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Water Trigger Review

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Submission to the Independent Review of the Water Trigger legislation

Introduction

Thank you for seeking input in to the review of the water trigger legislation under the Environment Protection and Biodiversity Conservation (EPBC) Act

The Australian Conservation Foundation (ACF) has been working to protect Australia's environment for over 50 years. ACF has been a strong supporter of national leadership in environmental protection and restoration and supports the continued operation of the EPBC Act and water trigger. While there have been issues in the implementation of the water trigger ACF is of the firm view that it should be retained and strengthened under the EPBC Act.

Summary of recommendations:

- *Maintain and expand the 'water trigger' to ensure that water resources are protected and managed in the national interest.*
- *Do not devolve the water trigger to the states and territories; repeal Section 46 of the EPBC Act in its entirety.*
- *Allow the IESC to continue to operate independently and adequately resource it to provide accurate and timely scientific advice to governments.*
- *Include in legislation mandatory provisions to ensure the Federal Environment Minister cannot make decisions that are inconsistent with advice provided by the IESC and any conditions attached to an approval reflect the advice provided by the IESC.*
- *Expand the scope of the water trigger to include all resource industries, including shale, tight and unconventional gas extraction and associated infrastructure.*
- *Establish no-go zones for impacts on water resources focusing on strategically important areas for conservation, potable supply and strategic agriculture.*
- *Develop Water Resource Plans for relevant catchments.*
- *Make assessment and recommendation reports publicly available for all projects at the time of decision making.*

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- *Establish an independent national regulator to administer national environmental law and the water trigger*
- *Prioritise the completion of bioregional assessments and place a moratorium on project-by-project assessments and approvals of resource extraction projects in relevant catchments until the outcomes of bioregional assessments are known.*
- *Develop guidelines under the water trigger to better account for social, environmental and economic impacts on other water users.*

Examination of the appropriateness of the regulation including whether it is necessary and well targeted

There is a clear policy rationale for Commonwealth oversight of issues affecting Australia's water resources. The water trigger was introduced in 2013 because of significant community concern about the adequacy and appropriateness of state and territory regulation of large resource projects. Much of the concern related to coal mining and emerging resource extraction practices – such as coal seam gas, shale gas, tight gas and underground coal gasification projects – and the impact these activities were having on surface and sub-surface water.

Underpinning this concern were the inadequate regulatory safeguards that were being implemented at the state level. These have been shown to result in substantial harm to people, species and water resources. One particular failure to effectively regulate resource industry impacts on water has led to the long term poisoning of land and water near Chinchilla.

Case Study: Groundwater contamination near Chinchilla, Queensland

A clear example of the failure of state regulation of resource impacts on water can be seen in the current crisis in Chinchilla, Queensland. In 2007 Linc Energy began operating an underground coal gasification plant that fracked and then ignited coal deposits to extract gas from the seam. This practice is poorly understood and exceptionally dangerous.

The resulting contamination has severely affected people, communities and the environment in the region. The project has potentially polluted up to 312km2 of strategic cropping land and areas of high conservation value through the fracturing of overburden above the coal seam.

Serious human health impacts from the failed project have been reported, including to workers and investigators that visited the sight. Secret reports into the leak note that the pollution and long term damage to the environment and water table are "mostly irreversible".[1]

The Linc energy example in Chinchilla is not isolated but is likely the most severe to date. In NSW, leaks from AGL's CSG operations in Gloucester and Camden have been well

[1] http://www.abc.net.au/news/2015-08-10/linc-energy-secret-report-reveals-toxic-chemical-risk/6681740

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documented and resulted in substantial pollution events of both water and air.[2] In January 2016 tailings dam in Rio Tinto's Mt Thorley Warkworth mine failed and two other tailings dams at coal mines in the Hunter Valley overflowed, sending contaminated water into local water courses. These case demonstrate that state based regulatory regimes continue to be ineffective in protecting water assets.

