عنوان مقاله:

Evaluation of the Physicochemical Properties of Water in AqQala City (Golestan Province), 2005-2015

محل انتشار:

فصلنامه بهداشت محیط و توسعه پایدار, دوره 3, شماره 1 (سال: 1396)

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خلاصه مقاله:

Introduction: The groundwater is the main resource of water. This study aimed to investigate water quality variations in the villages of AqQala in a eleven-year period as well as designing and implementing the Water Quality Index (WQI). Materials and Methods: In order to investigate water quality variations, the data in the villages of AqQala city was collected in an eleven-year period (2005-2015). Also, according to the research objectives, a sample period in year 2015 was carried out. Samples were measured according to the standard method for examination of water and wastewater. In order to calculate the Groundwater Water Quality Index (GWQI), the Iranian Water Quality Index Software (IWQIS) was used. Results: Some parameters of water quality, including pH, calcium, magnesium and potassium in all sources, were in standard limit. Some of the parameters were higher than the standard limit, which included turbidity, ammonium, phosphate in all sources and sulfate, chloride, sodium, iron and manganese, silicate and alkalinity in some resource. The results measured by the GWQI index in groundwater resources showed that the groundwater source was not with excellent water quality. About 19.3% of sources had poor qualities and the other sources had good qualities. Conclusion: The results of water quality over this period showed that some parameters were increased; which leads to water quality reduction. Therefore, comprehensive management of drinking water resources is essential for people s health.

کلمات کلیدی:

Drinking Water,Groundwater,Water Quality