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Submission

Senate Standing Committee on Environment and Communications

Inquiry into water use by extractive industry

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Introduction

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigators and the irrigation sector in NSW. NSW irrigators hold water access licences to access regulated, unregulated and groundwater systems. Our Members include valley water user associations, food and fibre groups, irrigation corporations and community groups from the rice, cotton, dairy and horticultural industries.

NSWIC engages in advocacy and policy development on behalf of the irrigation sector. As an apolitical entity, the Council provides advice to all stakeholders and decision makers.

This submission represents the views of the Members of NSWIC to Senate Standing Committee on Environment and Communications on the inquiry into water use by extractive industry. However, each Member reserves the right to independent policy on issues that directly relate to their areas of operation, expertise or any other issues that they may deem relevant.

Comments

The NSW Irrigators' Council would like to provide the following comments to the Inquiry's Terms of Reference:

a) the social, economic and environmental impacts of extractive projects' take and use of water;

In respect to irrigated agriculture, NSWIC reiterates that all food and fibre producers in NSW are subject to a comprehensive and stringent legislative framework that manages and allocates water resources in NSW. NSW irrigators are not only subject to the *NSW Water Management Act 2000 (WMA)* and any subordinate legislation, but irrigators in the NSW Murray-Darling Basin are also subject to the *Water Act 2007 (Cth)*, the *Basin Plan 2012 (Cth)* and any related regulatory instruments. Water management and regulation has a long history in NSW and the WMA clearly specifies under Chapter 1, Section 3, that the objectives of the Act are to provide for "*the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations, in particular to apply the principles of ecologically sustainable development*".

While all extractive industries in NSW are subject to the WMA (e.g. requirement to hold a water licence), NSWIC has raised a concern on multiple occasions that there are deficiencies in the current state regulations governing mining and gas activities and the practical application of the WMA in this sector. There is ample evidence of the shortcomings of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, the *Mining Act 1992 (Mining Act)* and the *Petroleum (Onshore) Act 1991 (Petroleum Act)* and the NSW Aquifer Interference Policy that continue to threaten water resources in NSW.

In particular there are significant inconsistencies in the application of the regulatory framework and practical outcomes for extractive industries versus consumptive water use. The two operations have different impacts on the resource, yet the mechanisms for management do not recognize these inherent differences between the forms of take. Extractive take is a form of interception which cannot be managed effectively in stop work orders or similar arrangements that apply effectively in consumptive water take.

The impact from the extractive industry is a pulse resulting from the interception of the water source and continues to impact for decades. Yet there is no effective regulatory tool that allows agencies to resolve the long-term impact from extractive industries' water take. The inability to resolve the predicted modelled impact with management plans and adaptive management allows for gaps in the regulatory management of water resources and this is exacerbated by the poor function of the deeper monitoring networks in place. But in these same water sources, consumptive water users are not afforded the same level of leniency or flexibility. The example of the Maules Creek Coalmine and Zone 11 in Northern NSW which clearly demonstrates the mismatch between current legislative arrangements for extractive interception versus consumptive water use management.

One of the major impacts we observe is the depopulation of small rural communities. The estimated footprint of mining in NSW is less than 1% of the landmass, however this figure does not represent the total area either owned or under access agreements by the mining industry. The total area adversely affected results in; a continuing loss of agricultural productivity, a loss of placement for the remaining local community and large areas of environmental "offsets" that are replacing previously productive rural land and communities.

Impacts from extractive industries result in increased competitive pressure on land, labour and water resources which underpin irrigated agricultural production. The increased demand from mining and energy resource extractive industries has increased overhead costs for irrigated agricultural producers - further exacerbating the overall financial constraints that irrigators in NSW are experiencing. It is again worth noting, irrigated agricultural producers are price takers in domestic and international markets and are unable to adjust their output prices to accommodate the increased costs to enable them to retain acceptable enterprise gross margins.

The potential threat from mining and gas activities to our nations water resources, structural damage to existing water resources, contamination and changes in water pressure and quality is another significant concern for NSWIC. Whilst relevant data and information on mineral and energy resource deposits are extensive, insufficient work has been done to assess the immediate and long-term impact of mining and energy resource extraction on water resources. For example, hydrological connectivity studies and appraisals are only carried out by the mining proponent as condition of the pertinent EIS, not independently by Government. This is not acceptable.

Insufficient regulation exists for mining and gas activities to protect surface water and groundwater resource from the impacts of exploration activities. While the NSW Aquifer Interference Regulation was initially designed to address this regulatory deficiency, it has since then been downgraded to a policy. **This clearly shows that the protection of water resources is now subordinated to the needs of the mining and energy resource extractive industries.**

In light of proposed further expansion of mining and energy resource extractive activities, the long-term future of NSW's water resources – both surface and groundwater – and the productive capacity of those industries depending on them will be severely threatened.

