

Response ID ANON-XVYX-N2CR-M

Submitted to **Independent review of the 'water trigger' legislation**

Submitted on **2016-01-29 14:08:19**

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TOR 1: Examine the appropriateness of the regulation including whether it is necessary and well targeted

3 Is there a significant likelihood of a substantial negative environmental impact from coal seam gas and large coal mining development on water resources in the absence of the water trigger legislation?

Yes

Please tell us why:

The cumulative and long term impacts of new and existing mining developments are not being adequately assessed at a state level. This requires an overarching national body that looks across mines sites, catchments and state boundaries that is informed by the most current scientific research and advice.

An independent expert well-resourced scientific body is needed to ensure the mining industry is held to the highest environmental standards based on the latest peer reviewed science. History in the Hunter Valley has shown that unless heavily regulated the mining industry defaults to the minimum environmental standards and compliance allowed to carry out their key purpose (extracting the resource and maximising returns).

Unfortunately State agencies are being gutted of resources and scientific skills necessary for understanding, interpreting and critically reviewing complex documents and mine report that include groundwater modelling.

State agencies have repeatedly failed to prevent or mitigate impacts that lie outside their practical control or jurisdiction. Industry funded consultant reports are not adequately peer reviewed or critically interrogated but accepted as scientifically robust when they contain many flaws and scientific bias.

Groundwater modelling impacts are a case in question. Extremely complex and subjective analysis, that contain many variables, inherent errors and uncertainties open to a range of interpretations. Groundwater modelling should not be relied upon to predict the future but considered as a way of quantifying uncertainty not specific outcomes.

With the efficacy of State regulatory bodies being downgraded the environmental, social and economic consequences of coal and CSG developments on catchments and communities are given only superficial regard, with decision-making biased toward narrow, short term gains that ignore the precautionary principle and inter-generational equity.

4 Is the scope and focus of the legislation appropriate to the problem being addressed?

No

Please tell us why:

The IESC has so far provided an invaluable contribution to the understanding of potential mining and CSG impacts to help inform decision-makers. However in many cases the committee were severely constrained due to a systemic lack of scientific information, inadequate mining assessments and understanding of the impacts.

Despite the recommendations of the IESC, new and expanded mining projects continue to be approved without proper investigation of the cumulative and long term impacts.

The legislation needs to incorporate mandatory standards and guidelines that will effectively protect the long term health of our water systems from mining developments that have the potential to exceed environmental obligations and social values. The precautionary principle needs to be consistently and effectively applied. Ongoing research and review of reports by the IESC is required to fully inform decision-makers.

Recommend the role of IESC involves a review of State legislation and statutory arrangements to determine whether they are fit for purpose for ensuring the protection of water-related environmental and regional impacts from mining and CSG activities.

There should be clear buffer areas and set-backs from water bodies and groundwater dependent ecosystems. Also provide guidelines on the adequacy of baseline studies, site specific water quality parameters and recognition of the uncertainties and significant gaps in groundwater knowledge when modelling mining impacts.

5 Are there significant gaps in the scope or intent of the legislation?

Yes

Please tell us why:

Extensive surface and groundwater research, combined with the review and interpretation of existing industry and government reports monitoring data is essential to improve our understanding of water resource impacts and inform decision-makers. Developments are being approved without adequate background, baseline data or understanding of the long-term behaviour and mechanisms driving surface groundwater interaction.

The legislation needs to incorporate guidelines and mandatory standards to ensure adequacy of baseline studies, site specific water quality parameters and

recognition of the uncertainties and significant gaps in groundwater knowledge when modelling mining impacts.

For example there should be clear buffer areas and set-backs from water bodies and groundwater dependent ecosystems. The NSW Water Act 1912, without rigorous assessment, allows the extraction of millions of litres of groundwater per day for mine dewatering in the Goulburn River catchment, Hunter Valley. This antiquated legislation has permitted the installation of dewatering bore-fields resulting in the widespread depressurisation and degradation of regional groundwater systems by mine dewatering.

Extraction groundwater licenses are granted without due assessment of cumulative effects or timely and enforceable triggers to ensure protection for connected streams and water dependent ecosystems over the long term (see ISEC report). The water system is predicted to take over 300 years to rebound, whilst intercepting and distorting 100s sq. kilometres surface and groundwater flows to the upper Goulburn River and other water dependent ecosystems.

6 Please upload additional information relating to TOR 1 if you wish

File upload:

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TOR 2: Effectiveness of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects, including the role and scope of work given to the IESC

7 In your opinion has the water trigger legislation been effective in protecting water resources potentially and actually affected by relevant developments?

Yes

Please tell us why::

In 2013 an IESC report warned of unacceptable cumulative impacts on the groundwater environment on both a local and regional scale from the then proposed Moolarben Coal Mine expansion (EPBC 2008/4444). They referred to a lack of regional water balance constraining their capacity to assess cumulative impacts; they raised concerns that the mine assessments and analysis lacked scope and efficacy and were restricted to site-specific outcomes. They warned of inadequate mitigation strategies given the potential spatial extent and proposed magnitude of the groundwater drawdown, and subsequent deterioration in water quality, riparian vegetation health and stream bank stability.

The Moolarben Coal Mine Stage 2 development was approved in 2014 with limited changes. However the IESC report was able to highlight some of the inadequacies of the mining proposal that resulted in some tightening of the approval conditions by the NSW government.

