Submission responding to the Select Committee Inquiry into the adequacy of Australia’s legislative, regulatory and policy framework for unconventional gas

14 March 2016

EDOs of Australia (Australian Network of Environmental Defenders Offices Inc.) consists of eight independently constituted and managed community legal centres located across the States and Territories.

Each EDO is dedicated to protecting the environment in the public interest. EDOs:

- provide legal representation and advice,
- take an active role in environmental law reform and policy formulation, and
- offer a significant education program designed to facilitate public participation in environmental decision making.

Submitted to: Committee Secretary
Senate Select Committee on Unconventional Gas Mining
PO Box 6100
Parliament House
Canberra ACT 2600
gasmining.sen@aph.gov.au

For further information, please contact: rachel.walmsley@edonsw.org.au
Introduction

EDOs of Australia (EDOA) welcomes the opportunity to assist the Select Committee on Unconventional Gas Mining with its inquiry into the adequacy of Australia’s legislative, regulatory and policy framework for unconventional gas mining (Unconventional Gas Inquiry).

EDO offices are located in States and Territories where the exploration and production of unconventional gas is underway including NSW, Queensland, South Australia, the Northern Territory and Western Australia.

We have many years’ experience helping local communities across these States and Territories understand the environmental, social and economic impacts of unconventional gas development in their area, in particular coal seam gas (CSG) development. This includes through community workshops, guides to mining and gas laws, law reform work and public interest court proceedings, such as the recent Bulga (2013), Fullerton Cove (2013) and Gloucester (2012) cases.

We have also produced numerous submissions, discussion papers and briefing notes regarding the regulation of unconventional gas development at both a State and Federal level.

As a consequence, we are well placed to respond to the following terms of reference (ToR) for the Unconventional Gas Inquiry:

a. a national approach to the conduct of unconventional gas mining in Australia;

b. compliance and penalty arrangements;

c. harmonisation of federal and state/territory government legislation, regulations and policies;

d. legislative and regulatory frameworks for unconventional gas mining in comparable overseas jurisdictions;

Our submission is divided into the following parts, which together will address the four ToR outlined above:

- **Part 1** outlines why strong national laws are required to regulate unconventional gas development,

- **Part 2** outlines key concerns regarding State and Territory regulation of unconventional gas development,

- **Part 3** outlines key concerns regarding current national regulation of unconventional gas development,

- **Part 4** includes case studies of best practice unconventional gas regulation in overseas jurisdictions, and

- **Part 5** outlines law reform options to strengthen national regulation of unconventional gas development.

---

1 For the purposes of this submission, ‘unconventional gas development’ means both exploration and production activities.

2 Available at: http://www.edo.org.au/legal_guides

3 Warkworth Mining Limited v Bulga Milbrodale Progress Association Inc [2014] NSWCA 105


5 Barrington - Gloucester - Stroud Preservation Alliance Inc v Minister for Planning and Infrastructure [2012] NSWLEC 197.

Part 1: Why strong national laws are required to regulate unconventional gas development

Communities, scientists and conservationists across Australia continue to express concern about the impacts of unconventional gas development on the environment and agricultural land. This concern has arguably been driven by two central factors.

The first factor is the extent of unconventional gas deposits across Australia. Specifically, CSG, shale and tight gas deposits have been located in large areas across NSW, QLD, Victoria, Western Australia, South Australia, Tasmania and the Northern Territory. Many of these resources are proximate to townships or areas of agricultural significance.

The magnitude of these activities results – and will continue to result - in direct and cumulative impacts on biodiversity, water and agricultural land. Furthermore, it is widely acknowledged that unconventional gas development contributes to GHG emissions.

The second factor is inadequate and inconsistent State regulation of unconventional gas development. This has been discussed at length in numerous submissions, briefing notes and discussion papers written by EDOA, as well as individual EDO offices. These concerns will be elaborated on in Part 2 of this submission.

These two factors highlight the need for robust, Commonwealth oversight of coal mining and unconventional gas development. EDOA submits that there is no legal impediment to implementing the law reform recommendations outlined in Part 5 of this submission. It is settled that the Constitution of Australia empowers the Commonwealth Government to regulate in respect of unconventional gas development. Inter-governmental cooperation and political will are necessary if the community’s expectations regarding regulation of these industries are to be met.

---

7 This is evidenced by the number of local community groups that have formed across NSW, QLD and Victoria in opposition to CSG exploration and production activities. Examples include: ‘Scenic Hills Association’ (Campbelltown, NSW); ‘CSG Free Northern Rivers’ (Northern NSW); ‘Western Downs Alliance’ (Darling Downs, QLD); ‘Gippsland Action Group’ (Central Victoria). There are also local chapters of the Lock the Gate Alliance in every State and Territory (excepting the ACT). See the following map: http://www.lockthegate.org.au/au/ 


10 These contributions occur via four main sources: intentional venting of gas for safety or economic reasons; fugitive emissions including leaks in pipelines, valves or seals whether accidental or by design; incidents involving rupture of confining equipment; and incomplete burning. See: IEA, Golden Rules of a Golden Age of Gas, 39.

Unconventional gas development is principally regulated by State and Territory governments. EDOA and individual EDO offices have consistently argued in submissions, briefing notes and discussion papers that State and Territory laws regulating these activities are deficient. This is discussed further in Part 2, and a summary of the deficiencies of relevant legislation in NSW, QLD, Tasmania and the Northern Territory is included Appendix 1.

