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Environment and Communications References Committee - Water use by the extractive industry

NSW Minerals Council submission

Introduction

Thank you for the opportunity to make a submission to the Environment and Communications Reference Committee into the adequacy of the regulatory framework governing water use by the extractive industry. This submission is made on behalf of the NSW Minerals Council, the peak industry association representing NSW's minerals industry including the state's major coal and metaliferrous mining operations. We also support the submission made by the Minerals Council of Australia.

Water is essential for mining operations for purposes including dust suppression, coal and mineral processing, irrigation of rehabilitated land and staff facilities. Additionally, mines often need to extract groundwater and surface water that enters mine areas, known as dewatering, to allow for the safe and efficient extraction of resources.

For an industry that generates the largest amount of merchandise export income in NSW[1], mining is a relatively small user of water, consuming 1.5% of the total volume of water consumed in NSW in 2015-16. This compares to 60% being consumed by agriculture and 11% by households.[2] Furthermore, mines often recycle and use poorer quality water for purposes such as dust suppression, reducing the need to use higher quality water that can remain available for other users.

Despite mining's relatively small water use in NSW, mining's impacts and use of water is highly regulated by a number of robust water laws starting from the early stage of project planning through to post mine closure. Miners are required to obtain licences and pay for any water take and are subject to ongoing monitoring and compliance in relation to the extent of water take and the impacts of their operations on water resources.

In addition to NSW legislation, miners are required to comply with Commonwealth legislation and coal mine proposals in particular may be affected by the 'water trigger' in the *Environment Protection and Biodiversity Conservation Act* 1999 (Cth) (**EPBC Act**).

The regulatory framework governing water take and use by extractive industries in NSW is not only adequate but is comprehensive and robust. Significant reforms to water laws have taken place in NSW in recent years and NSW already has dedicated water laws which are founded on the concept of ecologically sustainable development. Adding further layers of regulation is unnecessary and would not materially improve the protection of water resources in NSW.

[1] https://www.industry.nsw.gov.au/export-from-nsw/getting-started-in-export/export-facts-and-figures
[2] ABS Water Account 2015-16

Terms of Reference

The terms of reference for this inquiry are to assess the adequacy of the regulatory framework governing water take and use by the extractive industry, with particular reference to:

a. The social, economic and environmental impacts of extractive projects' take and use of water;
b. Existing safeguards in place to prevent the damage, contamination or draining of Australia's aquifers and water systems;
c. Any gaps in the regulatory framework which may lead to adverse social, economic or environmental outcomes, as a result of the take and use of water by extractive projects;
d. Any difference in the regulatory regime surrounding the extractive industry's water use, and that of other industries;
e. The effectiveness of the 'water trigger' under the *Environment Protection and Biodiversity Conservation Act* 1999, and the value in expanding the 'trigger' to include other projects, such as shale and tight gas; and
f. Any other related matters.

We provide specific comments in relation to each of these items below.

1. The social, economic and environmental impacts of extractive projects' take and use of water

All mining projects in NSW undergo a comprehensive approval process before they are permitted to proceed. As part of this approval process, the social, economic and environmental impacts of a project are considered. For mining projects, the impacts of a project's take and use of water are considered in terms of the social, economic and environmental outcomes. The environmental impact assessment process is not limited to assessing only environmental impacts and the planning laws specifically require that social and economic impacts must also be considered by a consent authority in determining an application for planning approval.

The environmental impact statement for major projects must be publicly exhibited and members of the community, interested groups and government agencies can comment on the impact of the extractive projects' take and use of water, including the Department of Primary Industries – Water (**DPI Water**) and the NSW Environment Protection Authority. The NSW Department of Planning and Environment and the independent Planning Assessment Commission consider all these submissions before determining an application for planning approval. A proponent may be required to modify their project due to unacceptable impacts caused by the take and use of water. If a project is approved, conditions in relation to water use may be imposed as part of the project approval.

In our view, the comprehensive environmental assessment processes, which require social, economic and environmental impacts to be considered, ensures that the impacts of water take and use are fully considered and managed. Further information regarding these assessment processes and the policies in place around the assessment are outlined in our response to item two below.

