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A Database System For Hydrogeological Analysis in Thessaly

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This research work deals with the hydrogeological condition and groundwater quality in the West Plain of Thessaly. In this area, the groundwater is a basic source for domestic and agricultural water use. However, the decade of 1980's was a period that many drilling wells were developed, without any control, by the private sector in industry and mainly in agriculture. This work is concentrated in the integrated groundwater management and representation of hydraulic and qualitative parameters using GIS methods, after the analysis and processing of the raw data and of all studies conducted in the area. Initially, several hydraulic and qualitative parameters were converted into digital form and contours were produced, by using GIS methods (ArcView). Then, an analysis and processing of data from pumping tests was performed for the determination of the hydraulic and qualitative parameters and their comparison with those of other projects. All hydrogeological data were analysed by using the Platform for the management of hydrogeological Data, named "HydroGeologist".