EDOA’s observations and recommendations are based on thorough analysis of existing laws, peer-reviewed journal articles and best available science. They are also informed by the outcome of court proceedings challenging the validity of consents issued by State Governments in respect of high-impact exploration and production projects. 12

Specifically, these appeals have tended to highlight the inadequacy of State environmental assessment and approval processes. This inadequacy is underpinned by legislation that confers broad discretion on decision-makers to determine how environmental and social impacts will be assessed and whether or not high-impact mining projects will be approved. 13 It is also characterised by legislation which limits the extent to which a decision-maker or court may consider environmental impacts when determining a development application for a coal mining development or CSG development. 14

For example, there is now precedent in NSW which confirms that preliminary groundwater studies are sufficient for the purposes of approving a CSG production project involving 110 wells, approximately 100 km of pipeline and a processing facility under relevant State planning laws. 15

While there are a limited number of instances where the courts have overturned a State government approval of a mining project, 16 successful appeals are not immune to State government intervention, particularly in the form of retrospective legislation which overrides the Court’s decision. This means that even where a Court finds in favour of the community and environment, the State can enact new laws which enable a mining or gas project to proceed regardless. 17 While ‘special legislation’ of this nature is not common, it nevertheless undermines (already weakened) community confidence in State laws.

12 See for example: Bulga Milbrodale Progress Association Inc. v Minister for Planning and Infrastructure and Workington Mining Limited [2013] NSWLEC 48; Barrington - Gloucester - Stroud Preservation Alliance Inc. v Minister for Planning and Infrastructure [2012] NSWLEC 197; Fullerton Cove Residents Action Group Incorporated v Dart Energy Limited & NSW Department of Trade and Investment, Regional Infrastructure and Services (2013); Xstrata Coal Qld Pty Ltd & Ors v Friends of the Earth, Brisbane Co-Op Ltd & Ors (2012) QLC 13.

13 See for example: Environmental Planning and Assessment Act 1979 (NSW) (EPA Act), Part 4 (State Significant Development), Part 5, the former Part 3A (which is still applicable under transitional provisions).

14 Under the EPA Act, ‘ecologically sustainable development’ is but one object to be taken into account amongst many: Minister for Planning v Walker [2008] NSWCA 224 per Hodgson J at 52. Similarly, under the Mineral Resources Act 1989, ss. 6A, 269 (4) (j) the court may only consider adverse, environmental impacts that are a direct result of mining activity: Xstrata Coal Qld Pty Ltd & Ors v Friends of the Earth, Brisbane Co-Op Ltd & Ors [2012] QLC 13 per MacDonald CAC at 565.

15 Barrington - Gloucester - Stroud Preservation Alliance Inc. v Minister for Planning and Infrastructure [2012] NSWLEC 197. This case concerned an approval issued under the former Part 3A of EPA Act.

16 See for example Bulga Milbrodale Progress Association Inc. v Minister for Planning and Infrastructure and Workington Mining Limited [2013] NSWLEC 48.

17 Perhaps the most notable example of ‘special legislation’ of this nature is the Mining and Other Legislation Amendment Act 2007 (Amendment Act), passed by the QLD Government in response to a successful appeal by the QLD Conservation Council Inc. in respect of a coal mine expansion in Central Queensland. The Amendment Act validated the Government’s original approval and rendered null and void the Court of Appeal’s decision to order a retrial. See Re Xstrata Coal Queensland Pty Ltd & Ors [2007] QLRT 33; Queensland Conservation Council Inc. v Xstrata Coal Queensland Pty Ltd & Ors [2007] QCA 338.
Concerns regarding the deficiencies of State laws regulating CSG development were also discussed in the report produced by the Commonwealth Senate Standing Committee on Environment and Communications (Committee Report). The Committee Report, which was written in response to an inquiry into the ‘Water Trigger Bill’ noted that:

_The committee received much evidence which demonstrated that there is a high level of concern in the community, especially in rural areas, about the possible adverse effects of CSG and coal mining on the availability and quality of water resources. There is also a strong feeling that the assessment and approval processes for these developments are inadequate._

The Committee Report went on to recommend passing the Bill. The ‘water trigger’ was subsequently added to the EPBC Act. The ‘water trigger’ and more generally the _Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)_ will be discussed in Part 3 of this submission.

**Part 3: Key concerns regarding current national regulation of unconventional gas development**

There is no overarching set of enforceable, national laws that regulate the various impacts associated with unconventional gas development. The following part of our submission discusses the scope and limitations of few national laws and policies that do apply to unconventional gas development, namely:

- The EPBC Act
- Industrial Chemicals (Notification and Assessment) Act 1989
- National Harmonised Regulatory Framework for Natural Gas from Coal Seams, 2013
- Multiple Land Use Framework

### 1. EPBC Act

**Direct regulation**

The ‘water trigger’ is arguably the only national environmental law that directly regulates unconventional gas development. However, the ‘water trigger’ is circumscribed in its application for the following reasons:

- It only applies to large CSG development. That is, it does not apply to other forms of unconventional gas.

---

18 For a further information, see the Australian Network of Environmental Defender’s Offices submission responding to this Bill: http://www.edo.org.au/edonsw/site/pdf/subs/130404EPBCAmendmentBillWaterTriggerANEDOsubmission.pdf


20 At the time of writing (late May 2013), the Bill was being debated in the Senate.

21 EPBC Act, ss. 24D, 24E.
• It only concerns impacts on water resources. To that end, the Minister may only include conditions of consent that relate to impacts on water resources.\textsuperscript{22}
• The ‘significant impact’ test constitutes a high threshold for assessment and approval under the Act.
• The EPBC Act only requires the Minister to ‘consider’ the advice provided by the Independent Expert Scientific Committee (IESC).\textsuperscript{23} That is, there is no obligation to ‘act consistently’ with the IESC’s advice.
• There is no requirement under the Act to refuse a development on the basis that it will have unacceptably high impacts. That is, even developments that will have a significant impact on water resources can be – and almost always are – approved.

