

Fig. 1 Definition sketch

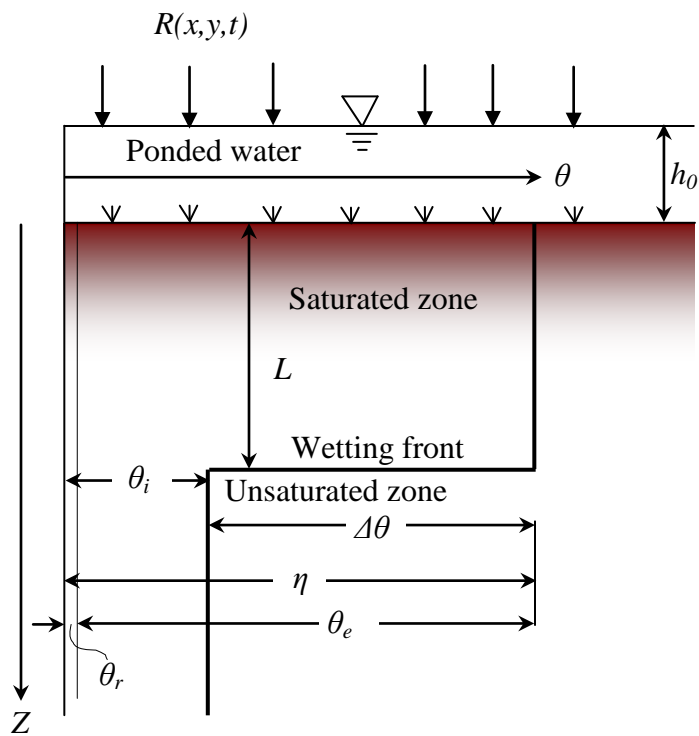


Fig. 2 Infiltration variable required in Green Ampt method variables

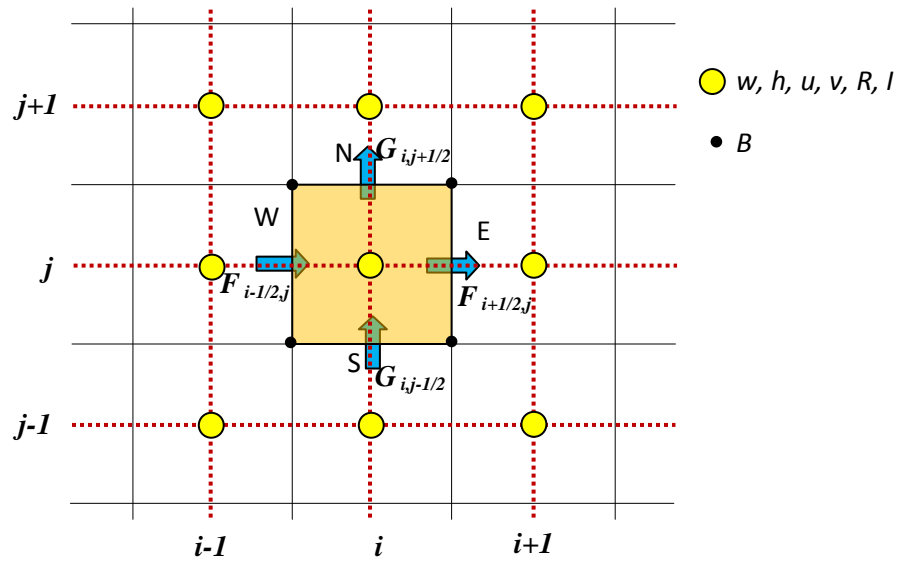


Fig.3 Computational grid with location of bottom elevation and primitive variables and Bottom elevation (B)

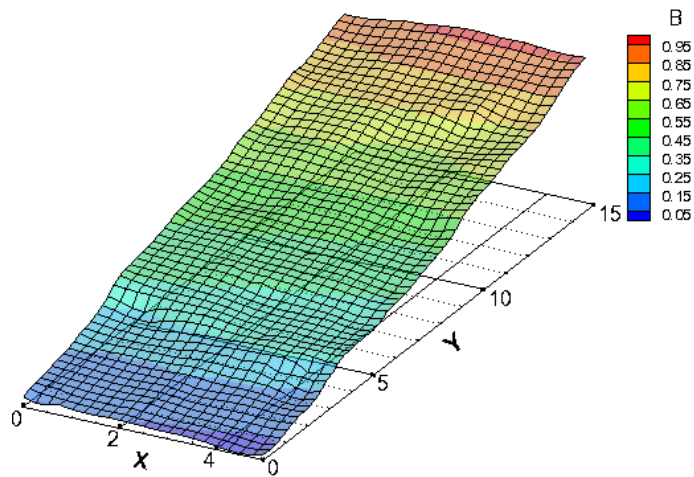


Fig. 4 Surface profile of the experimental field at Niger, West Africa (Esteves et al. (2000)).

