

Submission to the Consultation Regulatory Impact Statement (RIS) for the Queensland Lake Eyre Basin

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From

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Preamble

My concerns about the RIS emanate from my experience as a medical doctor and as a biological scientist and former member of the IPCC with responsibilities for health and the environment in Australasia.

The RIS provides important information on the current status of the environment in the Lake Eyre Basin (LEB) and many factors which impact on it but I feel it is my duty to put to those assessing the responses, that a significant dimension of this inquiry is missing;-

Science now recognises that after many decades of a steady rise in greenhouse emissions, we are suddenly at a point where the consequences of warming are following a much more severe trajectory in virtually all parts of the world. The scientific evidence is overwhelming as is the visual evidence from around the world.

The majority of scientists now believe that we are near to a tipping point which will make climate change uncontrollable. Simultaneously the same numbers of scientists believe we are near to a tipping point on environmental collapse. Climate change and a sustainable natural environment are synergistic and both are equally important in the quest for survival.

Ten years ago the decision to omit climate change considerations from the development of the Murray Valley Plan was a disaster. It can now be regarded as a significant reason why the Plan is not succeeding and the river is failing to remain viable. The mistake should not be repeated for the LEB.

However let me first acknowledge the many positives in this RIS.

It provides the documentary basis for Australia to deliver a detailed Wild Rivers Act as an example of the appropriate management of a unique and irreplaceable river system and a unique example of environmental sustainability for the world. This will be a major step forward in a world suffering the degradation of many rivers.

Climate change issues and the LEB

Section 9 on page 66 is noted but is an inadequate explanation and excludes information vital to arriving at correct management

The following statement also raises serious concerns

It is acknowledged that discussions of the future for the Queensland LEB are taking place in the context of climate change, and that both considerations of contributions to climate change and impacts from it may be matters the community wishes to comment on.

Oil and gas industries necessarily deal in fossil fuels (methane) extraction and other hydrocarbon production, the consumption of which make a contribution to global anthropogenic atmospheric warming and other climate change-related processes and effects. In turn, these effects can impact on values and functionality in the Queensland LEB, and are an additional significant threat to water resources, riverine ecosystems, biodiversity and endemic species. The current regulatory framework is concerned only with assessing the direct and immediate impacts of activities and is not designed to address the broader issues with climate change

There are also a few additional statements in the RIS which indicate that the current situation is not understood, for example on page 21.

Balancing sustainable economic activity and job creation with protecting precious cultural and environmental values and resources, many of which are already under stress as a result of climate change, is imperative

The problem is that “sustainable economic activity” can only be assessed by examining current climate change trajectories and those of environmental collapse.

Furthermore the RIS has narrowed its remit to such an extent that it fails to recognise that human health and the environment are indivisible. The environment provides all our life support systems. The only mention of human health is this statement on Page 61.

Investment in Indigenous rangers has been shown to have a multiplying effect in building the capacity and governance within communities in which they operate. Skills in land management, fire, erosion, Cultural Heritage protection are valuable in their own right, but the benefits to health, wellbeing and capacity for employment and business in other areas increases the viability of remote towns and communities

Water security and avoidance of contamination

This is an issue not just for Queensland but also particularly for South Australia which shares the LEB groundwater and the Great Artesian Basin (GAB) water.

Global and Australian water crisis

Overuse, water pollution and changing weather patterns due to climate change are the cause of the developing world crisis. Australian governments have not accepted that we are participating in this crisis yet there is evidence from several states that we are.

Water scarcity in SA

We need to be aware of the long term meteorological forecasts for SA which has a Mediterranean climate; diminishing water resources in all other Mediterranean climates throughout the world; and that we are moving into an El Niño which is likely to be more prolonged than past El Nino's.

It is inevitable that SA will have water shortage and are extremely unlikely to evade the shortages detailed in current international water reports. Our task now is to conserve.

It is the view of many of Australia's eminent water scientists that South Australia's main source of water is dying; it may well happen in the next decade if we have a prolonged El Nino.

The Murray River's management plan commenced a decade ago is not working, there was inadequate recognition of climate change impacts, rorting of water allocation by upstream states, theft of water by landowners, use of damaging water markets, and failure of allocations to Aboriginal peoples.