EDOA recently wrote a submission responding to the Independent review of the ‘water trigger’. This submission included recommendations to strengthen the ‘water trigger’. This submission is available online.\textsuperscript{24}

\textbf{Indirect regulation}

Approval of unconventional gas development under the EPBC Act is otherwise contingent on impacts on one or more matters of national environmental significance (MNES).\textsuperscript{25} However, this does not constitute a satisfactory level of regulation for the following reasons:

• As previously indicated, the significant impact test constitutes a high level threshold for assessment and approval under the Act.
• Impacts on MNES other than the ‘water trigger’ are assessed by State and Territory Governments pursuant to bilateral agreements. EDOA has consistently argued that State and Territory laws are not sufficiently rigorous to replace assessment under the EPBC Act. These submissions are available online.\textsuperscript{26}
• Where an unconventional gas development is referred to the Minister due to a likely significant impact on a MNES (such as a species or community listed under the EPBC Act), the Minister may only include conditions that relate to that particular MNES. That is, the EPBC Act does not empower the Minister to generally condition impacts on the environment or agricultural land.\textsuperscript{27}
• There is no requirement in the EPBC Act that the Minister refuse an unconventional gas development on the basis that it will have an unacceptably high impact.

\textsuperscript{22} EPBC Act, s.134.
\textsuperscript{23} EPBC Act, s. 136 (2)(fa).
\textsuperscript{24} See: https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/2575/attachments/original/1454281981/Sub-Independent_review_water_trigger_legislation-EDOA-2016.pdf?1454281981
\textsuperscript{25} EPBC Act, Part 3.
\textsuperscript{27} EPBC Act, s.134.
high impact on the relevant MNES. As previously indicated, the Minister almost always approves projects under the Act.

**Other limitations**

- The EPBC Act only applies to development that is likely to have a significant impact on the 9 MNES. It does not regulate a range of other impacts associated with unconventional gas development include GHG emissions, land clearing, interference with agricultural land and pollution.

- With the exception of the ‘water trigger’, the Act does not require the Minister to consider cumulative impacts when determining a development application.

- While the IESC has commissioned bioregional assessments to determine impacts associated with coal mining and CSG development, there is no requirement under the Act that this information inform future decision-making. Furthermore, these assessments exclude other forms of unconventional gas.

- ‘No-go zones’ have not been designated under the Act (though there may be scope to do so under Part 10, which provides for strategic assessment).

2. **Industrial Chemicals (Notification and Assessment) Act 1989**

**Background**

The *Industrial Chemicals (Notification and Assessment) Act 1989* (NICNAS Act) provides for the creation of the Industrial Chemical Notification Scheme (NICNAS Scheme) and the Australian Inventory of Chemical Substances (AICS). The NICNAS Act is of particular relevance to this Inquiry insofar as it has jurisdiction to regulate chemicals used in fracking fluids.

**Limitations**

There can be little argument that a nationally coordinated inventory of industrial chemicals is an indispensable component of any transparent chemicals management framework. However, the NICNAS Act is limited in its scope and application to chemicals used in fracking fluids by a number of factors.

First, most of the 40,000 chemicals on the AICS have not been assessed. This includes 21 of 23 fracking fluid chemicals known to be commonly used in Australia. A report by the US Standing Committee found that approximately 750 different chemicals were used in fracking compounds in the United States. As such, it is possible that substantially more than 21 fracking chemicals currently in use in Australia have not been assessed under the NICNAS scheme.

---

28 EPBC Act, s. 528 (definition of ‘coal seam gas development’).
29 EPBC Act, Part 10.
30 *Industrial Chemicals (Notification and Assessment) Act 1989*, s. 3 (a) (i).
31 Ibid, s. 11.
32 Department of Environment and Heritage, *National Profile of Chemicals Management Infrastructure in Australia*, 1998, p. 24. This is corroborated by up-to-date information published on the NICNAS website. According to NICNAS, only 2,700 of the 40,000 chemicals on the register have been assessed.
Second, new chemicals for which an assessment certificate has been issued are not added to the Australian Inventory of Chemical Substances (AICS) for five years unless the applicant requests otherwise. The implications of this are twofold. In the first instance, the public is unable to access information about the chemical (including, for example, a new CSG chemical) from a central database during the five year period. Furthermore, based on our analysis of the legislation, only chemicals listed on the AICS may be subject to conditions of use, which means that five years may lapse before conditions are (possibly) imposed.

The third, interrelated point is that the Director of the National Industrial Chemicals Notification and Assessment Scheme (Director) is not obliged to impose conditions of use on a chemical, even after an assessment report has indicated that it is likely to be harmful to the environment and human health.

Fourth, only the Director may recommend priority existing chemicals to the Minister for listing and potential assessment. Furthermore, these chemicals may only be subject to a preliminary assessment, and may not have conditions of use imposed and recorded in the AICS. This seems at odds with powers in the Act which enable the Minister to prohibit the use of a chemical while it remains a priority existing chemical if they have reason to believe that an activity involving that chemical could adversely affect human health or the environment. On the one hand, the chemical is prohibited due to its impacts; on the other, there is no requirement to restrict its use once assessment has been completed.

Fifth, the NICNAS Act does not include clear provisions which empower the Minister to indefinitely prohibit the use of harmful chemicals.

Sixth, the Act does not provide for compulsory disclosure and publication of fracturing chemicals. While public disclosure of fracturing chemicals does not make it inherently ‘safe’ (that is, it is not a substitute for an adequate regulatory framework), pre-fracturing disclosure is vital for the following reasons:

- It enables users of nearby water sources to conduct baseline testing.
- It facilitates detection of the source of subsequent contamination of water resources.
- It enables medical practitioners to have access to information regarding chemicals their patients may have been exposed to.
- It facilitates scientific research into the health and environmental impacts of fracturing chemicals.
- It highlights responsible corporate behaviour while exposing the practices of companies that may risk human health or the environment.

