

GROUNDWATER USAGE DEMAND PREDICTION OF CAN THO CITY IN THE PERIOD OF 2020 – 2030

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Summary

The study was carried out to assess groundwater (GW) behavior affected by the exploitation and usage of GW in the period of 2000-2016; and predict water usage demand for objectives of social-economic development of Can Tho city. The results of this research will be the basis inputting data for further research. The following steps were carried out: (i) collecting and synthesizing secondary data (2000-2016) on current status of GW exploitation and monitoring data; (ii) analyzing the collected data to evaluate GW dynamics; and (iii) predicting water usage demand, based on the general planning of social-economic development of Can Tho city. The results showed that the Pleistocene aquifer (qp₂₋₃) is currently exploited, and has the largest number of boreholes in Can Tho city. GW level of Pleistocene aquifer (2000-2016) decreased from 1.90 m to 4.85 m (average of 3.37 m). The GW level of this aquifer varies at the monitoring sites. The predicted total water usage demand is 4,848,173 m³/day for 2020 and 4,056,584 m³/day for 2030. The results of this study provide not only useful information for planning in water resources field but also the water supply development for the city in the situation of climate change.

Keywords: *Exploitation, groundwater (GW), groundwater level, pleistocene aquifer, water usage demand.*