

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Minutes – Meeting 18, 10-11 June 2014**

MINUTES – Meeting 18

Part 1 – Rydges Sydney Airport NSW Part 2 – Crowne Plaza, Newcastle NSW

Attendance and Apologies

IN ATTENDANCE

Ms Lisa Corbyn (Chair)
Emeritus Professor Angela Arthington
Emeritus Professor Peter Flood (Acting Deputy Chair)
Mr Jim McDonald
Professor Dayanthi Nugegoda
Ms Jane Coram (by teleconference)

APOLOGIES

Dr Andrew Johnson
Professor Craig Simmons

OFFICE OF WATER SCIENCE (OWS) - SECRETARIAT AND SUPPORT

Gayle Milnes
Peter Baker
Sean Lane (by teleconference)
Caryn Scott (by teleconference)
Kimberley Hammond
Helen Vooren

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

Anthony Swirepik (Days 1-2) Office of Water Science	Natasha Amerasinghe (Day 1-2: Item 2) Office of Water Science
Fiona Beynon (Days 1-2: Item 2) Office of Water Science	Mitchell Bouma (Days 1-2) Office of Water Science
Mark Say (Days 1-2: Item 2) Office of Water Science	Scott Lawson (Days 1-2: Item 2) Office of Water Science
Moya Tomlinson (Day 1: Item 2) Office of Water Science	Max Collett (Days 1-2: Item 2) Office of Water Science
Edwina Johnson (Day 1: Item 3) Office of Water Science	Emily Turner (Days 1-2: Item 2) Office of Water Science
Geraldine Cusack (Day 1- 2) Office of Water Science	Ben Roudnew (Day 1-2) Office of Water Science
Anu Datta (Days 1-2) Office of Water Science	

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The meeting commenced on 10 June 2014 at 8.45 am, adjourning at 12.15 pm. The meeting reconvened on 11 June 2014 at 8.30 am, closing at 12.15pm.

1. Welcome and Introductions

The Acting Deputy Chair, Professor Flood, welcomed members of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) to the meeting, noting apologies from:

- Ms Lisa Corbyn (for day 1 as she was on a Queensland site visit with the Minister);
- Professor Craig Simmons; and
- Dr Andrew Johnson.

1.1 Acknowledgement of country

The Acting Deputy 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. The determinations recorded at this meeting are available at *Attachment A*.

1.3 Confirmation of agenda

The IESC endorsed the agenda for Meeting 18.

1.4 Action items

Completed items were noted and follow-up items were listed on the agenda for discussion later in the meeting.

1.5 Confirmation of out-of-session decisions

The Acting Deputy Chair noted the following out-of-session items:

- Minutes of the IESC's seventeenth meeting (13-14 May 2014) were agreed out-of-session and posted on the IESC's website.

1.6 Correspondence

The IESC noted the action taken and the status of correspondence to 26 May 2014.

1.7 Environmental scan

A verbal update was provided by Office of Water Science (OWS) on a number of relevant recent items, including:

- i. Three recent reports by the New South Wales (NSW) Chief Scientist and Engineer, Professor Mary O'Kane, one on measuring the cumulative impacts of activities which impact groundwater and surface water, including coal seam gas and large

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coal mining, in the Sydney Water Catchment. A key finding was that there was insufficient data available at present to provide a deep and reliable understanding of cumulative impacts in the Catchment. Accordingly, the report recommends, inter alia, creating a whole-of-catchment data repository and environmental management system as well as the development of computational models to assess impacts on water resources.

- ii. Meetings that IESC members and OWS have participated in during the previous month.
 - Committee member, Jim McDonald and Gayle Milnes of OWS attended a meeting with the Hunter and Central Rivers Alliance in Newcastle to discuss the role of the IESC. The approach to the bioregional assessments was also discussed.
- iii. Since the May meeting, (statutory and interim) IESC advice on three development proposals was published on the IESC's website.

1.8 Forward Planning Agenda

The IESC noted the forward planning agenda and agreed to debrief on the field trip activities at its July meeting.

2. Advice on Projects referred by Governments

2.1 Taraborah Coal Project, QLD

The Australian Government Department of the Environment and the Queensland Department of Environment and Heritage Protection sought the IESC's advice in relation to the Shenhua International Group Pty Ltd, Taraborah Coal Project, at the assessment stage.

The proposed project is a new open cut and underground (longwall) coal mine on the western fringe of the Bowen Basin approximately 22 kilometres west of Emerald and 20 km east of Anakie in Queensland. It is expected that the mine will have an operational life of 22 years and produce 202 million tonnes of run-of-mine coal.

