

**Independent Expert Scientific Committee on Coal Seam Gas and
Large Coal Mining Development (IESC)
Meeting 33, 8-9 March 2016**

**MINUTES
Canberra**

Attendance and Apologies

IN ATTENDANCE

Dr Andrew Johnson (Chair)
Dr Andrew Boulton
Dr Jenny Stauber
Emeritus Professor Peter Flood
Ms Jane Coram
Dr Ian Prosser
Dr Glen Walker

APOLOGIES

Professor Craig Simmons

OFFICE OF WATER SCIENCE - SECRETARIAT AND SUPPORT

Matthew Whitfort
Sean Lane
Jason Smith
Ann Hartley
Lily Knife

OTHER STAFF OF THE DEPARTMENT OF THE ENVIRONMENT

Malcolm Thompson (Item 5.2) Deputy Secretary	Ben Roudnew (Item 2) Office of Water Science
Dr Diana Wright (Item 3) First Assistant Secretary	Natasha Amerasinshe (Item 2) Office of Water Science
Shane Gaddes (Item 2.2) Environment Standards Division	Emma Wiadrowski (Item 2) Office of Water Science
Peter Baker (Item 3) Office of Water Science	Mitchell Bouma (Item 2) Office of Water Science
John Higgins (Item 4) Office of Water Science	Lani Barnes (Item 2) Office of Water Science
Moya Tomlinson (Item 2 and 4) Office of Water Science	Scott Lawson (Item 2) Office of Water Science
Bruce Gray (Item 2.2) Office of Water Science	Kim Bennett (Item 2) Office of Water Science
Geraldine Cusack (Item 3) Office of Water Science	Anthony Swirepik (Item 3) Office of Water Science
Emily Turner (Item 3) Office of Water Science	

INVITED GUESTS

Bronwyn Ray (Item 3) Bureau of Meteorology	Simon Barry (Item 3) CSIRO
Keith Hayes (Item 3) CSIRO	Brent Henderson (Item 3) CSIRO
David Post (Item 3) CSIRO	Julie Burke (Item 3) Bureau of Meteorology
Steve Lewis (Item 3) Geoscience Australia	Luk Peeters (Item 3) CSIRO
Becky Schmidt (Item 3) CSIRO	Tim McVicar (Item 3) CSIRO
Tony O'Grady (Item 3) CSIRO	

The meeting commenced at 12.00 pm on 8 March 2016.

1. Welcome and Introductions

The Chair, Andrew Johnson, welcomed members of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC) to the meeting. The Chair welcomed new members Dr Ian Prosser and Dr Glen Walker. Apologies were received from Professor Craig Simmons.

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

1.3 Confirmation of agenda

The IESC endorsed the agenda for Meeting 33.

1.4 Action items

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

1.5 Confirmation of out-of-session decisions

The Chair noted the following items have been agreed out of session:

- minutes of the IESC's thirty second meeting (8-9 December 2015) were confirmed and agreed for publication; and
- advice on the Hail Creek Project – New Development was finalised and provided to the decision maker.

1.6 Correspondence

The IESC noted the action taken and status of correspondence to 29 February 2016.

1.7 Environmental scan

The Office of Water Science provided an update on developments since the December IESC meeting, including:

- development proposals on which the IESC has provided advice;
- the Inquiry by the Senate's Select Committee on Unconventional Gas Mining;
- the recent Additional Estimates hearings;
- the Western Australian Parliamentary Inquiry into the Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas.

Upcoming conferences:

- APPEA Conference and Exhibition, Brisbane June 2016, includes sessions on the interface between coal seam gas and water; the physics of geology – geophysics and petro physics; and decommissioning well completion.

1.8 Forward Planning Agenda

The IESC noted the forward planning agenda and items due for consideration through to November 2016. It was agreed the next meeting would be scheduled for 18-19 May 2016. A teleconference may be required in April.

2. Advice on projects referred by governments

2.1 Advice on Wilpinjong Extension Project – Expansion

The IESC received a joint request for advice from the Australian Government Department of the Environment and the New South Wales Department of Planning and Environment to provide advice on Peabody's Wilpinjong Extension Project in New South Wales.

The Wilpinjong Extension Project is an extension of the approved Wilpinjong Coal Mine, located 40 kilometres north-east of Mudgee in central New South Wales. The extension comprises approximately 800 hectares of additional open cut mining area, continued production of up to 16 Mtpa of ROM coal from the Ulan Coal Seam and Moolarben Coal Member, and extension of the approved mine life by approximately seven years. The extension includes associated mine infrastructure such as haul roads and relocation of existing power lines and roads.

