# Interactions between the law, mining and communities: using multiple management tools to improve the health of the Fitzroy River

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Abstract

Following flooding in the Fitzroy River basin during the 2007/08 wet season the Fitzroy Model Conditions placed tougher restrictions on mine water release. Over the following years, especially during the heavy flooding of 2010/11 it became clear that current regulations and management practices were not effective. Mines continued to accumulate water, which became saltier the longer it was stored and made it more difficult to release in accordance with Environmental Authorities. The Fitzroy River was not being managed in a way that ensured current uses of the river did not extend beyond the river’s ecological limits. Just what the river’s ecological limits are is also difficult to ascertain given its ephemeral nature and the huge climatic variation of the region. In response to these difficulties, the Fitzroy Partnership for River Health was set up. The Partnership is made up of key stakeholders including the Fitzroy Basin Association, mining and agricultural companies, universities and government. One of the main roles of the Partnership is to collate and analyse the variety of data available to create a report card on aquatic ecosystem health under the guidance of an independent scientific panel. The report card is then used to inform and implement new management strategies using an adaptive management cycle. The advantage of using a combination of strategies such as stakeholder partnerships, scientific panels and using available data and assessment methods, as well as tools like adaptive management and report cards helps to build trust and promote transparency in management. Although the Partnership is still in its early days, it shows promise as a management strategy that will maintain the health of the Fitzroy River ecosystem.

## Speakers’ Biographies

Alexandra Wolhuter

Alexandra works as a Research Assistant in the Centre for Water in the Minerals Industry. She graduated with a BSC/LLB (Hons) in 2012 from the University of Queensland. She has a background in ecology, environmental decision making, environmental governance, environmental law and public international law. Alexandra previously worked as a Research Assistant and volunteer paralegal for the Queensland Public Interest Law Clearing House Inc. where she researched methods for dealing with uncertainty in environmental decision making. Her research interests lie in environmental policy and governance and how science can be used to create sound law and policy to promote sustainability.

Sue Vink

Dr Sue Vink is a Principal Research Fellow at the Centre for Water in the Minerals Industry. She is a water scientist with 18 years’ experience in conducting multidisciplinary biogeochemical and ecological research in marine and freshwater systems. Her research includes understanding fundamental aquatic ecosystem processes and impact of mine site discharges; determining sources, transport, fate and interactions of dissolved and particulate constituents during water re-use and other operational processes using tracing and dating techniques to determine constituent sources and fate for the assessment of cumulative impacts of mining. Dr Vink is also a member of the independent scientific committee for the Fitzroy Partnership for River Health.