In 2014 the Queensland Auditor General released a highly critical report into the effectiveness of regulators in that state in relation to the regulation of mining projects. Specifically, the Auditor General's report noted that the regulator, the Department of Environment and Heritage Protection, was:

> *"not fully effective in its supervision, monitoring and enforcement of environmental conditions and is exposing the state to liability and the environment to harm unnecessarily.*
>
> *Poor data and inadequate systems continue to hinder EHP's planning and risk assessments. As a result EHP cannot target it monitoring and enforcement efforts to where they are most needed. This situation is exacerbated by the lack of coordination and sharing of relevant information across agencies*" [3]

Another example demonstrating the need for appropriate checks and balances across the federation occurred in 2014 when the former Queensland government amended the *Water Act 2000* to give mining and resources companies automatic rights to groundwater, upfront access to water before an impact assessment has taken place and removed the need to obtain water licenses for groundwater take. This occurred against the backdrop of the most recent (and final) report by the National Water Commission highlighting that a key national reform is to ensure greater consistency in user access to water. Clearly, the system in Queensland has been geared to favour the resource industry over other users of water, including agriculture, regional users and the environment.

These examples are concerning. They also highlight the need for better checks and balances throughout Australia on how commercial activities affect the nation's shared water resources.

The Federal Government has a substantial role to play in the sustainable use and protection of water resources across jurisdictions. This has been particularly evident in the Commonwealth's critical role in addressing the problem of over-allocated rivers in the Murray-Darling Basin and the development of the National Water Initiative. The Commonwealth has supported the National Water Initiative, including through the enactment of the *Water Act 2007 (Cwth)* and the Murray-Darling Basin Plan and with multi-billion dollar investments. However progress in implementing the NWI has stalled and the

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[2] http://www.smh.com.au/environment/agl-slapped-with-15000-fine-for-camden-coal-seam-gas-release-20150305-13w05o.html

[3] Qld Auditor General 2014 https://www.qao.qld.gov.au/files/file/Reports%20and%20publications/Reports%20to%20Parliament%202013-14/RtP15Environmentalregulationoftheresourcesandwasteindustries.pdf

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National Water Commission, a key institution in this reform, has been abolished and not replaced.

A number of Australia's major water resources cross state and territory boundaries, such as the Great Artesian Basin (which covers 22 per cent of Australia). These types of resources face a myriad of threats, including over extraction, untapped bores as well as pollution and leakage from extractive industries. A recent report has noted that poorly regulated resource projects in the GAB, particularly in Queensland, represent a substantial risk to recharge zones in the basin.[4] It is clear from the history of management of the Murray-Darling that it cannot be left to a single state or territory to manage or protect these cross-border water assets in the national interest.

The implementation of approval bilateral agreements across the country is likely to lead to a diminution of standards and reduction in commonwealth oversight in the protection matters of national environmental significance. The Commonwealth is best placed to consider national and cross-border issues and make decisions in the national interest. This is the reason the EPBC Act focuses on matters of national environmental significance – they are matters that by their nature should be considered and protected at the national level by a national government. State and Territory Governments directly benefit from major resource projects through the collection of royalties. The accreditation of laws that do not meet minimum national requirements and which do not adequately scrutinise major projects will put at risk matters of national environmental significance, quite likely breach our international obligations, and possibly expose the Commonwealth to legal liability. Analysis has shown that none of the existing State or territory legal frameworks meets the requirements of the EPBC Act for protecting matters of national environmental significance.[5]

Given the wide ranging risks that accompany mining and fracking, there is a strong need for the Federal Government to lead a consistent approach to the regulation of these activities to protect communities and the environment. The inclusion of the water trigger in the EPBC Act has been a welcome, albeit piecemeal, intervention by the Commonwealth into managing the impact of resource extraction projects on water. The key drawback of the water trigger is its limited scope. For example while the water trigger may apply to coal mining and CSG projects, the same scrutiny is not given to other mining or fracking activities that have similar potential impact on water. Nor does it apply to facilitated projects, such as water infrastructure and impoundments, that are constructed for the primary purpose of supplying mining or CSG operations. Further discussion on the scope of the water trigger is below.

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[4] Great Artesian Basin Recharge Systems And Extent Of Petroleum And Gas Leases – 2015
http://www.gabpg.org.au/wp-content/uploads/2014/11/GAB-Report-Second-Edition_Final10032015.pdf

[5] Assessment of the adequacy of threatened species & planning laws – September 2014
https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/1668/attachments/original/1410138351/Assessment_of_the_adequacy_of_threatened_species__planning_laws-V5.pdf?1410138351

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Recommendation:

- *Maintain and expand the 'water trigger' to ensure that water resources are protected and managed in the national interest.*
- *Do not devolve the water trigger to the states and territories; repeal Section 46 of the EPBC Act in its entirety.*

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 ascribed to the IESC

While the policy rationale for Australian Government involvement in the protection and management of water resources under the EPBC Act is sound, the effectiveness of Commonwealth involvement to date has been varied.

