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HYDROLOGICAL CONDITIONS OF BADRA - JASSAN BASIN.

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ABSTRACT

Badra - Jassan basin is one of the Iraqi border basins which recently has been reconstructed of its regions and expanded of its irrigated land to serve the Citizens of the area. In terms of hydrological condition, Galal Badra River Basin is divided into two parts where the first part located in Iran, and this part supports most of the discharge of the river basin according to achieved runoff within the area. Second part of the river basin is located in Iraq covering area of (300 km^2). Depending on climate data measured in Badra meteorological station for the period (2001-1994), the climate was characterized to be continental semi-arid with annual total rainfall reached (221) mm and the evaporation from basin class A reached (3156) mm. Water balance were calculated in the basin using two methods, the first one depends on monthly averages for rainfall and actual evapotranspiration during the period (2001-1994). While in the second method, the water surplus was calculated depending on calculation of each parameter in each year separately and use mathematical formula to calculate the runoff achieved in River basin of Badra. The results showed that in the first method of calculation the water surplus was (24.89) mm and in the second one was (45.93) mm and it is the best method to calculate water surplus in hydrological basins, where this surplus is distributed into (6.93) mm runoff and (39) mm natural groundwater recharge.