9 November 2017

Dr Jessica Hartmann
Assistant Commissioner
Productivity Commission
GPO Box 1428,
CANBERRA ACT 2601

Via email: water.reform@pc.gov.au

Dear Dr Hartmann

The Minerals Council of Australia (MCA) appreciates the opportunity to provide comments on the Productivity Commission's (PC) draft report on national water reform. The comments below are supplementary to verbal comments made at the water reform stakeholder working group meeting on 11 October 2017 and other discussions with the PC.

Of specific interest to the MCA is section 3.3 - Incorporating extractive industries into entitlement and planning arrangements' and the associated recommendation 3.1b:

> State and territory governments should ensure that water entitlement and planning arrangements explicitly incorporate extractive industries, such as by ensuring entitlements for extractive industries are issued under the same framework that applies to other consumptive users unless there is a compelling reason otherwise.

The MCA supports the principles contained within the Intergovernmental Agreement on the National Water Initiative 2004 (NWI). The MCA agrees that mining industry water use should be considered within water resource planning and entitlement frameworks where possible. However to enable this, water access regimes must recognise and account for the specific characteristics of extractive industry water use and the areas in which mining occurs. Furthermore, other reforms are needed to address potential barriers to industry water access. This context has not been well reflected in section 3.3 or the above recommendation. Accordingly, the MCA recommends these important aspects be incorporated into the final report and addressed in the recommendation.

The following information has been provided to assist the PC in its consideration of this matter.

1. Transitional arrangements for mining

The circumstances that necessitated transitional (alternative) arrangements for mining have not been adequately considered in the draft report. This need, which is managed through clause 34 of the NWI, is only briefly touched upon in the draft report. This issue is not new - the integration of extractive industries was considered in detail by the former National Water Commission. In its analysis, the Commission identified 'the need to institute an entitlement framework suited to the

complexity of industries accessing water, enabling accurate accounting of water take and rules for management of third-party impacts'.[1]

Characteristics of industry water use

Minerals industry water use differs to that of other users such as agriculture. Water used by the industry is primarily self-sourced and operations frequently supply and operate their own water infrastructure and may supply water to a range of third parties either voluntarily or as required by regulation. Many mining operations are located in remote locations with hydrological characteristics not suited to water resource planning and entitlement regimes common in hydrologically well connected regions. Examples of the more unusual characteristics of mining water use are provided below:

a) The use of saline or hypersaline water

The industry uses a wide variety of water sources of varying quality, including saline water that is not fit for any purpose other than industrial applications. In some cases, such as the gold fields in Western Australia, deep hypersaline aquifers (which can be five or even ten times saltier than seawater) are pumped at significant cost to supply water for critical mine processing. Accordingly, this water is not a catchment flow, nor is it transferrable to other users after consumption. In many cases, operations treat this unusable water to make it suitable for site processes.

b) Water accessed for safe operation but not consumed

As a result of dewatering activities to make mines safe for operation, much of the mining industry's water take can be 'incidental'. This water, extracted from the ore body and surrounding groundwater, is normally managed on site or discharged into the environment in line with an operation's licence conditions. In some cases, this water is treated to make it suitable for the environment or other uses, including agriculture, before it is released.

Incidental water is not used or consumed by the mining industry. Instead, this water can be made available for downstream agricultural activities. In some cases, mining companies provide water to local communities and townships.

c) Contingency licencing

Dewatering volumes can vary from year to year depending on local geology and groundwater characteristics, rainfall patterns and other climatic factors. State authorisations generally require mining companies to hold water licences set at the maximum predicted water take for any given year over the anticipated life of an operation. This often includes a large contingency volume to enable companies to manage these variations.

It is important to note that many mines are located in areas prone to extreme variability, driven by tropical weather patterns and cyclonic activity. Accordingly, the contingency built into a water licence can be many times that of the actual annual water take by an operation. For example, there are mining operations in the Pilbara where the average annual take for dewatering (safety purposes) is only 30 per cent of licenced water take.

d) Multiple licences for the same water

In some regions where the minerals industry is the dominant industry, water that is 'dewatered' from an operation in upper catchment areas is often captured by downstream operations, only to be again removed and discharged downstream. The net result is that several mines may hold licences for access to what is materially the same water.

[1] National Water Commission, *Water for mining and unconventional gas under the National Water Initiative*, NWC, 2014, p.6.

