

**SENATE  
STANDING COMMITTEE ON RURAL AFFAIRS AND TRANSPORT**

**Inquiry into and Report on:**

**ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION  
AMENDMENT (PROTECTING AUSTRALIA'S WATER RESOURCES) BILL  
2011**

**Submission by**

**The Department of Resources, Energy and Tourism**

**December 2011**

**A SUBMISSION TO THE SENATE STANDING COMMITTEE ON RURAL  
AFFAIRS AND TRANSPORT**

**INQUIRY AND REPORT INTO**

**ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION  
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**BY**

**THE DEPARTMENT OF  
RESOURCES, ENERGY AND TOURISM**

**1. Introduction**

The Department welcomes the opportunity to provide comments to assist the Committee in its deliberations and notes that the Bill, if passed, would amend the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The administration of the EPBC Act is the responsibility of the Minister for Sustainability, Environment, Water, Population and Communities. Matters relating to the practicalities of implementing such a Bill, were it to be passed into law, are best addressed by Minister Burke and his portfolio, but any changes need to be made in close consultation with other Departments, such as ours, whose portfolios' interests are likely to be affected.

As the Bill will impact on the mining sector, which is a focus of this portfolio, this submission comments on:

- The environmental regulation of mining operations;
- recent policy developments; and
- planned future policy developments.

**2. Regulation of the mining industry**

The effect of the Bill is to provide an additional trigger under the EPBC Act for mining activity that has, will have, or is likely to have, a significant impact on a water resource (quality, structural integrity or hydraulic balance). The Department notes that the independent review of the EPBC Act, led by Dr Allan Hawke AC, gave specific consideration to whether an additional trigger for water extraction and use was warranted. The Review found that the administration of such a trigger was impractical, and that the impact of water extraction and use can already be assessed under the EPBC.

The trigger is broader than the existing eight, each of which is constrained by an international obligation, application to a Commonwealth jurisdiction, or to a matter of national significance. The definition of mining is broad and encapsulates incidental activities (infrastructure), exploration, recovery, milling, processing and waste disposal.

The Department supports sustainable, multiple and sequential land use, including for mining, agriculture and tourism, subject to the appropriate environmental approval processes. The Department questions the merits of singling out the resources sector for special attention when other activities may individually or collectively also have significant impacts on water extraction and use.

The Department works strategically with stakeholders to facilitate the development of an environmentally sustainable tourism industry. Tourism and recreation have few direct water consumption needs. However, their ongoing viability is closely related to the ecological health of rivers, lakes and other environmental assets, including Ramsar-listed wetlands and we support efforts to conserve and protect the natural assets on which the tourism industry relies. At the same time, it is recognised that sustainable tourism initiatives should aim to promote and guide the management of resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes and biological diversity.

The Bill represents a significant extension of Commonwealth regulatory power into an area of traditional state and territory responsibility. The Department works cooperatively with state and territory governments across many mining sector issues. The passage of this legislation is likely to undermine existing cooperative processes.

The Department is of the view that existing arrangements are operating effectively to protect matters of national environmental significance under the EPBC Act.

In support of this view the Department notes that three Queensland (Gladstone) coal seam gas to liquefied natural gas projects (Queensland Curtis LNG – BG Group; Gladstone LNG Project – Santos, PETRONAS, Total and KOGAS; and Australia-Pacific LNG – Origin Energy and ConocoPhillips) have all been subject to approval under the EPBC Act. In addition there have been five other referrals (Origin Energy for the Ironbark coal seam gas project west of Brisbane, Queensland; Eastern Star Gas for its Narrabri Coal Seam Gas Field Development, New South Wales; Apex Energy for exploration in the Illawarra near Wollongong, New South Wales; Arrow Energy for a coal seam gas project in the Surat Basin, Queensland; and Origin Energy for a coal seam gas development near Chinchilla, Queensland) that are awaiting a decision. Further referrals are likely as companies move from exploration through to development of the identified resources.

### Offshore Regulation

The Department has direct responsibility for the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGSA) and the *Offshore Minerals Act 1994* (OMA). While there is currently limited activity under the OMA, Australian offshore petroleum activity includes around 215 exploration permits, 80 production licences, 65 pipeline licences, 40 retention leases and 2 infrastructure licences.

