

Groundwater Quality Monitoring in the Shoush Suburbs, Khouzestan Province, Iran

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Abstract : In recent years many attempts have been made to assess groundwater contamination by nitrates worldwide. The assessment of spatial and temporal variations of physico-chemical parameters of water is necessary to manage water quality. The objectives of the study were to evaluate spatial variability and temporal changes of hydrochemical factors by water sampling from 24 wells in the Shoush City suburb. The analysis was conducted for the whole area and for different land use and geological classes. In addition, nitrate concentration variability with descriptive parameters such as sampling depth, dissolved oxygen, and on ground nitrogen loadings was also investigated. The results showed that nitrate concentrations did not exceed the standard limit (50 mg/l). EC of water samples, ranged from 900 to 1200 $\mu\text{S}/\text{cm}$, TDS from 775 to 830 mg/l and pH from 5.6 to 9.

Keywords : groundwater, GIS, water quality, Iran

Conference Title : ICASTE 2015 : International Conference on Agricultural Science, Technology and Engineering

Conference Location : Istanbul, Türkiye

Conference Dates : April 21-22, 2015