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كل الحقوق محفوظة للمدرسة الوطنية العليا للري

Abstract : The choice of the reference flood for the dimensioning of hydraulic structures is rather delicate, in particular in the not gauged basins. In these basins, the estimation of the project flood requires the use of predetermined methods based on the maximum daily precipitation. In this context, this work consists of evaluating the impact of seasonal changes in vegetation cover on the hydrological responses of the watershed to extreme precipitation events in terms of peaks and water volumes using the HEC-HMS model. The study was based on rainfall and discharge data recorded at rainfall and hydrometric stations in the Wadi Chemora basin (Algeria), in addition to remote sensing data on a monthly scale. The results show that the estimation of the projected flood using methods based only on maximum daily rainfall in semi-arid areas is insufficient, which shows the interest of considering the effects of these changes.

Key words : Curve number, Extreme floods, HEC-HMS, NDVI, Wadi Chemora watershed, Rain-flow

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