2. Existing safeguards in place to prevent the damage, contamination or draining of Australia's aquifers and water systems

There are currently many safeguards in place to prevent damage, contamination or draining of Australia's aquifers and water systems by the extractive industry.

In NSW, water use in mining is regulated by the *Water Management Act* 2000 (**WMA**) and Regulations as well as the *Water Act* 1912. The Water Act is being progressively phased out so most water use is regulated by the WMA. The WMA is a dedicated law to provide for the management of water in NSW and is based on the concept of ecologically sustainable development. Under the WMA, the main tools for managing NSW's water resources are water sharing plans and water licensing. Water sharing plans set out the rules for the sharing of water in a particular water source between water users and the environment, as well as rules for the trading of water in a certain water source.

Mining companies may only discharge water from a mine site into a water course in accordance with an environment protection licence (**EPL**) granted under the *Protection of the Environment Operations Act 1997* (NSW) (**POEO Act**). Not all mining operations are permitted to discharge water. If water discharges are permitted from a mine site the relevant EPL will include water quality and quantity parameters that any discharges must comply with.

In addition to this legislation, there are a number of policies which apply to major mining projects in NSW. The most significant is the NSW Aquifer Interference Policy. This policy outlines the process through which the **DPI Water** assesses projects to determine any potential impacts on aquifers. It clarifies the requirements for obtaining water licences for aquifer interference activities and requires that operators properly address risks to groundwater and undertake adequate monitoring.

Legislation and policy regulate water take and use by the extractive industry in three main ways:

i) Through the planning approval process;

ii) Through water licensing and water sharing plans; and

iii) Through ongoing monitoring and compliance obligations.

This network of water laws ensures there are adequate safeguards in place to prevent damage, contamination or draining of aquifers and water systems.

Planning Approval Process

The legislative and policy framework means that miners in NSW must consider water requirements and impacts at a number of stages in the pre-approval and approval processes. The table below provides an overview of the stages of a mine approval and how and when impacts on water are considered.

Table 1 How water is considered in a NSW mining project

Planning Stage	How water impacts of a project are considered	What the mining industry is required to do to protect water resources
Application to undertake mining exploration	Water impacts are considered at the early stage of an application to undertake mining exploration. DPI Water provides advice to the NSW Division of Resources and Energy on how exploration may impact on water resources.	Proponents must prepare Groundwater Monitoring and Modelling plans, in consultation with DPI Water.
NSW Mining and Petroleum Gateway	Mining projects where a new mining lease is required that are located on Strategic Agricultural land in NSW must go through the Gateway Process. A planning application cannot be determined and mining cannot be carried out until a Gateway Certificate has been issued by the Gateway Panel. Every Gateway application must be referred to the Commonwealth Independent Expert Scientific Committee (**IESC**) and the NSW Minister for Primary Industries by the Panel, to obtain advice on the water impacts of the	Proponents must undertake preliminary assessment of the proposal relating to water impacts and provide this to the Gateway Panel. Proponents must also assess impacts on highly productive groundwater in accordance with the NSW Aquifer Interference Policy.

