عنوان مقاله:

Investigation of two different methods of water balancing simulation in a watershed

محل انتشار:

اولین کنفرانس بین المللی منابع آب با رویکرد منطقه ای (سال: 1388)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

A simulation Model with semi physical characteristics and lumped parameters which can assess hydrological processes with a water allocation system is investigated in this study. There are many complicated hydrological models, but the present hydrological model considers all non-linear effects in hydrological processes for water users with different demands. Current models for water allocation use stream data for boundary conditions and they are not capable of simulating hydrological processes, hence the "WEAP" (water evaluation and planning system) model is used in this study to simulate such complicated processes. The watershed area chosen in this study is in the Sistan & Baluchestan province at the South-East of Iran. The area covers arid and semi arid regions. Water resources management is a fundamental problem in this area. Simulation of these systems helps out to predict the unexpected processes of water balancing in future and make a relevant decision.Two methods for simulating rainfall-runoff in a watershed area are chosen in this study. The first method is based on rainfall-runoff procedure and other is based on soil moisture measurement. The first method which is a simple one, and do not simulate soil moisture and molten snow is called FAO (Food and Agriculture Organization) method. The second method is rather complicated one and simulates subsequence processes, so called soil moisture method. Monthly steps for time steps intervals were selected in this study. The reason for this selection is described. Comprehensive hydrological, physical and environmental components were considered in the simulation process. The climate and hydrological data and .physical characteristic parameters were used subsequently to simulate the process

کلمات کلیدی:

Basin simulation, rainfall runoff method, FAO method, soil moisture model,WEAP model