

**Independent Expert Scientific Committee on Coal Sea, Gas and
Large Coal Mining Development (IESC)
Meeting 25, 20 February 2015**

**MINUTES
Dialogue Business Centre, Canberra ACT**

Attendance and Apologies

IN ATTENDANCE

Ms Lisa Corbyn (Chair)
Professor Craig Simmons (Deputy Chair) (by teleconference)
Dr Andrew Boulton
Ms Jane Coram
Emeritus Professor Peter Flood
Dr Tom Hatton
Dr Jenny Stauber
Dr Andrew Johnson (by teleconference)

APOLOGIES

Nil

OFFICE OF WATER SCIENCE (OWS) - SECRETARIAT AND SUPPORT

Gayle Milnes
Sean Lane
Jason Smith
Helen Vooren
Veronica Grobben

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

Craig Moore (Item 2) Office of Water Science	Scott Lawson (Item 2) Office of Water Science
Rod Dann (Item 2) Office of Water Science	Moya Tomlinson (Item 2) Office of Water Science
Emma Wiadrowski (Item 2) Office of Water Science	Peter Baker (Item 3) Office of Water Science
James Hill (Item 3) Office of Water Science	Penney Wood (Item 3) Office of Water Science
Anthony Swirepik (Item 3, 4) Office of Water Science	Shane Hogan (Item 4) Office of Water Science
Anna Newton-Walters (Item 4) Office of Water Science	Olga Braga (Item 4) Office of Water Science
Bruce Gray (Item 4) Office of Water Science	

The meeting commenced at 9.00 am on 20 February 2015.

1. Welcome and Introductions

The Chair welcomed members of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) to the meeting.

There were no apologies.

1.1 Acknowledgement of country

The Chair acknowledged the traditional owners, past and present, on whose land this meeting was held.

1.2 Declaration of interest

Before the meeting commenced, IESC members completed the Meeting Specific Declaration of Interest. No actual, potential or perceived conflicts of interest that would preclude members from participating in this meeting were determined by the Chair. .

1.3 Confirmation of agenda

The IESC endorsed the agenda for Meeting 25.

1.4 Action items

Completed items were noted. A number of follow-up items were listed on the agenda for this or later meetings.

1.5 Confirmation of out-of-session decisions

The Chair noted the following out-of-session item:

- Minutes of the IESC's twenty-fourth meeting (10-11 December 2014) were agreed out-of-session and posted on the IESC's website.

1.6 Correspondence

The IESC noted the action taken and status of correspondence to 20 February 2015.

1.7 Environmental scan

The Office of Water Science (OWS) provided an update on developments since the November IESC meeting including:

- The publication, since the last meeting, of advice provided on the Strike Energy Final Appraisal Production Testing in PEL 96 project on 24 December 2014 and the Santos GLNG Gas Fields Development project on 6 January 2015;
- Reports regarding AGL's CSG operations in NSW; and
- Publication of a number of reports on hydraulic fracturing by the US Geological Survey and the New York State Department of Health.

1.8 Forward Planning Agenda

The IESC noted the forward planning agenda and items due for consideration through to November 2015.

Some of the Bioregional Assessment presentations previously scheduled for March 2015 on draft scientific methodologies may need to be rescheduled for April.

The proposed field trip for new members, as part of their induction, would be rescheduled for April rather than May, if time permitted.

2. Advice on Projects referred by Governments

2.1 Drayton South

The NSW Mining and Petroleum Gateway Panel sought the IESC's advice on the Drayton South Coal project which is at the gateway stage.

The proposed project is an extension to an existing open cut coal mine located the Hunter Valley NSW. The nearest towns include Muswellbrook, Jerry's Plains, Denman and

Singleton. It is expected that the mine output will increase by 7 million tonnes per annum of run-of-mine coal for up to 15 years. The IESC provided advice on this project to the Commonwealth regulator in February 2013.

Matters of interest to the IESC included:

- reduction in flows to Saddlers Creek and the associated influence on water quality and quantity affecting riparian ecosystems (including groundwater dependent ecosystems) and any proposed rehabilitation program;
- water quality issues associated with seepage from the proposed final void lake;
- effects of mine water discharges to the Hunter River, Saddlers Creek and their instream communities, and
- cumulative impact on groundwater systems from the proposed project, adjacent mining operations, and other water users.

The advice will be provided to the NSW Mining and Petroleum Gateway Panel and, consistent with the Regulations of the EPBC Act, to the Commonwealth Minister (for information) within the statutory timeframe. The advice will be published on the IESC's website within 10 business days of transmittal to the Gateway Panel.

3. Bioregional Assessments

3.1 Response to correspondence received on the Pedirka Basin Connectivity project.

The IESC agreed that the external comments sent to two members of the IESC on the Pedirka Basin Connectivity project draft report would be referred by the Office of Water Science for consideration during the draft report's peer review and quality assurance processes.

A reply will be sent by the Chair to the correspondent.

4. Research

4.1 National Assessment of Chemicals reports

Draft reports from the National Assessment of Chemicals Associated with Coal Seam Gas Extraction in Australia and its findings were presented to the IESC for consideration and advice. The IESC noted it had provided comments on earlier versions of these reports.

The Office of Water Science reported on peer review comments (by Health Canada, John Chapman and the US EPA) which found the reports and conceptualisations fit for purpose and the assessment methodologies robust.

In considering the reports the IESC provided advice on a range of issues including:

- the risk communication and risk management components to be included in the overall risk assessment frameworks for both the human health and environmental risk assessments. Risk management includes the mitigation measures that will be used to estimate the residual risk.
- ongoing refinement of the risk assessment framework. The risk assessments need to appropriately consider likelihood and uncertainty in the assessments, not just hazard and consequence.
- subject to data availability, the need to refine the third tier in the environmental risk assessment to render it a probabilistic assessment, using less conservative assumptions;

- the conservative assumptions used in the risk assessments need to be explicitly highlighted in the reports
- the summary reports need to be more specific about the chemicals for which there are no physico-chemical data or ecotoxicology data and how these gaps will be filled;
- while reports deal only with single chemicals they should acknowledge the importance of issues associated with chemical mixtures;
- recognition of the different methodologies used in the human health versus environmental risk assessments e.g. quotients are the inverse of each other, and the importance of clear communication to the community;
- the importance of developing guidance or a handbook to inform the assessment and mitigation of risks associated with CSG chemicals in the future. This handbook should put the residual risks in context with the risks from other uses of these chemicals;
- probabilistic-based risk assessment to complement the existing quotient-based deterministic assessments;
- the need to provide greater transparency around the derivation of the Predicted No Effects Concentrations in the environmental risk assessment; and
- the ongoing importance of risk communication and stakeholder input throughout the process.

The IESC advice acknowledged that, when originally scoped, the purpose of the report was to assess chemical impacts on surface water and shallow groundwater. The IESC considers the information in the reports will also be useful to inform future research priorities, such as deep groundwater issues

The IESC reconfirmed that these reports, when finalised, will be an important addition to help improve decision-making on chemical use associated with CSG.

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

The next meeting is scheduled for 10-11 March 2015 in Canberra.

The meeting closed at 5.00pm.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
IESC Chair

10 March 2015