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SWOT analysis to assist identification of the critical factors for the successful implementation of water reuse schemes

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ABSTRACT

The reuse of urban wastewater has been recognised as an important alternative source of water and is a key aspect of sustainable water policy. As it is a promising innovation, a number of direct and indirect water reuse projects have been instigated and proposed, both nationally and internationally. However there is some uncertainty regarding the effectiveness and impact of these water reuse schemes (WRS). This study investigates the applicability of Strengths, Weaknesses, Opportunities, and Threats (SWOT) as an analysis tool for formulating the critical factors in terms of the implementation of water reuse schemes. Basically, this work adopts an existing multiple case study design method and makes use of SWOT to analyse all critical factors for each selected water reuse scheme. The strengths and weaknesses of successful and unsuccessful WRS are analysed followed by an assessment of the corresponding external opportunities and threats. On this basis, the critical factors considered for the successful implementation of the WRS are identified. A qualitative investigation using SWOT analysis has therefore been successfully implemented.

Keywords: Water reuse; Direct and indirect reuse; Implementation schemes; Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis; Urban water management

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