The Senate

Rural and Regional Affairs and Transport Legislation Committee

Environment Protection and Biodiversity Conservation Amendment (Protecting Australia's Water Resources) Bill 2011



Membership of the committee

Members

Senator Glenn Sterle, Chair

Senator the Hon. Bill Heffernan, Deputy Chair

Senator Alex Gallacher

Senator Fiona Nash

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Chapter 1

Introduction

- 1.1 The Environment Protection and Biodiversity Conservation Amendment (Protecting Australia's Water Resources) Bill 2011 (the bill) was introduced as a private senator's bill by Senator Larissa Waters in the Senate on 1 November 2011.¹
- 1.2 On 10 November 2011, the Senate adopted the Selection of Bills Committee Report No. 16 of 2011 and referred the bill to the Senate Rural Affairs and Transport committee (the committee) for inquiry and report by 27 February 2012.²

Conduct of the inquiry

- 1.3 Notice of the inquiry was posted on the committee's website and it was advertised in *The Australian* newspaper on 23 November 2011. The committee also wrote directly to a number of peak bodies and relevant Commonwealth and state and territory departments seeking their comments.
- 1.4 The committee received 12 submissions (see Appendix 1). The committee held a public hearing in Canberra on Tuesday, 7 February 2012. A list of witnesses who appeared at the hearing can be found in Appendix 2, and copies of the *Hansard* transcript are available on the committee's website.

Acknowledgements

1.5 The committee thanks those organisations and individuals who made submissions and gave evidence at the public hearing.

Purpose of the bill

- 1.6 The bill amends the *Environmental Protection and Biodiversity Conservation Act* 1999 (EPBC Act) to include 'protection of water resources from mining operations' as a matter of national environmental significance (NES).
- 1.7 Section 24D of the bill states that an action must not be taken in the course of mining operations if that action has, will have, or is likely to have a significant impact on the quality, structural integrity or hydraulic balance of a water resource. This would, in effect, require Commonwealth assessment and approval of mining operations likely to have a significant impact on water resources.

Journals of the Senate, No. 61, 1 November 2011, p. 1695.

² Journals of the Senate, No. 67, 10 November 2011, p. 1823.

- 1.8 Sections 24E and F of the bill provide definitions of 'mining operations', 'mineral' and 'water resource'.
- 1.9 Section 24G(1)-(6) of the bill creates a number of offences relating to mining operations. Section 24G(7) of the bill outlines the circumstances in which the offences listed in Section 24G(1)-(6) do not apply.

Current regulatory framework

- 1.10 Under the current regulatory framework, mining operations must undergo environmental and social impact assessments undertaken by state and territory governments. The Commonwealth plays a role through the EPBC Act, by providing a basis for the Minister to decide whether an action will have, or is likely to have, a significant impact on the currently listed matters of national environmental significance.³
- 1.11 Matters of national environmental significance protected under the EPBC Act include:
 - listed threatened species and communities;
 - listed migratory species;
 - Ramsar wetlands of international importance;
 - Commonwealth marine environment;
 - world heritage properties;
 - national heritage places;
 - the Great Barrier Reef Marine Park; and
 - nuclear actions.
- 1.12 If a proposed action has, will have, or is likely to have, a significant impact on any of these matters, a referral must be submitted for a decision by the federal environment minister on whether assessment and approval is required under the EPBC Act.

Similarities with the Environment Protection and Biodiversity Conservation Amendment (Mining, Petroleum and Water Resources) Bill 2011

1.13 The Environment Protection and Biodiversity Conservation Amendment (Mining, Petroleum and Water Resources) Bill 2011 was introduced to the House of Representatives on 12 September 2011 by Mr Tony Windsor, MP. This bill proposes to amend the EPBC Act to 'empower the Commonwealth to be the consent authority

³ Environmental Protection and Biodiversity Conservation Act 1999, Chapter 2, Part 3, Division

for mining and extractive industry actions that have, or are likely to have, a significant impact on water resources'.⁴

1.14 While the two bills are similar, the principal difference is that Mr Windsor's bill allows the federal minister to delegate assessment and approval authority to states and territories. Senator Waters stated in her Second Reading Speech that the Australian Greens have grave concerns about this, and has therefore not included the parts that allow delegation to the states in the bill.⁵

Report Structure

1.15 The following chapter of the report looks at issues raised by submitters in relation to the bill, such as the date of commencement, current responsibilities and regulations, water as a matter of national environmental significance and clarification of terms and definitions within the bill.