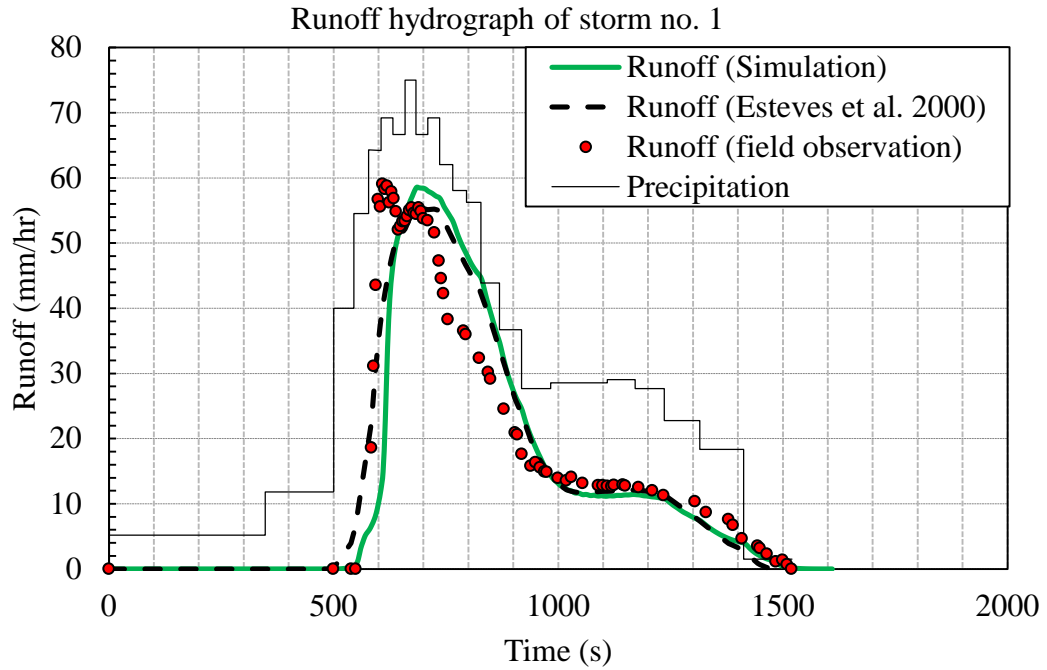


Fig. 5 Comparison of simulated runoff with field observed runoff for calibration of the model

