Study of the impact of landscape changing in Taoyuan City irrigation pond to groundwater recharge in Taiwan

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Abstract

In this study, the collection of historical changes irrigation pond information with the local environment on Taoyuan City, the establishment of the geographical database of landscape ecological indicators irrigation pond impact factor, and then correlation analysis and regression models to explore the irrigation pond changes in the course of the meeting note the impact of the groundwater aquifers. Taoyuan City, 1978, 1985, 1994, 2004 comparison land use of irrigation pond in the case and found that the major function due to gradual loss of irrigation pond, Taoyuan City, the demand for urban development sites, resulting in substantial reduction in irrigation pond. Irrigation pond save the results of the analysis show that the ground-water level of the premium note is the impact of, that is, the number of irrigation pond more, the more com-plete, the more intense the higher the groundwater level.

Keyword: irrigation pond; landscape ecology; Pearson correlation coefficient; regression model