8 Please upload additional information relating to TOR 2 if you wish

File upload:

130201 2008-4444-iesc-final-adviceMoolarben Stage2.pdf was uploaded

TOR 3: Identify any opportunities to improve the effectiveness of the regulation

9 Are there gaps in the scope of the legislation that reduce its effectiveness in protecting water resource from relevant developments?

Yes

Please tell us why:

The legislation does not ensure effective protection to surface and groundwater systems from the cumulative impacts from the staged expansion of a mining development. Mines have been allowed to increase their environmental footprint by stealth - using numerous modifications assessed in relative isolation. The assessment of the cumulative impacts of any new or expanded proposal should be mandatory, including other mining developments in that catchment or bioregion.

10 Are there opportunities to improve the clarity of the legislation? This could include responses concerning the definitions of actions which are covered by the legislation, and whether the approval conditions on those developments provide benefit in protecting water resources.

Yes

Please tell us what type/s of opportunities may improve the clarity of the legislation:

The legislation needs to incorporate guidelines and mandatory standards to ensure adequacy of baseline studies, site specific water quality parameters and recognition of the uncertainties and significant gaps in groundwater knowledge when modelling mining impacts.

Independent auditing by the IESC into the effectiveness of mining approval conditions, regulations and compliance should improve community confidence in the scientific integrity of the mining assessment and approval process provided this involves transparency and leads to improved standards and guidelines for water resource protection.

11 Are there improvements that could be made to the way in which advice is sought by the Australian Government from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) that could increase the efficiency of processes required as part of the water trigger?

Yes

Please tell us why:

The IESC has so far provided an invaluable contribution to the understanding of potential mining and CSG impacts that can help inform decision-makers. However in many cases the committee's ability to make explicit recommendations are severely constrained due to the lack of reliable and comprehensive scientific information and inadequate mine reporting. Ongoing surface and groundwater research, combined with the review and interpretation of existing industry and government reports monitoring data is essential for making informed science based decisions that will protect our water resources into the future.

This should not be a matter of improving efficiency. In the absence of sufficient robust science we must acknowledge the extent of risk and apply the precautionary principle.

12 Were stakeholders appropriately involved in the implementation of the water trigger legislation?

Uncertain

Please tell us why:

13 Please upload additional information relating to TOR 3 here if you wish

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TOR 4: Examine the efficiency of the regulation in protecting water resources from the impacts of coal seam gas and large coal mining projects

14 Have there been additional administrative compliance and delay costs arising from the water trigger that have affected business, community organisations and individuals?

No

Please tell us why:

Our water resources must be fully protected and sustainably managed to ensure inter-generational equity. In the absence of adequate science and knowledge of surface and groundwater systems we must adhere to the precautionary principle.

We cannot continue to approve mining developments that will have significant ongoing negative impacts on the health and resilience of our water systems for centuries into the future. Delays and administrative costs are inconsequential when compared to the potential long term cost and degradation of essential water resources.

15 Has the water trigger been beneficial in providing environmental outcomes, community confidence in the regulatory system of applying science to decision-making and management of environmental risk?

Yes

Please tell us why:

The water trigger has improved community confidence in the regulatory system and provided the basis for improved environmental outcomes. Its long term effectiveness will be dependent on the Australian government's commitment to objective and robust science, and a transparent assessment process and risk management that places water resource protection and community values over short term economic gains.

16 Has the water trigger delivered an overall benefit when regulatory costs are compared to the environmental and other benefits?

Uncertain

Tell us why:

Regulatory costs are inconsequential against the potential environmental benefits from effective protection of water resources. The water trigger, underpinned by objective and robust science assists in reducing the risk of costly and humiliating environmental disasters and provides a level of certainty to industry and reassurance to communities.

17 Have there been additional administrative and other costs to governments arising from the implementation of the water trigger?

Uncertain

Tell us why:

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TOR 5: Identify any opportunities to reduce or simplify the regulation whilst maintaining its effectiveness

18 Are there any opportunities to reduce or simplify the regulation whilst maintaining its effectiveness?

Uncertain

Please tell us more:

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TOR 6: Identify any recommended appropriate future review points of the regulation

19 Are there particular points in time, outside the statutory schedule for the review of the EPBC Act (reviewed every 10 years from commencement) that should be considered as review points for the water trigger?

Uncertain

Please tell us why:

The effects of climate change on our water systems and ongoing scientific research may require more frequent review.

Personal information

20 What is your name?

First name:

Julia

Last name:

Imrie

21 I wish to make this submission anonymously

Not Answered

22 Contact details

Email address:

[REDACTED]

Mailing address:

[REDACTED]

Postcode:

[REDACTED]

23 What is your organisation (if applicable)?

Organisation:

24 What has been your involvement with the Water Trigger legislation?

I am a landowner directly affected by current coal seam gas/large coal exploration or extraction on my land., I am a resident of a community where coal seam gas/large coal projects are imminent or current.

Please describe:

Research PhD Candidate ANU - Impacts on Surface and Groundwater

25 How did you hear about the water trigger review?

Community organisation or peak body

If other, how?:

26 Rate the following sources of information regarding the water trigger review.

rank - Department of the Environment website:

Neutral

rank - Issues Paper:

Useful

27 Which of the following sources of information do you find useful for information on coal seam gas and coal mining?

Rate sources of information - Media:

Useful

Rate sources of information - Government:

Useful

Rate sources of information - Scientific and research bodies such as CSIRO and universities:

Useful

Rate sources of information - Information from community groups and peak bodies (eg websites, newsletters):

Useful

Rate sources of information - Informal sources such as word of mouth:

Neutral