Nevertheless, NSWIC stresses that it is not against mining or other resource extractive industries per se, but the Council believes a better balance must to be struck between the preservation of the State's significant agricultural production and the exploration and extraction of the State's coal and coal seam gas (CSG), shale and tight gas reserves. Such a balance would enable the sensible coexistence between all extractive industry and the

environment – which will ultimately allow all to thrive. However, it must be recognised that damages to the State’s vital water resources might be irreversible, so the “precautionary principle” must be employed and as such a ‘no regrets’ approach must be taken in mining or energy extractive regulation.

NSWIC’s primary concern lies with the indefinite protection and preservation of NSW’s water resources – both ground and surface water. As such, NSWIC submits that this Inquiry needs to identify if current regulation adequately addresses the following key criteria in respect to water resources:

- All relevant regulations governing mining and gas extractive activities apply state wide;
- All relevant regulations governing mining and gas activities apply to all water resources (groundwater and surface water);
- All relevant regulations ensure no irreparable damage will occur to natural water resources;
- All relevant regulations governing mining and gas activities ensure that all mining and gas activities are subject to the same binding Aquifer Interference assessment and Aquifer Interference Approval process.

NSWIC believes that these criteria are critical to ensure that the State’s water resources are adequately protected from all mining and other energy resource extractive activities in the future.

b) existing safeguards in place to prevent the damage, contamination or draining of Australia’s aquifers and water systems;

As outlined in our response to the previous ToR, NSWIC acknowledges that mining and gas industries are required to comply with some of the State and Federal water management regulations, however the framework is not sufficient. As outlined in our response to **ToR D**, the NSW Government provides for a wide variety of exemptions for mining and gas activities in the state which put water resources (both State and Federal) at significant risk. Further improvement to the current State regulation must be made to ensure the ongoing protection of the State’s water resources.

Furthermore, the lack of confidence in the NSW Government approval process appears to occur on both sides – e.g. with proponents and community interest groups, as well as industry peak bodies commissioning independent expert reports to justify or contest the findings of the State’s approval processes. Needless to say, this shows the ongoing mistrust in the rigour of the scientific analysis of water resource impacts that underpin the NSW Government decision making processes on mining and CSG developments. For example in Qld, the Department undertakes modelling assessment of proposed projects independently; but NSW requires the proponent to model the impact resulting in adversarial science assessment. Again, this is an inconsistent application of process in NSW; where consumptive water take is independently modelled, assessed and managed by the Department, yet extractive users are required to develop their own model, undertake scientific assessment and develop management plans that are ultimately managed and regulated with minimal oversight.

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;

As outlined earlier, irrigators operate under a robust regulatory framework concerning water resources. In addition to the legislative requirements imposed under the NSW *Water Management Act 2000* (WMA), irrigators also have to comply with Federal water legislation and regulation pursuant to the *Water Act 2007 (Cth)*, the *Basin Plan 2012 (Cth)* and any subordinate legislation. Further, irrigators are also required to comply with a range of other State and Federal regulation that relate to their irrigation business (e.g. land, labour and native vegetation management).

For other extractive industries, including mining, Coal Seam Gas, shale and tight gas, the regulatory framework is less stringent (please see response to **ToR D**). These extractive industries have the potential to cause long-term, irreversible damage to water resources – not only through the potential destruction of the aquifer (e.g. long wall mining), the contamination of groundwater and surface water resources (e.g. through the use of chemicals and fluids to assist the extraction of the minerals and gas) or through uncontrolled interception activity (e.g. flow of water into open pits). NSWIC is of the view that a strict ‘no regrets’ approach should be applied to any mining and gas activities that could pose any of the abovementioned risks to NSW’s water resources.

In addition, NSWIC reiterates that the ‘water trigger’ in the *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)* must remain within the remit of the Federal Government and not be delegated to the State authorities. As NSWIC outlined on numerous occasions, NSWIC does not have the confidence that the State process is sufficiently robust to provide for the ongoing protection and preservation of the State’s water resources. Further, the Bioregional assessments identified clear gaps in data and confidence in knowledge used to assess impacts. These were to be rectified in the broader work undertaken by the Federal Department of Water Resources, however apparently now remain unfunded.

Finally, NSWIC is of the view that the NSW Aquifer Interference Policy should be made into a binding regulation and the ‘activity approvals’ available under the NSW *Water Management Act 2000* (WMA) be switched on to provide a rigorous framework for mining and gas activities in NSW and instil confidence in NSW irrigators and regional communities that water resources in the State will be protected indefinitely. The make-good provisions need substantial review, as current provisions are insufficient to safeguard against companies choosing to impact landholders knowing there is little ability for landholders to determine the level of impact, without expending very large sums of money to ‘prove’ damage has occurred by the proponent’s mining activities. In this regard the burden of proof rests with the landholder to demonstrate poor practices from extractive industries. That is simply wrong.

d) any difference in the regulatory regime surrounding the extractive industry’s water use and that of other industries;

Within NSW, there are differences in the regulatory regimes for different extractive industries.