Fit for purpose planning, access and entitlement arrangements

The minerals industry faces a range of sector specific challenges in the implementation of water reform. Most of these challenges relate to a lack of recognition of these circumstances in subordinate mechanisms/arrangements or the administration of the relevant legislative regime.

While progress has been made, there is an ongoing need for 'fit for purpose' planning and entitlement/access arrangements to accommodate the atypical characteristics of minerals industry. While such arrangements may not necessarily be nationally compatible (e.g. market based water trading), they should still be consistent with the broad principles of the NWI. National compatibility, while desirable, should not be the principal objective.

The role of NWI Clause 34

As the integration of mining continues, clause 34 has been useful in helping to identify that there are particular requirements for the mining sector that need to be acknowledged in water planning.[2] The MCA considers that Clause 34 should be retained for the purposes of identifying these unique circumstances and ensuring they are properly accounted for in planning and entitlement regimes and by water markets.

This is not a question of *special treatment* that would unjustifiably put mining on an unequal basis to other activities, but about *special and careful consideration* that recognises the unique ways in which mining interacts with water systems. Importantly, these requirements should be addressed in a manner consistent with the core principles of the NWI.

2. Barriers to water access

The PC draft report provides little commentary on the potential barriers to industry water access (including market entry). While raised in earlier submissions, some of these issues are reiterated below:

Intersection with other regulatory frameworks

The minerals industry is subject to a range of legislative and regulatory requirements at both state and federal levels which can directly and indirectly relate to water access.

Environmental and other approvals are necessary to manage potential impacts on 3rd parties and the surrounding environment. However, these requirements can also act a barrier to industry water access. For example, under the federal Environment Protection and Biodiversity Conservation Act 'water trigger', a coal project seeking only to access water is likely to require Commonwealth approval in addition to state approvals and securing the appropriate water licence or entitlement (e.g. through water markets in New South Wales).[3] No other water users are subject to these requirements.

In addition, the former National Water Commission's paper on extractive industries concluded there was a need for 'linking water planning more effectively with project approvals at the state and Commonwealth levels'.[4]

Incorporation of new information into water resource plans

Mining operations undertake detailed water resource investigations as part of project pre-feasibility studies and in meeting regulatory requirements. These investigations add considerably to our understanding of regional water resources and in particular groundwater. This new information may lead to the identification of deeper or larger water resources than that considered when determining regional or resource unit extraction limits.

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[2] Minerals Council of Australia, *Submission to the Triennial Assessment on the progress of water reforms*, December, 2013
[3] For coal seam gas and large coal developments only
[4] National Water Commission, *Water for mining and unconventional has under the National Water Initiative*, NWC, 2014, p. 6.

Cases have emerged where a mining company has 'proven up' a new (e.g. deeper) groundwater resource, but access has been restricted as it was not considered in the existing water resource management plan for the area in which the mine was proposed. The water market in some regional areas can also be 'thin' (very few sellers) and dysfunctional which can create a significant barrier to industry water access.

The MCA considers that greater flexibility is needed to enable adjustments to water extraction limits as new knowledge of a water resource emerges. Furthermore, there should be some regard to water resources not currently recognised in water resource plans (e.g. deeper groundwater or water produced through treatment of waste water). For efficiency purposes, the MCA proposes that these resources be managed in line with the objects of the NWI until they can be incorporated into appropriate water planning arrangements. This will be particularly important for groundwater resource areas, for which knowledge is continually evolving.

Access to low quality water resources

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 Murray Darling Basin 'sustainable diversion limits'). In other cases, poor quality water in one part of a water planning region is given the same value as high quality water, effectively forcing mining operations to pay premium prices to extract water that has no other beneficial use. These situations create a barrier for mining to access poor quality water resources which could otherwise be beneficially used and create significant economic returns. The use of lower quality water by the minerals industry effectively offsets water use from higher quality sources, leaving it available for those users requiring higher quality water.

The MCA considers that water resource plans and associated extraction limits 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 water resource plans do not explicitly restrict the inclusion of poorer quality water, these sources are yet to be sufficiently recognised in existing planning processes.

The use of poorer quality water should also be encouraged by tailored pricing that reflects its lower value and therefore utility to water users (where appropriate and where it does not render the market inefficient). Further commentary on pricing issues more generally has previously been provided in the MCA submission to the 2014 triennial assessment on the progress of water reforms.[5]

Should you have any questions regarding this submission, please do not hesitate to contact me

Yours sincerely

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[5] Minerals Council of Australia, *Submission to the Triennial Assessment on the progress of water reforms*, December, 2013, p.10