

Watershed Flood Regime Modelling With the Flow-Duration-Frequency Approach as Applied To the Oued Mekerra Catchment In Western Algeria

Authors

Abdelhalim Yahiaoui, Christophe BOUVIER BéninaTOUAÏBIA, Nouredine DECHEMI

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Description

Flow-duration-Frequency (QdF) modelling is used to represent the watershed flood regime and is used for the predetermination of flood characteristics, on both gauged and ungauged watersheds in the range of observed and rare floods. The QdF models answer questions relevant to integrated river management. In the present paper, we have emphasized the basic notions and concepts underlying the QdF models, and then described the conditions of application of QdF models to be used in the case of a north-west Algerian catchment, the oued Mekerra. Both local and regional models were compared. The local model was directly drawn from statistical analysis of the average volume flow (VCXd) during a duration d, derived from time series at the Sidi-Bel-Abbès station. Different regional QdF models (Vandenesse, Florac or Soyans) were also applied, using the local instantaneous maxima flow annual decade ...