⁴ Explanatory memorandum, p. 1.

⁵ Senator Larissa Waters, *Senate Hansard*, 1 November 2011, p. 7774.

Chapter 2

Key Issues

2.1 This chapter considers the main provisions of the Environment Protection and Biodiversity Conservation Amendment (Protecting Australia's Water Resources) Bill 2011 (the bill), and looks at issues raised by submitters in relation to the bill. Submitters to the inquiry raised issues in relation to the commencement of the bill, its consistency with existing legislative responsibilities, water as a matter of national environmental significance and a need for further clarification of terms and definitions within the bill.

Commencement

2.2 It is proposed that commencement for the bill will be the date that the bill is introduced in the Senate, rather than the date of royal assent. The explanatory memorandum (EM) states that this is to ensure that approvals for mining operations are not fast-tracked following the introduction of the bill. The EM further states:

The intention is to ensure all mining operations commencing after the day this Bill is introduced are subject to Commonwealth assessment and approval where these operations are likely to have a significant impact on Australia's water resources.¹

2.3 Some submitters told the committee that the retrospective commencement date creates uncertainty for mining projects with incomplete approval processes during the interim period between the introduction of the bill and the vote on the bill.²

Consistency with the existing legislative framework

- 2.4 State and territory governments have primary responsibility for regulating mining and exploration in Australia, as well as the management of water resources. The Commonwealth, through the EPBC Act, can regulate any activity that has, will have, or is likely to have a significant impact on any matters of national environmental significance listed within the EPBC Act.
- 2.5 Under the EPBC Act there are no matters of national environmental significance (NES) which are industry-specific, except for 'nuclear actions'. Submitters both supporting and opposing the bill query the benefit of adding a new matter of national environmental significance which is industry-specific. Submitters supporting the bill argue that:

¹ Explanatory memorandum, p. 2.

Department of Resources, Energy and Tourism, Submission 5, p. 4; Xstrata, Submission 3, p. 4.

...it should be any activity that might have a significant impact on the water resource. It should not really matter whether it is mining, coal seam gas or some major dam project. It is the impact and the need to protect the water resource that is important.³

2.6 The Association of Mining and Exploration Companies (AMEC) argues that the mining industry should not be 'singled out', and that a number of industries have the potential to significantly impact on Australia's water resources:

...yet they have been exempted from the Amendment Bill, the most obvious being irrigated agriculture and horticulture. It has been clearly shown that land clearing has been the major factor in the spread of salinisation of Australia's agricultural land. Given the goal of the Amendment Bill is to protect Australia's water resources surely such activities should be included.⁴

- 2.7 The National Farmers' Federation (NFF) told the committee that while the bill is specific to the mining industry, if passed, there is concern that a precedent will be set that could result in the agriculture sector being targeted in the future.⁵
- 2.8 The committee notes the independent review of the EPBC Act conducted by Dr Allan Hawke (the Hawke review) that looked into, among other things, water extraction and use. The Hawke review found that there is scope within the EPBC Act to complement other water initiatives, however:

including water extraction or use as a matter of NES under the Act is not the best mechanism for effectively managing water resources.⁶

2.9 While this refers to water extraction and use specifically, the committee finds that the complications the Hawke review found in implementing such measures are also relevant to the bill, especially in relation to water that is extracted in the process of coal seam gas extraction. As stated in the Hawke review:

The size of water resources and catchment areas, the scale of existing and predicted future pressures on these resources, and the environmental flow requirements of these resources vary dramatically across Australia...it would be almost impossible to accurately predict whether a particular water extraction pursuant to a water access entitlement would have a significant impact on the water resource over the longer-term.⁷

5 Ms Deb Kerr, National Farmers' Federation, *Committee Hansard*, 7 February 2012, p. 1.

³ Ms Joanne Bragg, Australian National Environmental Defenders Office, *Committee Hansard*, Tuesday 7 February 2012, p. 18.

