

# ACCOUNTING AND ACCOUNTABILITY FOR AUSTRALIAN GROUNDWATER RESOURCES

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## ABSTRACT

**Purpose** – This paper explores whether the potential application of Standardised Water Accounting (SWA), reflected in the Exposure Draft of Australian Water Accounting Standard 1 (ED AWAS 1), to report on groundwater resources will enhance the practice and accountability of groundwater managers. Effective and efficient water management is an essential element in alleviating water crises caused by misuse of water resources, and groundwater management poses many unique challenges. Groundwater accounting and accountability was one of the key issues identified during the course of the ‘Water Accounting Project’ that the researcher undertook from 2008 to 2009.

**Design/methodology/approach** – The paper develops theoretical framework of accountability in three main components: clarity of relationship, transparency and power, drawing on the work of Gray *et al.* (1996), Roberts (2009), Joannides (2012), Shaoul *et al.* (2012) and Smyth (2012) (among others). This framework is used to analyse groundwater accounting at two Australian government departments with responsibility for groundwater management and accounting, namely the Department of Environment, Water and Natural Resources of South Australia (former Department of Water) and the New South Wales Office of Water. Data was gathered mainly from interviews, also from informal conversations with personnel from both locations and from public documents. Five people were interviewed once and three people were interviewed twice (the latter is described in Section 5 as follow-ups).

**Findings** – In analysing whether or not future groundwater reports prepared under SWA will discharge the accountability of water managers, it was found *a priori* that they will not. This assumption was made after analysing all data from the case studies based on the integrated accountability model discussed by the researcher.

**Research limitations** – Even though one of the limitations of case studies is generalizability, in this research most findings related to characteristics to all groundwater areas in Australia. Future research might explore groundwater and its relation with ED AWAS 1 in other locations in which groundwater is important such as Western Australia or Queensland in order to corroborate the findings.

**Practical implications** – Groundwater management is still an undeveloped area in comparison to surface water. The application of ED AWAS 1 to prepare water reports on groundwater poses challenges and concerns to potential report preparers. This study suggests that accountability for groundwater management is unlikely to be fully realised under ED AWAS 1. Additionally, this study fills the gap related to the shortage of accounting research on groundwater.

**Originality/value** – At present SWA is ongoing in Australia. One of the latest milestones was the release of the Exposure Draft of Australian Water Accounting Standard 1 in mid-2010. The study seeks to expand limited research on groundwater accounting and management and its relation with SWA. Water is an emerging area in Social and Environmental Accounting, but groundwater has yet to be specifically addressed.

**Keywords** – Water, groundwater, water accounting, social and environmental accounting, Australia

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