While all food and fibre producers are required to hold a water licence and works approval if they intend to extract water in NSW, the same principles do not necessarily apply to all mining and gas activities. For example, mining and gas industries that are classified as *State Significant Developments* (SSD) are not required to hold a works approval. As most mining and gas projects in the State are classified as SSD, the vast majority are exempt from this requirement.

In addition, section 91 of the *Water Management Act 2000* (WMA) allows the State Water Minister to request mining and gas project proponents to have an ‘activity approval’. Section 91 (3) of the WMA states that “*An aquifer interference approval confers a right on its holder to carry out one or more specified aquifer interference activities at a specified location, or in a specified area, in the course of carrying out specified activities*”. It is NSWIC’s understanding that this provision of the WMA was never switched on even though it would enable the regulation of aquifer interference activities in the context of mining and gas projects.

e) the effectiveness of the ‘water trigger’ under the Environmental Protection and Biodiversity Conservation Act 1999, and the value in expanding the ‘trigger’ to include other projects, such as shale and tight gas;

NSWIC has long supported the continuous Federal Government oversight of all mining and gas activities (including shale and tight gas) in NSW via the Environmental Protection and Biodiversity Conservation Act 1999 ‘water trigger’. NSWIC stresses that the trigger must remain under the remit of the Federal Government and not be delegated to the relevant State authorities.

NSWIC actively participated in the independent review of the Environmental Protection and Biodiversity Conservation Act 1999 ‘water trigger’ in 2015. As outlined in NSWIC’s submission, NSWIC strongly advocated for a strict ‘no regrets’ approach to mining and gas activities in NSW to ensure that the State’s water resources remain protected from potential detrimental impacts. The Council has reiterated this policy position to the NSW Government and the responsible State Departments on numerous occasions.

Despite our ongoing engagement in the mining and gas planning process and regulatory framework, we have been repeatedly disappointed by the lack of rigour in the State’s assessment, approval and monitoring work relating to the impact of mining and gas activities on water resources. This disappointment has resulted in the Council expressing a lack of confidence in the State’s mining and gas approval process and voicing its concern about the State’s inability to protect water resources from the detrimental impact of mining and gas developments in NSW.

To re-emphasize, NSWIC notes that the former Environmental Minister Tony Bourke stated that there was **no point in delegating any of the CSG water safeguards to the States given the point of the legislation (e.g. water trigger) was to act on problems in state safeguards**.

NSWIC is of the view that this point highlights why the ‘water trigger’ must remain under Federal Government jurisdiction. Its retention in the EPBC Act (and potential broadening to capture shale and tight gas) will allow the Federal Environment Minister to have the capacity to protect water resources as resources of national environmental significance – in particular in those cases where the State Government experiences a conflict of interest between mining and CSG development and the protection of water resources, or where State

assessment and approval processes are inefficient or insufficient to provide adequate protection for these water resources.

Given the shortcomings of the State's regulatory framework, NSWIC has rejected the 'one-stop-shop' reform process previously promoted by other bodies because the Council is of the view that the State's approval process remains inadequate to protect the State's water resources. The final Federal approval process under the EPBC 'water trigger' provisions - being a last line of scientific assessment through the Independent Expert Scientific Committee (IESC) linked to Ministerial approval additional to the State processes - is considered by NSWIC and its members to provide extra scientific rigour to the development approval process. If this was not to remain in place, it would result in the State approval of extractive activities without appropriate examination of potential impacts on water resources and without required conditions to reduce the risk of negative impacts.

Overall, NSWIC has been supportive of the 2013 amendments to the Environmental Protection and Biodiversity Act 1999 (EPBC Act) which acknowledges the importance of water resources as a matter of national environmental significance and provides for the introduction of the 'water trigger' provisions. NSWIC believes the provisions for the Federal Environment Minister to add to or vary the conditions of development approval in cases where water resources are threatened is important and must be retained (and should be broadened to include shale and tight gas) in the EPBC Act.

However, NSWIC believes that further refinement of the 'water trigger' provisions could be made to enhance its effectiveness in protecting water resources. One example that NSWIC highlights is the NSW Gateway approval process. NSWIC is of the view that the Federal Government should engage in 'closing the loop' within the approval framework by enabling the IESC to consider whether their advice has been taken into account by mining proponents. We believe that this Gateway loop should also be provided by the Federal Government through the EPBC Act and the water trigger.