⁴ Association of Mining and Exploration Companies, *Submission 8*, p. 7.

The Australian Environment Act: Report of the Independent review of the *Environment Protection and Biodiversity Conservation Act 1999*, December 2009, p. 109.

⁷ The Australian Environment Act: Report of the Independent review of the *Environment Protection and Biodiversity Conservation Act 1999*, December 2009, p. 109.

Definitions

2.10 Many submitters, both supporting and opposing the bill, express concern regarding the clarity of a number of terms and definitions within the bill.

Exploration

2.11 The Minerals Council of Australia (MCA) notes that the definition of 'mining operations' includes 'exploration for minerals'. The MCA states that exploration can occur in remote locations, where there is little or no water resource information, meaning that the impact cannot be assessed without exploration being undertaken in the first place. Section 24G(7)(a)-(d) of the bill lists exemptions from offences, however the committee notes that it is unclear if any of these exemptions would apply in this situation.

Significant impact

2.12 Many submitters argue that the definition of 'impact', within the EPBC Act is too broad and needs further clarification to be specifically applied to mining operations. Furthermore, the MCA argues that:

there is no definition available in existing guidance to assess or understand how 'significant' is defined in terms of mining impacts on water resources. ¹⁰

2.13 Xstrata echoes this concern, arguing that without a more specific definition, it is 'extremely difficult for a proponent to be certain of whether a proposed action is likely to have a significant impact'.¹¹

Water resource

- 2.14 Section 24F of the bill defines a 'water resource' as:
 - (a) the whole or any part of a river, lake, aquifer or other place where water occurs naturally on or below the surface of the ground, whether permanently, seasonally or during unusually wet seasons; or
 - (b) any recharge zone or system for such a place.
- 2.15 The Commonwealth Scientific and Industrial Research Organisation (CSIRO) told the committee that the terminology around 'recharge zones' is 'somewhat confusing'. The CSIRO states that in the case of groundwater resources, such as aquifers, the term 'recharge zone', whilst commonly used, has no consistent definition and that:

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⁸ Minerals Council of Australia, *Submission 6*, p. 9.

⁹ Xstrata, *Submission 3*, p. 5; Holcim, *Submission 4*, pp 3–4; Minerals Council of Australia, *Submission 6*, p. 8; AMEC, *Submission 8*, p. 6.

¹⁰ Minerals Council of Australia, Submission 6, p. 8.

¹¹ Xstrata, Submission 3, p. 5.

Due to the complexity of groundwater recharge processes, and the inconsistent definitions outlined above, we stress the need for caution when formulating legislation to address impacts of groundwater extraction on recharge zones.¹²

2.16 Xstrata argues that the definition of 'water resource' is too broad, and without further clarification, it leaves proponents open to ongoing liability. The committee notes that it is unclear how the bill proposes to treat an approval that is only found to be near a water resource after the assessment process. AMEC adds to this point, arguing that:

The definition has the potential to have unintended and widespread implications, not only in flood prone areas of Australia, but also in areas which experience almost any measurable change to their water resources, as the result of rain fall events in 'recharge zones'. The locations or sources of 'recharge zones' are not always well known, can be geologically complex and hence are difficult to define. ¹⁴

Mining operations and minerals

2.17 Some submissions argue that further clarity is needed in the definition of 'mining operations' provided in the bill. Section24E(1)(a)(i)(ii) and (iii) of the bill lists mining operations as:

operations or activities connected with, or incidental to, the mining or recovery of minerals (including petroleum or gas) or the production of material from minerals, including:

