1. Introduction

Water availability and security of supply is a critical business risk for the minerals industry which generates a very high economic value-add from water use. Mining and minerals processing cannot occur without secure access to reliable water supplies.

While mining does not have a large presence within the Murray-Darling Basin (utilising around 0.55 per cent of available water), the industry can be a significant water user at the local or regional level. Accordingly, the MCA considers the reforms under the Water Act to be important in balancing the needs of the society, economic development and the environment.

The minerals industry utilises both surface water and groundwater resources within the Murray-Darling Basin (MDB) and the management of groundwater is of particular interest. The minerals industry operates in areas with little reliable surface water supplies. Many operations are dependent on access to groundwater in terms of supply, but also dewatering activities for safe operation.

The minerals industry supports the principles within the 2004 Intergovernmental Agreement on a National Water Initiative (NWI) and recognises the importance of the Water Act 2007, as the primary legislation for implementing these reforms within the MDB.

The minerals industry faces a range of sector specific challenges in the implementation of water reforms as recognised by Clause 34 of the NWI. Most of these challenges relate to a lack of recognition of industry circumstances in subordinate mechanisms/arrangements and the rigidity of existing entitlement regimes. The MCA does however consider the Water Act could be improved to provide additional flexibility to allow for the development of innovative approaches to managing industry water use which are not in conflict with the objectives of the Act.

In recent years, the MCA has worked closely with the National Water Commission to better understand the water reform challenges facing the minerals industry and to develop a range of policy solutions. A key outcome of this process is the publication of the Integrating the Mining Sector into Water Planning and Entitlements Regimes report, released in March 2012. Many of these matters have been further articulated in the MCA response to the triennial assessment of the NWI.

2. The need for fully functioning water markets

The NWI and the Water Act provide a clear water access pathway for new market entrants and will allow water to flow to its greatest economic use. However, where Sustainable Diversion Limits (SDLs) are applied through water resource planning without a suitably robust or mature trading process in place, this can impede or delay new entrants and economic development in those areas.

MCA member companies have experienced difficulty accessing water in areas where markets are either thin or not operating effectively. While this is not unique to the minerals industry, as a high value water user, this can impede the fulfilment of the objects of the Act, specifically, the maximising of net economic returns to the Australian community from the use and management of the MDB water resources. Consideration should be given to amendments to the Act to further incentivise high value water use and the further maturation of water markets.

3. Inclusion of the minerals industry in the water planning process

Water resource planning should include a broad range of economic sectors, including the minerals industry. As an outcome of this engagement, planning should ensure barriers to industry access are recognised and managed prior to market development. While water reform within the MDB has primarily focussed on the management of high volume water use by the agricultural sector, greater

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2 Calculation based upon figures provided in the Proposed Basin Plan, November 2011
3 www.nwc.gov.au
4 www.minerals.org.au
emphasise needs to be given to the minerals and other industries to ensure high value use and to incentivise the use of 'fit for purpose' waters.

An inclusive planning process will provide opportunities to add value to the water sharing planning process through the provision of environmental data and leveraging industry experience in resource/environmental management. The MCA recognises that individual company disclosure of future water needs is not always straightforward as a balance will need to be struck between water planning requirements and commercially sensitive information. Where direct industry involvement cannot be achieved, the MCA recommends that input from the relevant jurisdictional mining development/approvals agencies should be sought. This would also be advantageous as these agencies may provide a broader perspective on potential future mining development in a given region. Furthermore, these arrangements should recognise the need to flexibly account for unforeseen water requirements, and operate consistently with Clause 34 of the NWI.

4. Reconciling regulatory frameworks

Where mining development/environmental approvals overlap with water access/planning arrangements, this can result in unnecessary regulatory burden on the water user and act as a barrier to market access.

An example of this intersection is the ‘water trigger’ for coal seam gas and large coal mine developments under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Under the water trigger, a coal mining operation seeking to purchase water under a market arrangement will likely require Commonwealth approval under the EPBC Act.

It is recognised that the assessment of subsidence mining impacts is required under Section 255AA of the Water Act, however where impacts on a water resource are volumetric, this can create an industry specific barrier to water access and therefore effective market operation. In these cases the MCA considers the market or water resource plan should have primacy and satisfy external requirements.

Other regulatory frameworks may also restrict optimal market function by imposing unnecessary barriers on the discharge of surplus water. Where water is classed as a ‘pollutant’ or operations have zero discharge requirements imposed, this can unnecessarily restrict the on supply of surplus water into the trading zone or water sharing arrangements.