---

34 Ibid, ss. 13B, 14.
35 Ibid, s. 13. See also Industrial Chemicals (Notification and Assessment) Regulations 1990, cl. 8b which requires assessment certificates to include ‘particulars of the chemical’. This does not appear to include particulars of use of the chemical.
36 Ibid.
37 Ibid, s. 50B.
38 Ibid, s. 51.
39 Ibid, s. 13.
40 Ibid, s. 61.

Scope

The Council of Australian Governments Standing Council on Energy and Resources (COAG SCER) released a ‘National Harmonised Regulatory Framework for Natural Gas from Coal Seams’ (CSG Framework) in 2013. The CSG Framework identifies 18 leading practices across four areas that may be adopted by State Governments. The four areas are: well integrity; water management; hydraulic fracturing; and chemical use.

Limitations

We identify three limitations. First, while the 18 leading practices could in theory reduce some of the impacts of CSG development on agricultural land, the CSG Framework ‘does not require developing new, specific legislation in all jurisdictions, as many jurisdictions already have in place legislation and regulation.’ Rather, it is designed to ‘provide guidance to regulators.’ Despite being entirely aspirational in nature and limited in its scope, it nonetheless claims to offer:

assurance for communities and farmers that concerns in relation to protecting and managing both underground and surface water resource in particular are taken seriously by government and are being effectively regulated.

Second, the CSG Framework does not apply to all forms of unconventional gas development.

Third, the CSG Framework is underpinned by the ‘Multiple Land Use Framework’ (MLUF). The MLUF assumes that CSG development can occur in any landscape, providing impacts are ‘managed’. The MLUF is discussed in more detail below.

4. Multiple Land Use Framework

Scope

The MLUF, also released by the COAG SCER, is a 3 page document ‘developed in recognition of the conflict arising over land access and land use.’ The MLUF includes a list of five desired outcomes, as well as eight general principles intended to achieve these outcomes.

---

46 Ibid, p. 3.
47 Ibid, p. 3.
49 Ibid.
**Limitations**

The MLUF contains a number of deficiencies. First, it is brief, general and to that extent fails to properly consider land use and resource management in the level of detail necessary.

Second, it is not evidence-based.

Third, none of the five desired outcomes include any reference to environmental protection, including protection of water resources, biodiversity, and air quality in rural areas.

Fourth, the guiding principles are clearly directed toward removing barriers to mining in areas of conflict, which would include agricultural land. This is evidenced by the formal category to which the MLUF is assigned by the COAG SCER: ‘Council Priority Issue: Addressing issues impacting on investment in resources exploration and development...’,\(^{50}\) it is further evidenced by a failure to endorse ‘mining exclusion zones’ to protect the environment or food security.

Furthermore, the MLUF does not contemplate the use of exclusions zones. EDOA has consistently argued that best practice resource management must provide for exclusion zones, that is, zones where certain forms of development are prohibited in order to maintain environmental and social values. In particular, we have argued that resource exploration and mining should be excluded from high conservation value and prime agricultural lands on the basis of sound socio-economic and scientific evidence, thereby ensuring that these industries can operate in accordance with the principles of ESD.\(^{51}\)

As noted by Dr. John Williams, exclusions zones operate on the basis that coexistence is not, in certain circumstances, possible.\(^{52}\) This is particularly true where one land use, for example mining development, erodes the viability of another use, for example agriculture. In the case of agriculture, this erosion may be due to land acquisition,\(^{53}\) or alternatively environmental impacts including reduced water quality and quantity\(^{54}\) and subsidence.\(^{55}\)

In summary, while these instruments and initiatives exist, their scope is limited and there is no overarching set of enforceable, national laws that regulate the various impacts associated with unconventional gas development.

---

\(^{50}\) Ibid.


\(^{53}\) Properties within the ‘zone of affectation’ are commonly acquired by mining companies pursuant to conditions attached to the consent issued by the State government.


Part 4: Case studies of best practice unconventional gas regulation in overseas jurisdictions

In 2014, EDO NSW produced a legal briefing paper entitled *A review of NSW Coal Seam Gas Regulation and International Best Practice*.

To identify examples of leading practice, EDO NSW completed a desktop analysis of CSG law in different jurisdictions (including areas where CSG is known as coal bed methane), and of shale gas law (another unconventional gas) where appropriate. We then undertook a gap analysis of NSW CSG laws as they relate to implementation of leading practice. Better practices do exist and are currently being implemented in other jurisdictions. We concluded that adapting a number of these practices and incorporating them into Australian laws, subject to local needs and conditions, would be appropriate.

The paper includes a summary of regulatory best practice of unconventional gas development in overseas jurisdictions across the following key areas:

1. Ecologically sustainable development
2. Community engagement and landholder rights
3. Protecting sensitive environments
4. Monitoring data and access to information
5. Hydraulic fracturing (fracking)
6. Well integrity and decommissioning
7. Air quality and health
8. Environmental bonds and levies

This paper is available online.\(^{56}\)

Part 5: Law reform options to strengthen national regulation of unconventional gas development

In 2013, EDOA was commissioned to write a report for the Australia Institute identifying existing Commonwealth law and policy relevant to the regulation of coal mining and unconventional gas exploration and production in Australia. The report, which is entitled *Coal and gas mining in Australia: Opportunities for national law reform (AI Report)*, outlines reform measure across 9 key areas, with an emphasis on ecologically sustainable development (ESD) and decision- making based on best-available science.