In relation to environmental management offshore, operators may not undertake petroleum operations in Australian waters without the appropriate operational and environmental approvals in place. The Australian offshore petroleum regulatory regime places the onus on the operator to demonstrate to regulators that all

exploration for, and extraction of, petroleum resources are undertaken in a manner which reduces the risk to human health and safety to as low as reasonable practical (ALARP) and in an environmentally responsible manner. All petroleum exploration and development activities in Australian waters are subject to the stringent environmental standards and reporting requirements set out in the legislation and associated regulations.

OPGGSA regulations allow for a risk-based approach to managing the environmental performance of the Australian offshore petroleum industry through a requirement for petroleum operators to prepare and implement an accepted Environment Plan for activities. The Environment Plan regime promotes and enforces the reduction of environmental risks and impacts of petroleum activities to a level which is ALARP.

In line with legislation passed by the Australian Parliament on 15 September 2011, from 1 January 2012 regulation of environmental plans and day to day operations associated with petroleum activities in Commonwealth waters will be undertaken by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), an independent national offshore petroleum regulator.

### Onshore Regulation

The proposed introduction of the new Commonwealth legislation through the EPBC Act does not mean that state and territory governments will cease regulating the activities targeted by the Bill. The legislation would therefore establish an additional approval step. While arrangements are in place between the Commonwealth and a number of states and territories that aim to minimise duplication and streamline environmental approval processes, this is an area that is frequently criticised by industry on the basis that it raises the cost and uncertainty of doing business in Australia.

Industry criticism will be magnified as there will be a significant increase in the number of companies submitting actions to determine whether it raises matters of environmental significance and which may require a Commonwealth environmental impact assessment and approval process. The retrospective effect of the Bill (wherein it commences upon introduction into the House of Representatives rather than after it receives Royal Assent) will risk creating considerable uncertainty for projects that have not completed their approval processes with the potential for significant delays and additional costs.

The Department considers that all jurisdictions need to be responsive to community concerns and that trust and respect for its industry regulation must be built.

The Department appreciates that there is opposition to the coal seam gas industry being expressed by parts of the community. Some of that opposition has arisen in the context of concerns regarding possible environmental, human health and social impacts. More specifically the concerns are that the coal seam gas industry (and mining more generally) may pose a risk to the environment through contamination of water resources, damage to aquifers, or could affect the fairness of water allocations.

Coal seam gas extraction has been operating in Queensland for more than 15 years and underpins 85 per cent of Queensland's gas supply needs. In addition, hydraulic fracturing (fracking) which has been at the core of the persistent media attention is a technology that has been used in the petroleum industry in Australia for over 50 years, albeit generally not in areas associated with important aquifers or in key agricultural areas. Accordingly, the impacts of coal seam gas extraction processes like hydraulic fracturing and coal seam dewatering are not generally well understood and this gives rise to community concern.

### **3. Recent policy developments**

#### Cooperation between Governments

The Department is working with state and territory governments to resolve public policy issues attached to competing land issues, including in relation to coal seam gas.

The Standing Committee on Energy and Resources (SCER), comprising of Commonwealth, state and territory resources and energy ministers and chaired by the Hon Martin Ferguson MP, has established the Land Access Working Group (LAWG). The LAWG was established to provide more consistent and predictable guidance to all land users and reduce scope for conflict between the mining and agriculture industries and to develop an agreed position for the Council of Australian Governments on multiple land use.

The work plan of the LAWG includes the development of a multiple land use framework and leading practice framework for government when engaging with industry and communities.

A research study to underpin the Multiple Land Use Framework will examine the issues, impacts and barriers of land access at play in multiple land use and the possible ways of addressing them. The outcomes of the study would subsequently be used to inform the development of a National Multiple Land Use Framework for implementation in the second half of 2012.

In recognition of the community concerns regarding the development of the coal seam gas industry, a high priority for the Standing Council on Energy and Resources at its first meeting on 9 December was to work cooperatively to further progress a more harmonised approach to the regulation of the coal seam gas industry. SCER agreed to the development of a national harmonised regulatory framework for the coal seam gas industry. The work program is based on areas of key community concern encompassing water management and monitoring, well integrity and aquifer protection, and monitoring of hydraulic fracturing and chemical use. Ministers agreed to publicly release the work program to further build community confidence in the effectiveness of regulatory regimes governing the industry's development.

#### Australian Government Initiatives

While the Australian Government has powers that allow it to regulate certain aspects of mining activities, state and territory governments have primary responsibility for regulating onshore mining and exploration in Australia – including coal seam gas.

In order to ensure that its decisions are evidence based, the Australian Government and its agencies are undertaking a number of studies and investigations into coal seam gas and other resource extraction activities that may affect ground water.

