Channel Capacity : Y = 4.0 m, V = 2.7 m/s, Q = 480 cms

Historical Highwater Data :

HW is noted on DD432 for June 1965 with Y = 2.4m. The design was based on Y = 4.6m and Q = 420cms. HW was also noted in July 1982 (Y = 1.7m) and July 1982 (Y = 2.4m).

WSC gauge 07GG003 (1970 – Now, DA = 1950km^2) is located near the bridge. The highest reported flows are Q = 280cms in June 1996, Q = 250cms in July 1971, and Q = 200cms in June 1978, May 1989, and July 2001. The highest gauged flow was Q = 190cms in June 1978 with a stage increase of just under 2.0m. A slope area estimate for the June 1996 event was based on a stage increase of 2.5m with Q = 280cms. The largest storms in the storm database are June 1978, August 1982, and June 1983 with about 110mm of rainfall.

Basin Runoff Potential :

d = 90 mm, T_p = 20 hrs, q = 1.25 cms/km^2.
Gross DA = 1950 km^2, includes several large lakes.
Too large and complex for routing analysis.

Conclusion :

The channel capacity estimate exceeds the largest historic observations but is within past design estimates.

Recommended parameters : Y = 4.0 m, V = 2.7 m/s, Q = 480 cms.