These 9 areas are:

1. Agricultural land
2. Air quality
3. Regulatory consistency
4. Export control
5. Water
6. Chemicals
7. Biodiversity
8. World Heritage Areas
9. GHG emissions

---

\(^{56}\) See: https://d3n8a8pro7vhmz.cloudfront.net/edonsw/pages/1831/attachments/original/1418007825/141118_CSG_Regulatory_analysis_Briefing_Paper.pdf?1418007825
The AI Report is available online.\footnote{Available at: \url{http://www.edonsw.org.au/mining_coal_seam_gas_policy}, see: \url{https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/1110/attachments/original/1458001001/TAI_Report_2013_-_Coal_and_gas_mining_in_Australia_disc.pdf?1458001001}} We note that the AI Report refers to the now repealed Clean Energy Act 2011 and National Greenhouse and Energy Reporting Act 2007. Briefly, EDOA strongly supports reinstatement of national legislation regulating GHG emissions, including emissions from unconventional gas development.

Furthermore and as previously indicated, EDOA wrote a submission responding to the Independent review of the ‘water trigger’. This submission included recommendations to expand the scope of the ‘water trigger’ to cover all unconventional gas development likely to have a significant impact on water resources.
Appendix 1: Deficiencies of State and Territory laws regulating unconventional gas development

1. Queensland

Summary

The Queensland Government regulates unconventional gas (predominantly Coal Seam Gas) under its ‘Adaptive Environmental Management Regime’ (AEMR). AEMR allows for the alteration of a project’s environmental conditions when new information or research becomes available.58 This has resulted in the development of generic, weak conditions that lack definition being attached to CSG approvals under State legislation in Queensland. In practice the framework is used to defer most environmental risk assessment (particularly in relation to groundwater) to post-approval through the use of adaptive management conditioning. This prevents the public from participating in the environmental impact assessment (EIA) of projects.59 The AEMR is not set out in current legislation regulating unconventional gas. It is a policy framework and its actual content is extremely unclear.

Lee documents that in the United States a similar failure to legally define the AEMR (content and parameters) in legislation has led to systematic degradation of downstream eco-systems.60

Project environmental assessment process

Queensland CSG projects are subject to a complex system of overlapping approvals and permits. Firstly, a project must apply to the Department of Natural Resources and Mines (DNRM) for exploration (ATP) or extraction (PL) tenure under the Petroleum and Gas (Production and Safety) Act 2004 (Qld) (P&G Act). This process is not subject to public consultation.

Second, the project must complete the EIS process under the Environmental Protection Act 1994 (EP Act) or the State Development and Public Works Organisation Act 1971 (Qld) (SDPWO Act) before applying for an environmental authority under the EP Act. If the project has completed an EIS prior to the EA application being made it is included in the application and does not have to be completed again. If the project is only for exploration or ancillary facilities and not production then it may not require a full EIS.

Coordinated projects

Most CSG activities in Queensland are declared to be a coordinated project by the Coordinator General and assessed under the SDPWO Act.51 Declarations are made for projects that are complex, require multiple levels of assessment, are regionally significant and have significant environmental effects.62 The decision to declare a project is not subject to Judicial Review.63

58 Catherine Allan, Adaptive Environmental Management (CSIRO, 2009), 11.
59 Queensland Public Interest Law Clearing House Incorporated, Down to Earth (2013), 22.
61 State Development and Public Works Organisation Act 1971 (Qld) ss 26(1), 27(1), 27AA.
63 State Development and Public Works Organisation Act 1971 (Qld) s 27AD.
Once the project is declared to be coordinated, the Coordinator General will notify the proponent to complete the EIS under the SDPWO Act.\(^{64}\) Public notification of the draft terms of reference (TOR) is discretionary.\(^{65}\) Failure to require public notification on the TOR has prevented the community from identifying and setting acceptable levels of risk for each project leading to public perception that the assessment is merely a rubber stamp.\(^{66}\) These concerns were addressed by the Productivity Commission in 2013 when it recommended:

> To achieve greater transparency, accountability and certainty in the process for setting the scope of major project primary assessments, governments should ensure that key stakeholders (including local governments, the public and proponents) have input to the draft terms of reference for primary assessments and that such input, and how it has been addressed, should be made public.\(^{67}\)

After the proponent has been given the final TOR, they have 18 months to prepare a draft EIS.\(^{68}\) Once submitted, the EIS is subject to public notification and comment.\(^{69}\) The Coordinator General must consider all submissions, and decide whether to accept the EIS.\(^{70}\) The Coordinator General may require additional information of environmental effects.\(^{71}\) If satisfied, the Coordinator General must prepare a report with conditions and publicly notify.\(^{72}\) These conditions are then used as part of the application documentation for the EA application with the Department of Environment and Heritage Protection (EHP).\(^{73}\)

**Environmental assessment and approval under the EP Act**

EA applications fall into three categories (standard; variation and site specific) based on the riskiness of the activity and the likelihood that they will cause environmental harm.\(^{74}\)

Generally, only exploration activities will meet the criteria for a standard or variation application and these are not publicly notifiable. Extraction projects are usually assessed as site-specific and must go through the EIS process in the EP Act requiring public notification.\(^{75}\) A site-specific project is likely to be declared a coordinated project. If an EIS has been recently completed under the SDPWO Act it is taken to be the EIS for the EP Act unless there has been a change. The decision-maker must refuse or approve the EA subject to conditions.\(^{76}\)

In order to facilitate development, fast track the approval process and ensure consistency across projects, EHP have developed model conditions for CSG EAs. In response to the fact that most proponents fail to accurately identify risks because the location of infrastructure and well sites is unknown, EHP have favoured a regulatory approach of ‘adaptive management conditioning’. Although adaptive management should be used to alter management programs as new information comes to light

\(^{64}\) State Development and Public Works Organisation Act 1971 (Qld) ss 26(1), 29A.

\(^{65}\) State Development and Public Works Organisation Act 1971 (Qld) s 29.

\(^{66}\) State Development and Public Works Organisation Act 1971 (Qld) s 27, 32.

\(^{67}\) State Development and Public Works Organisation Act 1971 (Qld) s 34, 34A.

\(^{68}\) State Development and Public Works Organisation Act 1971 (Qld) s 34A(2)(b), 34B(2)(c).

