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عنوان مقاله:

Groundwater Quality Assessment Using theWater Quality Index and GIS in Saveh-Nobaran Aquiefr, Iran

محل انتشار: همایش ملی جریان و آلودگی آب (سال: 1391)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

The main objective of this study is to understand the groundwater quality status of Saveh-Nobaran aquifer in Iran and investigate the spatial distribution of groundwater quality parameters to identify places with the best quality for drinking consume within the study area. This goal has been achieved with the combined use of the Water Quality Index and Geographical Information System. A total of 58 groundwater samples were collected and analyzed for major cations and anions. Spatial distribution maps of pH, TDS, EC, TH, Cl, HCO, SO4, Ca, Mg, Na and K, have been created using kriging method in a GIS environment. From the WQI assessment, over 65% of the water samples fall within the Poor, Very poor and unsuitable for drinking categories, suggesting that groundwater from the center and north-east of the Saveh-Nobaran aquifer is unsuitable for drinking purposes. This research and its results have shown the great combination use of GIS and WQI in assessing groundwater quality. Moreover, having a clear view of the areas .groundwater quality, decision makers can plan better for the operation and maintenance of groundwater resources

کلمات کلیدی:

Geographic Information System - Groundwater quality - Water quality index - Saveh Nobaran plain

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