	proposal.	
Secretary's Environmental Assessment Requirements (SEARs)	Prior to lodging a development application, a proponent must apply for Secretary's environmental assessment requirements (**SEARs**). These requirements outline what needs to be included/addressed in the project Environmental Impact Statement (**EIS**). Impacts on surface and ground water will need to be considered and the SEARs will outline how water needs to be assessed in the EIS.	In requesting SEARs the proponent needs to include detail of the relevant water sources that will be impacted by a proposed project, including both surface and groundwater impacts. If a coal mining project has been determined to be a controlled action under the EPBC Act on the basis of impacts on water resources, the SEARs will include the requirements of the Commonwealth Department of Environment with respect to the assessment of impacts of the proposed project on water.
Environmental Impact Statement	A proponent must submit an EIS to the DPE. This is placed on public exhibition and both Government agencies and the public can comment on the EIS. The EIS contains information on how the project impacts on water resources and water-dependent assets, supported by detailed modelling, and details of proposed mitigation measures to manage these risks. The DPE then undertakes a full merit assessment of the EIS and will determine whether the impact of the project on water resources is acceptable. DPE seeks input from other agencies such as the EPA and DPI-Water, who also provide recommended conditions should the project be approved.	Water impacts must be considered as part of the EIS process. Following the exhibition of the EIS, proponents may need to address concerns raised in submissions and/or modify their project. Pursuant to the Bilateral Assessment Agreement currently in place between NSW and the Commonwealth, if a coal mining project has been determined to be a controlled action under the EPBC Act on the basis of impacts on water resources, those impacts (as well as proposed safeguards and mitigation measures) will be assessed as part of the State EIS assessment process. The EIS must include enough information about the action and its relevant impacts to allow the Minister for the Environment to make an informed decision on whether or not to approve the action under the EPBC Act. In addition, advice must be obtained from the IESC prior to the Commonwealth Minister making a determination on a project. The water trigger process is discussed further below.
Draft Conditions of Approval	If the project is to be approved, DPE circulates draft conditions of approval (including conditions relating to water management) to agencies and the	All major mining projects in NSW include conditions regarding water use and management. Draft conditions of approval will include conditions regarding water which will be reviewed

	proponent for comment.	by the relevant agencies to ensure the proposed conditions are adequate.
Planning Approval	The planning approval will contain conditions regarding water use and management.	Proponents must comply with the conditions of consent including with respect of water. Regular audits are conducted by proponents and Government agencies with respect to compliance with approval conditions. A breach of a condition of a planning approval is an offence under the planning laws and potentially may also constitute an offence under other environmental legislation.
Post-approval	Post approval, impacts on water are considered through subsidence management plans, water management plans, water monitoring and modelling plans, mining operation plans and rehabilitation management plans.	Miners must prepare a suite of documents (to the satisfaction of the relevant Government agencies) which outline how they will manage water resources. Mining companies are required to report regularly on compliance with these plans.

A key policy used in the above approval process is the Aquifer Interference Policy. This policy details how DPI-Water will assess projects to determine impacts on water resources. The assessment criteria used are called 'minimal impact considerations' and a range of impacts such as impacts on the water table, water pressure levels and impacts on water quality will be assessed. The impacts of both an individual activity as well as cumulative impacts are considered. The Aquifer Interference Policy ensures that impacts on water are comprehensively assessed and is a key tool in safeguarding NSW's water resources. The existence of this Policy highlights the importance placed on water in NSW and reflects the adequacy of existing water laws and policies.

Water Management Plans and Licensing

After a project is approved, NSW miners have compliance obligations in relation to water which include ongoing monitoring and assessment as well as licensing requirements.

Water sharing plans are used to manage surface water and groundwater through water licences and approvals. These plans set limits on the total volume of water that can be taken from each water source and specify rules for water access. Water sharing rules are designed specifically for each relevant water source and are tailored to ensure that the impact on each water source in NSW from licensed activities is acceptable and allows for the ongoing sustainability of the water source.

In NSW, water licences are required to account for water taken from groundwater and surface water sources. This is to ensure that the amount of water taken from each water source does not exceed the extraction limit set in a water sharing plan, which is set to ensure total water extraction from the water source is sustainable. Extractive industries such as mining are required to obtain water licences and pay for their water take. Water licenses are required regardless of whether the water is taken for consumptive use or whether it is taken incidentally (e.g. groundwater inflows to excavated areas). This means that processes such as dewatering of groundwater to allow mining to take place requires a licence even though mining operations may not have yet commenced.

Miners in NSW are currently required to obtain a water licence for the following (amongst other things): water that is extracted, is dewatered, is required for processing or washing, is required for dust suppression or water that flows into a void post mining. Licences are also required for 'indirect' take –

for example, where pit dewatering leads to indirect impacts on a connected groundwater or surface water resource.

Many water sources in NSW are fully allocated, meaning that new water access licences for commercial purposes (including mining) are not being granted and are only available through purchasing a water access licence or water entitlements on the water market.

It is an offence to take water without or in contravention of, a water licence. The application process for water licences is provided for in the relevant legislation and water licences may be granted subject to conditions. It is an offence under the water legislation for the holder of a water licence not to comply with the conditions of the licence.