- (i) Prospecting and exploration for minerals;
- (ii) milling, refining, treatment and processing of minerals; and
- (iii) storage and disposal of minerals and materials produced from minerals
- 2.18 Holcim and Cement Concrete & Aggregates Australia (CCAA) state that this definition, combined with the bill's definition of a 'mineral' would mean that a range of activities would require approval if they are in the vicinity of a water resource. This would include minor activities such as earthworks to remove soil as well as significant underground coal mining operations.¹⁵
- 2.19 These submissions also state that the definition of 'mineral' in the bill is inconsistent with the definition under NSW legislation. If the definition of 'mineral' were more closely aligned with the NSW legislation, it would, in effect, remove extractive industries from the definition of 'mining operations' within the bill. Holcim and CCAA argue that as extractive industries are very different to operations that

13 Xstrata, Submission 3, p. 6.

14 AMEC, Submission 8, p. 7.

15 Holcim, Submission 4, p. 2.

¹² CSIRO, Submission 9, p. 2.

involve 'the extraction of coal, petroleum, hydrocarbons, uranium, and other potentially toxic and harmful materials', and therefore, the two should not be dealt with in the same manner.¹⁶

2.20 Without clarification on these matters, the committee finds the definition of 'mining operations' is impractical and unworkable.

Duplication of responsibility and regulation

- 2.21 The Department of Resources, Energy and Tourism (DRET) outlines a number of policy developments and Australian Government initiatives that highlight the duplicative nature of this bill.¹⁷
- 2.22 The establishment of an independent scientific committee, announced by the Government in November 2011 will provide:
 - ...advice to governments about relevant coal seam gas and large coal mining approvals, where they have significant impacts on water; oversee research on the impact of water resources from coal seam gas and large coal mining projects; and commission and fund water resource assessments for priority regions.¹⁸
- 2.23 This framework will apply to future licences, and although the Commonwealth will seek agreement to a new National Partnership Agreement through the Council of Australian Governments, it leaves the administration in the hands of the states. The committee finds this approach to be consistent with the EPBC Act, as listed in Part 1 Section 3 (2)(g)(i), stating that in order to achieve its objects, the EPBC Act:

Promotes a partnership approach to environmental protection and biodiversity conservation through:

(i) bilateral agreements with States and Territories

Conclusion

2.24 The committee does not support the passage of the bill. The committee concurs that matters of national environmental significance should focus on the environmental outcome, rather than a specific industry. Furthermore, the committee agrees with the Hawke review's findings that while there is scope within the EPBC Act to complement water initiatives, including it as a matter of national environmental significance is not the best mechanism to achieve such a result. The committee also finds that current Commonwealth and state initiatives render the bill duplicative and unnecessary.

17 Department of Resources, Energy and Tourism, *Submission 5*, pp 5–8.

Holcim, Submission 4, p. 2.

Department of Resources, Energy and Tourism, Submission 5, p. 7.

Recommendation 1

2.25 The committee recommends that the bill not be passed.

Senator Glenn Sterle Committee Chair

Dissenting Report

Australian Greens

- 1.1 Australia's surface and ancient groundwater systems are under threat from significant and potentially irreversible impacts from the rash of mining operations expanding across all our states and territories. Inappropriate mining operations risk our environment, our food security, the viability of diverse agricultural activities, and the sustainability of the groundwater systems themselves nationally important resources that do not respect state borders.
- 1.2 This Bill gives the federal Environment Minister the power to refuse or condition mining activities (including coal seam gas (CSG) activities) where they would have a significant impact on our national water resources oversight so crucial for the protection of our farmland and natural environment.
- 1.3 The Bill intentionally defines mining operations broadly to ensure that any activities associated with mining that are likely to have a significant impact on our groundwater or surface water are subject to assessment by the federal Environment Minister.
- 1.4 Water resources are also broadly defined to ensure significant impacts on all natural surface and groundwater systems are subject to federal assessment, and these impacts include impacts not just on water levels, but the quality, structural integrity or hydraulic balance of our water resources. This means, for example, that the significant uncertainties around CSG's potential to pollute and deplete groundwater systems, and the significant risks associated with the enormous quantities of salty brine extracted from wells, will be properly considered by the federal Environment Minister.
- 1.5 The Bill also protects the integrity of our water resources from mining activities, no matter what the tenure or land use thus protecting water for both current and future agricultural uses, as well as, critically, environmental flows for our natural environment.
- 1.6 The inquiry heard a number of concerns to which the Australian Greens would like to respond.
- 1.7 Concerns have been raised about the Bill's commencement date, which is to be from the date the Bill was introduced into the Senate 1 November 2011. As is clearly set out in the explanatory memorandum of the Bill, it is acknowledged that under normal circumstances Bills commence on Royal Assent, however in this instance retrospective commencement is needed to ensure approvals for mining operations are not fast-tracked following introduction of the Bill. This is to ensure all mining operations commencing after the day this Bill is introduced are subject to Commonwealth assessment and approval where these operations are likely to have a significant impact on Australia's water resources.