The water trigger has resulted in some improvements to regulatory practice and conditions of approval attached to projects. For example the IESC played a critical role in identifying the high risk of water loss from Sydney's drinking catchment and threats to upland swamps as a result of the Russel Vale Mine expansion proposed by Wollongong Coal. In that case the NSW Government had already approved an expansion of the mine, including underground mining at the Longwall 6 panel. However advice provided by the IESC to the federal Environment Minister as part of the EPBC assessment (EPBC 2014/7259) noted that mining the full length of the panel would irreversibly damage threatened swamp communities within Sydney's drinking water catchment. As a result of this the subsequent EPBC approval was for a reduced longwall mining operation to better protect the swamps.

While there have been demonstrable improvements in the conditioning of some projects, on the whole the implementation of the water trigger has not lived up to community expectations. This is particularly the case when it comes to balancing the economic, social and environmental impacts of these activities and accounting for competing land and water use. Worryingly, it is also clear that in certain cases expert independent scientific advice provided by the IESC has not been followed or implemented.

The IESC was formed following the National Partnership Agreement in 2012 between the Commonwealth, Queensland, New South Wales, South Australia and the Northern Territory. The committee plays a crucial role in the regulation of coal mining and CSG and providing regulators with independent advice that is free from political interference.

Unfortunately a number of approval decision show that regulators have disregard or have made decisions that are contrary to the advice of the IESC. This was the case with the Springvale Coal Mine extension (EPBC 2013/6881) as well as the Carmichael Coal Mine approval (EPBC 2010/5736), which was given despite significant concerns raised with the proponents water modelling and impacts on the spring complexes associated with the mine. These concerns were not addressed at the time of approval.

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In the case of Springvale Coal Mine the IESC advised that threatened highland peat swamps should be left alone in order to protect their ecosystem function. Specifically, the committee stated that:

> *"the only known strategy to reduce the risk of impact to the ecological communities within the project area would be to alter the mine layout such that swamps are not undermined by longwall panels"*[6]

Despite this advice the project was approved in late 2015 by the Federal Environment Minister without any realignment of longwalls (as distinct from the Russel Vale approval).

The development of large longwall mining operations beneath water catchments in NSW has led to several instances of subsidence, creek-bed cracking and drainage events. There is limited evidence to suggest this damage has been successfully remediated. To the contrary, there is evidence of failed remediation causing significant damage to the surrounding environment, as failed grouting did at Sugarloaf Conservation Area in NSW.[7]

In parts of NSW and Queensland mining activities have done a great deal of damage to upland swamp communities, many of which are listed as threatened ecological communities under the EPBC Act. The IESC has advised that impacts on these ecosystem types are not able to be remedied, specifically stating in its 2014 advice:

> *"The IESC considers that it is therefore not possible to confidently evaluate what the impact of mining subsidence will be on a given swamp. This uncertainty, combined with the lack of evidence for successful swamp remediation, leads to significantly high and potentially unmitigated risks to these swamps as a result of mining."*[8]

The NSW Government has developed an Integrated Mining Policy which aims to offset irreversible impacts on swamps by undertaking activities on different ecological values, (i.e. not like-for-like). This is in direct contrast to the national EPBC Offsets Policy that requires offsets to be like-for-like and to improve or maintain the viability of the protected matter. Alarmingly, as part of the Federal Government's deregulation agenda, the integrated mining policy has been accredited for NSW purposes under the so-called 'one stop shop', creating policy and legal uncertainty, especially in relation to the durability of projects and offsets established under such an arrangement. This is a clear example of national environmental standards not being met by the Government's deregulation agenda.

