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Title: Present situation of seawater intrusion in Quanzhou region and prevention and control measures

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关键词: 海水入侵; ASR与地表蓄水体; 泉州地区

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摘要: 针对泉州地区地下水的超采状况及海水入侵的程度,以泉州地区良好的气候条件和地理位置为依据,提出了该地区海水入侵灾害的防治措施,即将含水层存储与恢复技术(ASR)与地表蓄水体相结合。分析得出,采用该措施可以将泉州地区丰水期降水及其它可用水源通过人工补给存储在含水层中,并在枯水季节抽取使用。这样,既能减缓枯水季节的供水压力,又可以提高地下水水位,防止地下漏斗面积的不断扩大,从而达到防治海水入侵的效果。所提供的措施可为该地区防治海水入侵灾害提供参考。

Abstract: Based on current situation of the over-extraction of groundwater and the intrusion degree of seawater in Quanzhou region, an approach to prevent seawater intrusion in this region was put forward based on Quanzhou's good weather and geography condition, that is, a combination of the ASR technology with reservoir. It can be obtained from analyses that, demand for water can be met using this approach to collect water during rainy seasons and other available water resources and manually store these water into the aquifer, and pump the water out during dry seasons. This approach can not only alleviate the pressure of water supplement, but also can promote the groundwater level, and at the same time prevent the expansion of underground funnel area. As the result, the seawater intrusion is prevented. This approach could give a reference to prevent seawater intrusion in Quanzhou in the future.

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