NSWIC supports a rigorous regulatory approach for the assessment of impacts associated with mining and CSG. We have observed that without a rigorous regulatory framework in place, impacts on water resources have not been appropriately considered. Multiple iterations of the regulatory framework have led to the establishment of the IESC and the consolidation of existing knowledge through the Bioregional Assessment Program and a specific focus on water resources when assessing development proposals. In addition, the establishment of appropriately located groundwater monitoring sites, consideration of cumulative impacts and additional resources to expand the existing knowledge base on risk and impacts of CSG and mining would not have occurred without a strong regulatory framework in place.

f) any other related matters.

Regulatory compliance: sufficient qualified personnel in respective Government Departments is an ongoing concern for the water industry. Failure to enforce compliance of regulation; efficiently, promptly and adequately in the both the extractive and consumptive water industries contributes to mistrust and antagonism with Government agencies and needs correcting as a matter of urgency.

Appendix A:

NSWIC Policy

NSWIC would like to reiterate its policy on mining and coal seam gas operations at this point. We have continuously declared that NSWIC is not opposed to the mining industry or its future development and we recognize that there can be significant social and economic benefits which in many instances can be delivered with limited negative impact to communities, businesses and the environment.

We also recognise that these benefits may accrue at an individual level, a community level, a regional level or a state-wide level. We do however stress that in several instances, the social and economic costs of mining and other energy resource extractive activities outweigh the benefits. It is therefore absolutely essential to proceed with caution on any further mining and CSG activities. For that purpose NSWIC has adopted a policy on mining and coal seam gas that outlines the following key axioms;

"The preservation of sustainable resources for agriculture - including water - must be absolute in addressing mining exploration or operational licence applications."

"NSWIC advocates a strict "no regrets" approach to the licencing of both exploration and operations in mining in respect to water resources."

As minerals and other energy resource deposits are non-diminishable, it is absolutely critical to understand the impact that the exploration and extraction of those resources has on the productive capacity of water resources. In light of the currently available knowledge, NSWIC is not convinced that the impacts of mining and energy resource exploration are yet sufficiently understood or that mining and energy resource extractive industries have proven beyond reasonable doubt that their activities have had no impact on water resources - both ground and surface.

By its nature, mineral and energy resource extraction is a short to medium term activity. Once the resource has been extracted, the business ceases to operate and an equilibrium has to be re-established. Agriculture, on the other hand, is a sustainable long-term activity. Sensibly managed, its use of renewable resources - both land and water - will allow for food and fibre production indefinitely. We believe that this fact must underpin the regulatory framework governing mining and energy resource exploration and further studies should be commissioned to determine the long-term revenue stream of both industries to allow for a sensible comparison of the most efficient use of current resources.

Furthermore, while irrigators are subject to significant obligations in respect to access, reliability, quality and impact, we consider it vital that the regulatory framework governing mining and energy resource extractive activities must be equally stringent, rigorously implemented and enforced.

NSWIC has outlined in its policy that areas of concern with regards to mining and energy resource extractive activities relate to;

- **Access**

There must be no circumstance under which the watercourse or aquifer is damaged or altered either permanently or temporarily.

- **Reliability**

There must be no interference with a water source which would cause a change in the reliability at both short or long term intervals.

- **Quality**

There must be no change to the beneficial use characteristics of a water source. Contaminated water - be it through mining or an adjunct process - is unacceptable and must be vigorously guarded against.

- **Availability and Use**

There must be no exemption to the licence requirements for mining and energy resource extractive industries. Any take of water in association with mining and energy resource exploration and extraction must be accounted for.

As a first principle, NSWIC submits that there cannot be any negative impacts on third parties as a result of mining and energy resource extractive activities. Where an exploration permit is sought, the applicant must be able to prove beyond reasonable doubt that the exploration activity under the permit will not cause any damage to the water source.

Furthermore, NSWIC believes that a risk management approach is the most appropriate framework to avoid impacts during any stage of mining and energy resource extraction. Such an assessment must be undertaken by a suitably qualified independent party and must take into account potential cumulative impacts. Such an assessment may utilise a risk management matrix that allows variance for high value or strategically important areas to ensure that the response meets the potential threat. Based on such an assessment, a security bond mechanism must be determined and enforced such that the NSW Government holds a financial instrument capable of fully compensating for any damage that may occur.

The risk management approach and matrix must also take into account the environment and water resource history of the applicant. Where an applicant has a poor history - breaches of entitlements by it or an associated entity - or that applicant has no history of managing water or mitigating water resource impacts - their potential threat level must be increased. Regular oversight and reporting against conditions of permits must be made mandatory and full transparency of the results must be guaranteed.

Finally, breaches of conditions at any phase must be considered a 'reportable incident' and State authorities must, at the expense of the operator, provide a publicly accessible report of the breach and must notify stakeholders directly of the breach, what measures were taken to avoid the breach and what additional conditions will be imposed as result of the breach.