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Coal Seam Gas Water Management Policy Consultation
Energy Resources
Environment and Natural Resource Regulation
Department of Environment and Resource Management
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Dear Sir/Madam,

This letter is a brief submission of the Queensland Public Interest Law Clearing House Incorporated (**QPILCH**) to the Department of Environment and Resource Management (**DERM**) on the proposed revision of the Coal Seam Gas (**CSG**) Water Management Policy (**the Policy**).

Introduction

QPILCH is a non-profit, community based legal organisation that coordinates the provision of pro bono legal services for individuals and community groups.

QPILCH's objects include, among other matters, to raise awareness of social justice issues and participate in the development of socio-legal policies, laws and legal practices for the benefit of disadvantaged people.

QPILCH undertakes projects as its resources permit to proactively address public interest issues and gaps in access to justice by people who are disadvantaged. It also undertakes an advocacy role in relation to important legal rights issues.

QPILCH Project

QPILCH has insufficient resources to make a comprehensive submission within the prescribed time frame. However, QPILCH has recently commenced a project to make recommendations for the improvement of environmental governance. We anticipate completing this project in late 2012. The aim of our project is to suggest a new framework for local decision making in land and resource use and other issues that impact directly on the environment.

The project forms part of QPILCH's advocacy on important public interest and legal rights issues, as it aims to further the promotion and protection of fundamental community rights including the right to a healthy environment and the right of all Australians to good governance and decision making at the local level.

Our project relates only to the social, environmental and economic impacts of land and resource use decisions, which are largely the responsibility of government. There is a pressing need to adopt new ways to manage these issues as governments are increasingly unable to address them.

As Australia has developed, its population has grown and competition for resources has increased. In our view, the mechanisms that exist for dealing with this growth, particularly for ensuring probity and accountability and for managing competing interests, have not kept pace with the times.

We are researching decision-making processes that may fit our unique circumstances in order to mediate local views and special interests competing for resources, land use options and environmental protection, in an open and accountable way through agreement. The processes we recommend also may not be new – but may need to be adapted to address local land and environment issues.

Discussion paper

The Policy Regulatory Framework Discussion Paper (**the Discussion Paper**) states that the current regulatory framework does not provide a ready mechanism to achieve the changes envisaged in the revised Policy. We understand that DERM is seeking feedback on what issues require a more detailed investigation in order to fully support aquifer injection and virtual injection as first priority options for managing CSG water.

QPILCH seeks to represent mainstream community values in the public interest by indicating its broad support for the need to implement more effective mechanisms for resolving the range of land use conflicts which have arisen with the expansion of the CSG industry.

Part 1: Injection on petroleum tenure areas

Do you agree that determining injection feasibility should occur in stages via progressive amendments to the environmental authority under the *Environmental Protection Act 1994*?

QPILCH agrees that the feasibility of injecting CSG water must be thoroughly investigated before a full scale injection system is constructed and operated. However, in our view it is difficult to comment on the appropriateness of determining injection feasibility in stages via progressive amendments to environmental authorities in any detail until DERM releases its *Feasibility Guideline* (**the Guideline**). We understand that the Guideline will outline in greater detail the key steps required for each stage and the criteria against which the key findings and recommendations will be assessed.

We note that the proposed approach to determining injection feasibility appears to be in line with the government's *Adaptive Environmental Management Regime* (**the Regime**), which is defined in the existing Policy as "a structured, iterative process of optimal decision making in the face of uncertainty, with an aim to reduce uncertainty over time via system monitoring and instigating change where required."[1]

QPILCH supports the implementation of an effective framework for ensuring that CSG water is managed in a way that conserves and protects our groundwater systems. As part of our project, QPILCH is considering the ways in which scientific information is incorporated into the decision making process through the Regime and

[1] Department of Environment and Resource Management, Coal Seam Gas Water Management Policy, June 2010, http://www.derm.qld.gov.au/environmental_management/coal-seam-gas/water.html, p.7

how this compares with a more precautionary approach. We will be in a better position to comment on the application of the Regime within the context of injection feasibility when our project is completed in late 2012, however we note that we share the concerns of many people in the community that the application of the concept of adaptive management in the context of coal seam gas may be inconsistent with the precautionary principle.

With reference to the different phases of authorising injection activities in Appendix 1 of the Discussion Paper, do you agree that public notification is warranted prior to the full scale/operational injection that is proposed in phase 4?