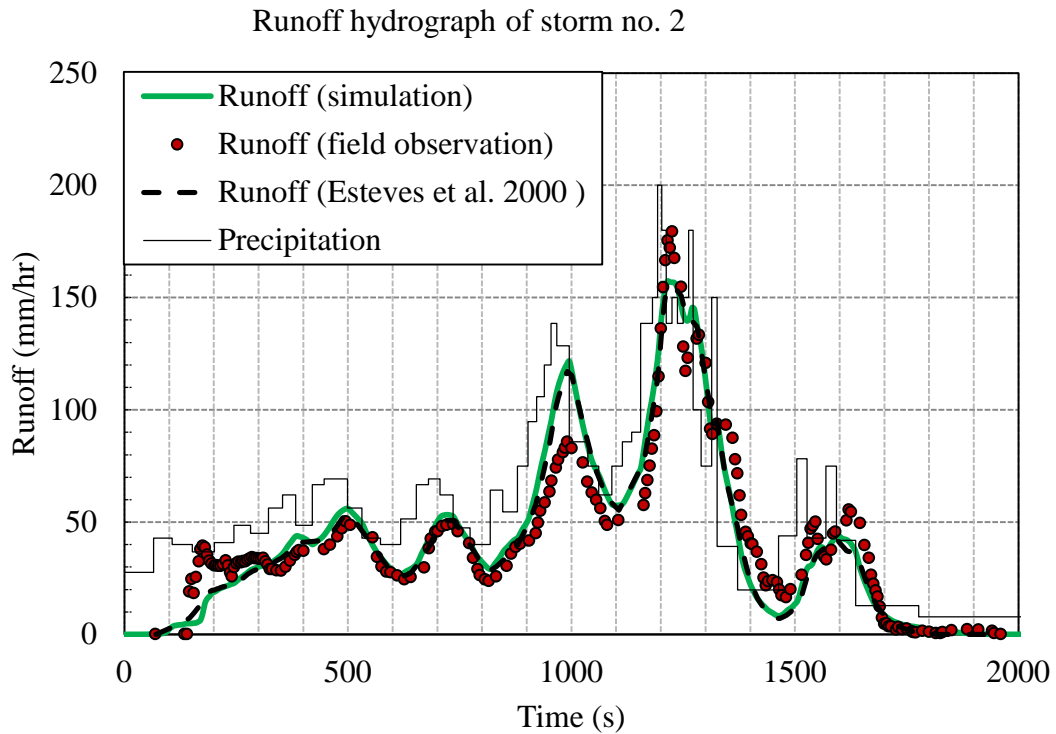


Fig. 6 Comparison of simulated runoff with field observed runoff for storm dated 7<sup>th</sup> August 1994

Runoff hydrograph of storm no. 3

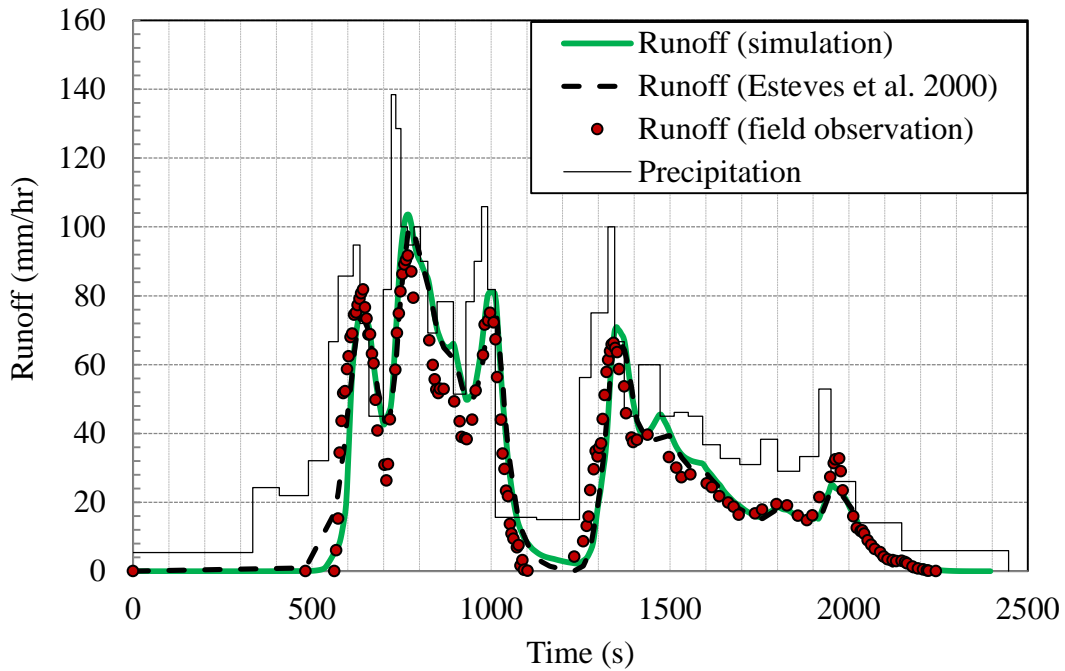


Fig. 7 Comparison of simulated runoff with field observed runoff for storm dated 24<sup>th</sup> August 1994

