National Irrigators' Council
Level 2, NFF House, 14-16 Brisbane Ave
Barton ACT 2600
Ph: 02 6273 3637
ABN: 92133308326

Senate Rural Affairs and Transport References Committee

Inquiry into management of the Murray Darling Basin – impact of mining coal seam gas

Additional submission by the National Irrigators' Council

June 2011

Contact: Danny O'Brien
CEO – National Irrigators' Council
Ph: 02 6273 3637
M: 0438 130 445
danny.obrien@irrigators.org.au

Introduction

The National Irrigators' Council (NIC) is the peak body representing irrigators in Australia. The NIC's objective is to develop projects and policies to ensure the efficiency, viability and sustainability of Australian irrigated agriculture and the security and reliability of water entitlements. NIC currently has 33 member organisations covering all MDB states, regions and commodities. Our members represent water entitlements of more than 7 million megalitres.

While this document has been prepared by the NIC, each member reserves the right to independent policy on issues that directly relate to their areas of operation, or expertise, or any other issues that they may deem relevant.

This submission is in addition to that provided to the Committee in December 2010 on the original terms of reference. NIC would be pleased to address the committee to expand on our submission.

Terms of Reference

Inquiry into management of the Murray Darling Basin – impact of mining coal seam gas

The Rural Affairs and Transport References Committee, as part of its inquiry into management of the Murray Darling Basin, is examining the impact of mining coal seam gas on the management of the basin.

The committee will examine:

The economic, social and environmental impacts of mining coal seam gas on:

- the sustainability of water aquifers and future water licensing arrangements;
- the property rights and values of landholders;
- the sustainability of prime agricultural land and Australia's food task;
- the social and economic benefits or otherwise for regional towns and the effective management of relationships between mining and other interests; and
- other related matters including health impacts.

Overview

The National Irrigators' Council has grown increasingly concerned at the rapid growth of the coal seam gas industry (CSG) and the apparent haste with which state governments have given approval for CSG developments.

Our members are greatly concerned that these approval processes have not allowed for adequate consideration of the potential impacts of CSG development, particularly in respect of environmental impacts, the capacity of CSG mining to damage on groundwater quality and quantity and the access of mining companies to private land.

While irrigators welcome the prospect of greater economic diversification of their communities, this should not come at the cost of existing industries either now or into the future.

It is particularly concerning that while governments are currently progressing major reform in the Murray Darling Basin in the name of the environment, scant concern seems to be given to potential impacts of CSG on MDB groundwater supplies. Irrigators are concerned that a double standard is being applied.

In our view, further CSG developments should not be approved until it can be clearly demonstrated that such developments will not have a deleterious effect on groundwater aquifers and the surface environment.

Irrigators' concerns

NIC has grave concerns about the impacts of CSG developments on underground water sources.

It is widely acknowledged that our scientific understanding of groundwater is poor and this is the case in relation to CSG mining impacts. Our members have raised genuine concerns about the prospect of contamination of aquifers currently used by farmers and for urban water use. The various chemical processes (including "fraccing") used by the CSG industry and the prospect of cross-contamination of aquifers has serious potential ramifications for existing groundwater users.

Irrigators are very aware that past decisions on groundwater access have led to unsustainable extractions in some places. Irrigators are willing to suffer significant loss of water to return these aquifers to sustainable levels – the last thing they then want to see is those same aquifers compromised by another industry.

It is of great concern to us that the CSG industry has been allowed – indeed encouraged – to flourish with little understanding of the potential impacts on groundwater systems.

We note that the National Water Commission has made a strong statement of concern relating to possible CSG impacts and that these include:

- Extracting large volumes of low-quality water will impact on connected surface and groundwater systems, some of which may already be fully or overallocated, including the Great Artesian Basin and Murray-Darling Basin.
- Impacts on other water users and the environment may occur due to the dramatic depressurisation of the coal seam, including:
  - changes in pressures of adjacent aquifers with consequential changes in water availability
  - reductions in surface water flows in connected systems

- land subsidence over large areas, affecting surface water systems, ecosystems, irrigation and grazing lands.

- The production of large volumes of treated waste water, if released to surface water systems, could alter natural flow patterns and have significant impacts on water quality, and river and wetland health. There is an associated risk that, if the water is overly treated, 'clean water' pollution of naturally turbid systems may occur.
- The practice of hydraulic fracturing, or fraccing, to increase gas output, has the potential to induce connection and cross-contamination between aquifers, with impacts on groundwater quality.
- The reinjection of treated waste water into other aquifers has the potential to change the beneficial use characteristics of those aquifers.[1]

NIC concurs with these concerns raised by the NWC. Our view is perhaps best summarised by a sentence from the same NWC report:

> "The Commission is concerned that CSG development represents a substantial risk to sustainable water management given the combination of material uncertainty about water impacts, the significance of potential impacts, and the long time period over which they may emerge and continue to have effect."[2]

It is inconceivable that governments could, on the one hand, be spending billions of dollars to address the alleged environmental mistakes of the past, and yet on the other, be approving the development of a relatively new industry where the environmental, social and economic impacts are either unknown or potentially very high.

We note that CSG mining necessarily involves the interception of significant volumes of groundwater – potentially equivalent to 300 gigalitres per year according to the NWC. It is our view – and a position set out in the National Water Initiative – that this interception must be measure, accounted for and where appropriate, licensed. Irrigators will not accept different sets of rules for different economic users of water resources.

Equally, we acknowledge the prospect that some treated groundwater produced by CSG activities could be made available for irrigation. To date, this has not come to fruition.

Conclusion

The coal seam gas industry could provide a welcome diversification of regional economics and a low carbon energy alternative. However it would appear that the risks currently outweigh the benefits from this industry.

Irrigators have consistently been told by governments that the "precautionary principle" must be applied to water planning decisions. We would be angered if the same approach is not applied to the mining industry.

It would be foolhardy for Australia to risk the productive base of its best agricultural land and water supplies for a relatively short term money maker.

---

[1] National Water Commission at http://www.nwc.gov.au/www/html/2959-coal-seam-gas.asp?intSiteID=1 viewed on 23.6.12

[2] Ibid

In our view, governments should not approve further CSG developments until the community can be satisfied that environmental, economic and social impacts are either negligible, manageable or non-existent.

END OF SUBMISSION