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Submission on the Nature Conservation and Other Legislation Amendment Bill 2012

18 Dec. 2012

The proposed amendment to section 35(1) of the *Nature Conservation Act 1992*

Forestry Act proposed amendments

"Similar to the NCA, it also established a framework for managing the land dedicated for those purposes under the act. State forests are also multiple use reserves, so they provide a wider spectrum of opportunities for activities than a strict national park itself. **Their primary purpose is timber production.**

They also have **other significant commercial, recreational, cultural and conservation values**. So striking a balance of that tenure is also important.

As a consequence of the multiple use framework being applied to state forests, they may be used from time to time to support infrastructure—that is,

- power lines,
- pipelines,
- telecommunications towers and, more recently, and the committee would be aware of this,
- coal seam gas wells and
- linear infrastructure

across the landscape in Queensland.

MCG Comment: The primary purpose of the Forestry Act is commercial timber production and protection of watersheds.

Coal seam gas (CSG) wells and their associated infrastructure is a form of commercial infrastructure that is not compatible with watershed protection!

The high risk of CSG damage to the surface and aquifers via wells and associated infrastructure e.g. gathering lines, compressor stations and pipelines is well documented.

"After taking over operations, Santos discovered an internal Eastern Star report stating that on June 25, 2011, approximately 10,000 litres of untreated saline water had leaked from a pipe going into the reverse osmosis plant in the Pilliga State Forest. Eastern Star did not report this to Government at the time.

Santos reported the incident to the N.S.W. Government and commenced a full investigation into the site. Another significant leak is likely to have occurred during 2010, but there is no record of the incident in Eastern Star's incident management system.

The investigations to date have shown Eastern Star had an unacceptable culture of accepting minor spills, failures to report and the possibility of unapproved land clearing on some sites."¹

The fine was only \$3,000. This shows that fines will not be a deterrent to future careless oversight of CSG mining.

...
For nearly a decade, the residents of Pavillion, in Wyoming USA, complained about drinking water from their wells and a range of health complaints. This area has been drilled extensively for natural gas but the company denied any responsibility, so the US EPA investigated. The draft report released last month indicates that ground water in the aquifer contains compounds likely to be associated with gas production practices, including hydraulic fracturing.

"Chemicals detected... include methane, other petroleum hydrocarbons and other chemical compounds. The presence of these compounds is consistent with migration from areas of gas production."

...
Accumulation of contaminants in aquifers can have long-term impacts. Studies on the transport and fate of volatile organic compounds have found they can persist in aquifers for more than 50 years and can travel long distances, exceeding 10 km. Will CSG operators be monitoring aquifers and accountable in 50 years?²

...
"Most community concern to date has focused on potential hydrological impacts. The Williams report finds that risks are indeed significant, especially if:

- storage ponds (holding extracted water) overflow in rain or flood
- large volumes of water from coal seams are released into streams
- dewatering of coal seams lowers the local water table, changes flow in other aquifers, or causes land subsidence
- extracted water needs to be replaced at decommissioning.

John Williams also notes the potential biological impacts of CSG operations include:

- patches and corridors of native vegetation for gas wells and pipelines
- fragmentation of wildlife habitat and isolation of populations
- increased risk of spread of feral animals, predation, weeds and diseases
- contamination or loss of water from aquatic ecosystems.

Many of these potential impacts may be relatively minor if gas well operations are sparsely distributed. In practice, wells are often spaced less than 1000 metres apart. Where gas operations impose densely on the landscape, they can be expected to compound each other. They may generate new impacts we can't currently predict.

Storage ponds could overflow in a flood: are we prepared?

¹ http://www.santos.com/library/NSW_CSG_factsheet_environmental_breaches_Pilliga_Forest_Mar2012.pdf

² http://dea.org.au/images/general/viewpoint_issue_8_CSG.pdf

Inadequate regulation

Industry and government assurances about environmental management are upbeat. But some environmental, community and farmer groups in Queensland and NSW have raised concerns that on-ground oversight and regulation of the CSG industry is playing catch-up at best.

Williams describes the piecemeal and often toothless regulation across state borders and the exemptions that CSG operations enjoy from, for example, native vegetation laws. In NSW, if CSG projects are defined as State Significant Developments they are exempt from a wide range of controls and approvals required for other land uses.

Queensland has more experience with CSG and its framework is more mature, recognising the issue of cumulative impacts from multiple projects. But it still struggles with analysis at a landscape scale. Neither state has a Strategic Environmental Assessment Plan for CSG, nor has a comprehensive Social Impact Assessment been undertaken.”