The IESC reviewed and discussed the information provided. Matters of interest to the IESC included:

- the potential for contamination of Wilpinjong Creek due to leaching of metals from reject materials;
- changes to water quality and flow regime of Wilpinjong and Wollar Creeks; and
- cumulative impacts from mining on Wilpinjong and Wollar Creeks.

Consistent with the EPBC Regulations the advice will be published on the IESC's website within 10 business days of being provided to the Australian Government Department of the Environment and the New South Wales Department of Planning and Environment.

2.2 Water Monitoring and Management Plans

Mr Shane Gaddes, Assistant Secretary from the Department of the Environment presented to the IESC an overview of the EPBC Post Approvals and Compliance Monitoring process.

Mr Gaddes noted the possibility of the IESC providing advice on Water Monitoring and Management Plans.

The IESC sought further information on the framework and principles for the Department of the Environment to seek the advice of the IESC on a water management plan. The IESC advised that the National Environmental Significance Threat and Risk Assessment tool may be an option for seeking advice of the IESC. The IESC requested that the Office of Water Science continue dialogue with Mr Gaddes on the framework for IESC advice on Water Monitoring and Management Plans.

The IESC requested a copy of the Joint Industry Work Program Ecotoxicology Reports and requested Mr Gaddes to provide them to the IESC as soon as possible.

The Chair thanked Mr Gaddes for his presentation to the IESC.

3. **Bioregional Assessments**

3.1 Bioregional Assessments Workshop

The IESC engaged in a workshop to investigate components of bioregional assessments that were discussed at the IESC December 2015 meeting. The workshop included discussions on the usefulness, limitations, rigour and degree of uncertainty associated with results. How to communicate complex science messages arising from this research was also discussed. The Office of Water Science is responding to the issues raised and consulting with experts within and outside the department to continue to deliver quality assured, fit for purpose products.

The IESC thanked the Office of Water Science and the associated agencies for the presentations and information at the Deep Dive workshop and considered that the workshop was very worthwhile. The IESC reiterated its commitment to provide further advice to the programme as required.

4. **Research**

4.1 Research Programme Update

An update was provided on key activities in the Research Programme including ongoing work as contracted on:

- bore and well induced inter-aquifer groundwater connectivity: Consequence modelling and experimental design project;
- research to inform the assessment of eco-hydrological responses to coal seam gas extraction and coal mining. Field work is well underway and due to be finalised mid year; and
- research to better include faults and aquitards in Australian regional groundwater models to improve assessment of impacts of coal seam gas extraction and coal mining.

An update was provided on the National Assessment of Chemicals Used in Coal Seam Gas Extraction, including development of the communications strategy to ensure the technical findings are accessible to a broad audience including the community. IESC members were advised that they will have an opportunity to provide comments on key draft documents out of session.

The IESC noted the update.

4.2 Research Priorities

An update was provided on progress of the review of the IESC Research priorities.

The IESC requested at Meeting 29 that the Office of Water Science apply the filter of the IESC's Guiding Principles for Research to a draft list of revised research priorities. The refined list of research priorities was presented to the IESC.

The IESC discussed the overarching context and the need for waste water management to be added. An explanatory paragraph will be added to each priority to set the context and explain the research needed, drawing on details that IESC members have provided.

The IESC acknowledged progress and requested the Office of Water Science to maintain momentum of this priority.

5. **Other Business**

5.1 Efficiency and Effectiveness

The IESC discussed "in camera" how the IESC may improve its efficiency and effectiveness.

5.2 Introduction of Deputy Secretary Malcolm Thompson

Mr Thompson thanked the IESC for their valued contribution made to date, and its role as a trusted source of independent scientific advice to the Minister and importantly the community.

Mr Thompson welcomed the two new members of the IESC Dr Ian Prosser and Dr Glen Walker and welcomed their experience and expertise in hydrology.

The Chair thanked Mr Thompson and passed on the IESC's appreciation for the support from the Department of the Environment.

Close of Meeting

The Chair thanked everyone for their contribution to the meeting.

Next Meeting

The next meeting is scheduled for 18-19 May 2016 in Canberra.

The meeting closed at 4.45pm on Wednesday 9 March.

Minutes confirmed as true and correct:

Dr Andrew Johnson

IESC Chair

24 March 2016

Item(s)	IESC member	Disclosure	Determination
3	Ian Prosser	I consider that there may be a possible conflict of interest in relation to Agenda Item 3 arising from my employment with the Bureau of Meteorology who also project lead Bioregional Assessments. The Branch I lead has no involvement in Bioregional Assessments.	No actual, potential or perceived conflict of interest exists and Ian Prosser participated fully in the meeting.
3.2	Jane Coram	I consider that there may be a possible conflict of interest in relation to Agenda Item 3 arising from my agency's involvement in the Bioregional Assessments.	No actual, potential or perceived conflict of interest exists and Jane Coram participated fully in the meeting.