1. Geoscience Australia

A groundwater group has recently been established within Geoscience Australia, driven by a recognition that fundamental geoscientific understanding of the architecture of affected groundwater systems is needed to be able to properly understand the likely impacts of coal seam gas developments. It aims to provide an improved evidence base for making decisions about the impacts of coal seam gas developments on groundwater resources, whilst building a strong technical advisory function to support ongoing Commonwealth regulatory responsibilities.

2. Great Artesian Basin Water Resource Assessment

The Department of Sustainability, Environment, Water, Population and Communities (SEWPAC) has engaged CSIRO and Geoscience Australia to undertake a two year study to conceptualise the hydrogeology of the Great Artesian Basin and assess the potential impacts of future development, including coal seam gas. The project is scheduled for completion by the end of 2012.

3. Namoi Catchment Water Study

The study to examine risks associated with mining and coal development on water resources was established following discussion between farmer and petroleum representatives. SEWPAC is a member of the oversight committee. The Australian Government has contributed \$1.5 million to the \$4.5m study. The Department has sought and received advice from Geoscience Australia on the Phase 2 Namoi Catchment Water Study that included data collation, data analysis and model conceptualisation for the Namoi Catchment.

4. Healthy Headwaters

One of the main areas of investigation under the \$5 million Coal Seam Gas Water Feasibility Study is a re-conceptualisation of the area to look at potential locations for re-injection and the potential impacts of that re-injection. This has involved a review of the hydrogeology, isotopic analysis and soon to be conducted re-injected field trials in association with Arrow Energy.

5. Expert Panel

Under the terms of their EPBC Act approvals, Santos, QGC Pty Ltd and Australia Pacific LNG report to SEWPAC under their Water Management and Monitoring Plans. SEWPAC has established an independent Expert Panel to advise it on groundwater-related impacts of coal seam gas operations in areas including:

- minimum allowable groundwater draw-downs;
- methods to survey springs;
- modelling;
- water production use and disposal;
- brine management; and
- the adequacy of the Water Monitoring and Management Plans for the three projects.

The members of the Panel are:

- Professor Paul Greenfield AO, Vice Chancellor, University of Queensland
- Professor Chris Moran, Director, Sustainable Minerals Institute, University of Queensland
- Dr Richard Cresswell, Sinclair Knight Merz
- Dr Jane Coram (appointed as an independent expert and not as a representative of Geoscience Australia)
- Associate Professor Heather Chapman, Griffith University.

#### 6. CSIRO

CSIRO has established the Gas Industry Social and Environmental Research Alliance. An initial investment of more than \$14 million over the next five years will fund research into the socio-economic and environmental impacts of the natural gas industry. This initial focus will be directed at Queensland coal seam gas to liquefied natural gas industry but will have potential to expand to address impacts and opportunities associated with different gas industries and geographies.

#### 4. New policy developments

##### Integrated Framework for Assessments of Coal Seam Gas Mining Impacts on Groundwater

The Integrated Framework is a joint initiative of SEWPAC and this Department. It brings together the management of Commonwealth funded activities into water systems that may be affected by coal seam gas activity, including those described in the previous section.

Projects under the Integrated Framework will be reviewed by a Joint Oversight Committee comprising of officials from this Department, SEWPAC, Geoscience Australia and CSIRO. Other Commonwealth agencies may attend as observers and the resource and water agencies of the states will be invited to participate in studies of interest to them.

Bringing together the management of these activities under a single umbrella will ensure that these activities can be effectively targeted and coordinated and that duplication of effort is avoided.

##### Establishment of the Independent Scientific Committee

On 21 November 2011 the Government announced that it will provide \$150 million to establish an Independent Expert Scientific Committee. The role of the Expert Committee is to 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 on water resources from coal seam gas and large coal mining projects; and commission and fund water resource assessments for priority regions. This advice will be publicly disclosed.

The Commonwealth will seek to agree a new National Partnership Agreement through the Council of Australian Governments. The Agreement will formalise

arrangements through which states will take into account Commonwealth-led scientific expertise.

An Additional incentive reward payment of \$50 million will be available to share among the states and will support the implementation of the arrangements.

The framework will apply to future licences and is not designed to add extra work or increase the regulatory burden for upcoming projects, and it leaves the administration in the hands of the states.

These arrangements will ensure the Australian community can have confidence that coal seam gas projects are subject to the most rigorous and objective scientific evidence available.