Runoff hydrograph of storm no. 4

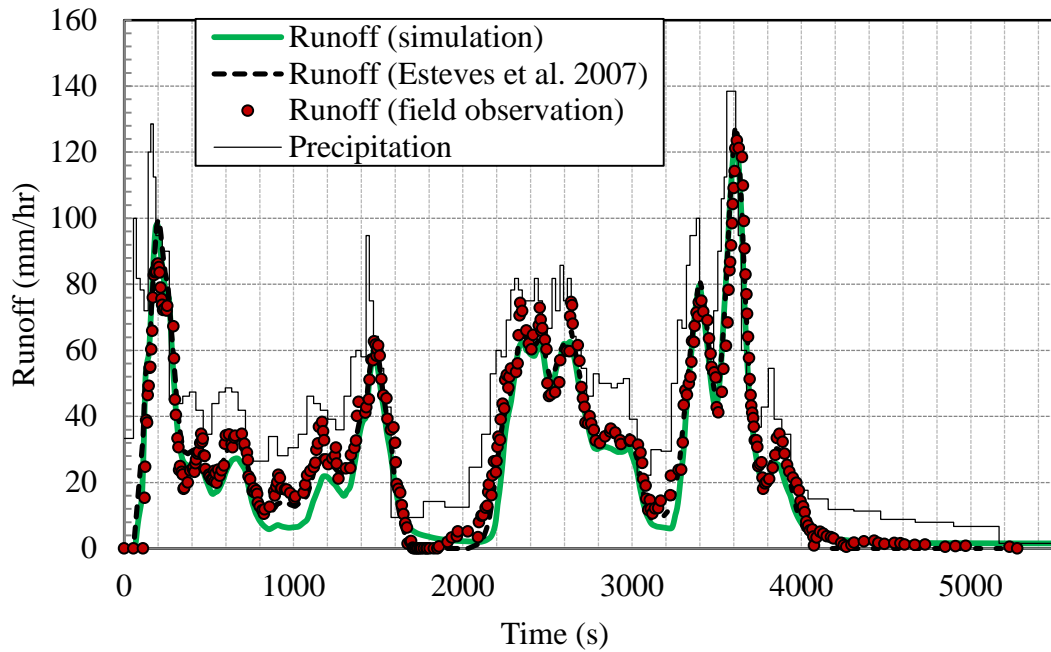


Fig. 8 Comparison of simulated runoff with field observed runoff for storm dated 4<sup>th</sup> September 1994

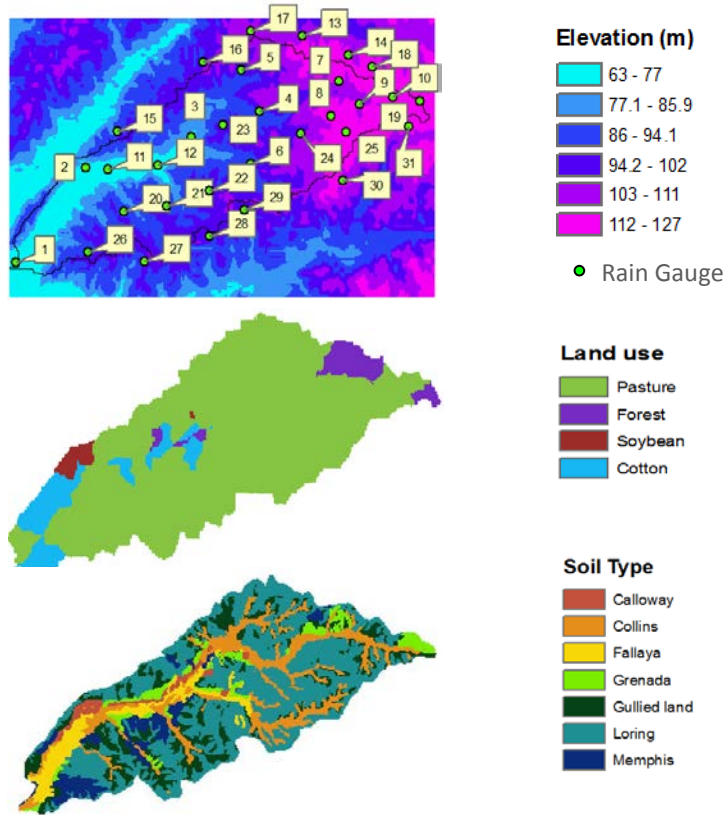


Fig. 9 DEM, Rain Gauge locations, Soil type and land use map of Goodwin creek watershed