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[6] Advice to decision maker on coal mining project IESC 2014-054: Springvale Mine Extension Project (EPBC 2013/6881; SSD - 5594) http://www.iesc.environment.gov.au/system/files/resources/20efb7df-d3b0-45e1-9ce9-3edb33d32969/files/iesc-advice-springvale-2014-054.pdf

[7] Mining company's failed environmental repair job creates concrete creek – Sydney Morning Herald, 29 August 2013 http://www.smh.com.au/environment/mining-companys-failed-environmental-repair-job-creates-concrete-creek-20130829-2ssgi.html

[8] IESC 2015-068: Further advice on impacts to swamps - http://www.iesc.environment.gov.au/system/files/resources/515be156-1fac-4d2f-86a1-f8a3e4918298/files/iesc-advice-swamps-2015-068.pdf

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Recommendations

- *Allow the IESC to continue to operate independently and adequately resource it to provide accurate and timely scientific advice to governments.*
- *Include in legislation mandatory provisions to ensure the Federal Environment Minister cannot make decisions that are inconsistent with advice provided by the IESC and any conditions attached to an approval reflect the advice provided by the IESC.*

Identify any opportunities to improve the effectiveness of the regulation

Expansion of scope

The water trigger does not cover shale or tight gas or other mining that may have a substantial impact on water resources. Similarly the trigger does not extend to projects that service the mining and gas industries. This is a significant shortcoming of the legislation. It creates disparate protections amongst communities and an uneven regulatory environment.

These projects, in particular shale and tight gas projects, can do as much damage to water and groundwater as coal and CSG activities. A number of shale gas projects are proposed for prime agricultural and conservation areas in Western Australia, the Northern Territory and South Australia. In the USA shale gas projects have been responsible for large contamination events with serious implications for human health and agriculture.[9] Shale gas in Australia has the potential to negatively affect important economic areas, such as the tourist and wine growing regions in South Australia's Coonawarra and Limestone Coast. Expanding the water trigger to all mineral resource industries and improving regulatory controls are critical to avoiding more instances like Linc Energy's pollution in Chinchilla or the shale gas disasters in the USA. It would also standardise regulatory environments across jurisdictions.

At present dams and impoundments to store, divert and supply surface and ground water to mining and fracking activities are not covered by the water trigger. For example the proposal to create a dam in the Galilee Basin to supply prospective coal mines would not come under EPBC scrutiny, even though the water body as proposed would be larger than Sydney Harbour (with a capacity of more than 600 gigalitres) and would significantly affect regional water flows. ACF contends that this sort of infrastructure should be considered under the water trigger.

Greater transparency in process

One of the most significant drawbacks of the current operation of the EPBC Act is the lack of transparency and disclosure, particularly for non-proponent stakeholders. In contrast to the IESC practice of publishing advice within 10 days of it being provided to the minister, the

[9] Osborn, Stephen G., et al. "Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing." *Proceedings of the National Academy of Sciences* 108.20 (2011): 8172-8176.

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Department of the Environment does not publicly release Recommendation and Assessment Reports (which are used by decision makers to approve or refuse a project and determine what conditions to attach). The EPBC Act specifically includes provision for the Secretary of the Department to provide reports to the public (s135A) however these must be sought out and include provision for the Secretary to charge a fee.

For stakeholders to understand decision making processes they must either request a Statement of Reasons, request a recommendation report or lodge a Freedom of Information request. These requests are laborious and an inefficient use of stakeholders' resources and public resources. Approvals under the EPBC Act should be far more transparent to the people of Australia.

The Hawke Review of the EPBC Act in 2009 recommended the establishment of an independent Commissioner to oversee the implementation of the EPBC Act to improve transparency and the standard of decision making. Arm's length and independent administration of the EPBC Act and the water trigger, properly designed and implemented, would reduce the politicisation of decision making under the Act. Coupled with the establishment of stronger national laws and appropriate planning regimes for water resources such reforms would lead to measureable improvements in the operation of national environmental law.