- 1.8 The current rampant expansion of mining activities across much of Australia poses significant risks to our water resources and these are currently being inadequately managed by the states and territories. In light of this, and the time this Bill will take to become law, it is considered that the public interest in ensuring adequate protection for our water resources outweighs the inconvenience caused by retrospective commencement.
- 1.9 Some concern was also expressed about the fact that this bill is industry specific that is, targeted at mining activities likely to have a significant impact on our water resources.
- 1.10 It is recognised that a broader trigger to protect water from all deleterious activities could have merit. However the industry specific trigger is proposed at this stage for two reasons. Firstly, the significant new risks posed to Australia's water resources due to the current rampant expansion of the mining industry across Australia warrants particular focus and federal oversight. As noted by CSIRO in the hearings:

The coal seam gas will, by very nature of extraction of ground water, have an impact, as any extraction will. These are impacts that relate to ground water resources through pressure changes, impacts of water being brought to the surface and salt associated with that. The depressurisation can also release gases into the aquifer. They are all impacts that are caused by coal seam gas.

As it is a relatively new industry, whilst the processes are understood, it takes some time to understand the properties associated with any hydrogeological setting.... In a situation where you have done extraction for a limited amount of time, you are working with less information and the uncertainties are higher.

Mining operations can impact on ground water in much the same say as coal seam gas.¹

- 1.11 Secondly, there are significant gaps and short comings in the states and territories' regulation of water in relation to mining activities, more so than for other activities, as was heard in evidence before the committee.²
- 1.12 The majority report notes that this is not the first time actions by a specific industry have been the basis for a "trigger" under the Act. Nuclear actions have been subject to federal regulation under the Act since its inception.
- 1.13 Despite acknowledging that many farmers believe that this Bill may benefit farmers, the National Farmers Federation (NFF) has failed to support the Bill on the grounds that at some stage in the future this mining-specific water trigger could be

¹ Dr Glen Walker, Commonwealth Scientific and Industrial Research Organisation, *Committee Hansard*, 7 February 2012, pp 13–14.

² Mr Nigel Parratt, Queensland Conservation Council, *Committee Hansard*, 7 February 2012, p. 8.

extended to agriculture. Any such change would naturally have to pass through parliament and as such this seems like a rather misplaced concern. We consider this Bill could deliver significant certainty and safety for Australian farmers and we are surprised and disappointed that the NFF doesn't consider federal protection of Australian surface and groundwater from mining activities as aligning directly with the interests of their membership.

- 1.14 It was also raised that the current reforms in this area are adequate. Recent commitments to reform include a national harmonised regulatory framework for coal seam gas through the Council of Australian Governments (COAG), and the agreement made between Prime Minister Gillard and Mr Tony Windsor MP of November 2011 in regard to securing parliamentary support for the Mineral Resources Rent Tax. This agreement involves the establishment of an Independent Expert Scientific Panel to commission bioregional assessments of water resources in priority areas, and provide scientific advice to state governments in regulating (particularly) CSG and major coal mining projects.
- 1.15 While the Greens wholeheartedly support steps that ensure far better science is available to inform decision-making in relation to all mining activities, we believe these reforms and the bioregional assessments would result in stronger outcomes for our environment and the agricultural sector if the federal government also had legislative responsibility for protecting our surface and groundwater. It is simply not enough to rely on States agreeing to sign up to higher, nationally consistent standards for regulating these industries, and to act on the advice of a federally funded expert body, given state governments' poor track records in protecting our water to date.
- 1.16 The Greens are also concerned at the timeframe for rolling out such arrangements through each and every state legislature, when we are faced with the rapid expansion of diverse mining activities across Australia particularly CSG. As noted in the inquiry's hearings by NFF, COAG processes are notoriously laborious. This is supported by the National Water Initiatives 3rd biennial assessment released last year which found that many important actions under the NWI are not complete, that political commitment and leadership have been variable, and bureaucratic processes at the COAG level have been slow and lacking in transparency. 4
- 1.17 We consider that the federal government must play a role in protecting our water from mining and coal seam gas now, which is what this bill will achieve.
- 1.18 Lastly we note the agreement between Prime Minister Gillard and Mr Windsor MP set out that if COAG is unable to finalise a National Partnership Agreement at its first meeting in 2012, then the Commonwealth will introduce a

