

## عنوان مقاله:

Low-Flow Indices in Sub Catchments of Caspian, Iran

## محل انتشار:

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## خلاصه مقاله:

Low flows are one of the most important hydrological parameters required for quantitative and qualitative analysis of watersheds and play an important role in water resources engineering and management. In this study, 9 low flow indices including mean annual  $۳,۷,۱۵,۳۰$ , days average minimum flow, flow duration curve indices (FDC) and exceeded ۹۵, ۹۰, ۷۵ and ۲۵% of the time respectively, and base flow index (BFI) were used. Daily stream flow of ۲۰ hydrometric stations with a period of ۳۰ years were used. BFI was extracted using One-parameter recursive digital filter algorithm and FDC indices were determined by plotting FDC. Then, the relationships between selected indices were analyzed. The results showed that there was a good correlation between base flow and FDC indices with a coefficient of determination above ۶۸%.  $MAM۳$ ,  $MAM۷$  and  $MAM۳۰$  indices had a good correlation with a coefficient of determination higher than ۰.۹۰ and a suitable standard error for FDC indices that can be used for regional analysis of low flow. The  $MAM۳۰$  low flow showed the minimum standard error and the maximum coefficient of determination with FDC indices. The  $MAM۱۵$  low flow index had no correlation with FDC indices and not recommended for regional analysis of low flow in the research area.

## کلمات کلیدی:

Base flow index, FDC, Hydrograph analysis, Iran

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1496588>