SA water policy has failed to give priority to human and environmental use. My comments on this situation and on the Murray River and GAB are detailed in a submission to the Productivity Commission, https://www.pc.gov.au/_data/assets/pdf_file/0011/273989/subdr126-water-reform-2020.pdf

and in my submission to the SA governments water security paper <https://static1.squarespace.com/static/6035c9d62d099d4f3b8d7db4/t/60de845eced5b0239f5d7e8c/1625195617264/Submission-Water-Security-Statement-2021-Water-for-Sustainable-Growth.pdf>

The conclusions in these reports indicate that SA water policy is inadequate. Water is still regarded as a given for economic purposes. The need for environmental water is still not understood.

In conclusion the GAB has to be a reserve for the survival of SA.

So if we are planning for the future, as we should have priorities for the use of water and human health and survival should be prioritised.

Priority one - Provision of water for the purposes of drinking, hygiene and basic comfort/wellbeing purposes for people, particularly considering the need for water as relief in high temperature days and nights.

Priority two - Provision of food (by pastoralists in the case of the LEB) and sustainability of ecological services and biodiversity. The UK think tank Chatham House assessment of the risks of climate disruption concludes that in Australia 40% of cropland would be affected by severe drought. This would involve current cropland in the mid-north of SA. Use of GAB water may become essential in such regions.

Priority three - Economic priorities should be based on their water usage.

It follows that further unconventional gas development must cease and measures taken to control usage and contamination by existing developments.

Unconventional gas development

The only mention in the RIS of harms from the gas industry is as follows;-

P 29 Overall, it is impossible to accurately and credibly quantify the direct economic contributions of the oil and gas industry specifically to the Queensland LEB region and the local communities in it

This is an amazing statement because it indicates that much gas development has occurred over the decades without any cost-benefit analysis. Cost-benefit analysis is recommended by the Queensland Government's Project Assurance Framework, and by all Australian treasuries and finance departments.

There is a significant threat to the health and well being of humans living in the LEB and the same threats exist to the flora and fauna and to pastoral production.

These threats are documented in hundreds of refereed scientific papers from US gas fields which are using the same unconventional gas techniques as are used in Australia.

One such recent paper "Air pollution and health impacts of oil & gas production in the United States"

https://www.researchgate.net/publication/370617614_Air_pollution_and_health_impacts_of_oil_gas_production_in_the_United_States

assesses air quality and human health impacts associated with ozone, fine particulate matter, and nitrogen dioxide from the oil and gas sector in the US in 2016. It was found that air pollution in 2016 from the oil and gas sector in the US resulted in 410 000 asthma exacerbations, 2200 new cases of childhood asthma and 7500 excess deaths, with \$77 billion in total health impacts.

No doubt the gas industry in Australia would respond by saying- "but there are very few people" indeed that is so but the 60.000 inhabitants include the Aboriginal people who have the knowledge to manage the environment sustainably.

These same harms are affecting flora, fauna and pastoral production. These and even more pollutions from the gas industry are present and must be considered. I foreshadow that on September 4th Sydney University will release a major study on the health and environmental harms of gas and I hope the RIS will study these and make changes to the RIP.

In summary those documented are water contamination from chemicals, introduced and returned from fracking. These include carcinogens and endocrine disruptors. These can spread long distances from the fracking site via the aquifers which are part of the GAB. It is not sufficient to avoid development near to the rivers and flood plains. The table on page 27 of the RIS summarises some of these chemicals but doesn't touch on the extent of the problem.

Brief mention of possible constraints is made in the RIS but are inadequate.

P 37 Overall, and given the relative insignificance of gas production in the Cooper Basin when considered at the national and Queensland levels, there may also be availability constraints, as well as potential limitations associated with the actual extraction of them. This leads to important questions about the future commercial viability of those resources.

There is also uncertainty around the management of environmental threats and risks of unconventional gas industrialisation in ecologically sensitive flood plains (especially in flood, spill/contamination or polluting events). Excessive take of surface/subsurface water that might be reasonably anticipated with unconventional oil and gas extraction has significant potential to interfere with the functioning of the LEB's sensitive ecological areas. It is not clear that existing oil and gas activities properly reflect and manage the range of potential impacts from such future activities on Queensland LEB floodplains

Conclusions

Climate change science must be included and a revised document developed.

Unconventional gas must not be expanded because of its widespread contamination of surface and ground water and possible contamination of GAB water which must be a secure reserve for the future.

In addition I support the following:-

1. in relation to Spatial options (extent of mapped protections) – Option 3;
2. in relation to Regulatory options (permitted future activities) – Option 4; and
3. in relation to Options for environmental attributes of the Queensland LEB river systems – Option 2.