Matters of interest to the IESC included:

- uncertainties with the groundwater modelling including groundwater / surface water interactions, the role of faults in groundwater flow, seasonal impact predictions and the incorporation of subsidence induced fracturing; and
- ecological water related assets including locations of springs and semi-permanent pools.

The IESC's advice will be published separately on the IESC's website, in the context of the regulator's decision.

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2.2 Rolleston Coal Expansion Project, Qld

The Australian Government Department of the Environment and the Queensland Department of the Environment and Heritage Protection sought the IESC's advice in relation to the Rolleston Joint Venture, Rolleston Coal Expansion Project at assessment stage.

The Rolleston Coal Mine is located 16 km west of the township of Rolleston in the Bowen Basin. The proposed project is an expansion of the existing Rolleston Coal Mine (currently extracting 14 million tonnes per annum (Mtpa)) extending the mine life by 23 years and increasing the run-of mine production by 5 Mtpa.

Matters of interest to the IESC included:

- recharge rates and hydraulic conductivity values used in the groundwater model for the Quaternary Alluvium;
- use of a one dimensional flood model, changes to the flood regime, and geomorphological impacts; and
- impacts on groundwater dependent ecosystems and threatened species.

The IESC's advice will be published separately on the IESC's website, in the context of the regulator's decision.

3. Bioregional Assessments

3.1 Bioregional Assessments progress

The IESC discussed recent developments relating to the bioregional assessments and noted the following:

- inclusion of Gippsland Basin bioregion and Arckaringa and Pedirka subregions within arrangements with programme partners;
- launch of the shared programme website and public release of the context statements for the Namoi, Galilee and Gloucester subregions and Clarence-Moreton bioregion;
- industry engagement activities (including discussions on data issues and modelling);
- technical workshop on draft asset register; and
- Bioregional Assessment Project meetings in South Australia, including the Lake Eyre Basins Springs Assessment Project Technical Committee, Large Eyre Basin Springs Executive Steering committee, and the Arckaringa and Pedirka Technical Reference Panels.

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4. Research

4.1 Update on Research

Key developments on research reported to the IESC included publication of four background reviews and three factsheets as well as actions to advance publication of:

- two reviews (Subsidence from coal mining activities and Bore Integrity) and an additional factsheet (Managing co-produced water);
- three peat swamps reports (Peat swamp ecological characteristics, sensitivities to change and recommendations for monitoring and reporting regimes; Longwall mining engineering design options; and an evaluation of mitigation and remediation techniques for peat swamps impacted by longwall mining); and
- review and professional editing of a number of reports to be considered by the IESC at its July meeting (GAB springs survey; CSG and subsidence; recently commissioned research).

In light of the Commonwealth Government's recent budget announcement, IESC members discussed priorities for new research projects. It was agreed that: priority should be given to projects in the hydrology and ecology themes. The ecology project is progressing and the hydrology projects that had been scoped to the IESC's satisfaction should be initiated. OWS should look for opportunities for co-investment for the hydrology projects. OWS and the IESC would further consider the follow-up projects in the ecology theme once the foundation, ecological modelling project was further advanced. The IESC also emphasised the importance of engaging the best researchers and good project management for each of the projects.

4.2 National Assessment of Chemicals associated with Coal Seam Gas Extraction

The IESC reviewed two reports from the chemicals risk assessment project on predicted environmental concentrations (PECs) to inform the health and environment risk assessment and geogenic contaminants. IESC members emphasised the importance of summaries that could be readily understood by a broad audience, encouraged careful consideration of the scenarios being analysed, sought clarification on the applicability of the PECs to different catchments, suggested consideration of organic and inorganic chemicals, and sought clarification regarding the use of the coal samples.

4.3 Project – Groundwater modelling to simulate the impacts of CSG extraction

Discussion on this item was deferred to the July meeting.

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

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The next meeting will be held over three days on 15-17 July 2014 in Canberra.

The meeting closed at 12.15pm 11 June 2014.

Minutes confirmed as true and correct:

Ms Lisa Corbyn
IESC Chair

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Attachment A

Item(s)	IESC member	Disclosure	Determination
3, 4	Jane Coram	I consider that there may be a possible conflict of interest in relation to agenda items 3 and 4 arising from <i>Geoscience Australia's involvement in bioregional assessments and Geoscience Australia's potential interest in undertaking the research activities.</i>	No actual, potential or perceived conflict of interest exists and Jane participated fully in the IESC meeting. The reason for the decision is that the IESC is not making decisions on funding of research and therefore there is not conflict in relation to this meeting.