Just another land use

A key conclusion of the Williams report is that CSG is in one sense just another land use. It competes with production of energy, water, food, fibre, minerals, and human settlement, and with the need to maintain biodiversity to underpin the ecological functioning of the landscape itself:

Gas production, just like other existing and accepted land-uses, poses risks to the condition of nearby water, soil, vegetation and biodiversity. It has the potential to reduce the capacity of renewable natural resources to supply human, as well as ecological, needs.

The surface footprint of CSG operations to date is modest compared with agriculture, or even irrigation. But superimposed on those it is still very significant, and long-term underground impacts may dwarf surface disturbance. Unresolved technical issues are a legitimate concern, especially around groundwater impacts and issues associated with both the disposal/re-use and replacement of large volumes of water.³

...

Researchers at Southern Cross University showed that methane gas leakage from a well field at Tara was up to six times greater than predicted and that gas was escaping outside of the CSG wells.

“Unintentional or fugitive greenhouse gas emissions from CSG activities are as yet poorly understood. In conventional gas fields, the fugitive emissions are relatively well constrained due to the more localised infrastructure and smaller number of high production wells. Measurement of fugitive emissions from CSG fields is more complicated due to the decentralised infrastructure, and large number of well heads. Current approaches rely mostly on up-scaling average emissions from individual components (such as pumps, valves, pipelines, etc) used in the production process.

These approaches are based on studies performed in the USA that may not be directly applicable to Australia and **do not account for diffuse soil fluxes.**

When techniques such as directional drilling and hydraulic fracturing are used, methane can diffuse into overlying sediments and groundwater aquifers. **The magnitude of the atmospheric flux associated with this diffuse source is currently unknown and difficult to estimate.**

³ <http://theconversation.edu.au/coal-seam-gas-just-another-land-use-in-a-big-country-10535>

Clearly there is a need to adequately constrain the atmospheric flux of fugitive point and diffuse sources of greenhouse gases from gas fields, not only from an environmental, but also an economic perspective (e.g. carbon emission pricing mechanisms and more effective gas recovery).

We demonstrate a rapid qualitative approach for source assessment of greenhouse gases in the atmosphere of a large gas field. **To our knowledge, our results (Figure 1) represent the first independent observations of greenhouse gases in the atmosphere of a CSG field in Australia.**

We drove an automobile with a commercially available instrument (Picarro G2201-*i* cavity ring down spectrometer) and GPS. The instrumentation provided real time, high precision methane (CH₄) and carbon dioxide (CO₂) concentration and carbon isotope ratios (¹³C), allowing for “on the fly” decision making and therefore enabling an efficient surveying approach.

The system was used to map the atmosphere of a production CSG field (Tara, Queensland), as well as various other potential CO₂ and CH₄ sources (i.e. a wetland, sewage treatment plant, landfill, urban area and a bushfire).

The results clearly showed a widespread enrichment of both CH₄ and CO₂ within the production gas field compared to outside the gas field (Figure 1).

Hotspots with concentrations of CH₄ as high as 6.89 ppm and CO₂ as high as 541 ppm were identified near Tara. For comparison, background atmospheric CH₄ outside the gas fields were lower than 2 ppm. The ¹³C values showed distinct differences within and outside the production field, indicating different gas sources within the Tara gas field.

These results provide strong evidence for significant, but still unquantified, greenhouse gas emissions in the Tara region.”⁴

...

The Brisbane Sunday Mail recently carried a story on the health impacts from CSG mining on the Tara community.⁵ Symptoms were indicative of CSG contaminants exposure.

...

The State forests have biodiversity values and these would also be affected by the impacts of the CSG industry, as contaminant such as heavy metals do not biodegrade and they move up the food chain causing wildlife health damage.

Some threatened species are found in the State Forests and need to be protected. Endemic species such as the Eungella honeyeater also use Crediton State Forest for part of the year when food sources are available, as well as neighbouring Eungella National Park. Impact seasonally available food sources in State forests and you adversely impact species that rely more on National Parks for their existence.

...

amendment 3— improving permit administration for the occupation permits.

⁴ · www.scu.edu.au/coastal-biogeochemistry/download.php%3Fd...

⁵ *Sick & Tired: the Tara blockies say nearby coal seam gas extraction is making them ill.* John McCarthy. Sunday Mail, Dec. 16. 2012, pp. 44-45.

"I mentioned earlier that occupation permits are the tool that we currently have to provide for the occupation of these lands for those purposes. This bill includes an amendment to allow for recognition of the **contemporary development occurring in state forests** by allowing for the grant of occupation permits which are used **to authorise or condition infrastructure development on state forests to be made for a longer period and over a greater area** than is currently provided under the act.