Water sharing plans and licences ensure that those in the extractive industry do not take more water than is sustainable.

Ongoing Monitoring and Compliance

In NSW miners are also expected to carry out water measurement and monitoring programs to monitor and report on water levels, water quality and water take. Conditions of development consent regularly impose a requirement for the preparation of a water management plan with associated reporting requirements and it is a condition of a water licence that the volume of water taken under that licence is reported annually.

The recent passing of laws establishing the Natural Resources Access Regulator (**Regulator**) has further strengthened water regulation compliance and enforcement. The Regulator is a new NSW Government Agency empowered with the function of enforcing water legislation in NSW. The Regulator will be responsible for determining whether to bring proceedings for offences under natural resources legislation. It is anticipated that the establishment of the Regulator will lead to an increase in monitoring and auditing activities in relation to water.

3. Any gaps in the regulatory framework which may lead to adverse social, economic or environmental outcomes, as a result of the take and use of water by extractive projects

There are no gaps in the regulatory framework for water in relation to mining in NSW. As outlined above, NSW already has a strong regulatory framework and the social, economic and environmental impacts of a mining project are assessed and considered prior to any project being approved and to provide for monitoring post-approval.

Over-regulation of mining in relation to water is leading to an inefficient regulatory framework. For example, the Senate Select Committee on Red Tape recommended in its October 2017 interim report that the water trigger be removed from the EPBC Act given that it duplicates the state-based regulatory frameworks[3]. There is a plethora of experts involved in mining project assessments in NSW, including the gateway panel, DPI Water, the Planning Assessment Commission, independent reviews commissioned by the Department of Planning and Environment and peer reviews commissioned by proponents of their own water studies. This is a comprehensive process and the value added by the Commonwealth water trigger is questionable.

4. Any difference in the regulatory regime surrounding the extractive industry's water use, and that of other industries

The regulatory regime surrounding the extractive industry's water use is comprehensive and stringent. We are not aware of another industry which is more highly regulated than the current regulatory regime for water use in the extractive industry. Miners spend a significant amount of time and financial resources in ensuring water law requirements are met as well as monitoring water levels,

[3] https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Red_Tape/Environment/Interim_report

discharge and quality. Imposing further regulatory and compliance burdens on the industry would create a substantial burden on the industry with little or no improvement in water use or quality.

Furthermore, the mining industry is very transparent about its water use. For example, Upper Hunter coal mining operations have worked with the community to publish information about the industry's aggregate use of water from the Hunter River and groundwater sources and to place this in the broader context of the region's water resources. This project, completed through the Upper Hunter Mining Dialogue, has given other water users in the region confidence that the industry is responsibly managing its potential impacts on water resources. A second project being undertaken with community members, other water users and the University of Newcastle is looking at water quality in the Hunter River and whether existing discharge limits on mines are adequate to protect river water quality.

5. The effectiveness of the 'water trigger' under the Environment Protection and Biodiversity Conservation Act 1999

In June 2013 the EPBC Act was amended to make water resources a matter of national environmental significance in relation to large coal mining development. This is known as the 'water trigger'. The 'water trigger' means that large coal mining developments that are expected to have a significant impact on water resources must be referred to the IESC for advice. Based on the IESC's advice, the Minister can set appropriate conditions as part of the project approval to ensure that impacts on water are acceptable.

It is our view that the water trigger imposes an additional and unnecessary layer of regulation on an already highly regulated area. As outlined above, State laws require a comprehensive assessment of water impacts and provide for the imposition of conditions relating to water management prior to project approval, and there is a requirement to hold water licences for the predicted water take at all stages of the mine. Having the Commonwealth duplicate a process which has already taken place at the State level adds little to the process and simply causes delays.

This was recently recognised in a Senate Inquiry Interim report "Effect of Red tape on Environmental Assessment and Approvals". This report examines the effect of red tape on the environmental assessment process and the Senate Inquiry made a number of recommendations. One of these recommendations was that the water trigger be removed from the EPBC Act. The NSW Minerals Council support this recommendation to remove the water trigger under the EPBC Act.

NSW Minerals Council

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