The National Water Commission (2011) *The National Water Initiative—securing Australia's water future: 2011 assessment, Executive overview*, p. 5 (www.nwc.gov.au//_data/assets/pdf_file/0006/17385/2011-BiennialAssessment-ExecutiveOverview.pdf)

³ Ms Deb Kerr, National Farmers' Federation, *Committee Hansard*, 7 February 2012, p. 2.

Commonwealth trigger to assess the cumulative impacts of extractive industries on water resources. This is an important commitment but we would like to see it implemented both promptly and properly - that's what this bill will do.

1.19 The Australian Greens believe our precious surface and groundwater resources need and deserve federal protection. This is what this bill proposes.

Recommendation 1

1.20 The Australian Greens recommend that this bill be passed.

Senator Larissa Waters

APPENDIX 1

Submissions Received

Submission	
Number	Su

Submitter

- 1. Guy Sim
- 2. National Farmers' Federation
- 3. Xstrata Coal
- 4. Holcim (Australia) Pty Ltd
- 5. Department of Resources, Energy and Tourism (DRET)
- 6. Minerals Council of Australia (MCA)
- 7. Cement Concrete and Aggregates Australia (CCAA)
- 8. Association of Mining and Exploration Companies
- 9. CSIRO
- 10. Queensland Conservation Council (QCC)
- 11. Queensland Murray-Darling Committee Inc. (QMDC)
- 12. Australian Network of Environmental Defenders Office (ANEDO)

Additional Information Received

TABLED DOCUMENTS

• Tabled by Mr David Parker, Deputy Secretary, Water Group, Department of Sustainability, Environment, Water, Population and Communities (SEWPAC) on 7 February 2012 in Canberra. Copy of a media release from Minister Tony Burke MP, Minister for Sustainability, Environment, Water, Population and Communities, Interim committee to advise on coal seam gas and large coal mining, dated 27 January 2012.

APPENDIX 2

Public Hearings and Witnesses

Tuesday, 7 February 2012

- BRAGG, Ms Jo-Anne, Principal Solicitor, Environmental Defenders Office (Queensland) Inc., Australian Network of Environmental Defenders Offices
- DRIPPS, Ms Kimberley, Deputy Secretary, Environment Protection and Heritage Conservation, Department of Sustainability, Environment, Water, Population and Communities
- KERR, Ms Deborah, Manager, Natural Resource Management, National Farmers Federation
- LINNEGAR, Mr Matthew, Chief Executive Officer, National Farmers Federation
- McWILLIAMS, Dr Mike, Chief, CSIRO Earth Science and Resource Engineering
- PARKER, Mr David, Deputy Secretary, Water Group, Department of Sustainability, Environment, Water, Population and Communities
- PARRATT, Mr Nigel, Rivers Project Officer, Queensland Conservation Council
- PENTON, Mr Geoff, Chief Executive Officer, Queensland Murray Darling Committee Inc.
- SELLWOOD, Mr Scott, Solicitor, Environmental Defenders Office (Queensland) Inc., Australian Network of Environmental Defenders Offices
- SLATYER, Mr Tony, First Assistant Secretary, Water Reform Division, Department of Sustainability, Environment, Water, Population and Communities
- WALKER, Dr Glen, Theme Leader, CSIRO Water for a Healthy Country Flagship