So you can see it is not just streamlining but also **providing more certainty for industry**

MCG Comment: Approval of this amendment would open the door for cheap long-term large area occupation permits to CSG companies to mine methane gas under State Forests and build supporting pipelines and other infrastructure through them. This should not be considered until environmental impacts are well understood. Otherwise the Queensland government may face the prospect of extricating itself from the expensive business of multiple long-term leases to CSG companies. Thorough independent cost/benefit analyses of such a change must be considered before this action on a major State asset is undertaken.

The primary legislated objective for State Forests is commercial timber production and protection of watersheds. Certainty for industry is not listed as a primary objective. Certainty for industry comes when environmental protection is assured. That is not yet clearly the case.

...

The bill also proposes inserting a note in the Forestry Act to clarify that, **despite the Forestry Act, an easement may be created under the *Petroleum and Gas act* for a pipeline under a pipeline licence.**

MCG Comment:

The judicious use of landscape planning to protect biodiversity and other environmental values in State Forests and other conservation areas should precede allowing CSG easements through State Forests under the Forestry Act. Gas pipelines are associated with spectacular fires. If these occurred in State Forests they would burn out of control and at temperatures much higher than natural fires, and do great damage, as the state lacks the resources to adequately manage them. That poses a high risk where matters of conservation value are involved.

...

Proposed amendment to section 35(1) of the *Nature Conservation Act (NCA) 1992*

Ecotourism in National Parks

Comments by MCG on Remarks made by Mr Clive Cook, Acting Deputy Director-General, Queensland Parks and Wildlife Service at a Public Briefing of the Committee by Departmental officers on 28 November 2012.

Mr. Cook:

“amendment for ecotourism leases. I would like now to deal with each of the amendments to the NCA in the broadest terms if I might, Mr Chair. The first one is the **amendment for ecotourism leases.** Firstly, the current framework in the Nature Conservation Act does not allow for privately funded and operated ecotourism infrastructure on national park tenures.

To address this matter and to support tourism opportunities in Queensland, **the bill includes an amendment to create a mechanism for the chief executive to grant leases for ecotourism facilities on national parks.**

To inform the committee, the ecotourism facility has a specific definition. It means a facility that—

- (a) is **designed and managed** to facilitate the
 - a. presentation,
 - b. appreciation and
 - c. **conservation of the land’s natural condition and cultural resources and values ...** and
- (b) is **managed** in a way that does not allow an activity to be carried out on the land that—
 - i) is inconsistent with the primary purpose; and
 - (ii) ... would adversely affect the conservation of the land’s cultural resources and values.

I might add that in several places there are also **management arrangements that are ensonced in law associated with joint management.”**

MCG Comment:

It would be useful when soliciting comments from the public on such a significant change in legislation to provide information on “management arrangements that are ensonced in law associated with joint management.” This would allow the public to review those arrangements to see how well they cover joint management arrangements.

“Mr. Cook:

One of the big issues is that in 2009 we actually explored this(ecotourism in National Parks) as an opportunity previously and we went out through expressions of interest to industry. We pitched seven sites across the state in various locations that we thought might be suitable locations to realise viable ecotourism opportunities. Regrettably none got wings. They all sort of fell over. There were some other issues but essentially the bottom line was **that there was a lack of security under the tenure because if you are making an economic investment in a business of ecotourism you need a little bit more certainty to go to the bank with and that uncertainty was there.** What the other states have done is covered off on that by legislative changes.”

MCG Comment:

Research findings by Professor Buckley, Director of Griffith University’s International Centre for Ecotourism Research, indicate that the benefits to tourism from operating in National Parks will be minimal (Buckley, R. 2009).⁶

⁶ Buckley, R. (2009). Parks and Tourism. *PLoS Biol* 7 (6): e1000143.
doi:10.1371/journal.pbio.1000143

Can the State government prove that there is a strong demonstrated demand for all types of ecotourism businesses other than “extreme” ones in National Parks as opposed to alternative suitable privately owned lands with high conservation values, i.e. Nature Refuges that are eager to run ecotourism ventures?

The proposition in this Bill is that an unfair commercial advantage is to be given to enterprises that wish to operate in National Parks, compared to already established businesses outside a National Park. What will the downstream economic impacts be of such actions? Will most profits stay in communities around the National Park or be paid as dividends to outside investors elsewhere, as happens already with mining. What will the regional economic impacts be?