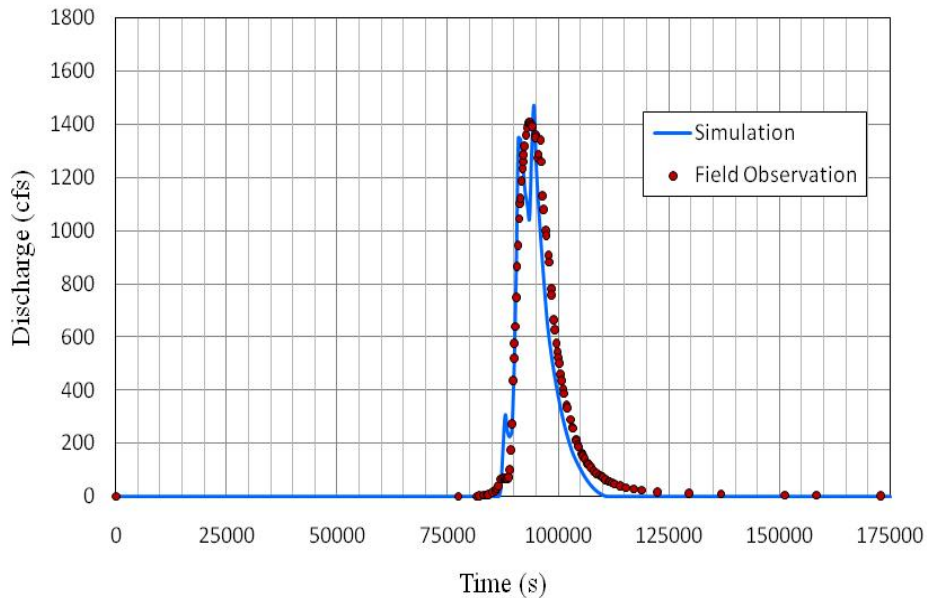


Fig. 10 Comparison of simulated and field observed runoff at the outlet of Goodwin creek watershed on 17<sup>th</sup> and 18<sup>th</sup> October 1981

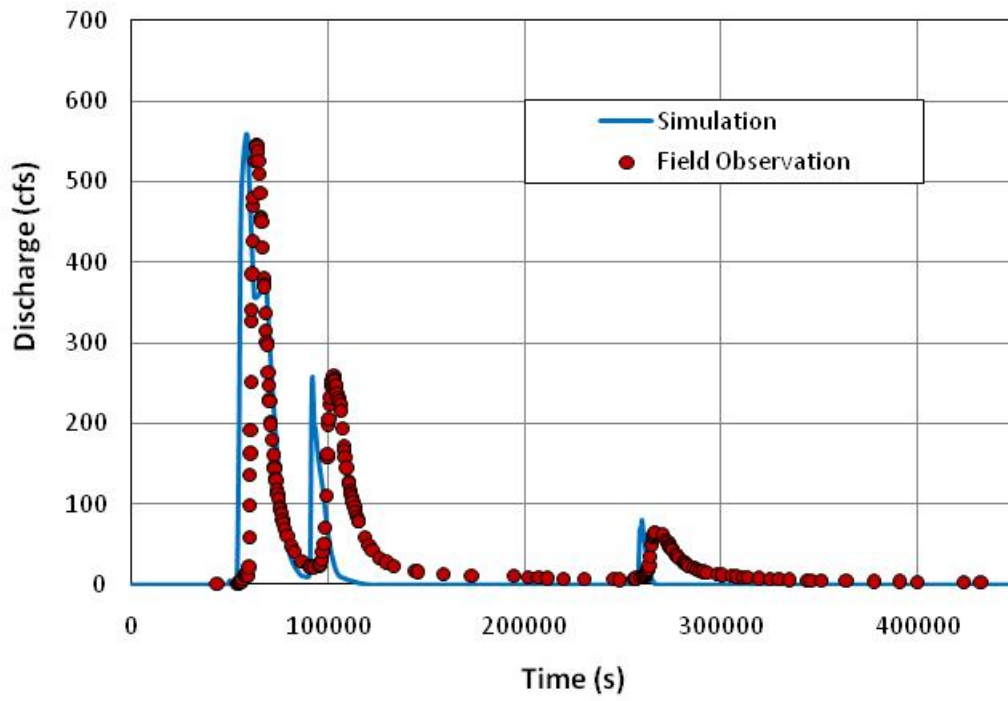


Fig. 11 Comparison of simulated and field observed runoff at the outlet of Goodwin creek watershed on 20<sup>th</sup> 21<sup>st</sup> 22<sup>nd</sup> 20<sup>rd</sup> and 24<sup>th</sup> January 1982