Investigation of Surface Water Quality Intera-Annual Variations, Gorganroud Basin, Iran

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Abstract : Climate variability can affect surface water quality. The objective of present study is to assess the impacts of climate variability on water quality of Gorganroud River, Iran, over the time period 1971 to 2011. To achieve this aim, climate variability and water quality variations were studied involving a newly developed drought index (MRDI) and hysteresis curves, respectively. The results show that climate variability significantly affected surface water quality over the time. The existence of yearly internal variation and hysteresis phenomenon for pH and EC parameters was observed. It was found that though drought affected pH considerably, it could not affect EC significantly.

Keywords: climate variability, hysteresis curves, multi drought index, water quality

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