How much resources and time will need to be devoted to oversight and management by the State government of such enterprises to ensure conservation of the National Parks and their biodiversity? What is that cost?

Under the Mineral Resources Act in its present form ecotourism businesses, like Nature Refuges have no security if the land on which they sit can be mined i.e. if they are not located in National Parks. Is this why ecotourism industries do not want to locate in privately owned land such as Nature Refuges?

By protecting land in private conservation areas such as Nature Refuges from mining, ecotourism would have the certainty it asks for as this land is under perpetual 99 year state leases, and it would ease pressure on more environmentally sensitive National Parks. By opening up National Parks to long-term ecotourism ventures the State would reduce the opportunities for private enterprise ecotourism opportunities in Nature Refuges and other privately owned lands already eager for such business enterprises. Guaranteed protection from mining would ensure higher uptake rates for Nature Refuges and a plentiful supply for ecotourism ventures to provide funding to manage them.

...

“Mr DAVIES: My next question was **regarding security of tenure**. If Joe Bloggs decides that he is going to do something in Kakadu or wherever, is it a 10-year lease or is that a negotiation that is done between the government and the operator?

Mr Cook: It is **30 plus 30 year-lease and with some exceptions it can be extended beyond that with some discretion**.

Mrs SCOTT: I am just wondering if we already have clearly defined parameters around what can be done in the ecotourism area in national parks and what is right off the scene or is it just looked at on a project-by-project basis?

Mr Cook: **It is on its individual merits**, but we have already telegraphed some things that are not going to come in below the bar and they would be **mega golf courses** and **humongous resort type** things.

MCG Comment:

Unfortunately these exchanges demonstrate that there is no clear definition on what an acceptable ecotourism venture would be and how that would be assured.

Where is certainty for the environmental sector and public that these ventures can assure full protection of environmental values other than to limit numbers of tourists at any one time to “sustainable” numbers? How are “sustainable numbers” derived?

We have already said they are a bit out there and national parks are not the places for those. But the trick is **not to unduly fetter the entrepreneurial enterprises** as it were; **to allow some flexibility around the design** and operation.

The safety net, I guess, is that they are all subject to the other laws as well.

MCG Comment:

For a public submission these other laws and relevant sections should be provided. What are the other laws and how well are the regulations funded?

"When the application is formed up it is assessed and the unacceptable impacts are mitigated by the horse trading that takes place through the environmental impact assessment."

MCG Comment:

This means more time and State government resources will be needed to progress EIS assessments, as well as oversee regulation and enforcement. Will cost/benefit analyses required to gauge the net benefit of such operations?

"We have been careful not to put too many parameters around it. Some of the feedback that we got from the tourism industry itself is"

'Don't tell us what we have to do, allow us the freedom to develop in that envelope', as it were.

MCG Comment:

The last comment from the Ecotourism industry is astounding in its implications about who is in charge. How many other industries dictate to the State the conditions under which they will operate? Is the State abdicating its responsibilities?

"However, having said that, we have had to sort of say that the extreme end of that spectrum is curtailed, but it is only a small part of that.

Dr Young: Just to add an extra point, the Nature Conservation Act requires certain management principles to be applied to national parks and so those principles still apply with ecotourism facilities.

Consistency with maintaining the natural environment and all those sorts of things **provide that safety net.**"

MCG Comment:

Any ecological scientists will tell you that it takes more than maintaining the natural environment to ensure there is no biodiversity loss. How will biodiversity values be guaranteed and demonstrated to experience "no net loss"?

"But it is very difficult to anticipate the relationship between any particular piece of land and how it would be impacted by any particular proposal and that is why it needs to be done on a case-by-case basis."

MCG Comment:

How much background research will exist or will be done?

Who pays for that?

How independent and reliable will it be?

How will impacts be monitored, reported and addressed?

How difficult and expensive will it be for the State to revoke a lease where an eco-tourism operator is not in compliance or the operation is causing more environmental harm than was foreseen when the lease was given?

Whose Interest?

The Bill requires that the Chief Executive is satisfied that ecotourism facilities will be in the public interest. That implies they will be cost effective and bring revenue to the State in comparison to their costs. But there is no requirement for cost/benefit analyses in this Bill. Public interest is also met by ensuring a region suffers no net loss in social, economic and environmental capital.

To the contrary this Bill focuses entirely on servicing the wants of one sector, the tourism operator, in a manner that threatens the integrity of each region's most highly valued natural assets. The National Parks belong to all Queenslanders and its most valuable parts should not be sectioned off in a privatised area for the enjoyment of only a few of those most able to pay.

Sincerely,



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