The Water Act should therefore be amended to account for the intersection of the Act with other relevant instruments and ensure that there is a clear primacy of legislation which is well understood by regulatory authorities.

5. Adjusting water system boundaries or limits

Incorporation of new information into water resource plans

As part of project pre-feasibility studies and environmental approvals the minerals industry undertakes extensive and detailed water resource investigations and assessment work pre-development and during operation. These investigations add considerable understanding of regional water resources and specifically the groundwater resource knowledge base. This new information may lead to the identification of deeper or larger water resources than those accounted for during the development of the regional or resource unit SDLs.

S23 of the Water Act sets out the requirements for setting and adjusting SDLs for water resources of a particular water resource plan area. The process of adjusting an existing SDL is considerable, requiring vetting by the Murray-Darling Basin Authority (MDBA) and subsequent MDBA proposal to the Minister for consideration and adoption.

The MCA considers that a mechanism should be included in the Water Act to provide for minor adjustments to SDLs as they relate to new knowledge of a water resource. Furthermore, there should be some regard to water resources not currently recognised in MDB water resource plans (e.g.
deeper groundwater or water produced through reverse osmosis). For efficiency, the MCA proposes that these resources should be managed in line with the objects of the *Water Act*, but only incorporated into an existing water resource plan in line with the broader review process. This will be particularly important for groundwater resource areas, for which knowledge is continually evolving.

**Access to low quality water resources**

S25 of the *Water Act* provides for water quality and salinity management, with a focus on protecting of water quality for irrigation and other sensitive consumptive uses. In contrast, much of the water used by the minerals industry is not fit for purposes other than for industrial applications with the water utilised ranging in quality from simply non potable, through to saline groundwater.

Access to differing or poor water quality is not well handled under existing jurisdictional regimes and poor quality water supplies are often excluded from water resource plans (including the development of Basin SDLs). This may in effect create a barrier for minerals industry access to these poor quality water resources which could otherwise be beneficially used and create significant economic returns. In addition, the use of poor quality water by the minerals industry effectively offsets water use from higher quality sources, leaving it available for those users requiring higher water quality.

Under these circumstances, the MCA considers that water resource plans and associated SDLs for a given groundwater unit are sufficiently flexible to allow for industry access to these water resources where it can be demonstrated that extraction does not significantly impact on other users or the environment. While the *Water Act* does not explicitly restrict the inclusion of poorer quality resources, these are yet to be sufficiently reconciled within existing water resource plans/trading zone arrangements.

The MCA considers that the *Water Act* should be amended to provide recognition of the value of lower quality water resources as part of overall MDB management. This recognition would encourage responsible jurisdictions to optimise the use of these alternative water resources.

6. **Temporary diversions**

Currently within s24 of the *Water Act*, a temporary diversion provision has been provided as a transitional measure to minimise the social and economic impacts of the introduction of SDLs which are lower than the current level of extraction.

Unlike many water users, mining operations operate for a fixed period. In particular, some types of mining operations, such as minerals sands may operate in a given area for less than a decade. The MCA considers an opportunity exists to provide for high value but temporary water users through the development of fixed period entitlements above the SDL threshold. These entitlements could be used in circumstances where industry access to water is restricted by poorly functioning or thin markets and there are considerable social and economic benefits associated with the development.

In issuing such entitlements, development proponents would need to demonstrate a low risk to environmental values and the availability of water within the trading zone. Furthermore, assessment should account for recovery of the water system (particularly groundwater systems) once the entitlement ceases. Accordingly, the MCA recommends the *Water Act* allow for the development of fixed term entitlements in excess of stated SDLs, where the issuing of such entitlements is consistent with the objects of the Act.

7. **Water information**

There currently exists a wide range of water reporting obligations on the minerals sector, including State/Territory and Commonwealth regulatory requirements, water market reporting, corporate reporting, the ABS Water Account survey and a suite of voluntary reporting initiatives. In addition to these obligations, recent changes to the Commonwealth’s *Water Regulations 2008* will require some operations to provide ‘live’ data to the Bureau of Meteorology as part of the Australian Water Resource Information System, adding to and duplicating the existing water reporting burden.
The MCA considers that water reporting requirements should be non-duplicative, targeted, have direct water resource management or public good benefits and is undertaken in an efficient and non-duplicative manner. Data collection and reporting requirements need to be proportional to the water resource management risk. Furthermore, it is important to ensure that water data which is made publicly available is linked to sufficient contextual information to avoid misrepresentation or misinterpretation.

8. Timing of future reviews of the Act

The MCA considers the next review of the Water Act should be undertaken 12 months after the full implementation of the Basin Plan (in 2020).