Recommendations

- *Expand the scope of the water trigger to include all resource industries, including shale, tight and unconventional gas extraction and associated infrastructure.*
- *Establish no-go zones for impacts on water resources focusing on strategically important areas for conservation, potable supply and strategic agriculture.*
- *Develop Water Resource Plans for relevant catchments.*
- *Make assessment and recommendation reports publicly available for all projects at the time of decision making.*
- *Establish an independent national regulator to administer national environmental law and the water trigger*

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

While improvements can be made, there is little evidence to suggest the EPBC Act is a burden on the economy or a cause of substantial project delays. This was a finding of Dr Chris McGrath's analysis of the Government's 'one stop shop' policy and the delay-cost savings to the economy from its implementation.[10] Similar analysis by the Australia Institute also highlights significant flaws in the economic modelling for the cost saving claims for the

[10] http://www.nela.org.au/NELA/Documents/A_Critical_Evaluation_of_the_One-Stop_Shop_Policy.pdf

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'one stop shop'. The assumptions relating to project finance, approval requirements, cash flow and economic benefits of regulation are all flawed.[11] The analysis notes that economic modelling of the 'one stop shop' commissioned by various industry lobby groups and the Government had three common failings:

> *Firstly, most assume that all time spent under Commonwealth approval results in an equal delay to the project cash flows. This isn't necessarily the case – many other aspects of project preparation, planning and financing occur concurrently.*
>
> *Secondly, they assume that all projects proposed are financially viable and will proceed immediately following approval. This isn't the case. Many projects are cancelled or delayed after gaining approval due to changes in commodity prices or other considerations. For these projects, there is no time cost associated with EPBC referral.*
>
> *Thirdly, none consider that there is economic value in conducting Commonwealth environmental approval. In fact, further assessment of environmental impacts often protects valuable environmental assets.*

The initial delays to projects that could be directly associated with the implementation of the water trigger are a result of its rapid implementation. This included shifting ministerial responsibilities and personnel, the calling of an election and associated caretaker provisions and the lack of preparedness within the Department for the establishment of the trigger. On the latter point, the Department had limited in-house expertise on regulating water resources when the trigger was first announced. Building appropriately skilled and well-resourced regulators is critical to the effective operation of the EPBC Act. Continued budget cuts and the subsequent loss of technical and corporate knowledge that come with staff cuts have diminished the Department's capacity as an effective regulator.

Interaction with other legislation

The Federal Government repealed section 255AA of the *Water Act 2007* as part of the Omnibus Repeal Day Bill 2014. This section provided for an independent expert study to be undertaken to determine the impacts of the proposed mining operations on the connectivity of groundwater systems, surface water and groundwater flows and water quality within the Murray-Darling Basin. The abolition of 255AA was predicated on the existence of the water trigger and the IESC to address Commonwealth interests in the management of coal mining and gas development impacts on water resources within the Basin.[12] While such a move is problematic due to other resource extraction threats to water beyond coal and CSG in the Basin (see above regarding scope), any future altering of the operation of the water trigger would require such safeguards to be reinstated, to ensure no diminution of levels of protection.

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[11] Review of EPBC delay cost claims - Briefing note September 2015
http://awsassets.wwf.org.au/downloads/bi_review_of_epbc_act_delay_cost_claims_14sep15.pdf

[12] Explanatory Memoranda – Item 83 --
https://www.comlaw.gov.au/Details/C2014B00055/Explanatory%20Memorandum/Text

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Better water resource planning

Overall the development and operation of the water trigger has demonstrated a failure of national water resource planning. The continued operation of the water trigger should occur in the context of better water planning, especially in regions outside of the Murray-Darling Basin. Such planning needs to be consistent with the principles of the NWI and should treat all users equitably within the planning framework. High priority water assets need to be protected for human health, potable supply, biodiversity conservation and food production.

The bioregional assessments are an important part of this task. However the fact that substantial mining and CSG projects are being approved prior to the completion of these assessments shows up a major flaw in the process. Bioregional assessments should be fast tracked, without compromising on the quality of the outcomes and assessments, and approvals for resource extraction projects in these areas should be paused until the full outcomes of the bioregional assessments are known.

Exacerbating the failure of national leadership on water planning has been the recent abolition of the National Water Commission and lack of a standing agenda item or working group on national water reform through COAG or the Meeting of Environment Ministers. Such backward steps have stymied progress on meaningful national water reform. Consequently Australia has lagged on devising water resource plans across catchments, establishing indigenous and cultural water rights and protecting water assets in undeveloped or unregulated systems, particularly in the north.

Recommendations

- *Prioritise the completion of bioregional assessments and place a moratorium on project-by-project assessments and approvals of resource extraction projects in relevant catchments until the outcomes of bioregional assessments are known.*
- *Develop guidelines under the water trigger to better account for social, environmental and economic impacts on other water users.*

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[redacted]