

Research regarding groundwater management method

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We aimed contribution to establishment of the plan for effective use of groundwater along with preventing obstacles, such as groundwater drawdown, and developed groundwater management simulator, which can calculate groundwater level distribution, with consideration of natural conditionings such as climate change and precipitation change, and social conditionings such as groundwater pumping and recharge volume. This simulator is consisted with combination of the simulating part for artesian groundwater, which is regional flow system, and the other part, minimum regional ground water flow model, which can reflect the effects and efficiency of land utilization condition and osmosis plants, and then could obtained the good repeatability from the simulation objecting the Northern Kanto area and Yata River basin in Ibaragi Prefecture. In the calculation of Yata River basin, we observed the groundwater level decreasing amount is, maximum about 2.5m.

Keyword : groundwater level, subsidence, groundwater management simulator, Yata River basin in Ibaragi Prefecture