\(^{69}\) State Development and Public Works Organisation Act 1971 (Qld) s 34D.

\(^{70}\) State Development and Public Works Organisation Act 1971 (Qld) s 47D, 54B.

\(^{71}\) EP Act s 121.

\(^{72}\) EP Act s 112.

\(^{73}\) EP Act, 172(2).
(thereby reducing scientific uncertainty and improving efficiency), it is in fact being used to avoid risk assessment during the EIS process.

Furthermore, the reliance on adaptive management for CSG has led to deferral of front-end risk assessment through reliance on adaptive management conditioning and prevented genuine community engagement in setting the levels of acceptable environmental risk.

2. NSW

1. Environmental Planning and Assessment Act 1979

Environmental assessment and development consent for mining and petroleum exploration and production activities in NSW is governed by three central parts of the *Environmental Planning and Assessment Act 1979 (EPA Act)*: Part 3A, Part 4 (State Significant Development or SSD), and Part 5.

Of principal concern is the fact that Part 3A, Part 4 (SSD) and Part 5 all confer broad discretion upon the relevant decision-maker to determine how environmental impacts will be assessed, and subsequently whether consent will be granted. There is therefore no guarantee of comprehensive EIA of these projects on groundwater in NSW legislation. We will address each of these Parts in turn, referring to case law where necessary. We will also discuss recent policy developments in NSW concerning the regulation of CSG activities.

*Part 3A*

*Background*

Part 3A was repealed in 2011 following considerable community concern regarding the generality of the environmental assessment requirements for large developments, including CSG developments and large coal mining developments. As transitional provisions were incorporated into the EPA Act at the time of repeal, a significant number of projects continued to be assessed under Part 3A. There are currently over 70 development applications belonging to the category 'Mining, Petroleum and Extraction' being assessed pursuant to this Part.77

*Environmental assessment*

To summarise, Part 3A provides the Director-General of Planning and Infrastructure (DG) with very broad discretion to determine how environmental impacts – including impacts on water resources - will be assessed.78 While the DG is required to prepare a report that includes ‘an assessment of the environmental impact of the project’, 79 Part 3A does not outline any minimal standards which must be met when preparing this document. Furthermore, Part 3A projects are exempt from a significant list of ‘concurrence approvals’ normally required from various agencies (concerning, for example, coastal protection, native vegetation, bush fire management and water management).80

---

78 *Environmental Planning and Assessment Regulation 2000*, cl. 8B (a).
79 *EPA Regulation*, cl. 8B (a).
80 *EPA Act*, s. 75U.
**Consent**

The consent authority for Part 3A mining development is in most instances the Minister for Planning and Infrastructure (Minister), or the Planning and Assessment Commission (PAC). The Minister or PAC must ‘consider’ the DG’s report regarding environmental assessment. As there is considerable case law indicating that ‘consider’ does not require a consent authority to do anything more than ‘turn their mind’ to the matter in question, the Minister may ultimately ignore both the DG’s report and any advice provided by the PAC. Furthermore, failure to consider a matter prescribed by legislation will not always empower the Court to invalidate the decision. In other words, it is difficult to successfully appeal the legality of a decision, even where the consent authority has not taken into account a relevant matter, such as the environment.

Similarly, the Minister or PAC (as the case may be) is not required to assess the development – regardless of its scale - against any specific criteria including impacts on native vegetation, threatened species, Aboriginal cultural heritage or water resources. Rather, they have broad discretion to approve or refuse the project as they see fit. With the exception of State Environment Planning Policies (SEPPs), environmental planning policies do not apply when assessing Part 3A development.

**Part 4 (SSD)**

**Background**

Part 4 (SSD) was enacted to replace Part 3A. It therefore applies to the same forms of mining and petroleum exploration and production activities. These include all coal mining activities, petroleum production and certain petroleum exploration activities.

**Environmental assessment**

Like Part 3A, Part 4 (SDD) confers broad discretion on the DG to determine how the environmental impacts of a mining development will be assessed. While an EIS must be prepared for SSD, the EPA Act and associated Regulation do not provide any indicative criteria with respect to environmental assessment. Specifically, the Regulation states that:

3 Environmental assessment requirements

1) Before preparing an environmental impact statement, the responsible person must make a written application to the Director-General for the environmental assessment requirements with respect to the proposed statement.

Consequently, there is no statutory requirement to carry out groundwater assessment and/or monitoring for CSG projects or large coal mining projects. In light of Pepper J’s findings in the Gloucester Gas Project Case, it is unlikely that the DG would be

---

81 EPA Act, s. 75J (repealed, but still applicable under transitional provisions).
82 EPA Act, s. 23D.
85 EPA Act, s. 75R (repealed, but still applicable under transitional provisions).
87 EPA Act, s. 78A (8A); EPA Regulation, Schedule 2, Part 2.
88 EPA Regulation, Schedule 2, Part 2.
compelled under Part 4 (SSD) to require the proponent to produce anything more than basic groundwater studies, even for large CSG exploration projects.

Like Part 3A projects, SSD is exempt from a significant list of 'concurrence approvals' normally required from various agencies (concerning, for example, coastal protection, native vegetation, bush fire management and water management). 69

Consent

The Minister (or PAC or other approved delegate) is the consent authority for SSD. 90 The consent authority must 'take into consideration' a range of matters including: any relevant environmental planning instrument (EPI); the likely social, economic and environmental impacts of the development; and the public interest. 91 As previously indicated, a requirement to ‘take into consideration’ does not compel a consent authority to implement the provisions of a particular EPI, or to privilege environmental or social impacts over economic impacts. 92 Furthermore, the NSW Court of Appeal has held that the requirement to consider the public interest does not mean that the Minister (or relevant consent authority) must consider a particular aspect of the public interest, for example ecologically sustainable development (ESD). 93

Part 5

Part 5 of the EPA Act applies to certain mining activities that do not require development consent. This includes certain CSG exploration and monitoring activities.

