

# 臺灣地下水環境開發保育現況與未來展望

賴伯勳 江明郎 簡文奎

經濟部水利署

江崇榮 黃智昭

經濟部中央地質調查所

王聖璋

業興環境科技(股)公司

## 摘 要

臺灣地區由於水文豐枯不均，導致水資源運用不易，未來臺灣地區水資源運用方式勢必需以地下水及地面水聯合運用，以解決地面水資源開發不易問題。地下水係存於地表之下，其雖具有水量穩定及水質良好之優勢，但如過度使用將可能產生地層下陷、海水入侵及水質劣化等不良影響，因此，地下水資源之開發運用需以永續利用為目標，於不發生不良影響條件下，合理運用地下水資源，並配合既有地面水供應系統，建構臺灣地區完善水資源開發經營管理策略，本文蒐集相關資料，探討臺灣地區地下水資源開發現況及各項地下水保育管理策略，並據以提出未來地下水環境開發保育之展望。

**關鍵字：**地下水資源、地下水保育。

## The Development and Conservation Strategies of Groundwater Resource and Future Vision

Bo-Syun Lai Ming-Lang Jiang Wun-Kuei Jian

Water Resource Agency, Ministry of Economic Affairs

Kuo-Sheng Cai

Environmental Protection Administration

Jhih-Jhao Huang

Central Geological Survey, Ministry of Economic Affairs

Sheng-Wei Wang

Sinotech Environmental technology

## Abstract

In Taiwan, the hydrological conditions vary significantly within the seasons. This makes the usage of the water resources inefficient and problematic. It is believed that in the future, the surface water development will inevitably require the combination of both groundwater and surface water systems. Groundwater is stored in aquifers under the surface. The advantages of this resource include stable discharge and high quality. However, over pumping may lead to land subsidence, saltwater intrusion, water quality degradation and other adverse effects. Sustainable usage is the key for an efficient groundwater development and should be strictly followed to avoid adverse effects. Groundwater should be used with considering the already existed surface water supply system in order to create new strategies for a better management of the water resources. This paper reviewed and presented the critical information related to the groundwater resources. The conservation and development strategies of groundwater resource in Taiwan were accordingly proposed.

**Key Words :** groundwater resource, groundwater conservation.

## 一、前 言

臺灣地區由於水文豐枯不均，導致水資源運用不易，多需仰賴大型地面蓄水設施用以蓄

豐濟枯，惟近年來因環保意識抬頭，使得各項水資源開發計畫推動過程，常遭遇環境保護與水資源開發相互衝突，導致各項水資源開發計畫推動時程延宕，加上近年來高濁度事件發生頻仍，亦使地面水資源之經營管理出現挑戰，