QPILCH agrees that public notification is warranted prior to the construction and operation of a full scale injection system in phase 4. However, QPILCH seeks further clarification from DERM about the form that the proposed public notification will take. For example, is it anticipated that only the final report outlining the options for injection versus other water management methods that is prepared at the completion of phase 3 will be open for public comment?

If so, we urge DERM to consider a model in which the public is also given opportunities to comment during the conceptual design and field testing stages of the phased approach to injection. This will assist in breaking down the perception that public involvement is mere tokenism or that the outcome is pre-determined and will also provide greater scope for the public to contribute to creative solutions.

Part 2: Injection outside petroleum tenure areas

Is it appropriate that injection activities be considered in areas off the immediate tenure area?

QPILCH supports the injection of CSG water in areas outside the immediate petroleum tenure in cases where sufficient scientific studies have demonstrated that the injection will not result in environmental harm or contamination of underground water supplies. We also believe that there is a need to conduct a thorough investigation of the feasibility of aquifer injection on a case by case basis that addresses a range of environmental and social impacts including water quality and aquifer characteristics.

Several of the CSG companies that gave evidence during the recent *Senate Inquiry into the Impact of Mining Coal Seam Gas on the Murray Darling Basin* (**the Senate Inquiry**)[2] outlined some of the difficulties involved in aquifer reinjection. One company outlined the considerations which would have to be taken into account when determining injection feasibility. These considerations include aquifer permeability and pressure levels, existing water quality and chemical make up, mineralogy or receiving aquifers, removal of oxygen from the water prior to injection and the capacity of each injection well.[3] Another company went so far as to comment that

[2] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011

[3] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011, p.42

injection is "unlikely to be possible in most cases."[4] The limitations of any reverse osmosis process that is used to treat CSG water that is proposed to be used for aquifer injection must also be carefully considered.[5]

QPILCH favours a democratic and accountable framework for making decisions about possible injection. When assessing the feasibility of aquifer injection, input must be obtained from local communities which, in many rural and farming areas, are likely to have some knowledge about the underground water systems on which their farms and businesses rely. This is particularly important for any injection that is proposed in areas outside a petroleum tenure which may not be immediately affected by CSG activities but that may have been depleted by agricultural or domestic use over many years.

What role could local governments play in terms of guiding/authorising the injection?

For pragmatic reasons, we accept that the State government wishes to take the main responsibility for authorising injection in areas outside the relevant petroleum tenures, particularly as it is already responsible for authorising injection in areas within petroleum tenures.

However, we favour a model in which injection is regarded as assessable development under the *Sustainable Planning Regulation 2009* as an environmentally relevant activity but the 'assessment manager' responsibility is devolved to the relevant local government. As stated in the Discussion Paper, it is reasonable, and we believe, necessary that local governments play a role in deciding the location of injection activities in their area along with involvement of landholders and other interests. The recent Position Paper on *Enhancing Local Government Sustainability in Regions with Current or Proposed Mining and Petroleum Activity* produced by the Local Government Association of Queensland highlights the need for a more collaborative process that involves and notifies local government at an early stage in the decision making process.[6] This model would allow the State government to retain some control over the approval and assessment of injection, possibly through a referral agency role, and may also minimise inconsistencies across jurisdictional boundaries and guidelines.

We also favour an approach which would require the proponent to obtain the consent of the owner of the land that is the subject of an application for injection prior to submitting the application. This could be achieved via an amendment to the *Sustainable Planning Act 2009* and the *Sustainable Planning Regulation 2009* that requires consent to be obtained for an application for development that is operational works for injection of CSG water. This approach would ensure that land owners are consulted and can decide whether injection should proceed on their land and is consistent with the democratic aims of our project.

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[4] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011, p.43

[5] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011, p.42

[6] Local Government Association of Queensland Ltd, Supporting Queensland's Resource Regions: Recommendations for Enhancing Local Government Sustainability in Regions with Current or Proposed Mining and Petroleum Activity, September 2010

Part 3: Virtual injection

Do you agree with the principle of virtual injection, whereby a groundwater entitlement is reduced in exchange for access to other water supplies such as CSG water? If so, does the model outlined in the Discussion Paper seem appropriate?

