Accounting for water: Institutional, cultural and ideological barriers to water reporting by major Australasian corporate and public benefit entities

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**Introduction:** Freshwater availability is critical to business operations in Australasia and globally (CDP, 2013). Uncertainty of water supply and quality pose major risks to future business profitability and sustainability, and will drive corporate strategic change. Industrial water use, particularly agriculture and horticulture, has major negative impacts on water resources, contributing to local and regional shortage and extensive pollution. Negative indicators will intensify with increasing economic expansion (IPCC, 2014). Demand/supply issues create competitive tension between different industry, society and other user groups, and pressure on ecosystems. Available water resources, both regional and local, must be managed effectively and comprehensively to balance competing demands and avoid economic and environmental failure (CDP, 2013).

Organizational water reporting is an important tool for effective regulation, management, costing and allocation of water resources (KPMG, 2012). A variety of regulatory interventions and supportive guidance mechanisms have been developed at national and regional government levels in countries including Australia and New Zealand, implemented mostly on a voluntaristic basis. However, research indicates widespread corporate resistance towards complete and transparent reporting of water usage and strategy, leading to incomplete and inaccurate data being available for planning and management. Resistance to water reporting is driven by economic, cultural and ideological factors. Attitudes range between classification of water as a resource, a commodity, a natural or human right, or spiritual entity (Craig, et al, 2012).

This paper provides insights into the perceived barriers and resistance to water reporting by major corporates and large Public Benefit Entities in Australia and New Zealand, and fills a gap in present water-focused accounting research. Several major international reports over the last decade (KPMG 2012; CDP, 2013, 2011; UNESCO, 2006) record and analyze the incidence and quality of water reporting among major corporates. However, none investigate the attitudes, motivators, barriers and resistance towards effective strategic water planning and reporting. The paper presents original research that will aid understanding of the drivers for water reporting and management, benefiting regulators, standard-setters, report preparers, auditors, investors and analysts.

**Methods:** A stratified sample of major Australian (Aust) and New Zealand (NZ) listed for-profit and Public Benefit Entities, based on size, sector, industry type, and water use activity, and a third group of indigenous Māori-based organizations, were analyzed. Stage One of the research involved analysis of the published annual reports and other publicly-available information of these target groups, for the years 2009 and 2014. These reports were subjected to quantitative and qualitative data capture and analysis methods, including the application of textual analysis techniques, from which all reported water-related data was identified and recorded for each of the survey years. These data were incorporated into a searchable database allowing interrogation on multiple variables. Stage Two of the project implemented a randomised online survey of relevant decision-

makers in the sample group, to elicit attitudes towards water use and motivations for water reporting.

**Results and Discussion**: Analysis of the reports showed that while the overall incidence and volume of water-related reporting showed a significant increase over the 5 year period, most provided no evidence of external assurance. Most reported information focused on 'soft' (non-quantitative) issues, and aspirational assertions, rather than specific verifiable quantitative information. Some entities reported water-related information in one year only. A significant positive correlation was found between the incidence of water-specific regional environmental events, such as drought and negative changes in ground-water resource availability, with the incidence and extent of waterrelated reporting. Also, the existence of coercive regulatory action such as restrictions, rationing and water charges, was positively correlated with the volume of water reporting. Little change was recorded in the incidence of water strategy reporting. In 2014, few of the sample organizations had developed a medium-long term water strategy, and few others planned to do so within the next 3-5 year period. These results, however, were significantly higher for Māori-based organizations, and for some types of PBEs, which indicated different ideological attitudes towards the value and use of water. Entities operating in geographical areas with a central or regional regulatory requirement for reporting water-related information indicated a much higher incidence of reporting than entities in areas where governments did not mandate such reporting. Entities operating in high volume wateruse industries, or in low water-access regions, had a higher incidence as well as volume of water reporting. Increased volume of reporting was found in organizations subject to adverse waterrelated publicity over negative environmental actions in the last 5 year period.

**Conclusions:** While the incidence and volume of water reporting in the sample group increased in the period under study, this had not led to increased overall quality of the information reported. Much of the water reporting in the sample group focused on soft rather than hard information. Most entities reported water-related information on a reactive not proactive, short-term, benefit-cost basis, and focused on reputation management and customer satisfaction, not environmental concerns. Region-specific water use controls, and the threat of mandated reporting requirements backed by substantive compliance failure penalties impacted upon management attitudes towards water use and planning, and the quality and extent of water reporting, whereas generalized scientific reports on environmental factors had negligible impact on attitudes and reporting. This indicated that the majority of the entities were responsive only to short-term 'hard' motivators, such as cost-driven incentives, rather than 'soft' motivators such as concerns with long-term impacts of climate change or depletion of local water resources. 'Soft' coercive measures such as general reporting of future adverse water-related outcomes, and government programmes requiring voluntary water-related reporting, are unsuccessful in achieving desirable corporate behaviours such as full and transparent water reporting, strategic water planning and supply-chain management. Most organizations will respond positively only to 'hard' coercive measures such as water costing measures and mandated and audited reporting requirements, backed with punitive outcomes for compliance failure.

## References

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