

## Mine site water information disclosures in the context of watersheds and reporting frameworks, Eastern Australia

Wendy TIMMS<sup>1</sup>, Shane LEONG<sup>2</sup>, Ros TAPLIN<sup>1</sup>, James HAZELTON<sup>2</sup>, David LAURENCE<sup>1</sup>

<sup>1</sup>*Australian Centre for Sustainable Mining Practices, University of New South Wales, Sydney, Australia.  
w.timms@unsw.edu.au*

<sup>2</sup>*Department of Accounting and Corporate Governance, Macquarie University, Australia*

**Abstract** Information disclosures by mining companies regarding site water usage and discharge were evaluated within a watershed context, and compared with two sustainability reporting standards. Mining activity often impacts on water in the natural environment and its effects, which include pollution and water reserve depletion, can last for millennia. Communities may be concerned about whether the mining industry’s use of water will have impacts on their livelihoods and lifestyle. In many parts of Australia for example, water levels and water quality are increasingly important issues, particularly because water licenses are fully allocated.

This paper reports on research examining disclosures from mining companies regarding their water usage in the Macquarie and Lachlan catchment areas, both parts of the Murray-Darling Basin in New South Wales, Australia. These requirements are then compared to the water reporting requirements of the Global Reporting Initiative (GRI) and Water Accounting Framework for the Minerals Industry (WAFMI). In addition, new ratio analyses for mine water in a watershed context are introduced.

It was found that of the nine mine sites identified, only four had substantial environmental reporting, including a coal and gold mining operation. Reported water use and discharge were a small proportion of average watershed values and compliant with development conditions, although information on water quality and flow variation over time was typically limited. Introduction of a dozen different ratios enable comparison of mine water data in a watershed context, for example: Fresh water take/Watershed storage; Fresh water take/Watershed surface flow, and Groundwater allocation/Watershed groundwater use. Based on these findings, the implications of the size of the local watershed around the mine site for which data was available was considered. The study also found that the development consent conditions for new projects and extensions to existing projects are quite significant, although local state legislation places few reporting requirements on mining companies. Reporting is required on all GRI indicators, although not necessarily to the same level of detail specified by the GRI. The reporting conditions also require some, but not all, of the information required by WAFMI.

A significant implication of this study is that even if the law does not mandate the preparation of social and environmental reports, it does not mean that this type of information is unavailable. Even though Australia does not have a mandatory corporate sustainability reporting regime, a significant amount of reporting resembling GRI requirements was nevertheless made publically available to local communities.