We note that the Discussion Paper states that the concept of virtual injection involves a reduction in the groundwater entitlement in order to meet the environmental objective that groundwater remains in the aquifer. We agree with the views expressed by the Rural Affairs and Transport Reference Committee in their Interim Report on the Senate Inquiry that virtual injection may be an important and viable method for resting and replenishing stressed aquifers.[7]

QPILCH believes that the model outlined in the Discussion Paper is appropriate but has some concerns about the proposal to include a Virtual Injection Agreement (**VIA**) as part of any Beneficial Use Approval (**BUA**) for virtual injection. These concerns are explained below.

What legislative and non-legislative drivers could make virtual injection attractive for a groundwater entitlement holder or CSG company?

While QPILCH strongly supports any measures which are aimed at conserving and protecting our groundwater systems, we believe that without sufficient incentives, many groundwater entitlement holders are unlikely to support a reduction in their entitlements in exchange for access to treated CSG water. Any resistance that is encountered is likely to be a direct result of the power imbalance that exists between the various groups of stakeholders.[8] The extraction of underground water by CSG companies is permitted under the *Petroleum and Gas (Production and Safety) Act 2004* if the water is taken during the course of carrying out an activity which is authorised under the relevant petroleum tenure. As the Discussion Paper explains, this means that a separate regulatory framework applies to CSG companies, whose take of water from a CSG aquifer does not require a groundwater entitlement.

This power imbalance has caused concern for farmers and land holders who rely on the groundwater systems and in many cases, had taken measures before the CSG industry began to ensure sustainable use of the already over allocated groundwater system including programs of well capping and significant cut backs in water allocations. The fact that CSG companies are operating outside the regulatory framework that applies to all other water users has also created a perception that CSG companies do not have to pay for the water which is extracted.[9]

For these reasons, we believe that a scheme of virtual reinjection will not be supported without sufficient incentives in place which address these perceptions and power imbalances.

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[7] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011, p.50

[8] Ted Christie, Resolving the Coal Seam Gas Crisis through Public Participation, 29 May 2011, http://www.independentaustralia.net/2011/queensland/resolving-the-csg-crisis-through-proper-public-participation

[9] The Senate Rural Affairs and Transport References Committee, Management of the Murray Darling Basin, Interim Report on the Impact of Mining Coal Seam Gas on the Management of the Murray Darling Basin, November 2011, p.46

We submit that increased transparency and access to information about water quality and treatment standards is one such incentive. The advertisement of the proposed minimum standards for virtual injection which, we assume, will be inserted in the *DERM Guideline for the Approval of Coal Seam Gas Water for Beneficial Use* will ensure that the public has an opportunity to comment and provide input at an early stage. It will also ensure that groundwater entitlement holders have ownership in the decision making process and certainty about the quality and standard of water which will be virtually injected.

Many groundwater entitlement holders would also be concerned about their ability to negotiate a VIA as part of the proposed BUA process. We prefer an approach in which the key obligations about payment for water storage and transport and responsibility for monitoring, metering and reporting are standardised within the relevant legislation. This may avoid some of the issues which arose in the context of negotiating Conduct and Compensation Agreements under the *Petroleum and Gas (Production and Safety) Act 2004*. Requiring CSG companies to cover the costs associated with the delivery and storage of the water and the legal costs incurred by the groundwater entitlement holder in negotiating the VIA would likely act as an economic incentive to any entitlement holder who is considering entering into a VIA. We also favour an approach in which an independent body such as DERM or the Queensland Water Commission (**QWC**) could be made responsible for monitoring and reporting although we appreciate that this may create practical difficulties and raise concerns about resources and funding.

Part 4: Location of injection

What factors will guide the location of injection?

QPILCH agrees that the location of injection should be guided by a number of factors. The Discussion Paper states that "DERM will develop a strategic process for identifying stressed aquifers and prioritising those that would most benefit from injection." We submit that it is imperative that DERM consult extensively with land owners in areas likely to be affected by CSG activities to ensure that the process for identifying stressed aquifers is transparent and accountable. Along with prioritising aquifers that would benefit from injection, DERM should identify stressed aquifers for conservation and protection. We also support the need to examine the findings that will be presented in the Underground Water Impact Report that is currently being prepared by the QWC with a view to informing decisions about the preferred location for injection.

Thank you for the opportunity to comment.

Yours faithfully

Tony Woodyatt
Director