Under Part 5, the determining authority (the relevant Minister or public authority) must 'take into account to the fullest extent possible' all matters affecting or likely to affect the environment. 94 While certain prescribed matters require an EIS, 95 others (such as the exploration activity being undertaken in the Fullerton Cove Case, discussed below) do not. The Fullerton Cove Case also clarified the limitations of the term ‘to the fullest extent possible.’ In short, preliminary groundwater studies for high impact CSG exploration activity within the vicinity of a Rasmar-listed wetland are sufficient to meet the requirements of this section of the EPA Act.

CASE STUDY – Part 5 and impacts on water resources

Fullerton Cove Residents Action Group Incorporated v Dart Energy Limited & NSW Department of Trade and Investment, Regional Infrastructure and Services (2013) (Fullerton Cove Case)

EDO NSW acted for Fullerton Cove Residents Action Group (FCRAG) in a challenge to Dart Energy’s proposal for the drilling of coal seam gas exploration wells at Fullerton Cove near Newcastle. The Pilot Appraisal Exploration Program (PAEP) is for two vertical wells drilled into two separate coal seams, with four lateral wells, two in each coal seam. The PAEP includes the continuous pumping of water out from the coal seams (16,000 Litres per day) for 12 months, allowing the gas to flow. It is to be located on a floodplain zone, in a high water table area, near an internationally-listed RAMSAR wetland.

FCRAG argued that the PAEP is high-impact development, and Dart should have prepared a full

---

69 EPA Act, s. 75U.
90 EPA Act, s. 89D.
91 EPA Act, ss. 89H, 79C.
92 Minister for Planning v Walker [2008] NSWCA 224.
93 Minister for Planning v Walker [2008] NSWCA 224.
94 EPA Act, s. 111.
95 EPA Act, s. 112.
Environmental Impact Statement (EIS), and be subject to the formal public consultation processes under Part 5 of EPA Act. FCRAG also argued that the PAEP was not properly assessed under Part 5 of the Act, particularly in relation to potential impacts on groundwater, threatened species and ecological communities. In particular, the Department of Trade and Investment had not been provided with any groundwater assessment by Dart before approving the project.

On 5 September 2012, FCRAG was successful in obtaining an injunction restraining Dart Energy from drilling the wells until the main case had been decided. The injunction was necessary because Dart refused to agree to stop work while the case was on foot.

The main proceedings were heard in the Land and Environment Court on 15-19 October 2012 before Justice Pepper. On 28 March 2013, Justice Pepper dismissed FCRAG’s case.

The Court found that although there was no consideration of any groundwater assessment, the Department had complied with its requirements to consider environmental impacts “to the fullest extent possible” under s111 of the EPA Act. Her Honour took into account the fact that this was a pilot project, and the Department had general knowledge of the geology of the area, and information collected in reports for nearby exploration wells.

In summary, Her Honour considered that Part 5 of the EPA did require either an EIS for the project, or the proponent to provide detailed groundwater studies before it was approved.

2. Ad-hoc amendments

Community concern about the impacts of CSG development on the environment and agricultural land has led to a series of ad-hoc amendments to existing legislation and the creation of numerous policies and guidelines administered by a range of agencies. While some of these amendments (such as the recent decision to make the EPA lead regulator of CSG development) have been positive, many have complicated the regulatory framework and led to little tangible reduction of impacts. The following analysis outlines some of the key changes.

**Strategic Regional Land Use Policy**

The NSW Government recently developed a Strategic Regional Land Use Policy (SRLUP) which is intended to improve regulation of CSG activities, in particular in relation to the impact of these activities on agricultural land.96

EDO NSW has written submissions responding to various sub-policies that sit within the SRLUP. These submissions are available online and include:

- A submission responding to the Draft Code of Practice for Coal Seam Gas Exploration;
- A submission responding to the Draft Aquifer Interference Policy – Stage 1;
- A submission responding to the ‘Gateway Process’ under the SRLUP;

Briefly, these submissions highlight a number of deficiencies in each of the sub-policies. They also question the overall regulatory impact of the SRLUP, particularly in light of the fact that policy documents that are not incorporated into legislation or regulations are ultimately unenforceable.

These submissions are available online.97

---

**Mining SEPP – 2km exclusion zone**

In 2013, the NSW Government introduced amendments to the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP) prohibiting CSG development on or under land within 2km of residential zones or future residential growth areas, and within critical industry cluster. In a submission responding to the Draft Mining SEPP, EDO NSW noted that exclusion zones are an important part of strategic regional planning. However, it was noted that first, 2km was an entirely arbitrary figure and second, did not seek to protect water resources.

This submission is available online.

**Mining and Petroleum Legislation Package 2015**

On 15 October 2015 the NSW Government introduced a package of five Bills into Parliament that make significant amendments to the State’s minerals and petroleum (coal seam gas) laws. The Bills passed the Parliament without amendment a week later. They have now been assented to (signed into law) but not all the Bills or provisions had commenced as at January 2016. Further amendments to regulations are also likely under the Mining Act 1992 (Mining Act) and the Petroleum Onshore Act 1991 (Petroleum Act).

We refer the Committee to EDO NSW’s briefing note. This briefing note is available online.

3. Tasmania

**Summary**

Tasmania has had very limited experience with unconventional gas exploration to date. Following a review of the regulation of hydraulic fracturing in 2014, the Tasmanian government released the following Policy Statement:

> Fracking in Tasmania is a possibility, not a probability. It is highly unlikely that Tasmania has economically viable Coal Seam Gas (CSG) resources. Whether there are economically viable unconventional hydrocarbon resources in Tasmania, e.g. shale gas or petroleum, is uncertain and can only be determined through further private sector exploration.

