Assessment of Groundwater Vulnerability – A Case Study

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Abstract:

Two DRASTIC models have been used in this study, which are generic and pesticide to get the groundwater vulnerable levels to pollution in the Nile aquifer along Assiut governorate. Groundwater vulnerability maps were produced using Geographic Information Systems (GIS). It has been found in map of generic DRASTIC model that the most of the study area is covered by moderate vulnerable and high vulnerable; where 55.2 % of the area is moderately vulnerable and 35.4 % has high level of vulnerability. However in the vulnerability map generated by pesticide DRASTIC model, the results concluded that about 64% of the study area has an extreme to high vulnerability to contamination, 34.6% has a moderate vulnerability and small areas occupy about 1.4% and has a low vulnerability.

Keywords:

Groundwater Vulnerability; Generic DRASTIC; Pesticide DRASTIC; Geographic Information Systems (GIS)

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