The Policy Statement recognises that potentially viable resources are located in important agricultural areas and, noting the “genuine concern” raised in submissions to the review, concludes that fracking “may not be compatible with the Tasmanian community’s aspirations for our rural communities and regional landscapes.”

As a consequence, the Tasmanian Government agreed to maintain a moratorium on the use of fracking until March 2020, while facilitating further exploration for hydrocarbon resources. EDOA welcomes the moratorium, but notes that it is currently a policy statement only, and has not been given legislative effect.

---

98 Mining SEPP, cl. 9A.
100 See: https://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/2614/attachments/original/1456719659/160229_MPL_Amdmt_Bills_Package_Briefing_Note_FINAL_UPDATED_Cmcmt.pdf?1456719659
Exploration activities are regulated under the *Mineral Resources Development Act 1995* (MRDA). Given the limited term of the current moratorium, and the government’s continued support for exploration and extraction (“production”) of unconventional gas resources, it remains important to critically analyse the efficacy of the existing regulatory framework.

Several key criticisms of current regulations are set out below. We also refer the committee to EDO Tasmania’s more detailed submission to the Review of Hydraulic Fracturing in Tasmania.\(^{102}\)

**Notification**

Under the MRDA, there is no requirement for landowners or occupiers to be personally notified where an application for an exploration licence or a production licence is made in respect of their property, or adjacent property. All that is required is for a notice to be placed in a local newspaper.\(^{103}\)

While directly affected landowners may object to an application (see below), lack of direct notification limits opportunities for owners and occupiers to participate in the decision making process. To maximise awareness of exploration and production activities, notices should be delivered to directly affected owners and occupiers and to regional Aboriginal bodies, as well as displayed on the site, published in the local newspaper and on the Mineral Resources Tasmania website for the duration of the application period.

**Objections**

Under the MRDA, the right to object to an application for an exploration or production licence is limited to a person with an “interest or estate in land” in the area subject to the application.\(^{104}\) Objections are heard by the Mining Tribunal, and the Minister’s decision to grant (or refuse to grant) a licence is to take the Tribunal’s findings into account.

Following the High Court decision in *Stow v Mineral Holdings (Australia) [1979] HCA 30*\(^{105}\), the Tasmanian government and the Mining Tribunal take a narrow view on who has an “interest or estate”, limiting it to people with direct proprietary or financial interests in the land covered by the licence application.\(^{106}\) This excludes concerned community groups, farming bodies, neighbours and downstream landowners or conservation organisations.

Given the community concern and potentially broad, off-site environmental impacts of unconventional mining activities, objection rights under the MRDA should be extended to any person.


\(^{103}\) For exploration activities, s.14(2)(b); For production licences, s.67D(2)(b)

\(^{104}\) For exploration licences, s.15(1); For production licences, s.67E

\(^{105}\) This decision related to an objection made under the predecessor to the MRDA, Mining Act 1920, however the same phrase was used.

\(^{106}\) See, for example, *Frontier Resources Ltd v Tarkine National Coalition* [2011] TASMC (Unreported). The Supreme Court has recently determined that the same environmental organisation, the Tarkine National Coalition, was a “person whose interests were adversely affected” by a decision to issue a mining lease under the MRDA (*Tarkine National Coalition v Minister for Mines* [2016] TASSC). It is yet to be tested whether this decision, made under the *Judicial Review Act 2000*, will broaden the Mining Tribunal’s interpretation of “interest or estate” for the purposes of objections under the MRDA.
**Environmental impact assessments**

Mineral exploration activities in Tasmania do not require a planning permit, provided they are conducted in accordance with the Mineral Exploration Code of Practice.\(^{107}\) Though the Code is approved under the Act, and must be complied with\(^{108}\), its terms (including those relating to environmental impacts) are able to be amended without public consultation or parliamentary oversight.

In contrast, mining activities in Tasmania are explicitly included as a “Level 2 activity” under the *Environmental Management and Pollution Control Act 1994*. Level 2 activities must be referred to the Environment Protection Authority for assessment prior to any planning permit being issued.\(^{109}\) Fracking and production activities are not currently listed as Level 2 activities.

While it is possible for activities that are not listed as Level 2 activities to be “called in” for assessment by the EPA,\(^{110}\) there is currently no legislative assurance that fracking or production activities will be assessed by the EPA. Furthermore, there is no specific guidance in the legislation (or current policy guidelines) requiring any assessment of the impacts of those activities on groundwater.

Production activities and any hydraulic fracturing should be explicitly included in Schedule 2 of the *Environmental Management and Pollution Control Act 1994* to ensure rigorous assessment of environmental impacts is undertaken by the EPA.

**4. Northern Territory**

We refer the Committee to ‘EDO Northern Territory Report: Best Practice Regulatory Frameworks for Hydraulic Fracturing Operations.’ This report is available online.\(^{111}\)

---

\(^{107}\) Section 11(3)(b), *Land Use Planning and Approvals Act 1993*

\(^{108}\) Sections 29(b) and 204, MRDA

\(^{109}\) Section 25, *Environmental Management and Pollution Control Act 1994*

\(^{110}\) Section 24, *Environmental Management and Pollution Control Act 1994*

\(^{111}\) See: [http://edont.org.au/edo-nt-publications/?documentId=141123033202-cdb519792cda6e04c5c5dab75278e440&issuutitle=EDO%20Northern%20Territory%20Report%20Best%20Practice%20Regulatory%20Regimes%20for%20Fracking#issuupress](http://edont.org.au/edo-nt-publications/?documentId=141123033202-cdb519792cda6e04c5c5dab75278e440&issuutitle=EDO%20Northern%20Territory%20Report%20Best%20Practice%20Regulatory%20Regimes%20for%20Fracking#issuupress)